EURO AREA: MONETARY POLICY

PREPARING FOR TIERING IF POLICY RATES WERE TO STAY LOW(ER) FOR LONGER

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SUMMARY

- ECB officials have hinted at policy measures aimed at reducing the cost of negative rates for the banking sector, including a tiered reserves system for bank deposits.
- Although the ECB ruled out tiering in March 2016, the situation has since changed, and it could be implemented eventually if policy rates were to remain negative for even longer into 2020. In the end, tiering is all about the credibility of forward guidance and the ECB signalling its ability to cut rates again in the next downturn.
- Tiering would come with technical complications and non-trivial effects on the distribution of excess liquidity across euro area countries. Our best guess is that the ECB would opt for a simple exemption system equivalent to an increase in the minimum reserve requirements. For example, in a two-tiered system matching the SNB's experience, exemptions could be set at 10x the required reserves, reducing the share of bank reserves subject to negative rates from 94% to 40% and the annual cost of negative rates by EUR 4bn, to EUR 3.5bn.
- Meanwhile the ECB should reaffirm its assessment of the downside risks to the economic outlook, while taking solace in the resilience of domestic demand. June still looks like the best timing to announce TLTRO-III pricing, while tiering would come in September if, and only if, macro and credit conditions deteriorate further.

The Last Tiering Resort Option

Taking stock of the ECB's well-orchestrated communication operation in recent weeks, including President Draghi's speech at the ECB Watchers Conference, our impression is that a small albeit influential group of **ECB officials is getting worried again.** Even if the ECB keeps hoping for the best, it must prepare for the worst. The key message is that the central bank stands ready to use *all* its instruments in the next downturn, including rate cuts, which has been the main driver of recent price action.

Indeed, Mario Draghi said that the ECB needs to reflect on policy measures that can "preserve the favourable implications of negative rates while mitigating the side effects, if any", effectively hinting at the possibility of a tiered bank reserve system. Tiering bank reserves comes with several complications, but none of which is insurmountable. Moreover, we are not aware of a previous case where the ECB said that a "monetary policy case" was needed but did *not* implement new measures eventually. The burden of proof is now on the data to prove the doves wrong. Unless the economy surprises to the upside, the ECB may consider both looser conditions for TLTROs in June (a negative interest rate) and a tiered reserve system (at a later stage) to mitigate the impact of low rates for longer.

To be sure, the ECB's intention is not to signal imminent rate cuts (which would be less costly for banks under a tiering framework), **but *their ability to cut rates again*, if needed,** assuming the economy is one shock away from a recession and other policy tools such as QE would face higher hurdles. Other ECB officials have made clear that rate cuts were not on the agenda, but the damage has been done, and this was the intention.

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Still, why the rush? This past few weeks saw green shoots expand to the European and Chinese economies notwithstanding some mixed data in Germany. Our impression is that a number of international developments have triggered a shift in the ECB's stance, including the Fed's pivot and Brexit risks. In turn, renewed concerns have remerged over the disinflationary pressures in the background and related shift in inflation expectations, as described by Benoît Coeuré in his latest speech on the heterogeneity of the monetary union. While "unlikely to be related to concerns about the ECB's credibility", the recent fall in market-based inflation expectations reflects a shift in probability distribution towards lower inflation outcomes, with the gap between the US and the euro area rising to the widest level in over four and a half years.

ECB April meeting: Told you so!

This Wednesday, the ECB will likely reaffirm its recent assessment of the economic outlook, including the downside risks to activity from trade and geopolitics. Macro indicators have been mixed to slightly encouraging, yet overall consistent with resilient domestic demand. Core inflation dropped to 0.8% year-on-year in March, but a rebound is expected from next month with considerable volatility around Easter.

Importantly, bank credit flows to the private sector were strong in February, thus not strengthening the case for more generous TLTRO-III just yet. In terms of timing, June still looks most optimal to announce TLTRO-III pricing, while tiering would come in September if, and only if, macro and credit conditions deteriorate further. **It is probably too early for the ECB to go into the nitty-gritty of negative rates and a tiered reserves system in April**, but Mario Draghi will no doubt face questions on the topic during the press conference, and market participants will be hanging on his words for any hint at the timing and nature of potential mitigation measures.

We continue to expect the ECB to start hiking rates in March 2020, but further delays look increasingly likely. Even if activity picks up as we expect and core inflation slowly edges higher, the ECB would happily let inflationary pressures (re)build. Unfortunately, the best case described by Draghi and Coeuré, where a coordinated fiscal response provides additional support, is likely to prove underwhelming.

Reducing the cost of negative rates

We wrote about the cost of negative policy rates and the possibility of a tiered reserve system more than three years ago[1], concluding that TLTROs with negative rates and lending incentives would be a more efficient, elegant, and politically appealing solution. We have not changed our mind since, but the ECB may have. The macro outlook has also changed, with downside risks to growth and inflation still dominant despite nearly four years of asset purchases and five years of negative rates.

Mario Draghi himself ruled out a tiered reserve system in March 2016 "exactly for the purpose of not signalling that we can go as low as we want on this". We cannot emphasise enough how important the recent shift is from that perspective. If another shock led to a more protracted slowdown, rate cuts could be back on the agenda, if only by default because all other options would face higher hurdles. In that case, a tiering system may be the only option available to reduce the cost for banks in the core.

[1] See "Revisiting the ECB's lower bound", 19 February 2016.

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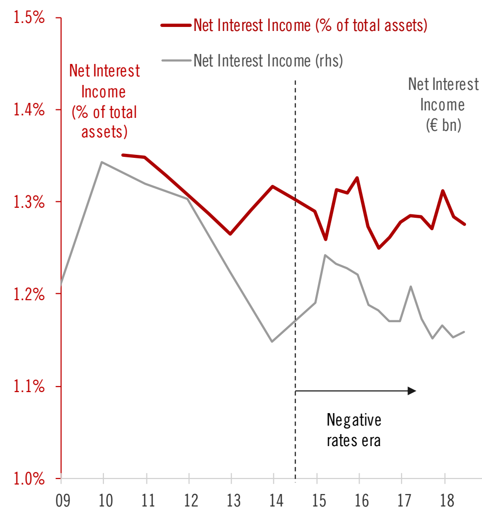
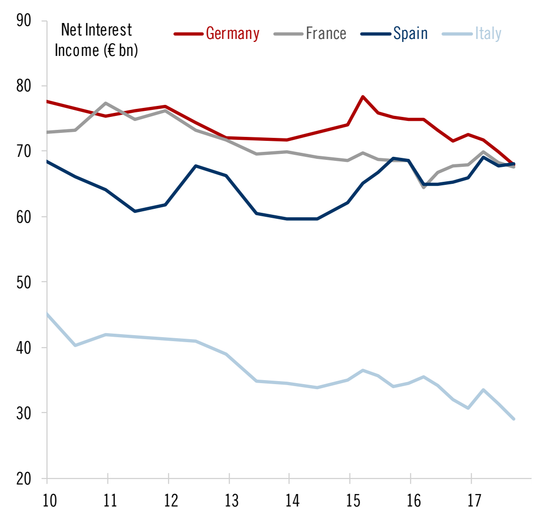
Although the net impact of ECB's negative rates on banks' interest income is not yet straightforward based on aggregated macro data, the longer negative rates remain in place, the larger the cumulated impact on bank's profitability.

EURO AREA BANKS: NET INTEREST INCOME



Source: PWM - AA&MR, ECB

EURO AREA BANKS: NET INTEREST INCOME BY COUNTRY



Source: PWM - AA&MR, ECB

Euro area commercial banks can park their excess reserves at the ECB, either in their current account (which also covers their minimum required reserves remunerated at 0%) or in the deposit facility, but the end-result is the same since both are subject to a negative rate of -0.40%. Excess reserves are computed at the sum of the current account holdings in excess of the minimum required reserves and the deposit facility usage. Banks can lend out their excess reserves to each other but at the end of the day, the total amount of excess liquidity must remain inside the banking system.

This total excess liquidity for the euro area currently stands at around EUR 1,900bn, resulting in **an annualised cost of negative rates of EUR 7.5bn, representing approximately 2.5% of banks' net interest income, or 4.5% of pre-tax profits.** Looking forward, excess liquidity is likely to remain broadly stable for the next couple of years, with no net changes from QE (as reinvestments will maintain a stable stock of assets) and most likely small changes from TLTRO-III rollover and net new demand.

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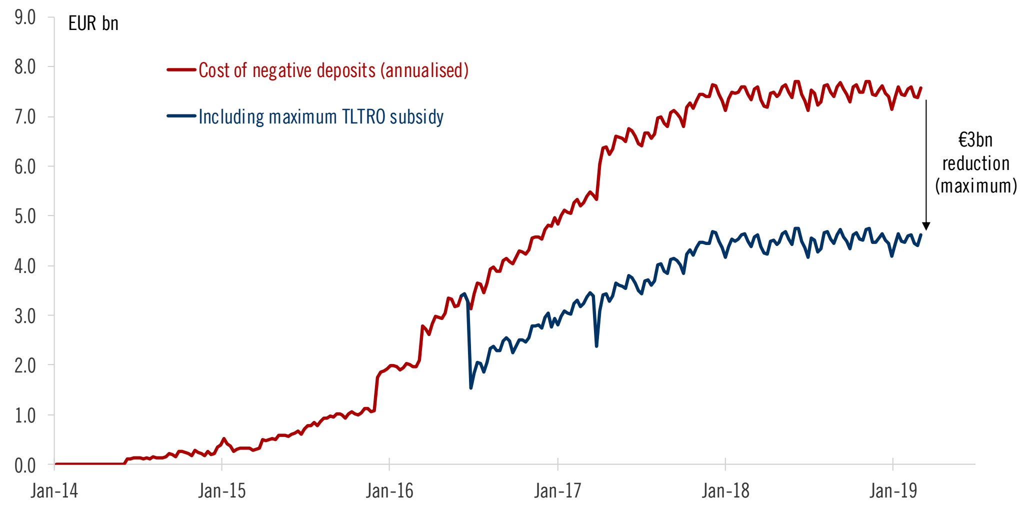
AGGREGATE COST OF NEGATIVE POLICY RATES FOR EURO AREA BANKS

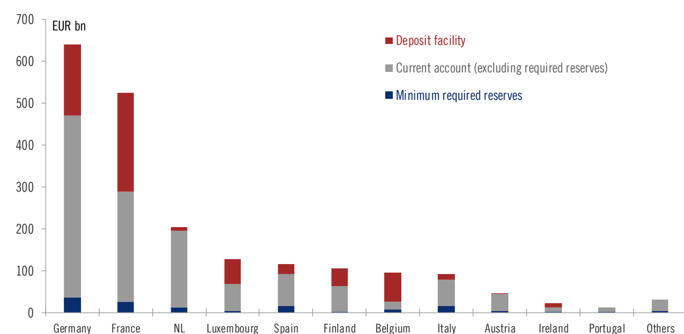


Source: PWM - AA&MR, ECB

TLTRO-II have helped reduced this bill by up to EUR 3bn, although in practice a number of banks have failed to meet their lending benchmarks and thus will not benefit from the lowest TLTRO rate possible (-0.40%). This information is not publicly available, but our best guess is that **TLTRO-II will translate into a EUR 2.5bn annual subsidy**. Therefore, a key factor driving the net cost of negative deposit rates in the future will be the pricing of TLTRO-III which we expect to be announced in June. Note that even if the ECB were to set a higher interest rate for TLTRO-III initially, this could always change in the future.

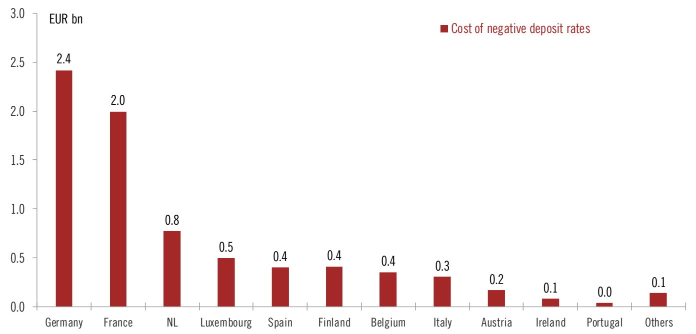
Importantly, the uneven distribution of excess reserves across national banking systems implies that **the costs of negative rates are heavily skewed towards banks in the core (EUR6.6 bn, or 87%) relative to the periphery (EUR1.0 bn, or 13%)**.

DISTRIBUTION OF MINIMUM AND EXCESS RESERVES ACROSS COUNTRIES



Source: PWM - AA&MR, ECB, National Central Banks

COST OF NEGATIVE DEPOSIT RATES ACROSS COUNTRIES



Source: PWM - AA&MR, ECB, National Central Banks

Tiering deposits without tearing the system apart – the simpler, the better

Ideally, the ECB could do TLTRO-III at negative rates for peripheral banks *and* a tiered reserve system for core banks. In practice, there are several ways of achieving a similar result, based on experience from other central banks (see Appendix), all of which come with technical complications, time inconsistency issues and arbitrage risks.

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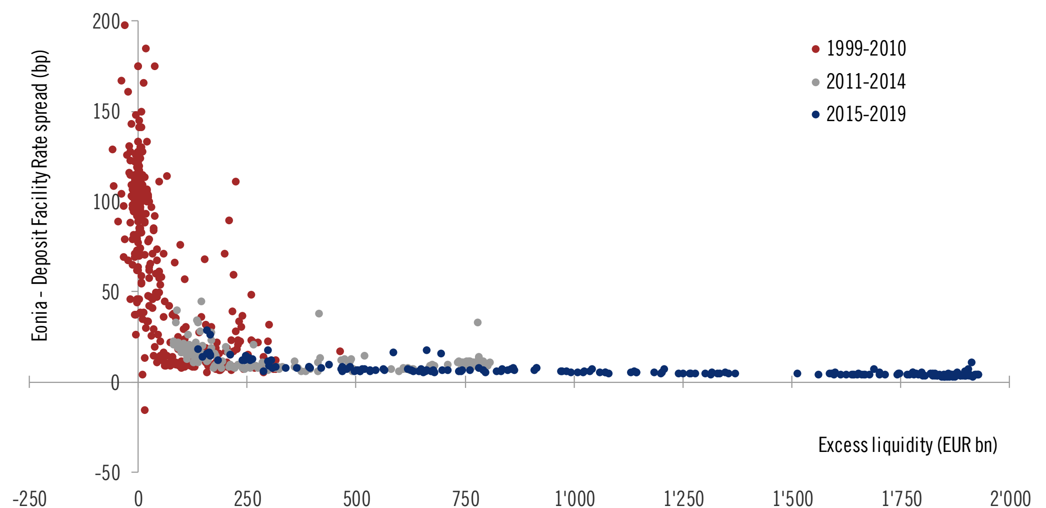
None of these issues are insurmountable, in our view, but there is no escaping the fact that a tiering system would have important redistribution effects across euro area jurisdictions, with potential knock-on effects on money market rates. The key point is that the ECB will want to preserve the smooth transmission of its monetary stance to short-term money market rates.

The ECB needs first to ensure that the amount of excess liquidity still subject to the deposit facility rate of -0.40% is large enough for Eonia fixing (and €STR when it is introduced) to remain close to the deposit rate itself. Historically, this has always been the case with excess liquidity over EUR 300-400bn subject to the negative deposit rate.

In theory, this means that the ECB could introduce an aggressive tiering system by exempting a very large share of bank reserves from negative rates. In practice, we believe that the ECB will be willing to retain some margin of safety, reducing the share of bank reserves effectively subject to negative rates from 94% to around 40%, in a similar fashion to the Swiss framework.

RELATIONSHIPS BETWEEN EXCESS LIQUIDITY AND THE SPREAD BETWEEN EONIA AND DEPOSIT FACILITY RATE



Source: PWM - AA&MR, ECB, Bloomberg

Bearing the above considerations in mind, we see two main options available, starting either from the bottom (the minimum required reserves) or from the top (the total excess reserves). The two options are described in the table below using a simplified, static analysis, i.e. with no second-round effects on the distribution of excess reserves.

- **Option 1 (exemptions as a multiple of required reserves)**: the ECB could either increase the minimum reserve requirements from 1% to 10% of the reserve base, or it could introduce exemptions for bank reserves (e.g., up to 10x the minimum reserve requirements, with possible gradation)[2].

[2] Note that in the case of higher reserve requirements, total bank reserves would initially increase by a little over EUR100 bn due to higher minimum reserves in the periphery. This option would be the easiest to implement: the ECB cut the reserve ratio in December 2011, and it could increase it again although it could create some incentive for banks to increase their short-term deposits for instance (the main component of the reserve base). Alternatively, in the case of exemptions, the total amount of

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The net gain for banks would amount to slightly over EUR 4bn, reducing the annual cost of negative rates to EUR 3.5bn before any TLTRO-III effect. Core banks would benefit most, while most peripheral banks would not be able to make use of all their exemptions (while eliminating all of their excess reserves), at least initially before any redistribution takes place.

- **Option 2 (exemptions as a share of total excess reserves)**: the ECB could introduce exemptions as a share (60%) of average excess reserves as reported during each maintenance period.
  The net gain would be around EUR 4.5bn in this example, with core banks benefitting even more as peripheral banks in Spain and Italy would still have some limited amount of excess reserves subject to negative rates. However, the differences would be relatively minimal overall, and this framework could prove more complicated to design.

TWO STYLISED EXAMPLES FOR TIERING BANK RESERVES AND THEIR IMPLICATIONS ON THE COST OF NEGATIVE DEPOSIT RATES

				Option 1: negative rates exemptions as a multiple of required reserves (10x)				Option 2: negative rates exemptions as a multiple of total excess reserves (60%)			
	Minimum reserves	Excess reserves	Cost of negative rates	Total exemptions	Excess reserves	Cost of negative rates	Net gain	Total exemptions	Excess reserves	Cost of negative rates	Net gain
Germany	36	604	2.4	357	283	1.1	1.3	363	242	1.0	1.5
France	26	499	2.0	261	264	1.1	0.9	299	200	0.8	1.2
NL	11	193	0.8	114	90	0.4	0.4	116	77	0.3	0.5
Luxembourg	4	124	0.5	36	92	0.4	0.1	74	50	0.2	0.3
Finland	2	103	0.4	20	85	0.3	0.1	62	41	0.2	0.2
Belgium	6	88	0.4	64	31	0.1	0.2	53	35	0.1	0.2
Austria	4	41	0.2	39	7	0.0	0.1	25	17	0.1	0.1
Core	**89**	**1653**	**6.6**	**890**	**852**	**3.4**	**3.2**	**992**	**661**	**2.6**	**4.0**
Spain	15	101	0.4	151	0	0.0	0.4	60	40	0.2	0.2
Italy	15	76	0.3	155	0	0.0	0.3	46	30	0.1	0.2
Ireland	2	20	0.1	24	0	0.0	0.1	12	8	0.0	0.0
Portugal	2	10	0.0	23	0	0.0	0.0	6	4	0.0	0.0
Cyprus	0	10	0.0	4	6	0.0	0.0	6	4	0.0	0.0
Malta	0	4	0.0	2	2	0.0	0.0	3	2	0.0	0.0
Greece	2	2	0.0	15	0	0.0	0.0	1	1	0.0	0.0
Periphery	**37**	**223**	**0.9**	**374**	**9**	**0.0**	**0.9**	**134**	**89**	**0.4**	**0.5**
Lithuania	0	5	0.0	2	3	0.0	0.0	3	2	0.0	0.0
Latvia	0	5	0.0	1	3	0.0	0.0	3	2	0.0	0.0
Estonia	0	4	0.0	2	2	0.0	0.0	2	2	0.0	0.0
Slovenia	0	3	0.0	3	1	0.0	0.0	2	1	0.0	0.0
Slovakia	1	1	0.0	6	0	0.0	0.0	1	0	0.0	0.0
CEE	**1**	**18**	**0.1**	**14**	**9**	**0.0**	**0.0**	**11**	**7**	**0.0**	**0.0**
Total	**128**	**1893**	**7.6**	**1279**	**869**	**3.5**	**4.1**	**1136**	**757**	**3.0**	**4.5**
Share of bank reserves subject to negative rates		**94%**			**40%**				**40%**		

Source: PWM - AA&MR, ECB, National Central Banks

Again, in both cases, there would be several complications and side-effects to deal with. Among other things, tiering may create new incentives for cross-border bank reserve lending, some arbitrage risks with TLTRO-III funding depending on their pricing (if some banks can access -0.40% ECB funding but redeposit some of it at a higher rate), or

liquidity would be somewhat lower than the one reported in the table below since peripheral banks would not use their exemptions in full.

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even upward pressure on some banks' marginal funding costs in some segments of the repo market. We think the ECB would see these issues as a manageable price to pay for policy rates to remain low for longer.

In the end, **tiering is also about the credibility of forward guidance**. The ECB is targeting a flatter yield curve for longer, and they got what they wanted from markets. In that sense, the level of policy rates is less important for banks than the slope of the curve and its term structure. Rate cuts, if push comes to shove, could even be a net positive for banks' net interest income via a bull steepening of the short end of the curve, and eventually via a bear steepening of the long end, if reflation is to be successful.

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Appendix: how does negative interest rates work in other central banks?

Danish Central Bank – a tiering with current account allowances

The Danmarks Nationalbank (DN) first cut its deposit rate below in June 2012 as the EURDKK peg came under pressure. Currently, deposits are charged 65bp. Since the start, the central bank has exempted part of deposits from the charge by allowing banks to park deposits in their current accounts at zero charge. However, the amount of reserves that can be held within the current account is limited. When a commercial bank exceeds its limit, the excess is automatically converted into certificates of deposit (charged at 65bp). The current account limits have become an active policy instrument, with thresholds both at aggregate level and at bank individual.

Swiss National Bank – a tiering based on a multiple of minimum reserve

In response to high pressure on its EURCHF minimum exchange rate floor (at 1.20 then), the Swiss National Bank (SNB) announced the introduction of negative interest rates (-0.25%) in December 2014. In a surprise move, in mid-January, with the pressure of the franc heightening, the SNB discontinued the minimum exchange rate and lowered the interest rate further to -0.75%. In addition, negative interest rates were accompanied by SNB's willingness to intervene in the foreign exchange market if needed.

From the start, the SNB implemented a tiering. **Negative interest is only charged on the portion of the sight deposit account balance which exceeds a given exemption threshold** defined by the SNB. The SNB's exemption thresholds are determined in one of two ways. The first approach applies to all banks that have to fulfil minimum reserve requirements (e.g for domestic banks or bank-like domestic institutions). **This exemption currently corresponds to 20 times the minimum reserve requirement** prior to implementation minus/plus any increase/decrease in the amount of cash held. The second approach defines a fixed exemption threshold for all account holders not subject to the minimum reserve requirement (e.g. foreign banks, securities dealers, cash processing facilities, clearing and settlement organisations, mortgage bond institutions, insurance companies, international organisations, central banks and decentralised units of the Swiss Federal Administration). The minimum fixed threshold is CHF 10 million. At the end of December 2018, the institution's total sight deposits stood at CHF574bn, above the maximum exempted amount of CHF 291bn, while the sight deposits of CHF 269 billion were subject to negative interest. Income from negative interest amounted CHF2.0bn in 2018.

Bank of Japan – a complex three-tiered system

On January 2016, the Policy Board of the Bank of Japan (BoJ) announced its decision to target a negative call rate by imposing a negative interest rate of 0.1 percent to banks' current accounts held at the central bank. **The BoJ has adopted a more complex three-tiered system, with remuneration schedule that divide balances in the current accounts of financial institutions into three tiers. The three tiers are remunerated at +10bp (basic balance), 0bp (macro add-on) and -10bp (policy rate balance)**. Thus, only a portion of banks' balances is exposed to negative rate, while the remainder would earn a rate of either positive 0.1 or zero percent.

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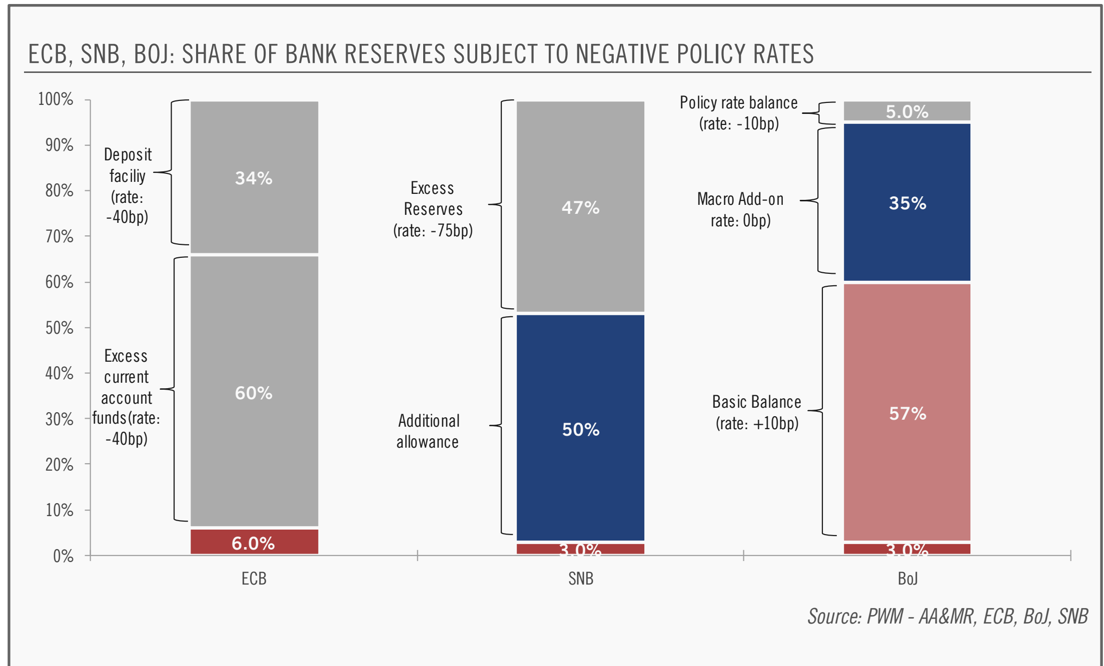

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