GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.

ÁKK

DEBT MANAGEMENT OUTLOOK

2023

Budapest, December 2022

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- ### Net financing requirements in 2023

The deficit of the central government calculated **on cash flow basis** is planned at **HUF 3,200 billion** based on preliminary information. **According to the amendment of the budget law, the cash flow based deficit will amount to HUF 3400 billion** in 2023. This change in the deficit does not affect the issuance plan, only the balance of the Treasury Singe Account is affected slightly. The total cash-flow based net financing requirement for the year 2023 is equal to the deficit of the central government and other items, such as the balance of EU transfers. These other financing needs are considered items that are to be handled by liquidity management (e.g. with discount T-bills issuance).

- ### Government debt redemptions

The total amount of government debt redemptions and pre-financing in 2023 is planned at **HUF 8,460 billion**, out of which HUF 704 billion is the pre-financing of the coming years (planned domestic and international bond switches and buybacks). The maturity of government debt – excluding pre-financing – will amount to HUF 7,756 billion.[1]

	2023 plan (HUF bn)	2023 plan (EUR bn)
HUF debt maturities	6,958	17.0
Hungarian Government Bonds (HGB)	1,783	4.4
Retail securities	3,620	8.9
Discount T-bills	1,496	3.7
HUF loans	59	0.1
FX debt redemptions	798	2.0
International bonds	649	1.6
Domestic bonds	27	0.1
IFI and other loans	122	0.3
Total maturities	7,756	19.0
Switch auctions	408	1.0
FX bond buybacks	296	0.7
Total pre-financing	704	1.7
Total redemptions including pre-financing	8,460	20.7

The redemptions of HUF debt will amount to HUF 6,958 billion. FX debt maturities will amount to HUF 798 billion (EUR 2.0 billion). ÁKK will maintain active debt management, therefore switch auctions with a HUF 408 billion volume and up to USD 1 billion (HUF 296 billion with swaps) FX bond buybacks are planned in 2023.

Hungarian Government Bond redemptions will amount to HUF 1,783 billion (including the redemptions of the Hungarian Government Bond for local authorities), discount T-bill redemptions will amount to HUF 1,496 billion. The increased outstanding amount of discount T-bills is a result of purchases by households in 2022. Large part of the domestic debt redemptions, HUF 3,620 billion is the redemption of retail securities, but the

[1] ÁKK provides gross issuance and redemption data according to the methodology recommended by OECD, which takes redemptions of short-term securities - typically Treasury bills - only once into account to avoid multiple counting.

retail sector usually reinvests its maturing holdings and even increases the outstanding stock of retail securities. The redemption of HUF denominated IFI loans will amount to HUF 59 billion.

FX debt redemptions will total **EUR 2.0 billion** (HUF 798 billion), out of which international bond redemptions will amount to EUR 1.6 billion, domestic bond redemptions will amount to EUR 0.1 billion, while the redemption of IFI loans will amount to EUR 0.3 billion.

In order to reduce future refinancing risk and to increase the average term-to-maturity of the public debt, ÁKK plans to exchange domestic bonds (HUF 408 billion) maturing in later years (pre-financing) and to buyback US bonds (USD 1 billion) maturing in 2023 and 2024.

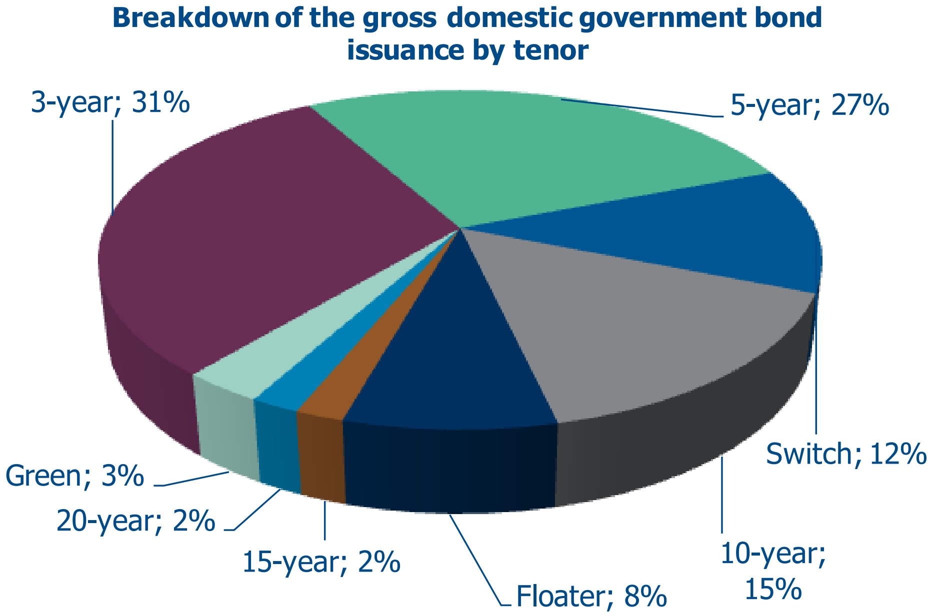
- **Gross issuance**

Total gross issuance is planned at **HUF 11,869 billion** in 2023, out of which 75 per cent (**HUF 8,895 billion**) in HUF and 25 per cent (**HUF 2,974 billion** or EUR 7.3 billion) in FX.

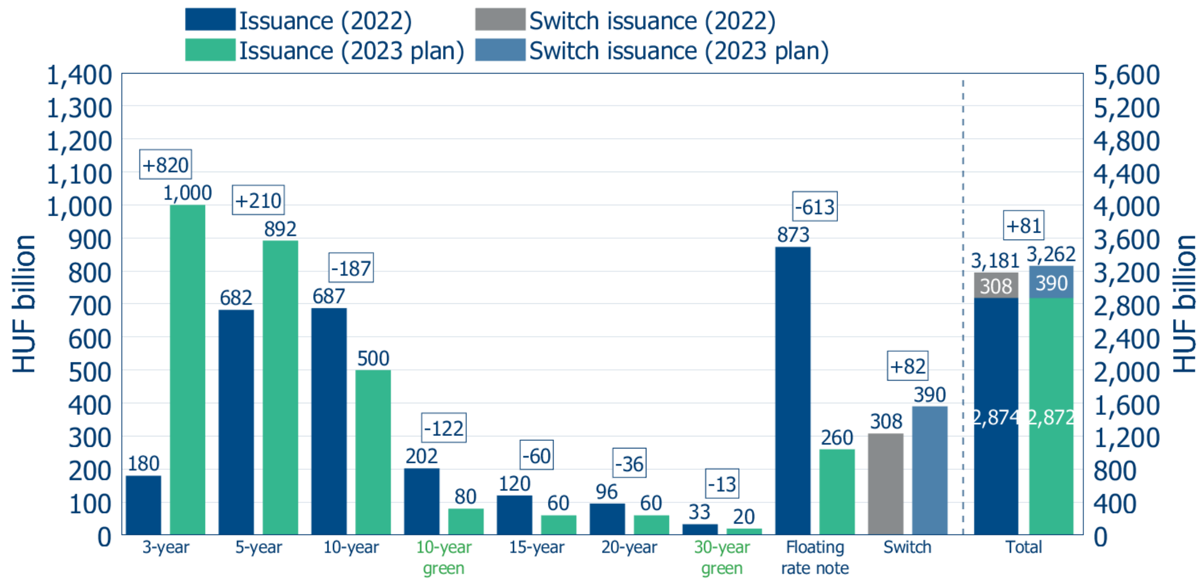
	2023 plan (HUF bn)	2023 plan (EUR bn)
Domestic issuance	8,895	21.8
T-bonds	2,872	7.0
Switch auction	390	1.0
T-bonds for local authorities	200	0.5
Retail securities	4,580	11.2
Discount T-bills	853	2.1
HUF loans	0	0.0
FX issuance	2,974	7.3
International bonds	1,987	4.9
IFIs and other loans	826	2.0
Other FX borrowing (e.g. domestic Bonds)	161	0.4
Grand total	11,869	29.0

HUF 2,872 billion worth of domestic currency government bonds will be offered at auctions (including non-competitive sales and the issuance of green bonds) and the plan contains HUF 200 billion issuance of Municipal HGBs. In addition HUF 390 billion of bonds is expected to be sold at switch auctions from the second half of the year, if the yield environment returns back to normal. Hungary's Green Bond Programme is going to continue in 2023 with a planned volume of HUF 100 billion of the 10- and 30-year tenors.

The strategic goal of ÁKK is minimizing funding costs in the long run taking risks into account, as well as the gradual smoothing of the maturity profile. Therefore, ÁKK will re-introduce 3-year fixed interest rate bond auctions in 2023. ÁKK will hold fixed rate bond auctions biweekly, the 3-, 5- and 10-year tenor bonds will be offered at the biweekly auctions. The floating rate bond will be offered less frequently, every four weeks due to the high interest rate environment and the benchmark for the fix-floating ratio, while the 15- and 20-year bonds as well as the 10-year green bond will be offered every four weeks alternately. ÁKK intends to issue the 30-year green bond only twice a year. Due to the high yield environment, the average term-to-maturity of HGB issuances is expected to decrease to 6 years from the 9-year figure of 2022.



ÁKK will launch a new 3-year bond series in 2023, while in the case of the 5-year tenor the 2028/A bond series will be reopened. In case of the 10-year, 15-year, 20-year tenor, the green bonds and the floating rate bond ÁKK will offer the same bond series as in 2022. ÁKK plans to restart the switch auction programme with a planned volume of HUF 390 billion from the second half of the year, if the yield environment returns back to normal. ÁKK will sell 3-, 6- and 12-month discount T-bills in 2023 (the 6-month tenor was re-started in September 2022).



Source: ÁKK; Note: Factual 2022 and planned 2023 values

ÁKK plans to issue a gross amount of up to 4 billion in USD denominated bonds (potentially multi-tranche) in the first half of 2023 along with FX bond buybacks (USD 1 billion) of bonds maturing in 2023-4 in order to reduce the refinancing risk and increase the average term-to-maturity of the debt portfolio. EUR 1 billion of Eurobond issuance is also planned for the second half of 2023. Similarly to previous years, besides raising FX project loans (e.g.: EIB, CEB, AIIB, etc.), other FX financing (e.g.: conventional or even green private placements) furthering the goals of debt management are possible for 2023 as well. The financing plan contains a drawdown of EUR 2 billion foreign currency denominated project loans, but ÁKK will decide the denomination (domestic currency or foreign currency) before the drawdown taking relative costs into consideration. Other foreign currency denominated borrowing (e.g. retail bonds) will amount to EUR 0.4 billion.

- ## Net issuance

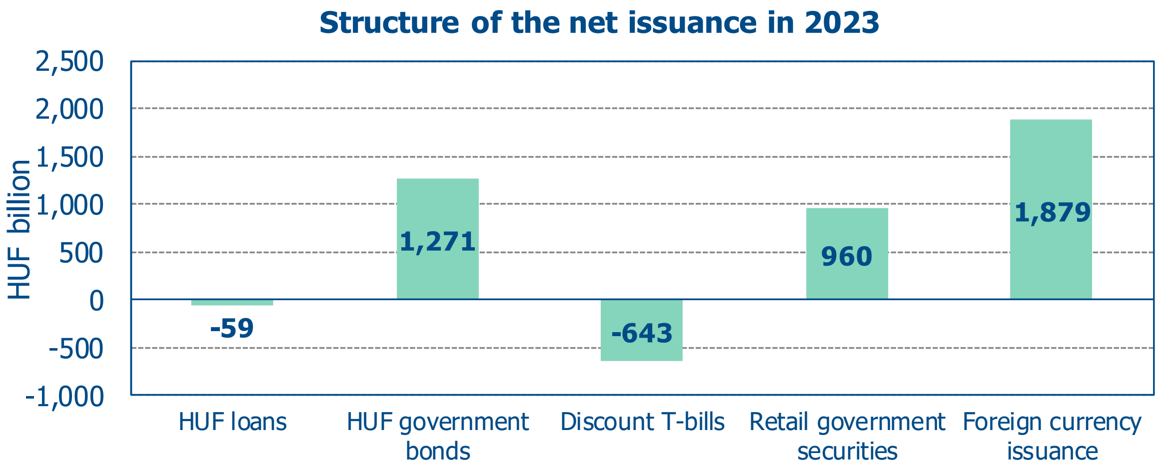
Net government debt issuance is planned in an amount of **HUF 3,409 billion**, out of which net domestic debt issuance will reach **HUF 1,529 billion** and net foreign currency borrowing will amount to **HUF 1,879 billion** (EUR 4.6 billion).

Out of the net domestic debt issuance **net government bond issuance will be HUF 1,271 billion.** ÁKK will once again hold 3-year fixed interest rate bond auctions in 2023 and plans to restart the switch auction programme with a planned volume of HUF 390 billion from the second half of the year, if yield environment returns back to normal. The stock of HUF denominated retail government securities is expected to increase by HUF 960 billion as a result of the increase of the outstanding stock of retail securities held by households totaling HUF 1,237 billion and the decrease of non-household ownership of retail securities totaling HUF 277 billion. Reacting to the increased yields retail investors bought large amount of short term discount T-bills in 2022. ÁKK expects that they will renew their maturing discount T-bill investments in retail government securities in 2023. Taking into account the increase of outstanding stock of retail securities held by households and the expected decrease of discount T-bills held by households (totaling HUF 643 billion), **the HUF financing of the household sector is expected to amount to HUF 595 billion**. In order to achieve this, ÁKK plans the following measures based on the adopted Retail Government Securities Strategy:

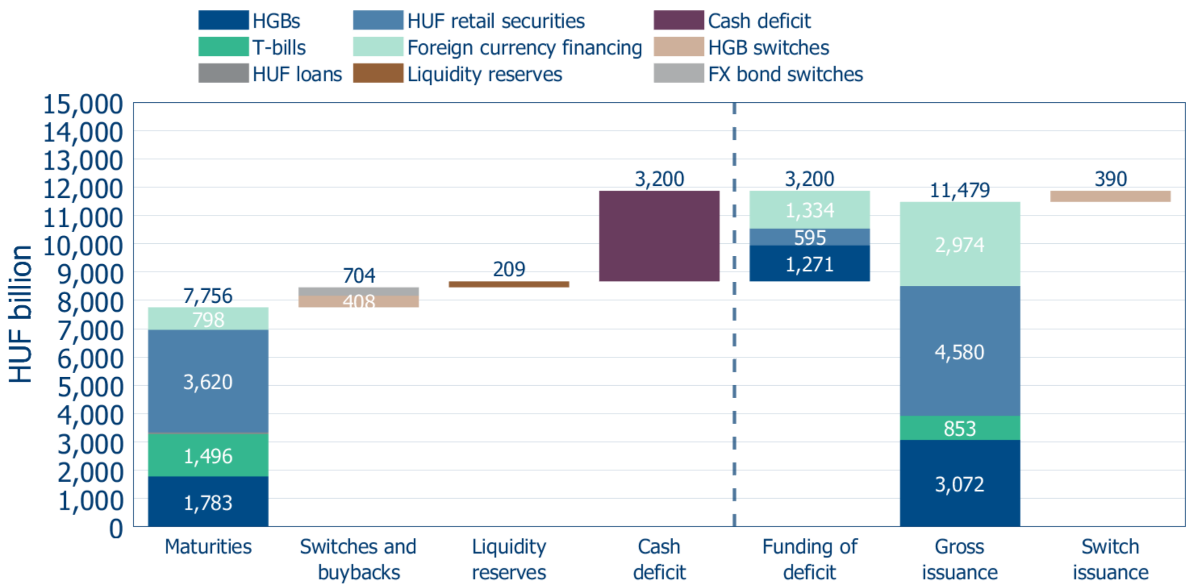
- A simplified way to open accounts will be introduced in the Hungarian State Treasury to retail customers to increase the customer base
- Retail products are planned to be rationalised and the product structure transformed. Based on a portfolio point-of-view, a product array design based on 3 basic product types is going to be implemented after inflation and yields peaks in the second half of 2023, however specialised products will be maintained (e.g.: Babybond, BMÁP, PEMÁP)
- To reduce concentration risk in retail securities a sales cap is going to be introduced for dealers starting January 1, 2023. Hence, dealers can sell a maximum HUF 250 million on the primary market per retail investor per retail security series. The sales cap is expected to be expanded to additional retail securities in 2023.
- Furthermore, a benchmark for the share of retail securities owned by households in the total debt is going to be introduced for 2023 with tolerance bands of 20-25%.

According to the plan the stock of discount T-bills will decrease by HUF 643 billion as a result of maturing outstanding stock held by households. The net issuance of discount T-bills held by institutional investors is expected to be zero, thus the outstanding stock of discount T-bills will amount to HUF 853 billion at the end of 2023. However, outstanding Discount T-bill volume can be increased for liquidity management purposes.

Net issuance of HUF loans will be HUF -59 billion as a result of the maturities. ÁKK intends to draw down IFIs and other loans in foreign currency, but ÁKK will take into consideration the relative costs of foreign and domestic currency denominated financing.



As the total foreign currency redemption will amount to EUR 2.7 billion (including USD bond buybacks) and the gross foreign currency issuance is planned at EUR 7.3 billion, thus **the net foreign currency issuance is expected to amount to EUR 4.6 billion in 2023**.



Source: ÁKK; Note: transactions based on nominal values

- ## Debt management strategy and benchmarks

ÁKK's mission is to finance the central government at the lowest costs in the long run, taking account of risks. In accordance with the economic policy of the government ÁKK has set the following main objectives:

1. According to the fundamental law of Hungary if the public debt to GDP ratio is higher than 50 percent, only such a budget can be approved, which leads to the reduction of the debt ratio year by year. **The primary objective of debt management is to support the reduction of the debt ratio** accordingly.

2. The second objective of ÁKK is to broaden the investor base to improve its stability. The possible measures:

   a. **Enhance the wholesale government bond market** via flexible issuance policy, transparent primary dealer system and improving the institutional domestic investor base.

b. **Broaden the domestic investor base** by increasing the customer base and supporting retail sales in line with the Retail Government Securities Strategy.

c. **Actively manage the FX debt ratio** within defined limits, maintaining the necessary market presence.

3. The third objective of debt management is to gradually **increase the average term-to-maturity (ATM) of the public debt** in line with the prevailing market conditions in the long term. In international comparison the average term-to-maturity of the Hungarian debt is still low, (however increasing). ÁKK makes efforts to improve the maturity structure of the public debt, reduce the refinancing risk by increasing the ATM of the debt portfolio in the long term.

4. The fourth objective is to **maintain and improve the market presence in ESG market and to diversify the funding sources**.

The mission of Hungary's government debt management is quantified by setting portfolio benchmarks, which are mainly based on a general optimal portfolio model taking into account both costs and risks. ÁKK has changed not only the limits, but also the methodology in some case. The following benchmark targets are determined for government debt management in 2023:

- ***Share of foreign currency debt:*** The share of the foreign currency denominated debt within the total central government debt should be below 30%. The **single upper bound of 30%** allows the debt management to increase the optionality and room for maneuver of financing strategy.

- ***Currency mix of the foreign currency denominated debt:*** In order to mitigate cross-currency exchange rate risk, foreign currency obligations after swaps should be 100% in EUR, allowing for a 5% deviation from this target.

- ***Fixed / floater composition:*** Within the **total debt**, the share of the fixed rate elements should be in the range of 60-80%, and that of the floating rate debt, which includes all short-term debt, between 20% and 40%. (Until 2022 ÁKK had 2 benchmarks for the domestic and foreign debt portfolio each.)

- ***Average Time to Re-fixing (ATR):*** ÁKK measures the re-pricing (interest rate) risk with the common ATR indicator. In order to keep an acceptable level of refinancing risk, the ATR of the **total debt** portfolio is targeted to be above 4 years. In case of adequate demand, ÁKK can increase the ATR, without an upper limit.

- ***Average Term to Maturity (ATM):*** To reduce the refinancing risk the average term to maturity of **total debt** should be above 5.5 years. In case of adequate demand, ÁKK can increase the ATM of the public debt portfolio.

- ***Share of retail government securities held by households (new benchmark target):*** The share of retail government securities held by households within the total debt should be between 20% and 25% in 2023.

- ***Liquidity:*** In order to maintain the continuously safe financing of the budget, a minimum target balance of the Treasury Single Account has been determined and ÁKK's objective is to keep the end-of-day actual balance over this level.

In case of the first six benchmark values ÁKK takes into account their 3-month moving average values, to avoid unnecessary reactions to one-off or temporary market movements that actually would not need a response in the medium or longer term.

To maintain a safe level of liquidity reserves and access to several financing channels also remain the emphasized goals of financing in 2023. The ESG strategy aims to broaden the investor base with a renewed green bond framework in 2023, to prioritize the financing of dark green projects and to prepare for new bond issuances based on circumstances and best market practices.

6. Further information

This Debt Management Outlook publication was compiled based on information available in the middle of December 2022. Thus the projected figures for 2023 may change according to the outturn of the financing needs and debt issuances. Even though the structure of financing may change compared to the plans, ÁKK will not change its strategic objectives and its strategic behaviour in the markets either.
ÁKK's website (www.akk.hu, www.gdma.hu) and its regular publications and reports (monthly and quarterly publications; monthly report on debt transactions) provide regularly updated information on the financing needs, the debt transactions and the government debt. ÁKK also discloses until the 15th of each month the detailed domestic market issuance plan for the next 3 months, which shows the amounts to be issued for each tenor.

7. Issuance calendar

Issuance calendar of government bonds in 2023

Fixed rate government bonds

Date of auction	Date of settlement
12.01.2023	18.01.2023
19.01.2023	25.01.2023
26.01.2023	01.02.2023
09.02.2023	15.02.2023
16.02.2023	22.02.2023
23.02.2023	01.03.2023
09.03.2023	16.03.2023
16.03.2023	22.03.2023
23.03.2023	29.03.2023
06.04.2023	12.04.2023
13.04.2023	19.04.2023
20.04.2023	26.04.2023
04.05.2023	10.05.2023
11.05.2023	17.05.2023
18.05.2023	24.05.2023
01.06.2023	07.06.2023
08.06.2023	14.06.2023
15.06.2023	21.06.2023
29.06.2023	05.07.2023
06.07.2023	12.07.2023
13.07.2023	19.07.2023
27.07.2023	02.08.2023
03.08.2023	09.08.2023
10.08.2023	16.08.2023
24.08.2023	30.08.2023
31.08.2023	06.09.2023
07.09.2023	13.09.2023
21.09.2023	27.09.2023
28.09.2023	04.10.2023
05.10.2023	11.10.2023
19.10.2023	25.10.2023
26.10.2023	02.11.2023
02.11.2023	08.11.2023
16.11.2023	22.11.2023
23.11.2023	29.11.2023
30.11.2023	06.12.2023
14.12.2023	20.12.2023

Floating rate government bonds

Date of auction	Date of settlement
05.01.2023	11.01.2023
02.02.2023	08.02.2023
02.03.2023	08.03.2023
30.03.2023	05.04.2023
27.04.2023	03.05.2023
25.05.2023	31.05.2023
22.06.2023	28.06.2023
20.07.2023	26.07.2023
17.08.2023	23.08.2023
14.09.2023	20.09.2023
12.10.2023	18.10.2023
09.11.2023	15.11.2023
07.12.2023	13.12.2023

Issuance calendar of discount treasury bills in 2023

12-month discount T-bills

Code	Date of auction	Date of settlement	Date of maturity
D231227	05.01.2023	11.01.2023	27.12.2023
D231227	19.01.2023	25.01.2023	27.12.2023
D231227	02.02.2023	08.02.2023	27.12.2023
D231227	16.02.2023	22.02.2023	27.12.2023
D240221	02.03.2023	08.03.2023	21.02.2024
D240221	16.03.2023	22.03.2023	21.02.2024
D240221	30.03.2023	05.04.2023	21.02.2024
D240221	13.04.2023	19.04.2023	21.02.2024
D240430	27.04.2023	03.05.2023	30.04.2024
D240430	11.05.2023	17.05.2023	30.04.2024
D240430	25.05.2023	31.05.2023	30.04.2024
D240430	08.06.2023	14.06.2023	30.04.2024
D240626	22.06.2023	28.06.2023	26.06.2024
D240626	06.07.2023	12.07.2023	26.06.2024
D240626	20.07.2023	26.07.2023	26.06.2024
D240626	03.08.2023	09.08.2023	26.06.2024
D240821	17.08.2023	23.08.2023	21.08.2024
D240821	31.08.2023	06.09.2023	21.08.2024
D240821	14.09.2023	20.09.2023	21.08.2024
D240821	28.09.2023	04.10.2023	21.08.2024
D240821	12.10.2023	18.10.2023	21.08.2024
D241030	26.10.2023	31.10.2023	30.10.2024
D241030	09.11.2023	15.11.2023	30.10.2024
D241030	23.11.2023	29.11.2023	30.10.2024
D241030	07.12.2023	13.12.2023	30.10.2024
D241030	21.12.2023	27.12.2023	30.10.2024

3-month discount T-bills are auctioned every Tuesday, the 6-month T-bills every Wednesday, settlement is on the Wednesday of the following week, while the 12-month T-bills are auctioned every second Thursday.