Central bank negative deposit rates and the banking sector

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The ECB, the Bank of Japan and five other central banks in Europe have applied negative interest rates on commercial banks' reserves. This additional monetary policy stimulus, following large asset purchases by central banks in some of these areas, should boost the economy and thus raise inflation closer to target. However, its effectiveness may be reduced if negative interest rates undercut banks' profits. As discussed in Box 1.2 in the latest *Economic Outlook*, so far these negative effects have been small but will increase in the euro area.

Negative interest rates applied to central bank reserves should lower short and longer-term market interest rates by signalling an easier monetary policy stance and encouraging banks and investors to rebalance their portfolios towards riskier assets. With unchanged monetary policy abroad, they should also weaken the domestic currency. All these effects should bolster the economy and thus banks.

However, negative interest rates may also imply direct losses for banks. The feasibility for banks to compensate these losses depends on their business models. It can be high when banks liabilities are largely in the form of inter-bank loans or bonds and stimulative monetary policy is effective in lowering market interest rates. In contrast, the feasibility will be particularly limited for banks with a large share of retail deposits. Passing negative interest rates to depositors risks widespread withdrawals when storing cash is not very costly. Thus, banks could be forced to compensate losses by raising fees and increasing, or not lowering, interest rates

on loans. The chance of such an outcome, and an associated perverse impact on loan demand and growth, increases with the level and duration of negative interest rates.

So far, interest costs on banks' funds at central banks have been limited and tiny compared to banks' profits and the average interest rates on funds placed with the central banks are less negative than the central banks' deposit rates (table below). This stems from various forms of exemptions (tiered reserve systems in Denmark, Japan, Norway and Switzerland; exemption for required reserves in the euro area and Japan). In Sweden, the costs are reduced as banks effectively do not use the deposit facility given that they can purchase Riksbank's certificates or use overnight fine-tuning operations that are remunerated at less negative interest rates than the deposit rate. In Japan, banks as a whole continue to earn net positive interest income from excess reserves.

In the euro area, the cost of negative interest rates for banks is going to increase with the expansion of ECB total assets and the concomitant increase in reserves for banking sector as a whole. This will not be the case for Japan. Although the Bank of Japan intends to sustain asset purchases, the negative-interest tier has been capped at around 30 trillion yen.

Characteristics of negative interest rate frameworks

	Effective interest rate on funds at central bank, per cent	Policy interest rate, per cent	Annual net interest income on funds at central bank, % of banks' profits	Characteristics of exemptions
Denmark	-0.47	-0.65	-2.04	Individual current account limits (on aggregate 32 billion krone)
Euro area	-0.35	-0.40	-1.91 / -2.18	Required reserves exempted from negative interest rates
Japan	0.07	-0.10	3.13	Three-tiered system; the BoJ maintains the balance of negative-interest tier between 10 and 30 trillion yen
Sweden	-0.54	-1.25	-0.35 / -0.36	Negative costs mitigated by the use of term claims remunerated at less negative interest rates
Switzerland	-0.23	-0.75	-4.58	Individual exemption thresholds (20 times reserve requirements in October-November 2014)

Note: Calculations for Hungary and Norway are not presented as central bank negative interest rates effectively do not apply in these two countries. For further details see Box 1.2 in June 2016 Economic Outlook.
Source: National central banks; Statistics Denmark; Japanese Bankers Association; and OECD calculations.

References

OECD (2016), *OECD Economic Outlook*, Volume 2016, Issue 1, OECD Publishing, Paris.
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