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A Brief Assessment of Russia’s Treasury Bill Market
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The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Bank of Finland.
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A Brief Assessment of Russia’s Treasury Bill Market

Abstract

Russia’s treasury bill market has taken off in recent years. The volume of outstanding stock has grown manyfold, so that the volume of trading on the secondary market is now enough to ensure liquidity. The yields of treasury bills, which once fluctuated wildly in response to trends in inflation and political uncertainty, have now settled to low enough levels where they may actually help stabilize Russian financial markets. If this happens, we may soon expect to see increasing investments in production capacity.

The T-bill market is mainly regulated by the Central Bank of Russia, which uses treasury bills as an instrument of monetary policy. Meanwhile, the government of the Federation of Russia has increasingly sought to use the T-bill market as a source of revenue. As the Central Bank of Russia will no longer extend direct credit to the government, inflation has naturally fallen. However, if there are to be further cuts in the yields of treasury bills, the government would probably have to curtail its borrowing. For this to happen the government must cut expenditures even further or improve its tax collection systems.

Keywords: treasury bills, Russia, government debt

1 Introduction

The Russian treasury bill market has developed briskly in recent few years. Here, we will deal with institutional and regulatory changes which have affected the market, and track the developments both in the volume and yields of the market.

In fact, during the last two years, the treasury bill market has become an integral part of Russian capital markets. The government has used the market extensively to finance the budget deficit, often offering quite high yields to bondholders.

The second chapter examines the development of the volume and importance of the treasury bill market from its inception. Chapter three describes how the yields of the treasury bill market have developed. Then the regulatory environment of the market is examined. Chapter five deals with actual trading practices of the market, and Chapter six offers concluding remarks.
was conducted in May 18, and trading on the secondary market commenced May 26.

The treasury bill market was pretty slow during 1993. Only nine auctions of treasury bills were arranged, and eight of these were for three-month bills. The Ministry of Finance raised 176.3 billion roubles from the market — only 1.5 % of the budget deficit in 1993. The relatively low volume of issues reflected the lack of liquidity in the secondary market for the treasury bills. The gross turnover of treasury bills on the secondary market in 1993 was only 123 billion roubles. This lack of secondary market activity may have reflected the exclusion of foreigners from trading, since foreigners were only allowed to participate in the treasury bill auctions.

According to Central Bank of Russia (1995) the activity in the treasury bill market picked up somewhat in 1994. Of 31 auctions, 18 were for bills with maturities of three months, 10 for six months, and three for twelve months. The total revenue from these auctions was about 12.9 trillion roubles, and the market value of the outstanding stock of treasury bills at the end of the year was 8.8 trillion roubles (approximately US$2.5 billion or 1.4 % of GDP). According to Malievsky (1996) net revenues from short-term government securities accounted for 9 % of the budget deficit in 1994. (Government savings bonds with maturities of less than two years are also included in this figure, but their amount has always been minuscule in comparison to treasury bills. For example, in 1995 their volume was only 5 % of the volume of treasury bills.) Thus, while the importance of treasury bills in financing the budget deficit increased somewhat, it still remained fairly low.

Trading on the secondary market in 1995 livened up, with gross turnover reaching 17.5 trillion roubles. The Central Bank of Russia participated in the secondary market for treasury bills, and thus the market provided it an additional instrument for monetary policy. (This meant, of course, that the Central Bank of Russia was in effect extending additional loans to the Federation of Russia.) The treasury bill market has also been used to provide liquidity to the Russian banks.

In 1995, the Russian treasury bill market grew very rapidly. Quite obviously, the main reason for the expansion in the volume of treasury bills outstanding was the desire to significantly reduce central bank lending as an instrument to finance the budget deficit. During the two previous years, Russia had experienced very high inflation as the Central Bank of Russia extended substantial credits to the government and directed credits to borrowers designated by the government. The policy of reducing central bank lending in order to curb inflation proved successful with 12-month inflation rate declining to 131 % in December 1995 from 215 % in January 1995. The Central Bank of Russia also began to use the treasury bill market to improve the liquidity of the banking system. In August 1995, the Russian banking system faced a temporary shortage of liquidity, which raised the interbank interest rates to very high levels. According to Khandruev et al (1996) the Central Bank of Russia bought 1.6 trillion roubles (US$400 million) worth of treasury bills from the commercial banks in order to inject liquidity into the banking system. In addition to this the Central Bank of Russia extended seven day credits worth of 300 billion roubles (US$ 65 million) to the banks.

T-bill auctions were held practically every week in 1995. The majority of auctions were for three-month bills and the nominal value of three-month T-bills issued during 1995 was almost 100 trillion roubles. Treasury bills with maturities of six months were issued once a month on average. The nominal value of six-month T-bills issued was almost 30 trillion roubles. The Russian government also issued treasury bills with other maturities, but the volume of these was quite small, apparently less than 5 trillion roubles. As a result of this increased activity, the share of the budget deficit financed by treasury bills rose. At the end of 1995 the market value of the outstanding stock of treasury bills was 66.4 trillion roubles (US$14.3 billion or 3.5 % of GDP). Net revenues from short-term government securities financed approximately half of the entire budget

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1 Of course, the two figures need to be adjusted for inflation. 1994 inflation (from December 1993 to December 1994) was 224 %. If one deflates the 1994 proceeds from treasury bill auctions with this, the real increase in the volume of treasury bills issued was 'only' 22-fold.

2 Author's own calculations.
deficit. Thus the treasury bill market had become extremely important for the Russian Federation.

At the beginning of February 1996, the Central Bank of Russia allowed foreigners to participate in the secondary market for treasury bills, thus allowing the Russian Federation to tap into the treasury bill market even more. The central bank’s tight monetary policy forced the government to finance the budget deficit by other means than central bank loans. The Russian Federation’s reliance on the treasury bill market grew in 1996 from 1995, even though it received US$ 340 million a month from IMF as a part of Extended Fund Facility (though it must be noted that two monthly tranches were delayed because of problems in tax collection). The weekly T-bill auctions continued in 1996 with the emphasis switched to longer term borrowing, mainly through six-month treasury bills. Also T-bills and savings bonds with longer maturities were issued, especially after President Yeltsin’s successful heart bypass surgery. During 1996 the nominal value of all treasury bills issued was approximately 370 trillion roubles. On 10 January 1997 the nominal value of outstanding stock was 241.6 trillion roubles (US$43.2 billion or approximately 9% of GDP), and its market value was 224 trillion roubles (US$40 billion).

3 Yields

Yields on the Russian treasury bills have been very high except during the last months of 1996. During the first year of Russian treasury bill market the annualized nominal yield on three-month bills first rose from 94% to 192%, falling thereafter. The main reason for these high nominal yields is obvious: the high and volatile inflation induced investors to demand higher return on their investment. One should bear in mind that at this point that the monthly inflation was fluctuating widely, from 9% in August 1993 to 26% in December of that year. For example, while the three-months treasury bill which was auctioned in August had an annualized yield of 94%, inflation during the three months from August to November was running at an annualized rate of over 750%!

Thus high nominal yields could not guarantee positive real return, and it was hardly surprising that yields on treasury bills rose as much as they did.

Chart 1 displays the monthly inflation in Russia from August 1993 to December 1996. We can discern two periods of very high inflation, the last four months of 1993 and the autumn of 1994. These periods also correspond to high nominal yields. Highest nominal yields were recorded at the end of 1994 and beginning of 1995, when the nominal annualized yield of three-month treasury bills rose to over 300 per cent. These two inflation peaks correspond to considerable growth of credits from central bank to the government. Since early 1995 the inflation rate has clearly been declining. This is reflected in treasury bill yields. Chart 2 depicts the development of three-month treasury bill yields at auctions and the nominal value of bills issued per month. We can clearly see how the yields decreased dramatically during the first half of 1995 as the Central Bank of Russia reigned in inflation. Yields started to rise again during the second quarter of 1996 as the presidential race gathered momentum and investors demanded additional risk premium for the increased political risk. The period before the elections also saw a build-up of tax arrears, and all presidential candidates gave promises which, if fulfilled, would have caused huge budget deficits. These factors naturally put the solvency of the Russian Federation into doubt.

After the presidential election, the yields on government securities decreased drastically. Just before presidential elections the yield on three-month treasury bills peaked at 150% and the yield on six-month T-bills at over 200%! In a little over a month, both yields were clearly under 100%. After this the yields have generally been on a downwards trend. At the end of 1996 the yield on three and six-month treasury bills was under 40%. Yields have come down as a result of lower inflation and inflation expectations, to which the current crawling peg exchange rate regime, where

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3 Author’s own calculations.

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4 The Russian stabilization policies during 1992–1994 were not very consistent. For a survey of Russia’s economic policies during the years in question, see for example Sachs (1995).
Chart 1

Monthly inflation

Chart 2

The monthly average yield and the volume of three-month treasury bill auctions
Table 1  
Dollar yields of Russian T-bills for foreign investors

<table>
<thead>
<tr>
<th>Guaranteed dollar yield</th>
<th>Effective from</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 %</td>
<td>August 15, 1996</td>
</tr>
<tr>
<td>16 %</td>
<td>October 16, 1996</td>
</tr>
<tr>
<td>13 %</td>
<td>December 5, 1996</td>
</tr>
<tr>
<td>12.5 %</td>
<td>January 16, 1997</td>
</tr>
</tbody>
</table>

Source: Various Reuters news wires.

the rouble depreciates at a previously announced rate, has probably contributed a great deal.

These positive developments have also affected Russian capital markets in other ways. The lower interest rates have made Russian equities more attractive investments, and this has been reflected in their prices and the volume of trading. The boom of January 1997 wouldn't have been possible without a considerable reduction in interest rates in the preceding months.

One should bear in mind that the high nominal yields on Russian treasury bills have been legally available only to Russian investors. At first foreign investors were allowed to participate only in treasury bill auctions, and when they were allowed to participate in the secondary market in August 1996, the dollar yield was directly set by the Central Bank of Russia. When a foreign investor buys a Russian treasury bill, he has to simultaneously sell forward roubles at a price set by the Central Bank of Russia. First this guaranteed dollar yield was 19 %, but currently it stands at 12.5 %. Table 1 lists the treasury bill yields for foreign investors.

4 Regulation of the Russian treasury bill market

There is very little actual legislation solely concerning Russian treasury bills. The Civil Code distinguishes state debt instruments from those issued by corporations, and thus they can be regulated differently. In practice, the treasury bill market is regulated by governmental resolutions and instructions given by both the Central Bank of Russia and the Ministry of Finance. According to Connor (1996) the Russian government adopted Decree No. 78 in December 1991 which set out the basic scheme for regulating securities markets. This decree stipulates that the Ministry of Finance has the responsibility of regulating the securities markets and gives some guidelines for the regulation concerning equity markets in Russia.

In February 1993, the Russian Ministry of Finance issued Government Resolution No. 107, which lays down the basic framework for the issuance of treasury bills. It gives the Ministry of Finance the right to limit the share of foreign investors at every treasury bill auction. Most usually this limit has been 10 % of each tranche of T-bills. Resolution No. 107 also gives the Central Bank of Russia the right to regulate the treasury bill market in consultation with the Ministry of Finance.

The Central Bank of Russia has used this authority e.g. to define the basic structures of the T-bill market. Resolution No. 02–125 in turn establishes the structure of the market and defines the major participants. Dealers in the treasury bill market are defined as investment firms who have made an agreement with the Central Bank to act as dealers in the market. They can trade in the market both for their own account or as an intermediary for other investors.

The Central Bank of Russia also has limited foreign participation in the secondary treasury bill market by restricting the types of rouble accounts

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5 This section relies heavily on Vinokurov & Kolleeny (1996).
foreign entities can open in Russian banks. This restriction was put in place by Central Bank Instruction No. 16. As mentioned in Section 2, the foreign participation in the secondary market for treasury bills was allowed only in August 1996. According to Vinokurov (1996) the Central Bank of Russia issued Order No. 02–262 which allowed the foreign investors to trade Russian treasury bills, and at the same time capped the dollar yield. Foreign investors must open a special account for this purpose in a Russian bank designated by the Central Bank of Russia.

The Commission for Securities and Stock Exchanges of the President of the Russian Federation was established in 1992. It had no real powers and acted only as an interagency consulting body. The organizational set-up of the Commission changed in November 1994, when the Federal Commission for the Securities Market was created by presidential decree. This Commission was designed to be responsible for regulating capital markets. However, its powers and responsibilities were somewhat unclear until the Securities Market Law was adopted in April 1996. The Commission deals primarily with issues concerning the equity market, company reporting etc.

5 Dealing in Russian treasury bills

5.1 T-bill auctions

Russian treasury bills are, as a general rule, auctioned every week on Wednesday. Holidays may move the auction from its usual date. Usually there is only one auction per day, but occasionally treasury bills of two different maturities are offered on the same day.

All dealers (as defined in the Central Bank Resolution No. 02–125) can participate in treasury bill auctions. At the auctions, dealers submit bids specifying the amounts they are willing to buy and the prices they are willing to pay for the corresponding amounts. The Ministry of Finance accepts bids starting from the highest price (i.e. the lowest yield) until it has received the amount it wants to borrow. When the bids have been evaluated, the trades are executed. According to Malievsky (1996) dealers can also submit non-competitive bids, where the dealer announces the amount of treasury bills she is willing to buy at the average price.

The bids at the treasury bill auctions tend to be quite concentrated in normal times (i.e. times when the price changes from previous auction are not very large). For example, during the latter half of 1996 (i.e. after the presidential election) the average price and the lowest accepted price have differed by more than 0.5 percentage point in only a handful of auctions. During 1995 bidding was also concentrated in the same fashion. However, it should be noted that before the presidential auctions the spread between the average price and lowest accepted price widened considerably as yields rose dramatically.

Another feature of Russian treasury bill auctions is the role of the Central Bank of Russia. Central Bank of Russia is allowed to buy T-bills at the average price of the competitive bidding. Central bank participation in treasury bill auctions is not altogether uncommon in international comparison (e.g. a survey by Bartolini & Cottarelli (1994) found that in 31% of their sample of 42 countries, the central bank was allowed to participate in treasury bill auctions).

5.2 The secondary market

Trading of treasury bills on the secondary market is conducted through dealers. In practice, almost all secondary trading takes place at the Moscow Interbank Currency Exchange (MICEX). According to Malievsky (1996) six regional exchanges are linked to the trading system, but trading through them is small. Here the treasury bill market only reflects the concentration of all Russian financial markets to Moscow. Trading in treasury bills is conducted electronically through MICEX, which also acts as a centralized depository. The present trading system has been in place since June 1994.

According to Khandruev et al (1996), there were 271 licenced dealers on the short-term government securities market as of the middle of 1996. Most of these dealers were commercial banks. It is worth noting that the Central Bank of is quite active in the secondary market for treasury bills, which is reflected in the pattern of ownership of treasury bills.
Table 2  
Ownership shares of the stock of outstanding T-bills

<table>
<thead>
<tr>
<th></th>
<th>1 May 1995</th>
<th>1 January 1996</th>
<th>1 July 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Bank of Russia</td>
<td>25.2 %</td>
<td>36.6 %</td>
<td>37.3 %</td>
</tr>
<tr>
<td>Sberbank</td>
<td>24.8 %</td>
<td>30.5 %</td>
<td>40.7 %</td>
</tr>
<tr>
<td>Commercial banks</td>
<td>48.1 %</td>
<td>32.5 %</td>
<td>21.2 %</td>
</tr>
</tbody>
</table>

Source: Central Bank of Russia (1996)

Russia shares of the treasury bills of the Central Bank of Russia, government-owned Sberbank, and commercial banks.

One can see that the Central Bank of Russia and especially Sberbank increased their share of T-bill holdings in the months preceding the presidential election. In other words, the central bank can exert considerable influence over treasury bill yields in the short run. (Treasury bill purchases by the central bank naturally increase the base money, thus causing higher inflation in the long run.)

The average daily volume on the secondary market climbed to 1.5 trillion roubles (US$300 million) by the end of 1995. According to Khandruev et al. (1996) it has since remained at this level.

6 Concluding remarks

During the last two years, the Russian treasury bill market became an integral part of Russian capital markets. The volume outstanding has risen considerably and the government has been able to cover a significant share of its budget deficit by issuing treasury bills.

The large volume of public borrowing has undoubtedly had negative effects on the level of private investment in Russia. Real interest rates have been driven up so high that very few investment projects can be expected to offer the same rate of return. At the same time, the volatility of real interest rates has been quite high, meaning that the option value of waiting increases. This, in turn, depressed the level of investments even further. Now that the lower nominal and real interest rates prevail, there is a good chance that investments in production capacity will revive.

One factor in bringing the yields on treasury bills down has been the entry of foreign investors into the market. Barring foreigners from the market can be interpreted as an implicit subsidy from the state in the form of higher interest rate payments to the principal holders of treasury bills, i.e. Russian banks. Russia has maintained that it wants to avoid a sudden outflow of short-term capital à la Mexico, and has liberalized the market for foreigners cautiously because of this. The IMF, on the other hand, has insisted that foreign investors be allowed into the market without any obstacles. It appears that this year we will see some progress in this area.

If the current situation of relatively low inflation and stable political environment continues, the yields on treasury bills still have room to decline. This should have a positive impact on both private investments and the finances of the Federation, which could then pay lower interest on its outstanding stock of debt. Further, stable treasury bill yields could act as a benchmark for debt issued by municipalities and corporations. Finally, the treasury bill market would further increase its importance as a barometer of economic expectations.
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