M I S C E L L A N E A

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A New Monetary Analysis Tool: The Daily Liquidity Dataset

Introduction

The central bank as an institution is one of the most powerful institutions in the world financial system. The central bank deserves this vigorous position through its "monopolized authority" role in printing banknotes, its "lender of last resort" role and its "settlement bank" role among financial institutions in the economy. The economic literature traditionally focuses on the "monopolized authority" role of central banks and it has specifically concentrated on the "lender of last resort" role of central banks in the last decade. The "settlement bank" role of central banks is mostly ignored in the literature. On the other hand, this role is a fundamental tool for explaining the concept of liquidity in practice.

Central banks and payment systems evolved together, and many early central banks were founded as payments institutions (Kahn et al. 2014). The Bank of Amsterdam is known as the first central bank in world financial history. It opened bank accounts for merchants and these merchants settled obligations between themselves by using their accounts at the central bank. One merchant could make a payment to another simply by arranging for his account at the bank to be debited and the counterparty's account to be credited (Ferguson 2009).The settlement's bank role increased the financial transactions in the economy. In the course of time, central bank money started to be used for settlement purposes, and central banks started to provide liquidity to these accounts during problematic or crisis situations.

This basic settlement process evolved to the RTGS (real-time gross settlement) system in time. One hundred and twelve of the 142 central banks indicate that the RTGS system is a feature of their national payment systems (Cirasino and Garcia 2008). It is important to note that financial institutions (accepted by central banks) are able to participate in this system. The liquidity in the econo-

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my, monetary transactions, move in this system among the participant financial institutions. The details of the transactions are not published for the public and generally just the total daily amount of the transactions is published. On the other hand, central banks' balance sheets have a lot of information useful for understanding the liquidity mechanism in practice. It can be said that central banks' balance sheets classify some transactions of the RTGS system which are related to the bilateral transactions between commercial banks and the central bank and between banks and the government sector. The account of the bank reserves holds a key position in this analysis because the transactions between the banks and other two institutions (the central bank and the government sector) are realized by means of this account in central banks' balance sheets.

This article attempts to find out what liquidity is and how the liquidity situation changes in the case of the Turkish economy. For this reason, the daily liquidity dataset has been created for the CBRT (Central Bank of Turkish Republic). This daily dataset helps us to understand how the liquidity situation changes in the economy, how the CBRT reacts to the liquidity situation and how the account of bank reserves changes on a daily basis.

This paper is organized as follows: liquidity is defined in the first section, the main assets and liabilities of the CBRT's analytical balance sheet are examined in the second section, the determinants of the liquidity situation are inspected in the third section, the fourth section answers the question of how the liquidity situation can be determined from the CBRT's analytical balance sheet and a general assessment of the liquidity situation is realized in the fifth section. The conclusions are provided in the final section.

1. What is liquidity?

Liquidity is a very confusing concept and notion in the economic literature because economists have generally tended to understand/describe liquidity from their individual research perspective.[1] This article focuses on the volume based description of liquidity, which is called "market liquidity". The analysis carried out in this article is based on this definition. Market liquidity originates from a very complex relationship among the financial actors. One part of market liquidity results from the unilateral and bilateral monetary transactions among the banks, and the other part stems from the unilateral and bilateral monetary transactions between the CBRT, banks and the Turkish government sector in the specific case of the Turkish economy.

Figure 1 presents the schematic structure of market liquidity in the context of the Turkish economy[2]. This presentation can be summarized as follows: The CBRT provides credits to the banks, the banks pay back credits to the CBRT, the

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[1] Lybek and Sarr (2002) presented more detailed definitions for calculating the liquidity.
[2] The Federal Reserve Bank of New York (2016) realized an important study on this issue for USA.

F i g u r e 1

Schematic presentation of market liquidity in the Turkish economy
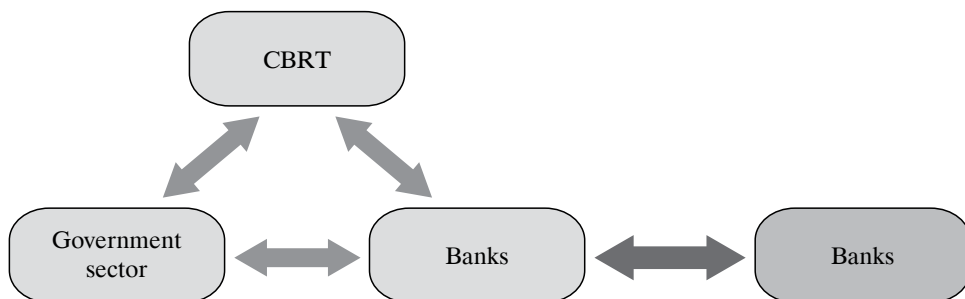
Source: author's own schematization.

government sector realizes the salary payments in the banking system, the banks purchase the government bonds, the government sector holds its deposit in the CBRT, X bank's customer pays to Y bank's customer, Y bank lends cash money to X bank, and the CBRT transfers some part of its profit to the government sector. Market liquidity moves on the real-time gross settlement system in the economy and this situation is exactly depicted in Figure1. This market liquidity turns to deficit or surplus, depending on the character of the transactions, at the end of each day. The above mentioned deficit or surplus is called "the liquidity deficit or the liquidity surplus" in this article.

Bank reserves also play an important role in the balance sheet because the banks realize their transactions with two institutions (the CBRT and the government sector) through this account. The term "bank reserves" is exactly materialized in the account of the deposits of banking sector in the CBRT's balance sheet. The change in bank reserves depends on the liquidity situation (liquidity deficit or liquidity surplus) and the CBRT's open market operations which are executed during the day. In this sense, the CBRT forecasts the amount of the liquidity deficit or liquidity surplus some days in advance and the volume of the open market operations is decided previously.

Figure 2 highlights that the change in bank reserves results from the open market operations and the liquidity deficit/surplus in the analytical balance sheet of the CBRT. The variation in bank reserves can be estimated with wide confidence intervals, for the simple reason that open market operations of the CBRT are based on forecasting.

Most of the central banks in the world have carried out their settlement role in the economy with the help of the RTGS system. This system is the corner stone in realizing unilateral and bilateral transactions among the financial system actors in the economy. The market liquidity which is depicted in Figure1 can be observed in the RTGS system during the day. The data shown in Figure 2 can be viewed from the RTGS system at the end of the day. Just as the other central banks do, the CBRT publishes limited data from this system. If the CBRT published all the

Figure 2

**Liquidity, open market operations and the change in the bank reserves
in the CBRT's analytical balance sheet**

Source: author's own schematization.

RTGS data, the details of the market liquidity and liquidity situation (deficit or surplus) would be seen quite easily. However, the CBRT publishes only limited data from the RTGS system. The Central Bank of Turkish Republic uses the RTGS system under the name of the Electronic Fund Transfer (EFT) system. The EFT system provides real time transfer and real time gross settlement of Turkish Lira (TL) interbank payments (CBRT 2019c).There are 52 participant banks[3] in this framework in Turkey.

Table 1

**Electronic Fund Transfer (EFT) System:
Total value of payments, 2013–2018 (daily average)**

Year	Total value of payments millions of TL
2013	124 969.0
2014	137 450.9
2015	141 166.6
2016	154 426.7
2017	247 941.8
2018	281 647.9

Source: CBRT Statistics, Electronic Fund Transfer (EFT) System (Total Value of Payments), (TP.EFTEM-KT2.TUTAR.A01), https://evds2.tcmb.gov.tr

Table 1 shows the daily average total value of payments in the EFT system between 2013 and 2018. The daily average amount of market liquidity was TL 125 billion in 2013, this volume increased to TL 281 billion in 2018. The market liquidity is precisely materialized in Table 1 through the total value of payments'

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[3] CBRT Payment Systems Participant List, http://eftemkt.tcmb.gov.tr/bankasubelistesi/KATILIMCI_LISTESI_ENG.PDF.

T a b l e 2

Bank reserves in the Central Bank of Turkey Republic, 2013–2018 (daily average)

Year	Total amount millions of TL
2013	16 086.1
2014	21 595.0
2015	18,799.1
2016	44 343.7
2017	41 961.4
2018	50 277.7

Source: CBRT Statistics, Deposits of Banking Sector (TP.AB.A18), https://evds2.tcmb.gov.tr

data of EFT system. It should not be forgotten that the participant banks have to use their reserves for realizing unilateral and bilateral transactions in this system.

The daily average amount of the bank reserves in the Central Bank of Turkish Republic between 2013 and 2018 is viewed in Table 2. Banks reserves are precisely central bank's money because it is created by the CBRT. However, this money is not enough for executing all the transactions in the EFT system during the day; therefore, participants need to use their cash accounts, interbank lending operations and the CBRT's intraday liquidity in this framework. This system is based on the central bank money; however, this system needs banks' own money and other sources for fulfilling the transactions in the EFT system. Commercial bank money provides the means to perform most economic transactions, but central bank's money remains at the root of the system, because it provides the final means of settlement (Gaspar and Daniela 2006).The volume of market liquidity can be obtained from the EFT system; however, it is impossible to see how the liquidity situation changes in the country's financial system with this limited information. As a consequence, the EFT is a closed book and only little information is shared with the public in Turkey.

2. The analytical balance sheet of the Central Bank of Turkish Republic

The question of how the liquidity situation changes in the Turkish economy can be answered through the CBRT's analytical balance sheet. The items on the assets and liabilities sides of the CBRT's balance sheet are netted in the analytical balance sheet which it is constituted to show the monetary aggregates by aggregating and netting the CBRT's balance sheet items (CBRT 2019a).

Table 3

CBRT's analytical balance sheet

Assets	Liabilities
Foreign assets	Total foreign liabilities
Domestic Assets	Central Bank money Currency issued Deposits of banking sector Extra budgetary funds Deposits of non-banking sector Open market operations Deposits of public sector

Source: CBRT Statistics, Central Bank Analytical Balance Sheet, https://evds2.tcmb.gov.tr/index.php?/ evds/DataGroupLink/2/bie_abanlbil/en

Table 3 illustrates the CBRT's analytical balance sheet from the aspect of its main assets and main liabilities. Its main assets include foreign assets and do-mestic assets. Foreign assets demonstrate the CBRT's assets in terms of foreign currency. Domestic assets indicate the amount of government debt securities which is held by the CBRT and the CBRT's credits (export rediscount credits) to the banks. The liabilities side of the balance sheet includes important accounts for the analysis of the liquidity situation. Total foreign liabilities are the CBRT's foreign currency liabilities to non-residents and residents (banks and the gov-ernment sector). The CBRT's local money liabilities are shown in the account of Central Bank's money. This account is composed of the currency issued, deposits of the banking sector, extra budgetary funds, deposits of the non-banking sector, open market operations and deposits of the public sector. The deposits of the banking sector represent the bank reserves in the balance sheet.

3. The determinants of the liquidity situation

This section investigates how the CBRT's main assets and liabilities affect the liquidity situation (liquidity deficit or liquidity surplus).There is a limited number of works in this area and most of them are prepared by central banks. These stud-ies try to explain the central bank's liquidity management and liquidity forecast-ing. Bindseil (2000) analyzed the liquidity management in the Eurosystem. Gray (2008) explained how the Bank of England realized the liquidity management and liquidity forecasting. Aamodt and Tafjord (2013) discussed the factors that influ-enced bank reserves in the Norwegian banking system. Robertson (2017) focused on the exogenous drivers of the liquidity position in the Australian economy.

The currency issued is one of the most important determinants of the liquidity situation in the balance sheet. In simple terms, it is a transfer from the CBRT to the participant banks included in this framework. When the amount of currency

issued is increased, this results in decreasing the liquidity (the liquidity is withdrawn from the system). A commercial bank may request to purchase banknotes from the central bank on behalf of the public, and the settlement of these purchases occurs in bank reserves; liquidity is reduced when the commercial bank's account (bank reserve) is debited (Robertson 2017).

The local money deposits of the government sector are included in the account of deposits of the public sector. A large amount of these deposits belongs to the Turkish Ministry of Treasury and Finance (TMTF). The collecting of tax revenues or the issuing of government securities by the TMTF leads to the increase in public sector deposits and the decrease in liquidity. The financing of government expenditures or the government securities redeemed at maturity results in declining public sector deposits and rising liquidity (the liquidity is injected into the system).

The effect of the CBRT's foreign assets and foreign liabilities on the liquidity situation can be analyzed through net foreign assets. The net foreign assets are equal to the difference between foreign assets and foreign liabilities in the analytical balance sheet. When the CBRT buys foreign currency from the participant banks, this causes an increment both in net foreign assets and liquidity. When the CBRT sells foreign currency to the participant banks, this leads to a decrease both in net foreign assets and liquidity.

The change in domestic assets is another important factor in determining the liquidity situation. The buying of government securities by the CBRT or granting of credits to participant banks by the CBRT leads to a rise both in this account and in liquidity. The selling of government securities by the CBRT or paying back of credits to the CBRT by the participant banks leads to a decrease both in domestic assets and liquidity.

Bank reserves are the deposits which banks hold in the CBRT. These reserves can be classified as required (compulsory) reserves and excess (free) reserves. However, some central banks do not impose an obligation on banks to hold the required reserves. The CBRT imposes such a requirement on banks and the account of bank reserves is composed of both the required reserves and excess reserves in the CBRT's balance sheet. The participant banks' liabilities are subject to the reserve requirements, and the CBRT determines the ratios of reserve requirements for several liabilities of the participant banks. The TL required reserves are held in the cash accounts of the CBRT at an average of fourteen-day periods (Güler et al. 2017). The CBRT easily forecasts the amount of liquidity deficit or liquidity surplus which results from the change in the required reserves. Excess reserves are bank reserves in excess of a reserve requirement set by the central bank (Scott 2009). The CBRT does not publish the amount of the required reserves in its balance sheet and the sum of two different reserves (required and excess) is shown in the "Deposits of banking sector" account in the CBRT's analytical balance sheet. It is not possible to find out the amount of the required and excess reserves from the balance sheet, but these amounts can be

found out through the required reserve dataset of the CBRT[4] and the account of deposits of the banking sector in the balance sheet[5]. When the amount of the required reserves is increased, this results in a decline in liquidity. In the contrary case, there is an increase in liquidity.

Open market operations are a significant tool within monetary policy implemented by the CBRT operations. These were conducted mainly by means of repo auctions (CBRT 2019b) in the Turkish economy during the period of 2013–2018. Open market operations target the expected liquidity deficit or surplus at the end of each day. It is important to state that liquidity deficit or surplus could not be compensated totally by CBRT operations at all times. There are two specific reasons. The first reason is that the CBRT could not correctly forecast the liquidity situation. The second reason is that the CBRT's target for the bank reserves corresponds to the actual liquidity situation. For instance, if the CBRT targets an increment in bank reserves, it does not realize open market operations in the case of liquidity surplus. Similarly, if the CBRT targets a shrinkage in bank reserves, it does not realize open market operations in the case of liquidity deficit

T a b l e 4

The liquidity situation and bank reserves in the perspective of the CBRT's balance sheet

Item	Liquidity deficit	Liquidity surplus
Net foreign assets	⇓	⇑
Domestic assets	⇓	⇑
Currency issued	⇑	⇓
Government sector deposits	⇑	⇓
Required reserves	⇑	⇓
Net	Deficit / surplus in liquidity	
Open market operations	Liquidity supply	
Bank reserves	Increase / decrease in bank reserves	

Source: author's own conceptualization.

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[4] Required Reserve Dataset of CBRT, http://www.tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/Statistics/Banking+Data/Required+Reserve

[5] It is available upon request from the author.

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A hike in the currency issued, government sector deposits and required re-serves leads to liquidity deficit whereas an increase in net foreign assets and do-mestic assets results in liquidity surplus. Table4 schematizes the effects of the CBRT's assets and liabilities on the liquidity situation and indicates that the change in bank reserves results from the liquidity situation and open market op-erations.

4. The determination of the liquidity situation

Central banks which publish their daily liquidity dataset are as follows: European Central Bank[6], Russian Central Bank[7], Norwegian Central Bank[8], Japan's Cen-tral Bank[9], Central Bank of Hungary[10], and the Reserve Bank of New Zealand[11]. The daily liquidity dataset helps to answer the following questions:
- Is there liquidity deficit or liquidity surplus at the end of the day?
- What are the determinants of the liquidity deficit or surplus?
- What is the direction of open market operations?
- How do bank reserves change?

This article tries to answer the above mentioned questions for the period of 2013–2018 in the specific case of the Turkish economy. The year 2013 was chosen

Table 5

CBRT's analytical balance sheet (2013–2018)

Assets	Liabilities
A.1 Foreign assets (TL thousand)	P.1 Total foreign liabilities (TL thousand)
A.2 Domestic assets (TL thousand)	P.2Aa Currency issued (TL thousand)
A.3 FX revaluation account (TL thousand)	P.2Ab Deposits of banking sector (TL thousand)
	P.2Ac Extra budgetary funds (TL thousand)
	P.2Ad Deposits of non-bank sector (TL thousand)
	P.2Ba Open market operations (TL thousand)
	P.2Bb Deposits of public sector (TL thousand)

Source: CBRT Statistics, Central Bank Analytical Balance Sheet, https://evds2.tcmb.gov.tr/index.php?/evds/DataGroupLink/2/bie_abanlbil/en

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[6] Available at: https://www.ecb.europa.eu/stats/policy_and_exchange_rates/minimum_reserves/html/index.en.html

[7] Available at: http://www.cbr.ru/eng/statistics/Default.aspx

[8] Available at: https://www.norges-bank.no/en/Statistics/Bank-liquidity/

[9] Available at: http://www.boj.or.jp/en/statistics/boj/fm/juqf/index.htm/

[10] Available at: https://www.mnb.hu/en/monetary-policy/monetary-policy-instruments/liquidity-forecast

[11] Available at: https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Statistics/tables/d10/hd10.xlsx

as the starting date because the FX revaluation account has been tracked as an independent account on the assets side of the CBRT's analytical balance sheet since the year 2013. The dataset is collected from the CBRT statistics on a daily basis. This dataset covers 1,563 workdays and there is no information for 55 workdays (national holidays, etc.).

Table 5 exhibits the assets and liabilities of the CBRT's analytical balance sheet, which are used to explain the liquidity situation. The net foreign reserves are obtained from the difference between foreign assets and total foreign liabilities. The following equation tries to present the relationship between bank reserves and other accounts in the balance sheet:[12]

$$\Delta(\textit{Deposits of banking sector}) = \Delta(\textit{Open market perations}) - \Delta(\textit{Currency issued})$$
$$- \Delta(\textit{Deposits of public sector}) + \Delta(\textit{Net foreign assets}) + \Delta(\textit{Domestic assets})$$
$$- \Delta(\textit{Extra budgetary funds}) + \Delta(\textit{Other factors}) \qquad (1)$$

'Δ' indicates the daily change in the accounts of the analytical balance sheet. Equation (1) satisfies the expected relationship between bank reserves and other accounts. The CBRT's daily liquidity dataset[13] has been drawn up for the period of 2013–2018 based on equation (1).

Figure 3 illustrates the liquidity situation and its determinants in the second week of January 2013. NFA represents 'Net foreign assets', DA – 'Domestic assets', CI – 'Currency issued', DPS – 'Deposits of public sector', OF – 'Other fac-

Figure 3

The CBRT's daily liquidity dataset: liquidity situation and its determinants, 07.01.2013 – 11.01.2013 (daily change, TL thousand)
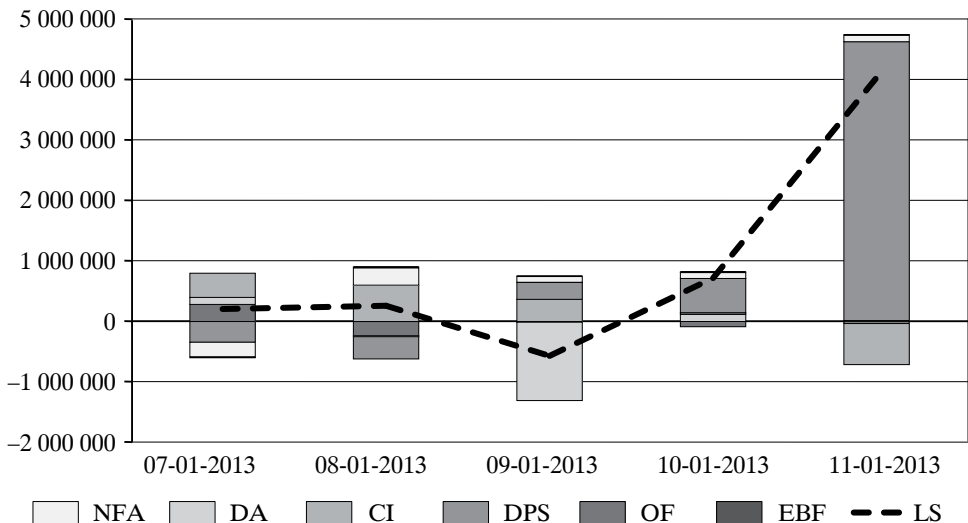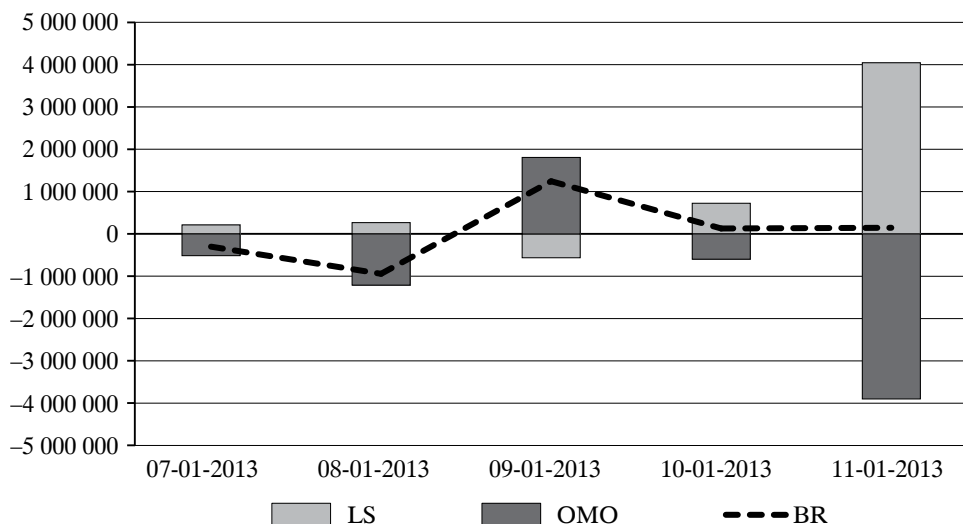

Source: author's own calculation.

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[12] 'Other factors' are the sum of the FX revaluation account and deposits of non-bank sector.

[13] It is available upon request from the author.

tors', EBF – 'Extra budgetary funds', and LS – 'Liquidity situation'. There is only one day (09.01.2013) which showed liquidity deficit, while on the other four days there was liquidity surplus. The liquidity deficit resulted from declining domestic assets. The liquidity surplus originated from diminishing government deposits both on 10.01.2013 and 11.01.2013. The decrease in the currency issued was the main determinant of liquidity surplus both on 07.01.2013 and 08.01.2013.

Figure 4

The CBRT's daily liquidity dataset: liquidity situation, open market operations and bank reserves, 07.01.2013 – 11.01.2013 (daily change, TL thousand)
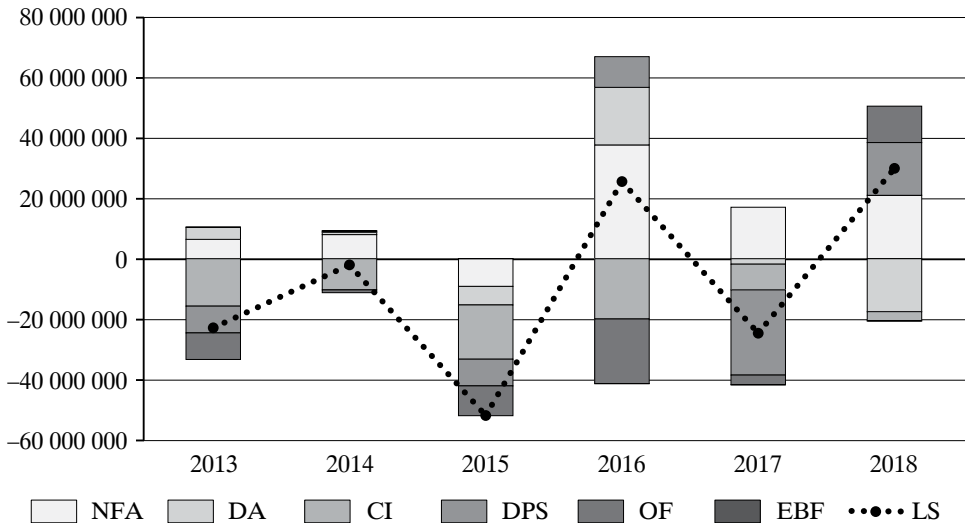

Source: author's own calculation.

Figure 4 identifies the liquidity situation, the open market operations and the change in bank reserves in the same period. OMO represents 'Open market operations', BR – 'Deposits of banking sector', and LS – 'Liquidity situation'. All the open market operations which were realized in the mentioned period had a countercyclical character. The countercyclical character means that operations are realized in the reverse direction to the liquidity situation. For instance, if there is liquidity deficit (surplus), open market operations inject (extract) liquidity to (from) the market. Open market operations were realized in the countercyclical mode for the liquidity deficit on 09.01.2013. The volume of operation was greater than the volume of liquidity deficit and this created the increment in bank reserves on 09.01.2013. Open market operations were also implemented in the countercyclical manner for the liquidity surplus in the sample period. It is understood that the amount of open market operations was greater than the amount of liquidity surplus on the first and second day of the week, and this led to the shrinkage in bank reserves. Nonetheless, the volume of open market operations was smaller than the volume of liquidity surplus on the fourth and fifth day of the week, and this resulted in a positive change in the bank reserves.

5. The general assessment of the liquidity situation

This section evaluates the liquidity situation, open market operations and bank reserves on a yearly basis in the period of 2013–2018. The CBRT has published "Monetary and Exchange Rate Policy Reports"[14] since 2002 which present the determinants of the liquidity situation under the heading of 'TL liquidity management' on a yearly basis. It is obvious that the CBRT has a more detailed dataset than this article does. Nonetheless, the CBRT's reports were published before the end of the year (one month ago) and this causes deficient information about the liquidity situation.

Figure 5

The CBRT's daily liquidity dataset: liquidity situation and its determinants, 2013–2018 (daily change, TL thousand)
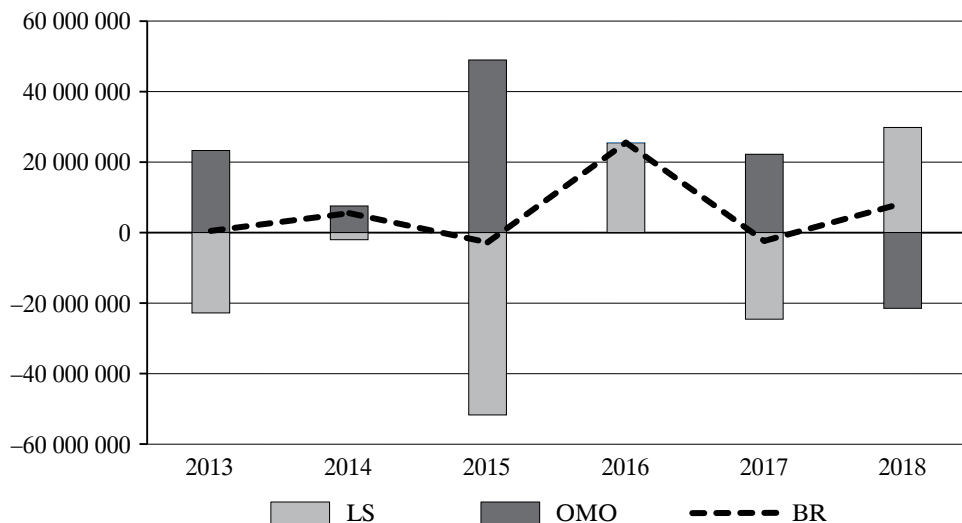

Source: author's own calculation.

Figure 5 shows the liquidity situation and its determinants between 2013 and 2018. NFA represents 'Net foreign assets', DA – 'Domestic assets', CI – 'Currency issued', DPS – Deposits of public Sector', OF – 'Other factors', EBF – 'Extra budgetary funds', and LS – 'Liquidity situation'. It can be observed that there was a liquidity deficit in the years 2013, 2014, 2015 and 2017, and there was liquidity surplus in the years 2016 and 2018. The increase in currency issued and government sector deposits were the main determinants of the liquidity deficit. It is also determined that the decrease in other factors (OF) leads to a liquidity deficit. When the years of liquidity surplus are investigated, it is understood that the increment in net foreign assets and domestic assets results in liquidity surplus.

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[14] *CBRT's Monetary and Exchange Rate PolicyReports,* https://www.tcmb.gov.tr/wps/wcm/connect/ EN/TCMB+EN/Main+Menu/Publications/Monetary+and+Exchange+Rate+Policy+Texts/Monetary+and+Exchange+Rate+Policy+Texts1/

Figure 6

The CBRT's daily liquidity dataset: liquidity situation, open market operations, and bank reserves, 2013–2018 (daily change, TL thousand)

Source: author's own calculation.

Figure 6 shows the liquidity situation, open market operations and the change in the bank reserves between 2013 and 2018. OMO represents 'Open market operations', BR – 'Deposits of banking sector', and LS – 'Liquidity situation'. It can be noted that the open market operations had a countercyclical character in the years 2013, 2014, 2015, 2017 and 2018. Nonetheless, the open market operations had a procyclical character in 2016. The volume of countercyclical operations was greater than the volume of liquidity deficit in the years 2013 and 2014, and the amount of the same operations was smaller than the amount of liquidity deficit in the years 2015 and 2017. It can be observed that CBRT interventions remain limited in the case of liquidity surplus and it seems that the CBRT did not choose to totally extract this liquidity surplus from the market. As an extreme case, there was a procyclical impact of the open market operations on liquidity surplus in 2016.

Conclusion

This paper has tried to answer the questions of what the liquidity is and how the liquidity situation changes in the specific case of the Turkish economy. Liquidity is classified as a market liquidity in this article. Market liquidity is conceptualized by means of the EFT system and the market liquidity is observed from the EFT statistics. Nonetheless, the details of these transactions could not be obtained. However, the CBRT's analytical balance sheet has been used to analyze the li-

quidity situation which is originated from market liquidity. The CBRT's daily liquidity dataset for the period of 2013–2018 has been created, and it is explained how the liquidity situation in the Turkish economy changed and which factors affected the liquidity situation in the perspective of an analytical balance sheet. It could be concluded that the increase in currency issued and government sector deposits are the main determinants of the liquidity deficit. It is also concluded that liquidity surplus results from the increment in net foreign assets and domestic assets. Significantly, this article has shown that the Central Bank of Turkish Republic took a countercyclical position against both liquidity deficit and liquidity surplus between 2013 and 2018 (except for 2016).

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A NEW MONETARY ANALYSIS TOOL: THE DAILY LIQUIDITY DATASET

S u m m a r y

The term of liquidity is complex and unclear in the economic literature. This paper tries
to explain this concept in practice for the Turkish economy. The statistics of EFT (Elec-
tronic Fund Transfer) system and the analytical balance sheet of the Central Bank of
Turkish Republic are used to explain what the liquidity is and how the liquidity situation
changes in the country's financial system. The liquidity is classified as "market liquidity".
The EFT system is used to materialize the market liquidity and the statistics of EFT
system are used to explain the volume of market liquidity. The daily liquidity dataset for
Central Bank of Turkish Republic is created and the determinants of the liquidity situa-
tion are analysed from perspective of analytical balance sheet. This study identifies that
the increase in the currency issued and government sector deposits are main determi-
nants of the liquidity deficit and also concludes that the liquidity surplus results from the
increment in net foreign assets and domestic assets. Most importantly, this article shows
that Central Bank of Turkish Republic took a countercyclical position against both the
liquidity deficit and liquidity surplus between 2013 and 2018 (except 2016).

Keywords: central bank balance sheet, monetary policy, liquidity management, Turkey

JEL: E50, E52, E5

NOWE NARZĘDZIE ANALIZY RYNKU PIENIĘŻNEGO: DZIENNY REJESTR PŁYNNOŚCI

S t r e s z c z e n i e

Pojęcie płynności stosowane w literaturze ekonomicznej jest złożone i niejasne. Ten ar-
tykuł próbuje wyjaśnić to pojęcie w praktyce na przykładzie gospodarki Turcji. Autor wy-
korzystuje statystykę elektronicznego systemu transferów finansowych oraz analityczny
bilans banku centralnego Republiki Turcji do wyjaśnienia kategorii płynności i jej wpływu
na system finansowy kraju. System transferów finansowych służy do pokazania i objaśnie-
nia ilości pieniądza na rynku. Dzienny zapis płynności oraz determinanty płynności są
analizowane z punktu widzenia bilansu banku centralnego. Z analizy wynika, że główny-
mi czynnikami powodującymi niedobór płynności rynkowej jest wzrost emisji pieniądza
i depozytów pieniężnych sektora państwowego, natomiast nadwyżka płynności jest gene-

rowana przez wzrost netto aktywów zagranicznych i krajowych. Co najważniejsze, artykuł pokazuje, że w latach 2013–2018 (z wyjątkiem roku 2016) bank centralny Turcji zajmował pozycję antycykliczną nastawioną na zachowanie równowagi na rynku pieniężnym.

Słowa kluczowe: bilans banku centralnego, polityka pieniężna, zarządzanie płynnością, Turcja

JEL: E50, E52, E5

НОВЫЙ ИНСТРУМЕНТ АНАЛИЗА ДЕНЕЖНОГО РЫНКА: ЕЖЕДНЕВНЫЙ РЕГИСТР ЛИКВИДНОСТИ

Р е з ю м е

Понятие ликвидности, применяемое в экономической литературе, сложно и нечетко. Настоящая статья пытается объяснить это понятие на практике на примере экономики Турции. Автор использует статистику электронной системы финансовых трансфертов, а также аналитический баланс центрального банка Республики Турции для объяснения категории ликвидности и ее влияния на финансовую систему страны. Система финансовых трансфертов служит для того, чтобы показать и объяснить количество денег на рынке. Дневная запись ликвидности, а также детерминанты ликвидности анализируются с точки зрения баланса центрального банка. Из анализа вытекает, что главными факторами, вызывающими недостаток рыночной ликвидности, является рост эмиссии денег и денежных депозитов государственного сектора, зато избыток ликвидности образуется через рост нетто иностранных и отечественных активов. И самое главное, статья показывает, что с 2013 по 2018 гг. (за исключением 2016 г.) центральный банк Турции занимал антициклическую позицию, нацеленную на сохранение равновесия на денежном рынке активов.

Ключевые слова: баланс центрального банка, денежная политика, управление ликвидностью, Турция

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