



# High time to prepare a tiered deposit-rate system !

Berlin, June 2019

**The Chief Economists of the Savings Bank Finance Group advocate that the European Central Bank should consider revising its negative-interest-rate policy by introducing a tiered interest-rate system for the excess reserves parked with the Eurosystem by commercial banks, using either the “Swiss model” or the “Danish model” as a paradigm.**

Of the most common objections against such a tiering system:

- that the relief for the banking sector allegedly entails an unfair advantage for the banking industry; and
- that eliminating the side-effects of the burden on the financial sector could delay the general exit from the negative-interest-rate policy,

we think that only the second one deserves some consideration. However, we nonetheless believe that a revision is desirable in order to eliminate (or at least diminish) an unfair competitive disadvantage above all for core European banks and savings banks in the international playing-field and thus to obviate threats to financial stability. After all, the ECB itself has pointed out in its most recent Financial Stability Review that the structural challenges being faced by banks need to be borne in mind from a macroprudential point of view.

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# High time to prepare a tiered deposit-rate system!

A multi-tiered deposit rate would be particularly necessary in the event of the ECB contemplating moving interest rates even further into negative territory in response to the uncertain economic outlook. The longer the burdens last, the more pressing the need for such a multi-tier system becomes – even without fresh key-rate cuts – not least in view of the recent activation of countercyclical capital buffers.

It was recently the fifth anniversary of the announcement by the European Central Bank (ECB) that it would henceforth be charging a kind of “penalty fee“ on commercial banks’ reserve holdings in excess of minimum-reserve requirements. Yet this anniversary is certainly no reason to celebrate, especially not for savers and credit institutions in the euro area:

- Firstly, the introduction of the unconventional monetary-policy instrument of negative rates, in combination with further policy measures, has conspired to further entrench the negative-interest-rate environment across the euro area. From minus 0.10 percent initially, the ECB’s deposit facility rate was lowered in several steps to minus 0.40 percent, the rate which has applied since March 2016.
- Secondly, the cumulative financial burden imposed on the financial industry by this “penalty interest rate” is now running easily into the tens of billions of euros – what is more, the trend here has been sloping sharply upwards, since 2015 in particular. We therefore do not share the opinion voiced recently by Bundesbank President Weidmann that the magnitude of the burden is negligible.<sup>1</sup>
- Thirdly, the ECB Governing Council’s decisions at the March 2019 meeting – especially the decision to prolong its current forward guidance until at least the end of the present year – and the verbal signals sent out in the intervening period permit the inference that an exit from negative-interest-rate policy is not on the cards in the foreseeable future.
- Fourthly, the ECB has made it clear in its latest Financial Stability Review that greater attention needs to be paid to the structural challenges with which banks are confronted. Accordingly, we believe that the standing of Europe’s banking systems needs to remain safeguarded, not least (?) via a sustainable / viable interest-rate landscape. This is also needed to fulfil the needs of the countercyclical capital buffers which are currently being activated in some major countries.

*A whole string of monetary-policy justifications for a tiered deposit rate*

<sup>1</sup> „Herausforderungen für das deutsche Wirtschaftsmodell“, speech by Dr. Jens Weidmann, President of Deutsche Bundesbank, delivered at the German Savings Banks Conference on 16th May 2019 in Hamburg..

### The burdens are growing heavier

The fact that the trend in the burdens weighing on the banking industry has been rising steeply over time is explained by two factors:

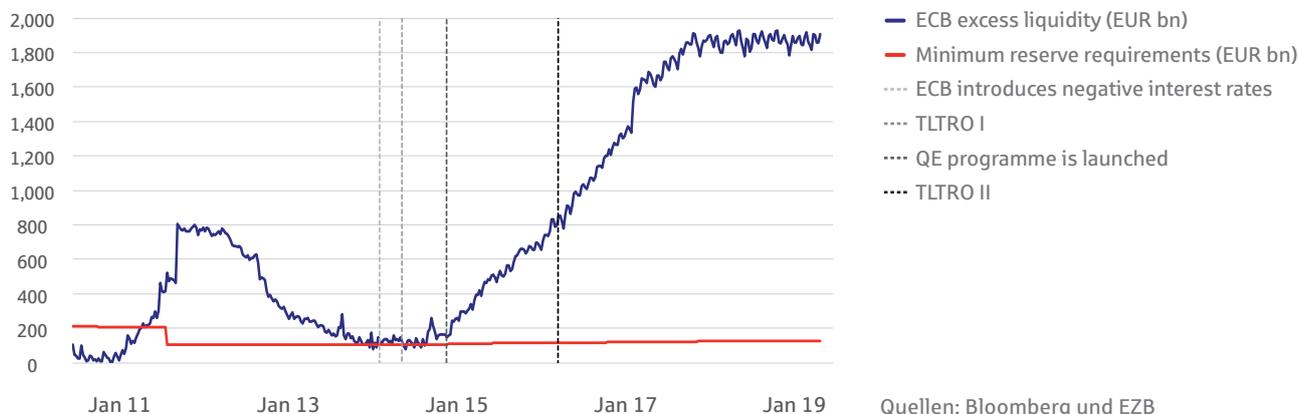
- Firstly, it is a consequence of the ECB's decision from January 2015 to make its monetary-policy stance more expansionary by launching a large-scale purchase programme for government bonds (later expanded to include corporate bonds). As a result of such bond purchases, additional liquidity has been virtually forced upon banks and savings banks: due to a lack of investment alternatives or else to regulatory restrictions, a large proportion of these funds end up back in commercial banks' deposit-facility accounts, or else on their current accounts (part of the Eurosystem's TARGET2 system), on which an interest rate of minus 0.40 percent likewise has to be paid. The aggregate volume of excess liquidity in the banking system as a whole cannot, in any case, be reduced by lending or asset purchases on the part of credit institutions; that only appears to be the case from the perspective of the individual banks.

The upshot is that the excess liquidity held by commercial banks at the ECB veritably exploded between January 2015 and year-end 2017, spiking from around EUR 150 billion to EUR 1,900 billion. Since then, surplus liquidity has been moving sideways at the latter level, the reason being that the central bank tapered its net bond purchases before switching (at least for the time being) to holding the gross level of the portfolio constant at the end of 2018.

### *Volume effect of high excess liquidity*

The surge in excess reserves caused by the implementation of so-called quantitative easing has been further swelled by the granting of targeted longer-term tenders (TLTRO I+II) to the banking system. Admittedly, the surplus reserves associated with TLTROs do not necessarily lead to an additional burden for banks because the latter can have the interest rate which has to be paid refunded in full by the ECB, depending on the trend in their eligible net lending. The third TLTRO series which is now in the offing will only involve a partial balance-sheet offsetting mechanism amounting to at most 75 percent of the interest burden. The conditions of the new TLTRO programme are thus somewhat less favourable. If, on the other hand, excess liquidity continues to be subject to an un-tiered negative deposit rate, the outcome would be a negative interest margin, which would presumably diminish take-up of the new TLTROs to some extent.

### Euro area: Excess reserves in the euro money market and minimum reserve requirements (in EUR billion)



→ Secondly, the (very sizeable) magnitude of the financial burden being borne by the euro area banking sector as a result of the negative-interest-rate policy is attributable to the fact that the ECB, when going down this unconventional road, only exempted the normal minimum reserves that credit institutions have to hold at the central bank from the negative interest rate.

*Only the very slender minimum-reserve portion is currently exempt*

Central banks in other countries which have likewise had recourse to the negative-interest-rate-policy instrument in recent years have, in some cases, devised considerably more lenient rules regarding burdens for the banking sector. The best-known cases in point are Japan, Switzerland and Denmark. In this context, the central banks of all three nations have operated different types of multi-tiered interest-rate system, entailing more or less generous exemption thresholds below which the negative interest rate is not levied, and with correspondingly different cost-easing effects for the credit institutions concerned.

In the euro area, such a multi-tiered interest-rate system was likewise debated for a while just over three years ago when the deposit rate was moved down to its present deep level. A paramount reason why the ECB decided against introducing such a system was the argument mobilised at the time that market participants might well construe a tiered interest-rate regime as a signal that the negative-interest-rate system was being institutionalised on a permanent basis. In our assessment, the intention shown by the euro area's monetary policymakers at that time was definitely to be welcomed to the extent that it flashed a signal that the ECB was already, as it were, thinking about re-exiting its negative-interest-rate policy just as it was being embarked upon.

In retrospect, however, it has to be concluded that the "re-exit window" which opened up for the ECB during 2017 by virtue of the auspicious economic trend unfortunately snapped shut again unexpectedly quickly. In de facto

terms, this may, by now, have helped to create the impression in many market watchers' eyes that the ECB's negative-interest-rate policy has indeed become increasingly institutionalised. One piece of evidence for this thesis is the evidence on the ground that market actors in the euro interest rate market (judging by current money market futures rates) are currently expecting the negative-interest-rate phase to only come to an end in 2022.

What has been argued above holds true all the more in view of the vulnerable cyclical phase which the euro area is experiencing at the present juncture – a phase that could definitely end in a recession in the event of negative spillover effects from external factors such as the global trade conflicts, which might delay the ECB's withdrawal from its ultra-accommodative monetary policy for even more years to come. It is therefore all the more urgent, in our opinion, to deliberate afresh about the option of a multi-tier deposit facility.

The introduction of such a system would indeed – as demanded by central banks – be strictly justified from a monetary-policy point of view. For it would only be possible to enduringly maintain the negative-interest-rate regime deemed necessary for monetary-policy purposes if the increasingly damaging side-effects were to be reduced. What is more, the last (marginal) euro still subject to a negative interest rate would continue to determine money-market and capital-market conditions and thus the macroeconomic pass-through effects.

*Relief could have a stabilising effect ...*

*... while the marginal rate could remain effective*

#### **Which relief schemes have been tried and tested internationally?**

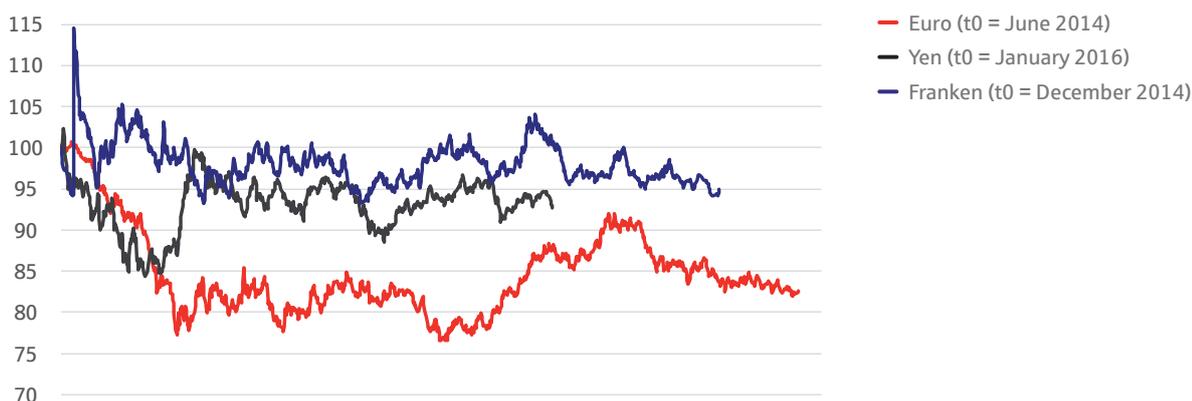
At this point, we would like to cast light on the various models which have been implemented by the central banks of Japan (BoJ), Switzerland (SNB) and Denmark (DNB). We will also be providing a rough estimate of the relief effect which would be forthcoming for credit institutions across the euro area in general, as well as in the individual EMU member states, if the model in question (possibly with appropriate modifications) were to be put into use in the European Monetary Union as a whole. At the outset, we would like to point out that these estimates involve gross rather than net figures. To specify the net effect of a revision to the negative-interest-rate regime, the figures would need to be adjusted, in particular, for a number of countervailing effects. For instance, adjustments by credit institutions regarding their terms for retail deposits or corporate loans would be rather likely given the keen competitive situation prevailing in the financial sector. Such adjustments would effectively diminish the (net) relief effect for the credit institutions.

### Japan's banks are continuing to earn a positive return on their reserves

We would like to start with Japan. As it turns out, it is in the Land of the Rising Sun that the negative-interest-rate regime has had by far the most favourable repercussions on financial institutions. The BoJ resolved in January 2016 to turn its deposit interest rate into its new monetary-policy benchmark rate, lowering the latter into negative territory from a previous level of +1.0 percent to -0.10 percent. Ostensibly, Japan's monetary watchdogs were hoping that this step would spur bank lending, thereby enabling convergence towards their inflation target, which was being clearly undershot (as it still is). The truth of the matter, it can be conjectured, is that the measure was geared above all to weakening the local currency, the yen. In that regard the strategy has definitely borne fruit given a cumulative yen depreciation relative to the US dollar of approximately 7 percent for the period since January 2016.

*A circuitous way of influencing the exchange rate*

### Japan, Switzerland and the euro area: Cumulative exchange-rate shift relative to the US dollar since the introduction of negative interest rates



This conjecture about covert exchange-rate management suggests itself not least because of the incentives in place. On paper, Japanese credit institutions are the ultimate targets of the BoJ's policy shift. But they are, in effect, hardly being hurt by the negative-interest-rate policy as being operated and are therefore hardly being motivated to engage in additional lending. In actual fact, the BoJ has implemented a three-tier interest-rate system, within the framework of which banking institutions continue to earn a positive return of 0.10 percent on all reserves already held during 2015 ("Basic Balance").

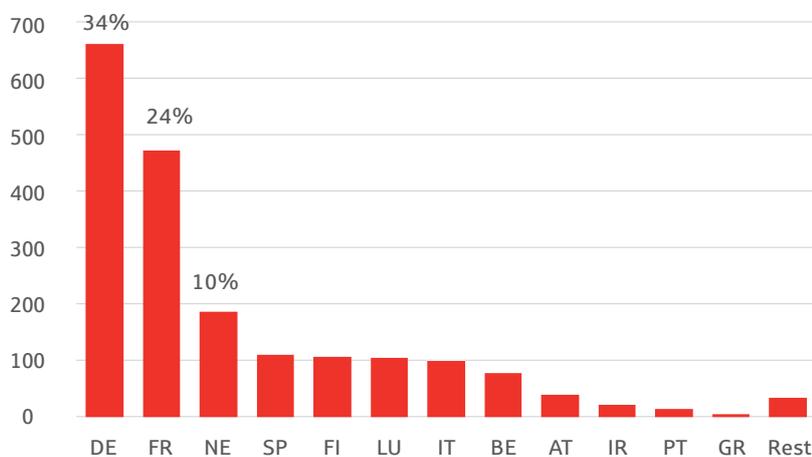
At the present point in time, this rule applies to almost 60 percent of the reserves which Japanese banks hold at the BoJ. What is more, a generous exemption-threshold ruling exists for further reserves (i.e. reserves built up since 2016), involving an interest rate of zero percent. This exemption covers the liquidity flowing (involuntarily) to banks as a result of the BoJ's

QE programme. The upshot of this is that only about six percent of the reserves which Japanese banks hold at the BoJ are currently subject to the punitive interest rate of minus 0.10 percent. Thanks to the rule applying to the “Basic Balance” portion of their outstanding current-account balances, the country’s banking sector as a whole is even earning positive returns on their reserves lodged with the BoJ.

If the “Japanese model“ were exported to the euro area, the “three-tier structure of the outstanding balance of current accounts“ rule could not apply because the ECB’s deposit facility rate was standing at zero percent immediately prior to the introduction of negative interest rates. Given that roughly 90 percent of excess reserves held with the ECB have come into existence since the launch of the QE programme, we are working on the linear assumption that 90 percent of reserves would be exempted from the negative deposit rate under the “Japanese model”, with only 10 percent effectively staying liable. On the basis of aggregate reserves to the tune of EUR 1,933 billion as of end-March 2019 (minus minimum reserves of just under EUR 130 billion), the current annual gross interest burden for euro area credit institutions works out at approximately EUR 7.2 billion.

Of this sum, around one-third falls on the shoulders of German financial institutions and one-quarter is being borne by French banks, with the Netherlands in third place (10 percent). In other words, roughly two-thirds of excess reserves held with the Eurosystem are distributed among these three core European countries. With the gross relief effect under the “Japanese model“ amounting to about EUR 6.5 billion annually, roughly one-third (some EUR 2.2 billion on the basis of the data as of 31st March 2019) would accordingly apply to the German banking sector.

**Bank reserves held with the ECB, by euro area member state**  
(cut-off date: 31.3.2019; EUR billion)



■ Bank reserves held at the ECB, by country (EUR bn, as of 31.3.2019, incl. minimum reserve balances)

Sources: ECB and own Calculations

### Switzerland links relief to minimum reserve requirements

Let us now turn to the “Swiss model,” which – like its Japanese counterpart – provides very generous cushioning for banks in the Swiss Federation (more precisely for banks headquartered in Switzerland) against the punitive interest rate which the SNB set at minus 0.75 percent in January 2015. The Swiss National Bank had a twofold objective for introducing negative interest rates (starting-point: minus 0.25 percent from December 2014 onwards):

Firstly, the aim was to put a brake on net foreign portfolio investment inflows into Switzerland, which had become more voluminous following the advent of negative interest rates in the euro area, and thus to mitigate the upside pressure on the Swiss franc. In keeping with this, foreign banks were only granted a comparatively low lump-sum exemption of CHF 10 million on which the punitive charge is not levied.

*Putting a brake on portfolio inflows from abroad*

Secondly, the aim was to protect the private-asset-management business model, which is of particular importance to Swiss banks, by means of high “free allowances“ for domestic banks. This, in turn, was intended to enable domestic banking institutions to shield their retail customers from punitive interest rates even though the deposit rate was being moved deep into negative territory.

In the case of domestic Swiss banks, the negative interest rate is only charged on the portion of sight deposit account balances held at the SNB which exceeds a threshold corresponding to 20 times their minimum reserve requirement. The aggregate reserves of Swiss banks currently correspond to slightly less than 30 times the collective minimum reserve requirement, meaning that about two-thirds of reserves are effectively exempted from the punitive charge.

*Reserves held by domestic Swiss banks remain largely exempt*

If the “Swiss model“ were transposed on a 1:1 basis to the euro area, where bank reserves held with the ECB currently correspond to approximately 15 times the cumulative minimum reserve requirement, we think that an exemption threshold corresponding to 10 times the minimum reserve requirement would be appropriate. If the “Swiss model“ were to be operated, the annual burden on the euro area banking sector would decline from EUR 7.2 billion to EUR 2.6 billion, i.e. by a shade over 60 percent. On the basis of our projection, German and French credit institutions would qualify for roughly the same amount of relief (around EUR 1.2 billion in each case).

Nevertheless, it would not be correct to argue that this approach would give rise to a “lex Germania“ because our estimate concludes that a shift to such a system would only reduce the burden borne by German credit institutions to a below-average extent in percentage terms (by a little below 50 percent). By contrast, Italian and Spanish banks, whose reserves at the ECB (at marginally over EUR 100 billion as of end-March 2019) are low in proportion to the size of the respective banking sector, would actually be exempted in full from paying the negative interest rate.

### Denmark has been relatively ungenerous regarding the degree of relief

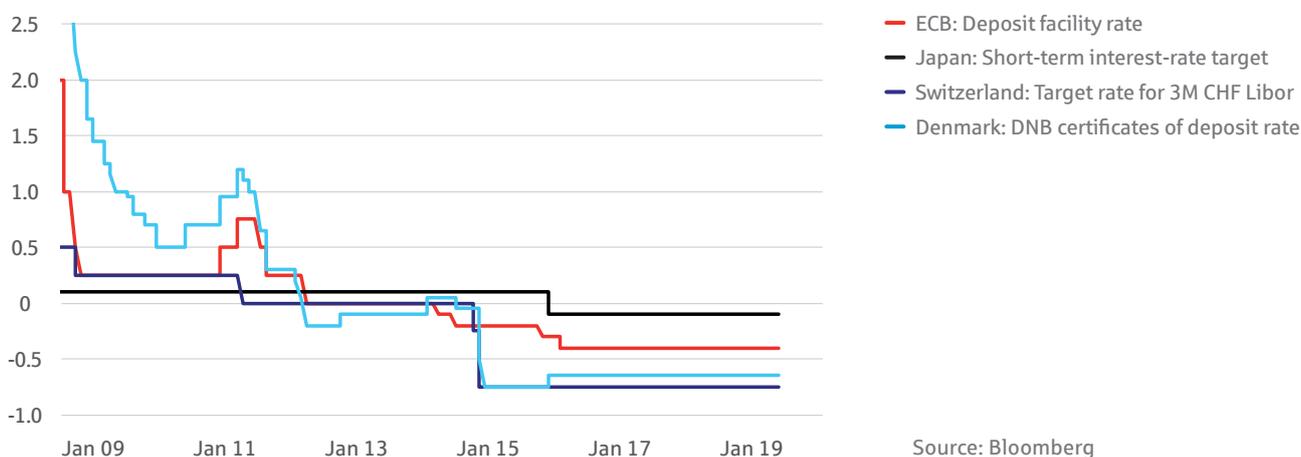
Finally, there is the “Danish model,” which is also geared, in principle, to exemption thresholds, which are based, at least indirectly, on the minimum-reserve approach, but which (from the banks’ point of view) effectively involve a less generous multiplier than under the “Swiss model.”

Denmark also deserves to be looked at in the context of negative interest rates because the central bank of this northern European country was the first to deploy such a monetary-policy instrument – in the summer of 2012, i.e. two years before the ECB. At the peak of the euro area sovereign debt crisis, the DNB was confronted with the problem of capital flight from the EMU into Denmark, which was putting upside pressure on the krone. In view of the fact that the Danish krone is pegged to the euro within ERM II, observing a central rate with a certain fluctuation band, the central bank was compelled in that situation to take countermeasures to weaken the domestic currency. Since then, a two-tier system has operated for reserve holdings by Danish commercial banks. There is a current account deposit facility, where monetary-policy counterparties can make overnight deposits up to a certain bank-specific threshold. For amounts above that threshold, credit institutions have to purchase short-term (7-day) certificates of deposit (CDs) with less advantageous interest rates. Until spring 2012, this certificate of deposit rate was invariably higher than the ECB’s deposit rate, before the DNB pushed it down to below zero for the first time when the euro area sovereign debt crisis was reaching its climax.

### Denmark’s pioneering role

After a brief phase of positive interest rates on CDs in spring 2014, the move to negative interest rates by the ECB and the SNB compelled the DNB to ratchet down its CD rate to a low of minus 0.75 percent. For more than three years now, Denmark’s “penalty interest rate” has been standing at minus 0.65 percent while an interest rate of zero percent applies to reserves in the current account deposit facility. The bank-specific ceiling applicable here currently corresponds to 1.7 percent of the total deposits reported on the balance sheet of the credit institution concerned.

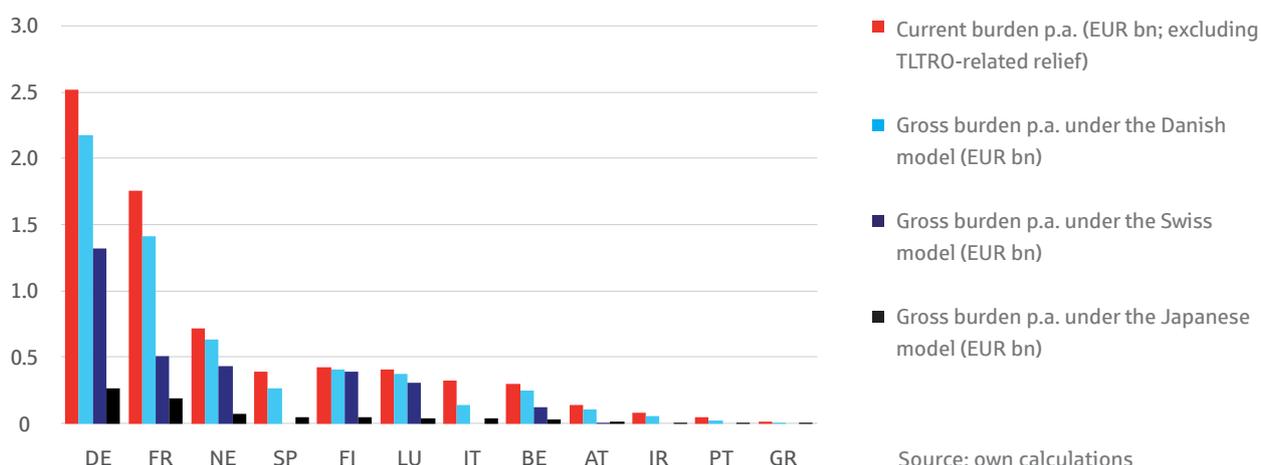
### Euro area, Japan, Switzerland and Denmark: Trend in deposit interest rates since 2009



Source: Bloomberg

If the “Danish model” is transferred to the euro area, and if it is further assumed that the bank-specific exemption is granted on top of the minimum reserve requirement, our calculations imply that an amount corresponding to roughly 3.5 times the minimum reserve requirement which banks have to meet would be exempt from the ECB’s negative interest rates. Under the “Danish model,” then, the burden imposed on euro area credit institutions by negative interest rates would merely decline by about one-sixth, or EUR 1.2 billion. As under the “Swiss model,” German and French banks would qualify for the most relief in absolute terms (slightly more than EUR 0.3 billion in each case), with German credit institutions once again benefiting to a marginally below-average extent (a 14 percent reduction) in relative terms.

**Gross burden imposed on banks by negative deposit rates (p.a.) under the current regime and using various tiered-deposit-rate models (in EUR billion)**



Lastly, we believe that the history of the introduction of negative interest rates in Denmark also provides a weighty argument why the ECB should look sympathetically at the idea of taking pressure off the euro area banking sector by introducing a multi-tier deposit facility. In 2012, Denmark’s central bank had to take measures to stem the upside pressure on the krone deriving from capital flight in connection with the euro area sovereign debt crisis. Such capital movements occurred within the EMU as well – with capital fleeing to the more stability-oriented member countries, to Germany in particular.

Given that the eurozone shares a common currency, such movements have not, it is true, been translated into currency movements but have instead been indirectly reflected in what are (to this day) clearly positive, or clearly negative, TARGET2 balances for EMU member countries. It follows from this that Germany’s clearly positive TARGET2 balances and the high level of excess reserves which domestic banks are holding with the ECB are, at

*Punishing countries for their soundness is counterproductive*

least partly, a consequence of the soundness and stability orientation of the domestic banking system and of the country as a whole.

In a certain sense, then, those core European states where the largest proportion of excess reserves has forcibly accumulated (?) are being forced to pay a levy in return for their attractiveness and stability orientation – in effect, a “punitive tax,” because the revenues in question ultimately flow, in Germany’s case, via the Bundesbank profit into the federal budget.

A superficial objection to this line of thinking is that such a *modus operandi* is thoroughly justified in view of the high costs which bank bailouts have imposed on government budgets in some countries. There are two counter-arguments here. Firstly, it is not the task of a central bank to raise a kind of special levy on the banking industry in the name of national governments. Secondly, such a levy – if it is indeed to be raised – ought to take its bearings by the costs-by-cause principle. It ought, in other words, to be linked to the risk weighting for the business model being employed by the respective credit institution. In fact, a punitive levy via negative interest rates rather achieves the contrary, placing an undue burden on banking entities whose main focus lies in deposit business and therefore weakening the business model of those institutions which constitute a stability anchor for the German – as well as for the wider European – financial system. It is also true, of course, that this does not absolve banks from the important and necessary task of critically assessing their cost structures and of making their business models viable for the future.

Yet we believe that it is equally in the interests of the ECB, as the custodian of financial stability in the euro area, not to place additional obstacles (in the form of a kind of special levy) in the path of the domestic banking industry in the current tough international competitive environment. We are therefore advocating that the ECB should adopt a multi-tier deposit facility on the Danish model. Two modifications should, in our opinion, be made to the model being used by our northern neighbour. Firstly, higher weighting rates ought to be set for banks’ underlying deposits in order to take account of the bloating of excess reserves (undesired from the banking industry’s point of view) which has been caused by the policy of quantitative easing.

*The burden of negative interest rates is likewise a competitive and locational factor*

Calibration could take place in such a way that the aggregate relief effect for euro area credit institutions was comparable to that under the “Swiss model.” Secondly, we consider two weighting rates for different types of deposits to be appropriate, with a higher weighting rate applying to customer deposits. That would compensate credit institutions with a high level of customer deposits for the particularly high degree of earnings pressure which they have been sustaining on account of the negative-interest-rate policy, because such institutions are, to all intents and purposes, barred from passing on such costs to retail customers.

### **A multi-tier deposit rate system would, at least, be the second-best option**

In conclusion, we make no secret of the fact that the introduction of a multi-tier deposit-rate system would, in our assessment, be only the second-best option for tackling the task of eliminating the side-effects bound up with the negative-interest-rate policy. What would be even better would be to revert at an early date to a conventional monetary-policy stance. True, we are well aware that this is not up to the ECB alone in the current macroeconomic situation: the monetary policymakers have, quite rightly, pointed repeatedly to the structural reforms required in national economies and have – just as repeatedly – been left in the lurch by national politicians. However, making the banking industry pay for these shortcomings is resulting in mounting threats to stability. To prevent such stability risks from escalating, a multi-tier model would be well warranted from a monetary-policy perspective, assuming that the monetary authorities are determined to keep using the negative-interest-rate instrument per se for even longer.

## Disclaimer

The present position paper of the Chief Economists does not necessarily correspond to the attitude of the DekaBank or the attitude of the respective Landesbanken and Savings Banks or the DSGV.

### **Published by**

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### **Editorial Deadline**

7<sup>th</sup> June 2019

### **Layout**

Franz Metz, Berlin

### **Photography**

Seite 1: Sparkassenverlag

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### **Remark**

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### **ISSN**

2509-3851