ECB deposit-rate tiering no panacea for bank profitability

As the ECB prepares to further cut its deposit facility rate, it has also signalled its willingness to introduce a tiered system of reserve remuneration as a way of mitigating the impact of lower rates on bank profitability. The impact of such a system on euro area banks will be limited, however, unless the ECB is prepared de-anchor money-market rates from its deposit facility rate. This is unlikely, as it would neutralise any rate cut and defy the goal of the policy action.

According to Scope calculations, Euro Area (EA) banks have incurred EUR 23.2bn in interest-rate charges since the beginning of the negative-rate policy in 2014. The cost to the banks was EUR 7.5bn in 2018 alone. Extrapolating excess liquidity at the end of August 2019, we calculate the annualised running cost of excess liquidity is currently EUR 6.8bn. Any further 10bp cut to the deposit rate would cost EA banks EUR 1.7bn. In other words, EA bank ROE is c. 40bp lower than it would be in the absence of negative rates, all other things being equal. A further rate cut would see this impact rise. Further deployment of unconventional measures, such as TLTRO or resumption of the ECB's Asset Purchase Programmes, would increase the amount of excess liquidity and the corresponding cost to banks.

The ECB could introduce a tiering system as soon as its September 12 meeting. We believe the ECB will avoid paying a positive rate on excess liquidity, as this would allow banks to arbitrage the deposit facility against the upcoming TLTRO. It will also aim to avoid remunerating the entirety of banks' excess liquidity, so as to minimise the risk that the overnight money-market rate de-anchors from the deposit facility rate. This would negate the effect of any further interest-rate cuts.

Having reviewed various possible designs for a tiered remuneration system, we think the ECB could lean towards an exemption-based approach, where the exemption is set on a bank-by-bank basis and adjusted periodically to cover a set percentage of excess liquidity in the system. This dynamic adjustment could be calibrated at the individual country level, as diverging trends in liquidity accumulation would otherwise lead to excessive allowances in some countries and insufficient allowances in others. Such a system would ensure that some excess liquidity remains outside of the exemption at all times. A risk with such design is that a country-based adjustment may not be seen as politically palatable.

This system could neutralise most of the direct negative impact on bank profits from holding excess liquidity. Depending on implementation and the underlying interest-rate scenario, the potential uplift to sector ROE ranges from 22bp to 46bp. This impact would, however, be unequally distributed, with banks with higher stacks of excess liquidity benefiting the most. For example, the ROE uplift for German banks could be up to 71bp, an amount not to be sneered at for a banking sector with low single digit profitability.

The introduction of a tiering system would be welcome, but insufficient to restore the profitability of euro area banks to acceptable levels. Aside from liquidity parked at the central bank, profits are held back by a structural flattening of the yield curve, which challenges maturity transformation in general during a period of rising prudential capital requirements. While shareholders may understandably worry about their returns, low ROEs solely due to higher capital requirements and excess liquidity should not overly concern credit investors.

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Related Research

Ultra-Low Interest Rates: A Threat and a Catalyst for Structural Changes in European Banking

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The ECB effectively pre-announced the introduction of a tiered rate at its July meeting

A new cycle of monetary policy accommodation looks likely

The ECB has turned increasingly dovish over the course of 2019 on the back of soft economic data, citing geopolitical risks, the threat of protectionism and emerging market vulnerabilities as key downside risks to its outlook. In March, it lengthened its forward guidance on interest rates to at least the end of 2019, extended the fixed-rate full allotment of bank reserves and pre-announced a new round of TLTRO auctions. In June, it again lengthened forward guidance on rates to at least mid-2020 and in July hinted that rates could move lower. This move followed a very dovish speech by President Draghi in Sintra on June 18, where he anticipated that the ECB still had room to ease policy by tilting the bias in forward guidance and by expanding unconventional monetary policy measures, including a potential resumption of asset purchases.

Ultra-low interest rates pose an existential threat to bank profitability in the medium term

Ultra-low and declining interest rates beyond the zero bound pose an existential threat to bank profitability, as banks struggle to fully pass on rate cuts to their liabilities while their asset yields decline. Moreover, a simultaneous flattening of the yield curve wipes out profits from maturity transformation. While on balance accommodative monetary policy has so far been positive for banks thanks to capital gains on securities and better asset quality, benefits have not been evenly distributed. Banks in peripheral countries reaped most of the benefits from falling yields while banks and savers in core Europe have borne the brunt of low returns.

Moreover, the deeper rates move into negative territory and the longer they remain there, the greater the drag on net interest income (see our note Ultra-Low Interest Rates: A Threat and a Catalyst for Structural Changes in European Banking).

At the July monetary policy meeting press conference, Draghi noted that he does not think the ECB has reached the “reversal rate”, i.e. the point at which accommodative policy has an unwanted tightening effect because of the negative impact on the banking system and the transmission channel. However, the ECB is clearly aware of the dangers posed by an extended period of negative rates.

The ECB is likely to introduce a tiered system of reserve remuneration as a mitigating measure to any rate cut

Both in Sintra and at the July press conference, Draghi mentioned the ECB would be looking at mitigating measures to contain the side-effects of any rate cut. In the July statement, the governing council stated it had tasked the relevant committees with examining mitigating measures such as the introduction of a tiered system for reserve remuneration. Draghi mentioned that some members of the governing council had reservations about a tiering system and that the mandate to explore mitigating measures was broad.

We expect a tiered rate system to be introduced, though it will have to be designed to avoid arbitrage. When creating a tiered system, the ECB will face the following constraints:

1) The ECB will not want to undermine the transmission of monetary policy, i.e. remunerate excess reserves at a level that materially alters price formation in the money markets.

2) The ECB will want to prevent banks from arbitraging its other facilities, specifically the upcoming TLTROs.

How could such a system be designed? In the following pages we review the systems of tiered rates currently in place in Switzerland, Japan, Sweden and Denmark and try to envisage how a European version might look.

Alternative designs for tiered remuneration systems

Sweden has flirted with negative rates since 2009, but the Riksbank issues CDs to park short-term liquidity at no penalty

Negative policy rates were first introduced in Sweden in 2009, when the Riksbank cut its repo rate to 0.25%, taking the rate on its standing deposit facility to minus 0.25%.

The repo rate currently stands at a negative 0.25% and the deposit rate is 0.75 percentage points below, at -1%. Banks can deposit excess cash either at the standing facility with a remuneration of -1% or purchase one-week certificates of deposit (CDs) from the Riksbank at the higher repo rate. Hence banks can benefit from the lower penalty rate in exchange for giving up overnight liquidity. There is no limit to the amount of CDs banks can purchase.

Danish banks can deposit up to a certain threshold at 0%, after which they are charged a negative 0.65%

The Danish central bank first experimented with negative rates in July 2012, cutting its CD rate below zero. The rate currently stands at a negative 0.65%. However, Danish banks can also park their excess liquidity in overnight current accounts remunerated at 0%. subject to limits set as a percentage of deposits.

There is also an overall system limit at which any banks' surplus is automatically converted into CDs. Over time, the Danish central bank has modified current-account limits, effectively using them as a policy tool to inject or withdraw liquidity from the system.

Switzerland has an exemption-based two tier system

The Swiss National Bank (SNB) introduced a two-tiered exemption-based reserve remuneration system in January 2015 when the rate on sight deposits was first lowered to negative territory (-0.25%). Since then the rate has dropped to -0.75%.

In the Swiss system, domestic banks are currently levied the negative rate of -0.75% on balances exceeding a bank-specific threshold. The threshold is calculated as 20 times the minimum reserve requirement in the month prior to the announcement of the threshold in November 2014 minus (plus) any increase (decrease) in the amount of cash held since then (dynamic component[1]). The exemption system effectively results in two rate tiers, one of which is permanently remunerated at zero while the other follows the SNB main policy rate.

Japan's three-tier system dynamically adjusts to excess liquidity in the system

The system introduced by the Bank of Japan in January 2016 differs from the Swiss model, as it is not exemption based, but rather determines three different tiers, and even positively remunerates one of them.

In essence, the outstanding balance of each financial institution's current account is divided into three tiers, as follows:

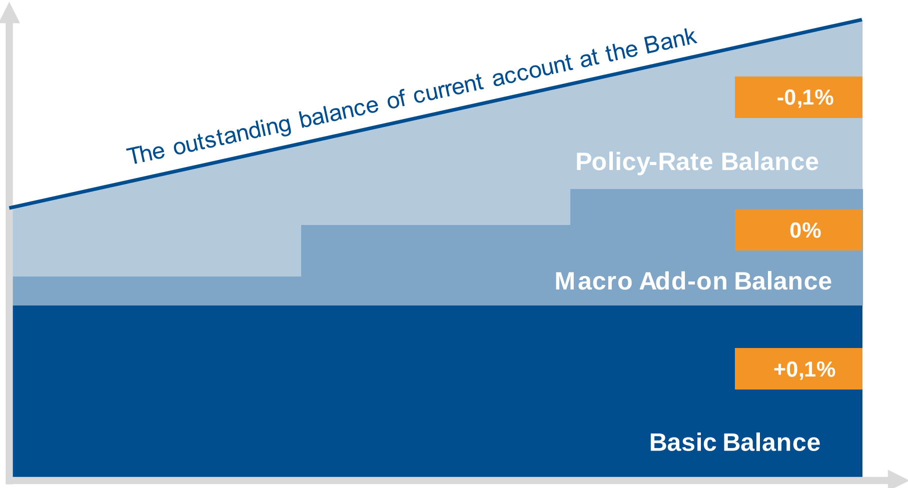
i. The first tier, which is static and bank specific, is called the basic balance, and equals the average balance of excess reserves in the year prior to the introduction of the system (2015). This tier is remunerated with a positive 0.10%.

ii. A zero interest rate is applied to a macro add-on balance, which equals required reserves plus the bank's specific contribution to certain funding and loan programmes. An increase in cash holdings results in the BoJ deducting this amount from the zero-interest tier placing it in the negative tier. The macro add-on is normally adjusted on a quarterly basis. The second tier serves to mitigate the cost of increases in excess reserves due to expansionary policies such as QE.

iii. A negative interest rate is applied to the small remaining balance of current accounts not covered by the first two tiers. When the system was introduced, it represented 4.5% of the current account balances at the BoJ.

[1] The delta results from the difference in the amount of cash held in the current reporting period and the amount held in the corresponding period between Dec 2013 and Dec 2014.

Figure 1: BoJ diagram



Source: Bank of Japan, Scope Ratings

How could a European tiered remuneration system look?

A tiered system of interest rates in the Eurozone presents unique challenges

The introduction of a tiered system in the Eurozone is rife with challenges. To begin with, the remuneration should be set up as to not allow banks to arbitrage the ECB by borrowing money from the TLTRO and parking it in central bank deposits.

Given that TLTRO3 will be charged at the main refinancing rate (currently 0%) plus 10bp we believe this is the upper limit at which the ECB can offer to remunerate deposits, in order to prevent arbitrage by the banks. In fact, such a rate would still provide banks the free option of drawing as much liquidity as the ECB would remunerate and park it at no cost with the option to lower their TLTRO rate upon exceeding their lending benchmarks in March 2021. The most likely scenario is for excess liquidity to be compensated at the MRO, i.e. currently 0%, thus exonerating banks from being charged a penalty for holding excess liquidity but stopping short of rewarding them with a positive rate.

Secondly, the tiering system should not interfere with price formation in the money markets. Specifically, the risk is that money market rates move higher, thereby dampening the ECB's easing efforts. Even assuming the central bank can independently target longer-term rates (most likely via additional QE) this would translate in a further flattening of the yield curve; hardly good news for the banking system.

Too generous a system could result in monetary tightening

Hence, we expect the ECB to introduce a system that keeps some excess reserves in the deposit facility rate and money market rates close to the deposit facility, the key policy rate for the euro area. Any deviation would undermine monetary stimulus from negative rates and future rate cuts.

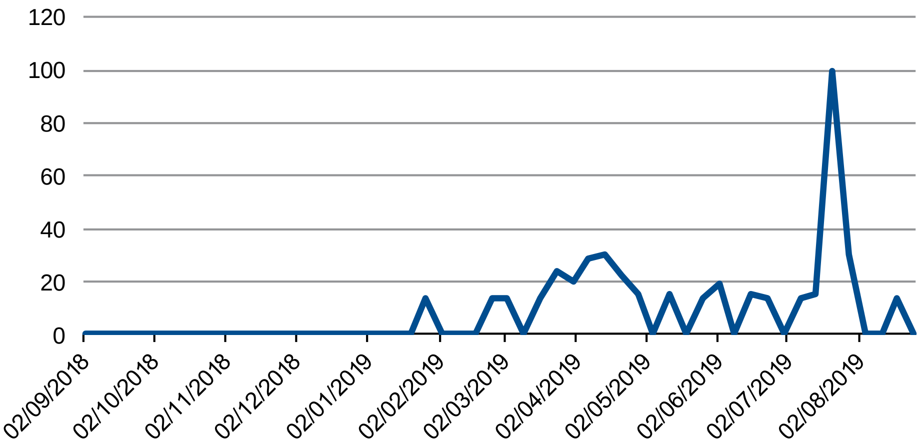
Money-market fragmentation complicates the calibration of an exemption-based system

The peculiarities of the Eurozone, with its fragmented money market and concentration of excess reserves in a handful of core European countries adds an additional challenge. It will be difficult to calibrate blanket exemptions like in Switzerland for the euro area as a whole. A high threshold would soak up excess liquidity in peripheral countries while a low threshold would instead be seen as insufficient for banks which have material excess reserves, for example in Germany.

The ECB could introduce a dynamic exemption-based system, with some tweaks

A combination of features from the Japanese and Swiss models is probably best suited to fit the ECB's task: the ECB could grant banks an exemption from negative rates on a basic tier of excess liquidity and calibrated on a bank-by-bank basis similar to the first tier in the Japanese system, although this cannot not be remunerated positively in view of the arbitrage with TLTRO3. Such a regime requires a reference period for a "basic" tier ahead of any speculative build-up of deposit balances. December 2018 could perhaps be a good reference period since the debate about tiering started shortly thereafter.

Figure 2: Worldwide searches for "ECB tiering" on Google (index)



Source: Google trends, Scope Ratings

A dynamic component could have to be calibrated at the country level

The amount limit could then be adjusted periodically like the Japanese macro add-on. Given the upcoming TLTRO3 as well as the potential resumption of net asset purchases, a dynamic adjustment factor would improve the profitability of financial institutions. The dynamic component could have to be calibrated at the level of each single country, rather than the EA as a whole. This would allow the exemptions to adjust to changing distribution of excess reserves over time, again minimising the risk that the exemption would cover too high a percentage (or the entirety) of excess liquidity in any country. A risk with such design is that a country based adjustment may not be seen as politically palatable. An open question would then be whether to net positions against existing borrowings under TLTRO2.

A tiering system could add EUR 5bn to EA bank profits

Assuming the basic tier and the dynamic macro add-on are designed to exempt 90% of current excess liquidity, and that the deposit rate is cut to -0.5%, the tiering system could add at least EUR 5bn to bank profits at current levels of excess liquidity. The ECB might start more timidly with regards to the level of exemption and gradually move up as it cuts rates further.

What would be the impact of a tiered rate system on bank profitability?

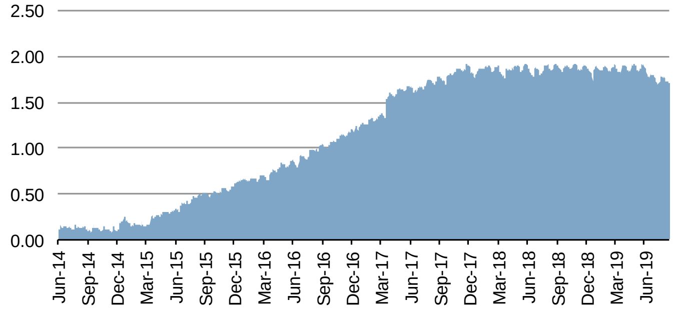
Excess liquidity has already cost the banks over EUR 20bn

As of August 2019, excess liquidity at the ECB, calculated as excess reserves plus deposit facility, stood at EUR 1.7trn, representing approximately 7% of euro area banks' total assets. Since June 2014, we calculate that negative rates have cost banks EUR 23.2bn, of which EUR 7.5bn in 2018 alone. This amounts to more than 5% of combined pre-tax profits of EUR 135bn or about 0.4% of sector equity after tax. In other words, all other things equal, negative rates have shaved almost half a percentage point off sector ROEs on our estimates in 2018. This amount does not consider any offsetting impact of negative policy rates in the form of capital gains, lower risk cost and higher lending volume.

The current running cost stands at EUR6.8bn per year…

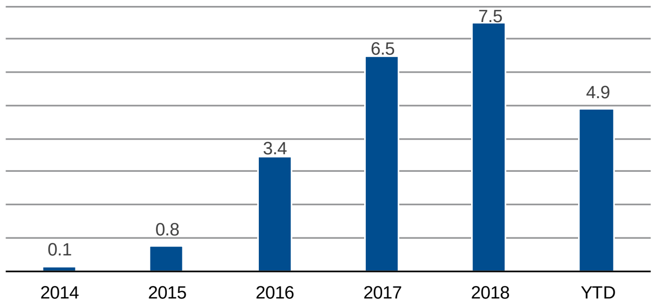
Year-to-date, excess liquidity has already cost the banks EUR 4.9bn. Based on excess liquidity as of the end of August and a deposit rate of 0.4%, we calculate the current annual running cost of excess liquidity to Eurozone banks to be EUR 6.8bn.

Figure 3: Excess liquidity (EUR trn)



Source: ECB. Scope Ratings

Figure 4: Cost of excess liquidity to EA banks (EUR bn)



Source: ECB, Scope Ratings

… and it is likely to increase going forward

Further cuts to the deposit rate would add to this figure. Assuming excess liquidity remains stable, each 10bp cut to the deposit rate could cost eurozone banks a further EUR 1.7bn.

Excess liquidity could even increase, as the ECB looks set to embark on a new round of stimulus, to include new TLTRO lines and possibly resume net asset purchases.

Next, we estimate how much the system we outline above (p5) for a European tiering system would shield the banks, under different scenarios of rate cuts and under different assumptions concerning the size of the basic tier as well as different designs for the macro dynamic adjustment. For simplicity, excess liquidity is assumed to remain constant.

To calculate the exemption, we take the level of excess liquidity in December 2018 and use it as benchmark to which we apply different tiering formulas. The table below compare the cost of excess liquidity under different deposit-rate scenarios if no mitigating measure were to be introduced with the corresponding cost under different tiering scenarios and assuming a macro adjustment is introduced.

A tiering system could lift sector profitability by up to 46bp

A tiering system will materially reduce the cost of excess liquidity with a small, but non-negligible positive impact on sector profitability of 22bp-46bp, depending on the system's design and the depth of any future cuts to the deposit rate[2].

Figure 5: Cost of EL to EA banks under different interest-rate and tiering scenarios

Annual cost of EL (no tiering)				
Deposit facility rate @	-0.40%	-0.50%	-0.60%	-0.70%
Annual cost of EL (EUR bn)	- 6.8	- 8.5	- 10.2	- 12.0
ROE impact	-0.4%	-0.5%	-0.6%	-0.7%
Annual cost of EL (EUR bn) with tiering				
Exemption on 95% of EL	-0.34	-0.43	-0.51	-0.60
Exemption on 90% of EL	-0.68	-0.85	-1.02	-1.20
Exemption on 80% of EL	-1.37	-1.71	-2.05	-2.39
Delta net profit (EUR bn) with tiering*				
Exemption on 95% of EL	+4.54	+5.68	+6.81	+7.95
Exemption on 90% of EL	+4.30	+5.38	+6.45	+7.53
Exemption on 80% of EL	+3.82	+4.78	+5.74	+6.69
Delta ROE (bps) with tiering				
Exemption on 95% of EL	+26bps	+33bps	+39bps	+46bps
Exemption on 90% of EL	+25bps	+31bps	+37bps	+43bps
Exemption on 80% of EL	+22bps	+28bps	+33bps	+39bps

* assumes tax rate of 30%

Source: Scope Ratings

[2] This estimate range corresponds to an exemption-based system, with assumptions on the size of the exemption ranging between 80% and 95% and deposit facility rates ranging from -0.4% to -0.7%.

Since excess liquidity is not equally distributed across the euro area, the impact of tiering will differ across member countries.

A third of the savings would accrue to German banks

For example, German banks' deposits at the ECB accounted for 35% of total excess liquidity in the euro area as of June 2019 or 10% of their total assets.

The annual cost for German banks currently stands at EUR 2.5bn, compared to total pre-tax profits for the sector of EUR 16bn in 2018. We estimate that each additional 10bp cut to the deposit rate would cost German banks c.EUR 600m annually before tax.

The introduction of a tiered system could hence translate into large savings for German banks, which we estimate to be c. EUR 2bn if 90% of excess liquidity is exempt from negative rates. The table below shows the sensitivity of German banks' revenues and profits to different interest-rate cuts and tiering formulas.

Figure 6: Cost of EL to German banks under different interest rate and tiering scenarios

Annual cost of EL (no tiering)				
Deposit facility rate @	**-0.40%**	**-0.50%**	**-0.60%**	**-0.70%**
Annual cost of EL (EUR bn)	- 2.49	- 3.11	- 3.74	- 4.36
ROE impact	-0.6%	-0.8%	-0.9%	-1.1%
Annual cost of EL (EUR bn) with tiering				
Exemption on 95% of EL	-0.12	-0.16	-0.19	-0.22
Exemption on 90% of EL	-0.25	-0.31	-0.37	-0.44
Exemption on 80% of EL	-0.50	-0.62	-0.75	-0.87
Delta net profit (EUR bn) with tiering*				
Exemption on 95% of EL	+1.66	+2.07	+2.48	+2.90
Exemption on 90% of EL	+1.57	+1.96	+2.35	+2.75
Exemption on 80% of EL	+1.39	+1.74	+2.09	+2.44
Delta ROE (bps) with tiering				
Exemption on 95% of EL	+40bps	+51bps	+61bps	+71bps
Exemption on 90% of EL	+38bps	+48bps	+57bps	+67bps
Exemption on 80% of EL	+34bps	+43bps	+51bps	+60bps

* assumes tax rate of 30%

Source: Scope Ratings

As seen in table 6 above, the ROE uplift that the introduction of a tiered system would bring to German banks ranges between from 34bp to over 70bp. For a banking system with low single-digit profitability, this is not to be sneered at.

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