Economic Comment

Panta rhei - about the expected increase in liquidity

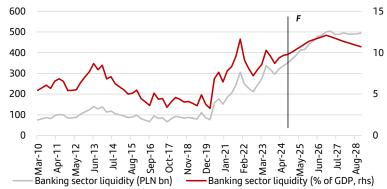
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Despite the upcoming domestic bond redemptions from the NBP balance sheet, we expect the liquidity of Poland's banking sector to continue to grow in the coming years. We estimate a total increase in liquidity of about PLN 150-200 bn by 2028, mainly in the next 2 years. We assume that this upward trend will mainly be the result of further significant growth in foreign exchange reserves. Record high foreign currency inflows into the Ministry of Finance's accounts from EU funds and foreign currency issuance are likely to be mostly exchanged at the central bank. Gradually maturing bonds in the NBP's portfolio will limit the banking sector's liquidity growth, as will further growth in cash in circulation. In the baseline scenario, we do not assume accelerated direct sales of bonds from the NBP balance sheet (totalling PLN 135 bn) to the market. Such a move would lead to a faster reduction in excess liquidity and negatively affect the debt market. Large excess liquidity of the banking sector will favour keeping the Polonia rate closer to the NBP deposit rate than to the reference rate. The increase in excess liquidity in the face of the ECB's balance sheet reduction may work towards a weaker zloty, but this effect is likely to be more than offset in the coming quarters by other factors such as an increase in the rate disparity versus the euro area. We expect the surplus of foreign currencies in the banking system to contribute to keeping basis swap rates at slightly positive levels at least for longer tenors.

The Polish banking sector has been in a state of structural excess liquidity for many years, which means a systematic surplus of funds held by commercial banks after they meet their reserve requirements.

As a rule, changes in the banking sector's liquidity depend mainly on the flow of funds between the central bank and the commercial bank sector. However, this can be broken down into several main factors: (1) liquidity increases with the growth of foreign exchange reserves resulting from the NBP's exchange of foreign currencies into zlotys for the Ministry of Finance and other entities (2) an increase in liquidity can be generated by structural open market operations (SOOR), i.e. the central bank's purchase of debt securities from the secondary market - this is what happened in 2020-21 as part of so-called quantitative easing (QE) (3) banks' liquidity is reduced by an increase in cash in circulation. Analogously, (4) an increase in the balance of mandatory reserves held by banks with the NBP works toward lower liquidity. Finally, liquidity is altered by flows between the NBP and the banking sector, resulting from: (5) central bank's interest payments on funds held by banks in the current account and in money bills (increase in liquidity), (6) receipt by the NBP of interest on debt securities purchased under the SOOR (decrease in liquidity), (7) transfer of the NBP profit to the budget (increase in liquidity), (8) changes in the value of public sector deposits held at the central bank. In recent years, factors (1), (2) and (3) have been decisive, the impact of the others has been much smaller.

Banking sector liquidity (% GDP)

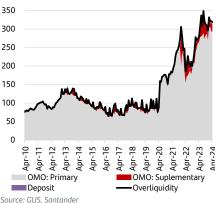


Source: NBP, GUS, Santander

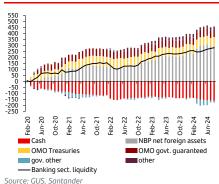
29 October 2024



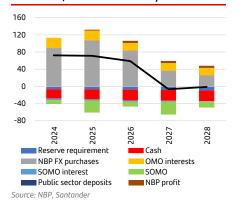
Banking sector liquidity, PLN bn



Change in banking sector liquidity (2020-2023), cumulative change in billion zloty



Banking sector liquidity forecast (PLN bn y/y, 2024-2028, Santander forecast)



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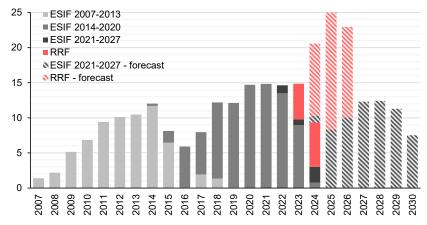
In mid-2024, the banking sector's total liquidity was about PLN330 bn, while in December 2019 it was about PLN90 bn, or less than a third of the current value. During this period, the sector's liquidity increased from 3.8% to 8.8% of GDP and from about 4% to 10% of banking sector assets.

We expect a further increase in liquidity of about PLN 150-200 bn over five years, with the largest increase likely to occur in the next two years.

Substantial growth in foreign exchange reserves

The biggest contributor to this, in our opinion, will be the significant increase in the NBP's foreign exchange reserves. We assume an inflow of EU funds to Poland of about €112 bn in 2024-2030. At the same time, the finance ministry will most likely still receive about €4-5 bn a year each from the sale of CO2 emission rights. In addition, after several years of reducing foreign currency debt, the finance ministry has increased foreign emissions to reduce pressure from the local market. The draft budget for 2025 envisages net issuance of foreign currency debt in 2024 at about €6.6 bn, and about €10 bn in 2025. Although the latest Debt Management Strategy for 2025-2028 assumes a gradual decline in foreign currency debt in total Treasury debt to about 21.1% in 2028, this does not preclude the maintenance of positive net foreign currency debt issuance. This follows 2-3 years of increased foreign exchange in the market (about EUR 3.3 bn in 2021, about EUR 7.3 bn in 2023 and EUR 4.5 bn in 2024). The Ministry of Finance is much less active in the market this year, and most of the funds are likely to be exchanged at the NBP. We assume that in view of the strength of the zloty, the Finance Ministry will exchange the vast majority of foreign currency funds directly with the central bank in the coming quarters as well, in an effort to avoid potential excessive pressure to strengthen the zloty.

Expected inflow of EU funds, EUR bn



Source: European Commission, Santander

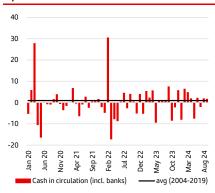
We estimate that the NBP's foreign exchange reserves could grow by approximately €1-1.5 bn per month over the next 2 years, and then at a slightly lower rate (about €5-8 bn per year) assuming a reduction in foreign currency inflows.

In view of this, we expect that the contribution to the growth of liquidity in the banking system from the increase in foreign currency reserves could be up to PLN 300 bn over the next 4-5 years.

Gradual maturity of domestic bonds in NBP portfolios

The increase in (excess) liquidity will, in turn, be mitigated by a gradual reduction in the portfolio of bonds in the NBP's balance sheet, bought under the QE program. As part of its structural open market operations (SOMO), the NBP bought Treasury and Treasury-guaranteed bonds for about PLN 145 bn, i.e. ca. 4.5% of GDP, from March 2020 to November 2021. Assuming that in the following years - as has been the case so far - the NBP will not actively manage the portfolio of bonds it holds, but will only allow it to expire gradually, according to the maturity dates, the excess liquidity of the banking sector will decrease on this account by about PLN 131 bn 2030. Around PLN 4 bn of bonds from the NBP's portfolio will mature later this year (in December). More significant redemptions will occur in 2025. The last debt

Cash in circulation (outside banks), PLN bn m/m

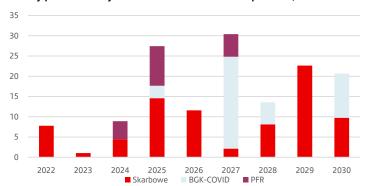


Source: NBP, Santander



securities will be redeemed in 2030, and half of the current NBP portfolio will be redeemed by 2027.

Maturity profile of zloty denominated bonds in NBP's portfolio, PLN bn



Source: NBP, Santander

Further increase in cash in circulation

The growth of liquidity in the banking sector will also be hampered, according to our projections, by the continued growth of cash in circulation, which is primarily the result of moderately fast nominal GDP growth. The fact that a lot of cash flowed out of the banking system in recent years during the pandemic period and at the start of the conflict in Ukraine may to some extent restrain the growth of cash in circulation as some cash may return to the banking system, assuming no significant external shocks. Such a trend would be fostered by keeping central bank interest rates at realistically high levels for an extended period of time, as well as improving consumer sentiment and the allocation of cash to consumption. The share of cash in GDP has recently retreated quite markedly from post-pandemic peaks (from about 13% in 2020 to about 10.6% in mid-2024), and we expect the ratio to stabilize near 10.5% in the coming years. As a result, we assume that the growth of cash in circulation over the next 5 years will be about PLN 90 bn, which will have a limiting effect on the growth of liquidity in the banking sector.

Stabilization of the reserve requirement rate

The reserve requirement rate was temporarily lowered during the pandemic period, which generated additional liquidity in the interbank market. The NBP reduced it from 3.5% to 0.5% in April 2020, then raised it to 2% by the end of November 2021 and restored to 3.5% in April 2022. A 1 percentage point reduction in the reserve requirement rate is equivalent to a change in the sector's liquidity by roughly PLN 15-20 bn.

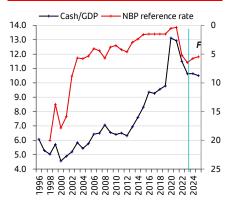
Assuming that the reserve requirement rate is maintained at the current level, we forecast an increase in the NBP's current account reserve balance by about PLN 8 bn per year over the next 5 years. This will be due to the projected growth of non-financial sector deposits and will limit the growth of banking sector liquidity.

Impact of excess liquidity on the money market and the zloty

Structural excess liquidity in the zloty has kept the Polonia rate permanently below the reference rate. During periods of increased risk aversion (2008-2009) and after the start of asset purchases in 2020, the Polonia rate approached the deposit rate moving away from the reference rate. Since the outbreak of the pandemic, the significant increase in liquidity, the reduction in rates and the narrowing of the corridor between the reference rate and the deposit rate, the Polonia rate has been at roughly similar distances from the reference rate and the deposit rate. The long-term trend of further increase in excess liquidity should favor keeping the Polonia rate somewhat closer to the deposit rate.

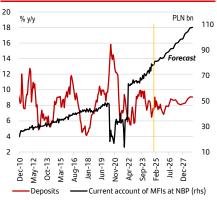
The NBP's estimate also indicates that a 1% increase in NBP assets relative to those of the ECB leads to a weakening of the zloty against the euro by about 0.4% over 6 months. ¹ We looked at the series of changes in the level of the NBP's domestic assets and the ECB's excess liquidity

Cash in circulation (outside banks), % of GDP



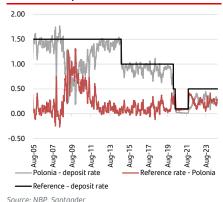
Source: NBP, GUS, Santander

Deposits in the banking sector (% y/y), MFI's current account at the NBP (PLN bn)

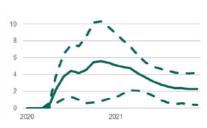


Source: NBP, Santander

Polonia vs. deposit and reference rate



Estimates of impact of the Structural Open Market Operations program to the zloty (increase means currency depreciation)



Source: NBP, Santander

¹ Impact on the Polish economy of the Structural Open Market Operations programme conducted by NBP, NBP, Warsaw 2021, https://nbp.pl/wp-content/uploads/2022/10/343_en.pdf



and do not see much correlation between the difference in the dynamics of these quantities and changes in the zloty's exchange rate. However, if we assume the assumptions implied by the estimates from the NECMOD model referenced in the NBP note, a gradual reduction in ECB assets and an increase in zloty liquidity should generally result in a slightly weaker zloty. In view of the fact that other factors, such as faster economic growth, an increase in the interest rate disparity vis-à-vis the euro area, or high inflows of EU funds, should contribute to a stronger zloty, we ultimately assume that the zloty's exchange rate against the euro will remain relatively stable over the next quarters.

In the case of FX liquidity, it is true that the excess of FX in the banking system has interacted in the direction of higher basis swap rates in recent years, but perhaps more important in this regard was the scale of FX bond issuance by domestic companies (banks under MREL requirements and other companies in the face of greater foreign market liquidity) or increased forward and FX swap market activity by corporates in hedging transactions². In view of the likely smaller scale of FX bond issuance this year and next relative to 2023 (MREL issuance requirements met), more stable economic domestic, external environment and zloty exchange rate, we do not expect spikes in basis swap rates in the coming years, although excess currencies in the system may keep them at elevated levels for longer-term tenors. Shorter tenors may be reduced to lower levels by opposite FX swap operations by domestic investment funds.

No major structural changes

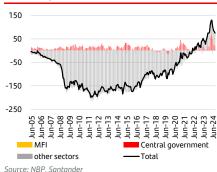
We do not expect significant structural changes to the banking sector's liquidity management. Unlike in the euro area or the United States, the Polish banking sector has operated for many years under conditions of excess liquidity and there is no memory of its shortage, so there is no need to return to such a situation as in the US or the euro area. In many analyses, the topic of the advantages of a system of liquidity shortage in the banking sector facilitating the maintenance of the ON rate around the reference rate instead of the deposit rate comes up. The advantage of such a system would probably be better development of the money market, provided that effective work is done to restore confidence and trade in the interbank market. The effective functioning of the money market would also likely require the abolition of the bank tax. Excessive reduction of excess liquidity in the face of restrictions on interbank market trading could adversely affect the functioning of the market.

A possible rapid sell-off of Treasury bonds as part of quantitative tightening, which was mentioned at one time by a member of the MPC (I. Dąbrowski), would lead to a much faster decline in excess liquidity. In view of the high borrowing and issuance needs next year, a rapid reduction of the NBP's fairly substantial bond portfolio would lead to significant weakness in the debt market and an increase in asset swap spreads. The effect of a faster reduction in the NBP's balance sheet than the ECB's would suggest a strengthening of the zloty.

For the time being, we view quantitative monetary tightening through direct bond sales in the market as a risk scenario with a relatively low probability. In the case of accelerated bond sales, the effect could be correspondingly greater than in the situation of gradual redemptions. However, just as one of the goals and effects of the asset purchase programs was to stabilize the situation in the financial markets, so sudden sale of bonds from the NBP's balance sheet in a manner that is not very transparent to the market and would be destabilizing. In view of this, we believe that the NBP would rather avoid such actions.

We do not expect the introduction of a long-term NBP bonds for banks. Such an operation might not be preferred by the banks themselves in view of the need to maintain greater liquidity in the face of greater market segmentation and money market constraints. Moreover, it can be assumed that such bonds issued by the central bank would have to bear correspondingly higher interest rates than analogous Treasury bonds to offset the effect of the bank tax. At the same time, the issuance of more attractive NBP bonds could exert pressure toward higher Treasury bond yields. From the NBP's point of view, the issuance of long-term bonds would likely imply a higher cost, as the average yield on 10-year Treasury bonds has been on average more than 1 percentage point higher than the reference rate over the past several years. At the same time,

FX liquidity (difference between FX deposits and loans), PLN bn

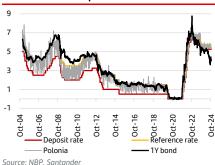


Basis swap rates

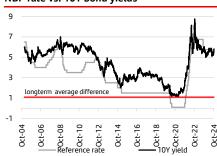


Source: NBP, Santander

Polonia rate vs. deposit rate vs. reference rate



NBP rate vs. 10Y bond yields



Source: NBP, Santander

² https://nbp.pl/wp-content/uploads/2024/03/fsd 2022.pdf https://nbp.pl/wp-content/uploads/2024/02/RozwojSystemuFinansowegowPolsce 2022.pdf



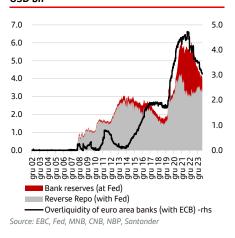
we assume that over the next few quarters the bond curve will change shape and steepen with rate cuts.

In turn, the issuance of NBP bonds for the non-banking sector would also mean direct involvement in corporate and individual banking. The interest rate on such bonds for households would have to be close to that of Treasury retail bonds. At the same time, redirecting household demand for NBP bonds from retail or wholesale Treasury bonds could also potentially put upward pressure on wholesale Treasury bond yields.

Summary

All in all, we expect a gradual increase in the banking sector's excess liquidity in the next few years in the order of PLN 100-200 bn, which will result primarily from the inflow of EU funds. This will interact with a slightly weaker zloty and will favour the Polonia rate to be close to the NBP deposit rate. Accelerating quantitative monetary tightening could constrain both GDP and inflation, but such solutions could be too destabilizing for the financial market. In view of the smooth functioning of the excess liquidity regime, we also do not expect the introduction of non-standard instruments that change the structure of liquidity absorption, the issuance of NBP bonds for the banking sector or non-banking.

Over-liquidity of the banking sector, EUR and



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