Bank of Russia
The Central Bank of the Russian Federation

Money stock composition and inflation risks
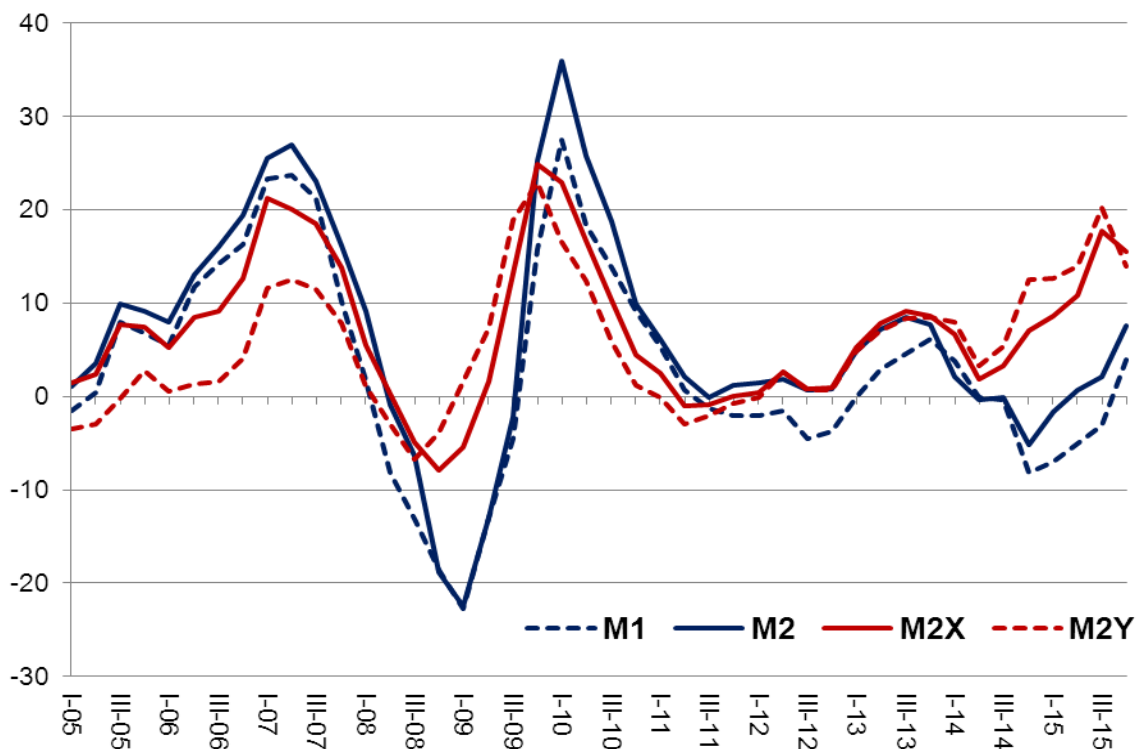
Revaluation of ruble value of foreign currency deposits and use of the Reserve Fund to finance budget deficit resulted in fast growth of broad money supply. The related inflation risks are currently moderate given that the money stock components with the fastest growth rates are not closely related to the aggregate demand. Nevertheless, inflation risks may increase in future if demand for liquid components of money supply grows and the composition of M2Y monetary aggregate returns to its 2011-2013 average values. We estimate that in this case the annual growth of household expenditures on final consumption may go up by 1.5 pp within two years, which may have negative inflation spillovers in 2017-2018.

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Over the past few years, monetary developments in Russia were noticeably heterogeneous. Growth rates of broad money supply (including foreign currency-denominated components) were rather high and outpaced nominal GDP growth. As a result, growth rates of monetization ratio calculated using these indicators have reached their 5-year highs (Figure 1). At the same time ruble monetary aggregates showed lower growth, though having increased in the past quarters.

Figure 1. Monetary aggregate to GDP ratio[1]
(YoY growth, %)

Sources: Bank of Russia, Rosstat.

Two processes were the main drivers of money supply growth acceleration given subdued growth of credit. First, revaluation of the ruble value of foreign currency deposits and foreign cash following the ruble depreciation. Second, the use of the Reserve Fund to cover budget deficit. These factors can be considered as temporary[2] and are unlikely

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[1] Nominal GDP series are calculated basing on the current prices indicator in 2014-2015 and nominal GDP growth rate over the previous periods.
[2] Notably, the use of the Reserve Fund will continue to create money supply in 2016. Further impact of this factor on money supply will depend on the fiscal policy.

to cause the price stability to risks in the long term. Nevertheless, the realized increase in money supply may have inflationary effect. In this note we will make an attempt to assess the related risks.

Apparently, ruble aggregates M2 and especially M1 are more liquid than other M2Y components. They are used to finance transactions and reflect the dynamics of the aggregate demand. However, until recently, money supply mostly grew through other, relatively less liquid components (Figure 2). As a result, as of the end of 2016 Q1 the share of M1 in M2Y dropped to 31% and the share of M2 fell to 67% (in 2011-2013, these shares stood on average at 41% and 82% respectively). The share of money stock owned by the households in the total volume of M2Y also declined to 54% (58% on average in 2011-2013).

Figure 2. M2Y composition
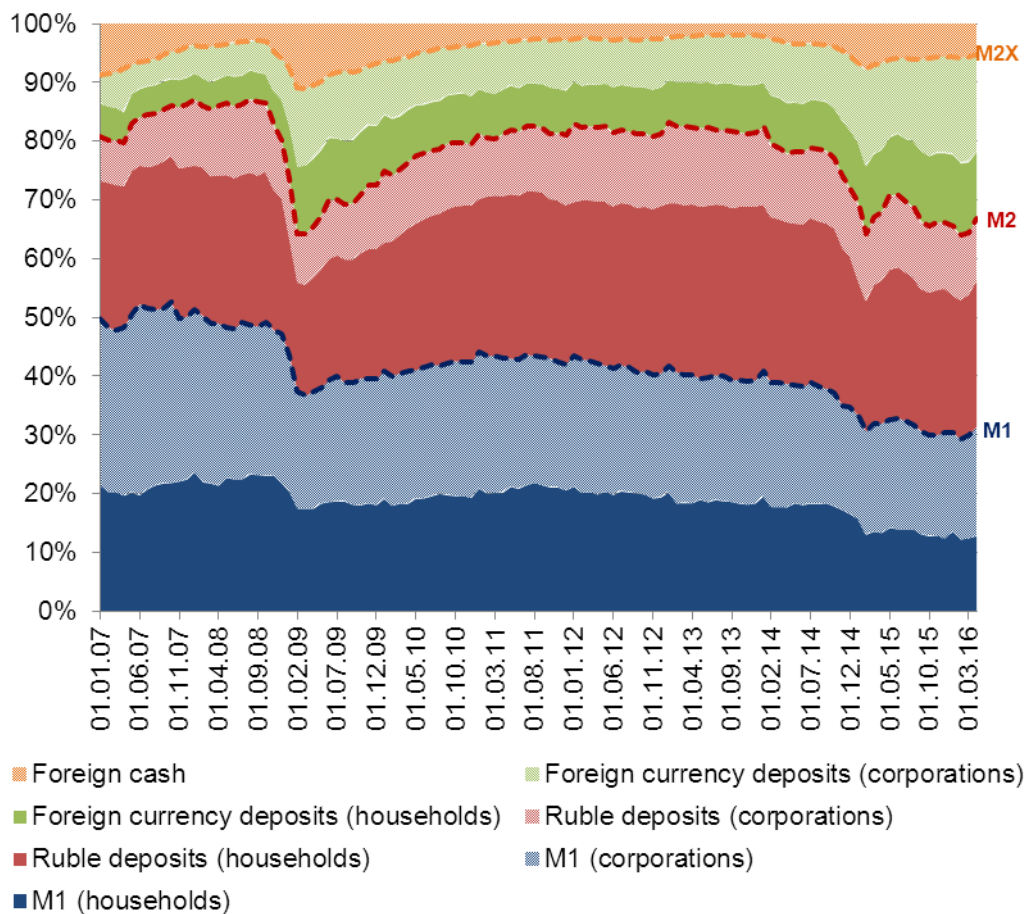
Source: Bank of Russia.

These developments are not unexpected: growing economic uncertainty and increased propensity to save increases demand for less liquid but higher-yield components of money stock (see, e.g., Ponomarenko et al. (2012)). Demand for FX components during this period was also driven by the expected ruble depreciation. Such change in the composition of money supply was observed in 2009. Notably, the share of liquid components in M2Y had grown considerably in 2010-2011 when the economic environment was back to normal. The latter came to be used in funding transactions which create the aggregate demand in the economy, thus triggering a short-term but still noticeable acceleration in demand growth. Importantly, inflation also accelerated during that period, though it would be inappropriate to track a direct cause-and-effect relation between these phenomena without additional analysis.

Provided that economic agents could demonstrate similar behaviour should the economic situation be back to normal, we try to estimate in quantitative terms the possible growth in nominal consumer expenditures if demand for liquid components of money supply and their share in money stock go up.

For this purpose we use the BVAR-model (Deryugina and Ponomarenko (2015)). Figure 3 presents the projected growth rates of nominal consumption of households. Given the set of assumptions (see the Appendix for details), the expected growth rate of this indicator after 2016 stands at about 6.5% YoY. However, when the composition of money stock is changing and during one year following this change, annual growth in consumer expenditures accelerates by about 1.5 pp. Such a surge in consumer demand may result not only in output growth, but also in price growth, driving inflation risks up in 2017-2018 and complicating the achievement of the 4% inflation target.

Figure 3. Projected YoY growth rates of nominal consumption of households and their confidence band (%)
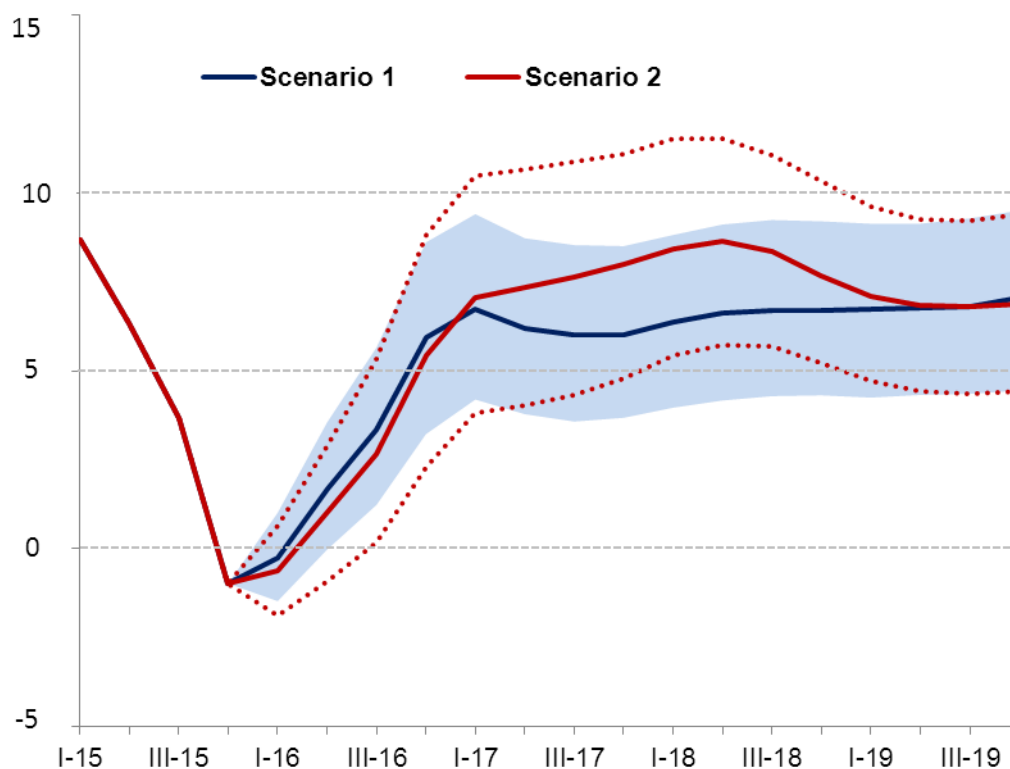
Source: Bank of Russia Research and Forecasting Department calculations.

Appendix: Model and scenario assumptions

The model includes 16 variables: 2 external indicators (oil price and OECD GDP), 3 nominal economic activity indicators (GDP, household consumption and fixed capital formation), 2 asset price indicators (housing prices and equity prices), 2 credit aggregates (loans to non-financial organisations and households), and 7 money stock components presented in Figure 2. The model was estimated basing on quarterly data for the time sample from 2001 till 2015.

We calculate the growth rates of nominal consumption of households in 2016-2019 for two hypothetical scenarios. In both cases oil price stands at $40 per barrel, OECD GDP grows by 2% YoY, and lending increases by 5% in 2016 and 10% in 2017-2019. The scenarios differ by changes in the composition of money supply.

In the first scenario, M2Y and all of its components grow by 10% YoY. Thereby, the composition of money supply remains unchanged.

In the second scenario, M2Y also grows by 10% YoY, but its structure changes so that by the end of 2017 it reaches the average values observed in 2011-2013. This implies that the average annual growth of M1 in 2016-2017 will be 31%, M2 will grow by 24%, and the FX component will shrink by 21% YoY. Meanwhile, M2Y will go up by 13% YoY in the household sector and by 6% YoY in the corporate sector. In 2018-2019, all components grow by 10% YoY like in the first scenario.

References:

Deryugina E. and A. Ponomarenko (2015), 'Accounting for Post-Crisis Macroeconomic Developments in Russia: A Large Bayesian Vector Autoregression Model Approach', Emerging Markets Finance and Trade, vol. 51(6), pp. 1261-1275.

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