

Positively negative

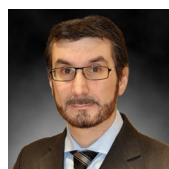
Economist Insights

In an apparent volte face, the Bank of Japan introduced negative interest rates, much to the surprise of the markets. By targeting only marginal transactions, the BOJ is more similar to the approach taken in Switzerland, Sweden and Denmark than by the ECB. The market reaction was much stronger than the reaction to the ECB's introduction of negative rates. It was also more widespread, suggesting that markets might be now expecting a dovish reaction by the ECB and the Federal reserve.



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Never trust a central banker, at least not one that you would actually entrust with control of monetary policy. Just a couple of months after ruling out a further cut in interest rates, Bank of Japan (BOJ) governor Kuroda Haruhiko announced negative interest rates. Governor Kuroda does seem to enjoy surprising the market, and some wonder whether he misled the market on purpose in order to maximise the surprise.

It is more likely that Governor Kuroda simply changed his mind and decided that the economic situation demanded more action. That is why you should not trust a good central banker: they should do what is best for monetary policy, not what keeps the market happy.

The Japanese negative rate is somewhat more complicated than that of the ECB, and is closer to those of Switzerland, Sweden and Denmark. The negative rate applies only to marginal increases in cash rather than all cash. Existing levels still get paid 0.1%, required reserves (and a few other things) get 0% but the remainder will get -0.1%. The equivalent from a personal perspective is that your bank pays you interest on most of your deposits, but pays zero on some. Then any increase in deposits you make would be penalised with a negative rate. This might change the amount you decide to deposit. You could hold more cash, but that brings risk of loss or theft. So the alternative is to spend more.

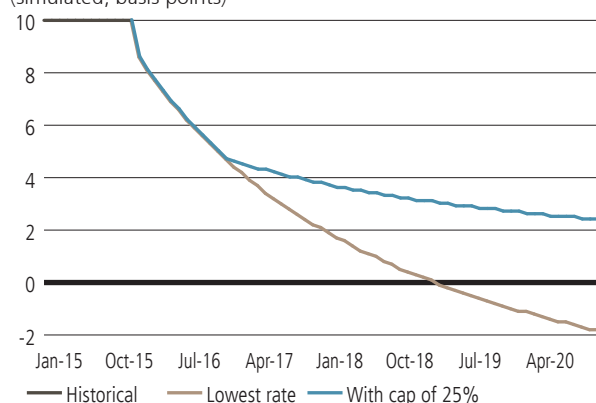
The difference for the banking system is that they cannot really control the level of their reserves at the central bank. When the BOJ creates money through their Quantitative and Qualitative Easing programme (QQE), they credit the reserve accounts of the banks they do the transactions through. That bank can then take the money out and use it for something else (e.g., a loan), but that money will ultimately

end up in another bank. Asides from cash, all digital money is a claim against the central bank. So the BOJ is increasing the amount of money in the system and charging banks for the privilege of having it on their balance sheets.

The marginal rate at least prevents the banks from being 'taxed' on their existing levels of deposits. The BOJ does not want to damage the banks that much, since it might make them less able to lend. But there will likely still be a hit to profits. The BOJ has kept discretion on how much of bank's reserves they want to charge the negative rate. If they choose to maximise the amount, the weighted average interest rate paid on reserves would be falling quite quickly, going through zero in 2019 (chart 1). If instead the BOJ limits the marginal amount that is charged the negative rate, for example to 25% of last year's total reserves, then the average rate will stay positive for the foreseeable future.

Chart 1: Waiting for weighting

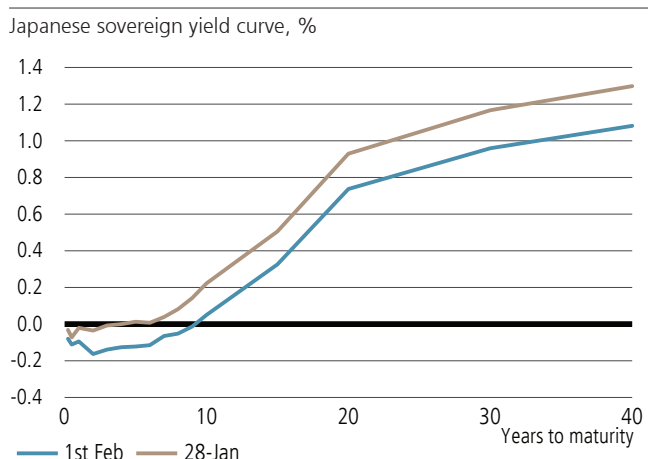
Weighted average interest paid on reserves at the Bank of Japan (simulated, basis points)



Source: Bank of Japan, UBS Asset Management. Note: assumes that the ratio of required reserves to total reserves stays constant

The market reaction illustrates that interest rates are, indeed, determined by the marginal transaction. So even though the weighted average interest rate is likely to remain positive for a long time, the yield curve dropped into negative territory all the way out to the 9-year bond (chart 2). The benchmark 10-year bond reached an all-time low of just 5.5 basis points. This is a very different reaction to what the ECB experienced when it introduced negative rates on all deposits (not just marginal deposits). The German bund yield curve actually steepened with yields at the front end falling less than Japan just saw, and the longer end actually rising.

Chart 2: Dipping below



There are two good reasons why the experience was so different. Firstly, unlike the ECB, the BOJ's programme of quantitative easing is open-ended. Not only does this mean that there will ultimately be more reserves on which the negative rate might be paid, but it also signals that the BOJ is keen to use every tool at its disposal. This could explain the divergence in reactions at the long end.

The second reason is somewhat more technical. The negative deposit rate can be seen as a tax on any future financial assets that banks sell to the BOJ through the QE programme. Why is it a tax? Because when the BOJ buys the bond it will pay for it by creating reserves that pay the negative rate. So from the banks' perspective there is a tax. Banks therefore need to take that into account and will

demand a higher price for the bond today, which means a lower yield. Or to put it another way, the banks have to discount the future cash flow of the bonds at a negative rate (so should that be an 'up-count'?).

It is not just Japan that reacted to the move, other markets moved as well. Both German bunds and US Treasuries fell by almost as much as Japanese bonds. This has less to do with the importance of the Japanese market and far more to do with the likely reactions of the ECB and the Federal Reserve. The ECB will be noting how effective the BOJ move was at shifting yields, which may make them interested in copying the strategy. Even though countries like Switzerland are already using very negative rates with complicated tier structures, the BOJ has demonstrated that a large economy can do it successfully as well.

For the Federal Reserve, which has seen the strong exchange rate drag on US growth, this move by Japan creates just one more reason to delay rate hikes. The market now feels that a March hike looks highly unlikely. Lots of investors are talking about 'currency wars', and indeed the currency seems to be the main channel that the BOJ is hoping will boost the economy.

So it looks like negative rates are here to stay, and likely to become more common (at least in this complicated form). Now it is just a matter of waiting to see what the unforeseen circumstances might be. For example, banks may be unwilling to pass negative rate on to depositors, but they need to make up their profits somewhere. There is some evidence from Denmark that negative rates have actually encouraged banks to increase mortgage rates. This is the opposite of what the central banks want to see. But if you invert interest rates, you should not be surprised to see lots of other relationships invert as well.