STRENGTHENING RESERVES OF THE CENTRAL BANK OF THE REPUBLIC OF TURKEY (CBRT): AN EXAMINATION FOR TRANSFERRING TREASURY'S SHARE IN PROFIT TO RESERVES AND INCREASING TREASURY'S SHARE IN CBRT¹

Mustafa Tevfik Kartal^{*} (D)

Gönderim Tarihi: 06.12.2019

Kabul Tarihi: 10.03.2020

Abstract

The study is prepared to strengthen reserves of CBRT. For this purpose, a set of proposals, consisting of transferring Treasury's share in profit to reserves and increasing Treasury's share in CBRT, is developed. Effects of the proposals are analyzed by using data, which are gathered from electronic data distribution system and web site of CBRT, for the period of 2000-2018. According to analysis results, total additional reserves of USD 29.7 billion would be accumulated by applying the first proposal for the period. When taking into consideration that CBRT's net reserves is USD 30.2 billion as of 2019 March end, it turns out how effective this recommendation is. In addition to the first proposal, much more reserves would be accumulated faster by adopting the proposal with the increasing Treasury's share in CBRT which is equal 55% currently. With the implementation of this proposal, the accumulation of reserves would reach to USD 45.8 billion for the period of 2000-2018. While CBRT reserves show a significant decline nowadays, the implementation of the proposals recommended in the study will contribute significantly to increase in CBRT reserves.

Keywords: CBRT, Net Profit, Reserves, Treasury Share, Turkey.

JEL Classification: *E59, G21, G28, H25, K23, N15, O23*.

TÜRKİYE CUMHURİYET MERKEZ BANKASI (TCMB) REZERVLERİNİN GÜÇLENDİRİLMESİ: KARDAKİ HAZİNE PAYININ REZERVLERE AKTARILMASI VE TCMB'DEKİ HAZİNE PAYININ ARTIRILMASINA YÖNELİK BİR İNCELEME

Özet

Bu çalışma, TCMB rezervlerinin güçlendirilmesine yönelik hazırlanmıştır. Bu amaca yönelik olarak, kardaki Hazine payının rezervlere aktarılması ve TCMB'deki Hazine'ye ait ortaklık payının artırılmasından oluşan bir öneri seti geliştirilmiştir. Söz konusu önerilerin etkileri TCMB'nin elektronik veri dağıtım sisteminden ve web sitesinden alınan 2000-2018 dönemine ilişkin veriler kullanılarak analiz edilmiştir. Analiz sonuçlarına göre, ilk önerinin uygulanması ile birlikte söz konusu dönemde 29,7 milyar ABD Doları rezerv birikimi sağlanabilirdi. 2019 Mart sonu itibariyle TCMB net rezervlerinin 30,2 milyar ABD Doları olduğu dikkate alındığında, geliştirilen önerinin ne kadar etkili olduğu görülmektedir. Birinci öneriye ek olarak mevcut durumda %55 olan TCMB'deki Hazine ortaklık payının artırılması şeklindeki ikinci önerinin uygulanmasıyla daha hızlı rezerv birikimi sağlanabilecektir. Bu önerinin uygulanmasıyla birlikte 2000-2018 dönemi için

¹This article is an extended version of the paper presented at the 1st International Management and Social Research Symposium, organized on 17-19 November 2018.

^{*} Ph.D. in Banking, Borsa İstanbul Strategic Planning and Investor Relations Directorate, İstanbul/Turkey, <u>mustafatevfikkartal@gmail.com</u>,

biriktirilebilecek rezerv tutarı 45,8 milyar ABD Doları olarak hesaplanmaktadır. Günümüzde TCMB rezervleri önemli miktarda düşüş gösterirken, bu çalışmada sunulan önerilerin uygulanması TCMB rezervlerinin artırılmasına önemli miktarda katkı sağlayacaktır.

Anahtar Kelimeler: TCMB, Net Kar, Rezervler, Hazine Payı, Türkiye.

JEL Sınıflaması: E59, G21, G28, H25, K23, N15, O23.

1. Introduction

Turkey experienced a variety of problems in macroeconomic indicators before 2002. Some of them could be summarized as budget deficit, foreign trade deficit, current account deficit, high inflation, high interest rates, and instability in foreign exchange rates (FER). Problems in these macroeconomic indicators resulted in 2000 and 2001 crisis (Kartal, 2018, p. 209). Although Turkey was faced with a variety of problems before 2002, most of them have been under control since 2003. However, troubled times have been seen in such indicators as FER, inflation, and interest rates. Therefore, using appropriate and necessary monetary and fiscal policies tools with a harmonious way has enormous importance and effect in order to mention definite victory in keeping such macroeconomic indicators under control.

Especially in volatile markets, reserves of central banks (CB) are important to be able to intervene to the markets for enabling stability. Besides, CB use reserves to complete international payments and take precautions against depreciation of national money against foreign currencies (Yüksel & Sarı, 2017, p. 42). These are some important reasons why CB should accumulate reserves. On the other hand, although there are some studies examining how much reserves CB should have, there is no certain amount and common result. So, it can be said that amount of reserves, which CB should have, depends on national conditions of each country.

When examining reserves of CBRT, it can be seen that gross reserves is USD 28.23 billion as of 2002 end and USD 72 billion as of 2018 year-end. However, net reserves are different than these amounts. Net reserves are USD 11.06 billion and USD 30 billion, respectively (CBRT, 2019a). This picture shows that there is enormous difference between gross and net reserves of CBRT. A significant portion of the difference results from required reserves of financial institutions. The amount of required reserves of banks for foreign exchange currency assets is USD 36 billion as of 2018 year-end.

Required reserves of financial instructions is temporary reserves for CBRT and temporary reserves are not actually reserves of CBRT due to the fact that they are not in free usage of CBRT (Eğilmez, 2017). For these reason, increasing reserves of CBRT is essential. However, the most important point in here is that reserves should increase net reserves, i.e. they should not be temporary reserves for CBRT. This is a question whether reserves of CBRT is enough or not. According to Turkish literature, there is a decreasing trend in reserves. So, it is possible to state that reserves of CBRT are not enough and additional reserves should be accumulated (Eren, 2017).

Taking into consideration issues mentioned above, importance of CB's reserves is clear. They have important role in many ways. Therefore, a recommendation is proposed in order to increase net reserves of CBRT in this study. The recommendation is to transfer Treasury's share in CBRT's profit to reserves. Also, it is possible to faster accumulation of reserves by adopting the recommendation with the increasing Treasury's share in CBRT which is equal 55% for the time being. As far as it is known, there is no study examining the recommendation proposed in the study. For this reason, it is thought that this paper is pioneer and unique study because of the fact that there

is no study in Turkey about transferring Treasury's share in CBRT's profit to reserves which is proposed recommendation in the study

This study consists of five parts. After the introduction, Section 2 gives details about the contextual background. Section 3 reviews the literature regarding reserves of CB. Section 4 analyzes effects of the transferring Treasury's share in CBRT's profit to reserves and increasing Treasury's share in CBRT. Section 5 concludes.

2. Contextual Background

CB aim to provide contribution to the financial stability. CB could realize this by autonomy (Acemoğlu & Robinson, 2018, p. 424). Although there are a limited number of financial instruments, main tool to be used is reserves.

CB have to take precautions immediately to stabilize FER especially in turbulence period which FER make rally. One example to this condition has been seen in Turkey in 2018 summer. In such a condition, CB have to use much more reserves to stabilize financial indicators like FER.

The main macroeconomic indicators for Turkey in recent times are included in Table 1.

Year	USD	EUR	СРІ	PPI	Commercial Credit Interest Rate	CBRT Policy Rate (1 Week Repo Rate)
2014	2.19	2.91	7.9%	6.3%	12.4%	8.3%
2015	2.72	3.02	8.5%	5.6%	15.7%	7.5%
2016	3.03	3.35	8.2%	9.6%	14.3%	8.0%
2017	3.65	4.12	11.4%	14.5%	17.1%	8.0%
2018	4.82	5.67	21.5%	34.2%	28.3%	24.0%

Table 1: Selected Main Macroeconomic Indicators of Turkey*

*: The indicators show the realization of the year-end figures.

Source: Derived from CBRT, 2019a; Turkish Statistical Institute (TSI), 2019.

FER including USD and EUR, inflation including CPI and PPI, and commercial credit interest rate have been increasing from 2014 to 2018. Depending on distortions on these indicators, CBRT had to increase policy rate from 8.3% to 24%, respectively. Also, CBRT has used excessive reserves in order to keep FER under control by consuming net USD 12.8 billion reserves in this process. In other words, net reserves of CBRT decreased to USD 30 billion from USD 42.8 billion between 2014 and 2018.

In addition to distortions on main macroeconomic indicators, CBRT has to have much more reserves due to Turkey has an important amount of FER denominated debt owned by nonfinancial companies. Besides, there is an important amount foreign trade deficit and current account deficit. All these factors require that CB, specifically CBRT in this example, should have enough reserves and if they do not have, they should accumulate and increase reserves.

3. Literature Review

There are a lot of studies regarding reserves of CB. Some studies are included in Table 2.

Authors	Year	Scope	Period	Method	Results
Aizenman & Marion	2003	125 Countries	1980 1996	Regression	Current account deficit and economic growth affect reserves of CB.
Romero	2005	China & India	1948 1991	Regression	Current account balance is the most important factor which affects reserves of CB.
Aizenman et al.	2007	S. Korea	1998 2003	Regression	Current account balance and short term debts are the most important factors which affect reserves of CB.
Kasman & Ayhan	2008	Turkey	1982 2005	Granger Causality	Changes in FER affect reserves of CB.
Jo	2011	S. Korea	1994 2006	Regression	Economic growth affects reserves of CB positively.
Sula	2011	108 Countries	1980 2007	Regression	Export and changes in FER affect reserves of CB.
Fukuda & Kon	2012	134 Countries	1980 2004	Regression	Foreign reserves are positively related with domestic gross fixed capital formation.
Cinel & Yamak	2014	Turkey	2000 2013	Vector Error Correction (VEC)	Volatility in FER affects reserves of CB positively.
Qian & Steiner	2014	76 Countries	1980 2010	Regression	Higher levels of reserves are associated with a larger share of portfolio equity investments relative to foreign direct investments.
Aizenman et al.	2015	95 Countries	1999 2012	Regression	Emerging market economies, which have insufficient reserves, may be affected by depreciation of national currencies.
Ghosh	2016	100 Countries	1998 2014	Generalized Method of Moments (GMM)	USD, inflation hedge properties of gold, higher FER risk and monetary instability affect reserves of CB.

 Table 2: Some Selected Studies

Authors	Year	Scope	Period	Method	Results
Minjie & Degong	2016	China	1996 2014	VEC	FER affect reserves of CB.
Oktay et al.	2016	G-7 Countries	1990 2014	Panel Regression	GDP and export affect reserves of CB positively and significantly whereas population, net FDI liabilities, and current account balance affect negatively.
Reinhart et al.	2016	8 Countries	1980 2014	Vector Autoregression (VAR)	Increase in reserves reduces domestic investment.
Pina	2017	75 Countries	2000 2013	Regression	Transfer of reserves is positively related to the interest rate changes.
Schröder	2017	China	1998 2011	Panel Regression	Precautionary motives with the other factors seem dominant determinants of the surge in international reserves.
Yüksel & Özsarı	2017	Turkey	1988 2015	MARS	High Turkish Lira interest rates, current account deficit, and USD interest rate, which is higher than 5.02%, affect reserves negatively.
Benecká & Komarek	2018	104 Countries	1999 2010	Bayesian Model Averaging	Trade openness and the broad-money-to- GDP ratio positively affect level of reserves.
Mahraddika	2019	58 Countries	2000 2014	Panel ARDL	Domestic private investment in the long- run is positively associated with FER accumulation.

Source: Authors.

There are studies examining the relationship between reserves of CB and various variables. Also, a variety of methods such as regression, Granger causality, VEC, GMM, VAR, MARS, ARDL etc. are used in these studies. However, studies examining reserves of CB in Turkey is very limited. Also, current studies in Turkish literature are limited to the effective variables on reserves. For this reason, it is a must to develop new proposals in order to increase reserves of CB. Therefore, it is obvious that there is a need for such studies. In this context, this study aims to develop and present a set of proposals to increase reserves of CBRT by changing legislation regarding dividend distribution of CBRT.

4. An Analysis Regarding Transferring Treasury's Share in Profit of CBRT to Reserves and Increasing Treasury's Share in CBRT

The proposal consists of mainly two subparts which are 1) to transfer Treasury's share in profit of CBRT rather than distributing; 2) and apply this proposal with the increasing the share of Treasury in CBRT. This part of the study examines the details of the proposal, which are recommended. In

this context, shareholder structure of CBRT is examined firstly. Secondly, development trend of reserves of CBRT is examined. Thirdly, trend of net profit of CBRT and share of Treasury in this profit is examined. Fourthly, current legislation about dividend distribution of CBRT is examined. Fifthly, possible outcomes of the proposals on development of reserves are examined if they were applied between 2000 and 2018. Lastly, necessary steps, which should be taken to apply the proposals, are examined.

4.1. Shareholders Structure of CBRT

Shareholders structure of CBRT is crucial in terms of the proposals' effects. According to Central Bank Law (CBL), shares of CBRT are divided into 4 groups consisting of A, B, C, and D groups (CBL, 1970, article 7). Group A shares belong to Turkish Treasury; Group B shares belong to national banks operating in Turkey; Group C shares belong to other banks except for national banks and preferred corporations; Group D shares belong to Turkish corporations and Turkish peoples (CBL, 1970, article 8-9-10-11).

Shareholders of CBRT as of 2018 year-end are included in Table 3.

Sherrehelder	20	18
Shareholder	Amount	%
TR Treasury	13,780	55.12%
TR Ziraat Bank	4,806	19.22%
Mervak Corporation	1,280	5.12%
TR Garanti Bank	621	2.48%
TR İş Bank	582	2.33%
TR Social Security Institution	422	1.69%
TR Red Crescent	301	1.20%
TR Halk Bank	277	1.11%
Other	2,931	11.72%
Total	25,000	100.00%

Table 3:	Shareholders	of CBRT*
----------	--------------	----------

*: The table includes year-end figures and shares.

Source: Derived from CBRT, 2018.

The majority shareholder of CBRT is Turkish Treasury. Treasury has 55.12% stake in the capital of CBRT. In addition to the Turkish Treasury, some financial institutions and corporations have stake in CBRT at various amount and percentage. However, total of percentage of these institutions and corporations other than Turkish Treasury cannot reach to majority. Also, it should be stated as an important point that share of Treasury in CBRT cannot be lower than 51% according to the legislations (CBL, 1970, article 8).

Mustafa Tevfik Kartal

4.2. Trend of Reserves of CBRT

There is a wavy and variable trend in reserves of CBRT. In order to understand how they have been changing over time, it is a must to examine reserves in detail. However, it is an important point that reserves can be measured either gross or net reserves. So, reserves are examined as both gross and net.



Figure 1 shows the development trend of reserves in Turkey since 2006.

Figure 1: Reserves of CBRT between 2006/1 and 2019/3

Source: CBRT, 2019a.

Gross and net reserves have been changing over time. Gross reserves were USD 60.8 billion as of 2006 end and they reached to USD 114.3 billion as of 2013 November. After that time, gross reserves began decreasing and they were USD 75.4 billion USD as of 2019 March. This level is %34 less than the highest level which was 114.3 billion USD and is 24% high from the level of 2016 end. On the other hand, when analyzing net reserves, it is seen that they have been USD 30.2 billion as of 2019 March. They were USD 44.7 billion as of 2006 end. The highest level of net reserves was seen as USD 70.9 billion as of 2011 July. The level seen in net reserves as of 2019 March is 50% less than the highest level and also is under the level of 2006 end. As general, it can be said that gross and net reserves are under level of the highest points. Also, net reserves are lower than from the level of 2006 end. This means that net reserves have not increased after the past 12 years.

Besides level of gross and net reserves, share of reserves in comparison with Gross Domestic Product (GDP) is important due to the fact that CB should have enough reserves in comparison with growth of the macro economy in order to use effectively guide monetary policy. For this reason, it is important to examine reserves as share of GDP.

Figure 2 shows the development trend of reserves as a share of GDP in Turkey since 2006.



Figure 2: Reserves of CBRT as a share of GDP between 2006 and 2018

Source: CBRT, 2019a; TSI, 2019; World Bank, 2019.

Gross reserves/GDP was 11% as of 2006 end and it was 11.8% as of 2013 end which is the highest level. After this level, it was decreasing and it has been 9.2% as of 2018 year end. On the other hand, net reserves/GDP, net reserves/GDP was 8.1% as of 2006 end, and it was 8.8% as of 2009 end which is the highest level. After this level, it was decreasing and it has been 3.8% as of 2018 year end. As general, it can be said that gross reserves/GDP and net reserves/GDP ratios are much more lover than the levels in 2006 end the levels at which they reached to the highest level.

4.3. Trend of Net Profit of CBRT and Share of Treasury in Profit

The main point of this study and the proposals, which are recommended, is dependent on the net profits of CBRT. So, it is necessary to examine net profits of CBRT in detail. Net profits of CBRT across the years between 2000 and 2018 are included in Table 4.

Year	Net Profit (Million TL)	Treasury Share in Net Profit (Million TL)	USD/TL FER as of Year End	Net Profit (Million USD)	Treasury Share in Net Profit (Million USD)
2000	751.9	472.4	0.6267	1,199.7	753.7
2001	5,154.5	3,257.7	1.2313	4,186.1	2,645.7
2002	31.3	12.2	1.5131	20.7	8.1
2003	-1,548.4	-	1.5003	-1,032.1	-
2004	-509.7	-	1.4292	-356.7	-

Table 4: Net Profits of CBRT between 2000 and 2018

Year	Net Profit	Treasury Share	USD/TL FER	Net Profit	Treasury Share
2005	-131.4	-	1.3473	-97.6	-
2006	3,102.5	921.3	1.4380	2,157.5	640.7
2007*	220.3	-	1.3078	168.4	-
2008	1,990.1	1,334.6	1.2991	1,531.8	1,027.3
2009	2,736.7	1,833.5	1.5545	1,760.5	1,179.4
2010	1,288.1	857.1	1.5076	854.4	568.5
2011	8,565.2	5,752.6	1.6781	5,104.2	3,428.1
2012	4,346.4	2,911.3	1.8011	2,413.1	1,616.4
2013	5,028.8	3,362.2	1.9054	2,639.2	1,764.6
2014	8,641.6	5,801.4	2.1918	3,942.7	2,646.9
2015	13,857.3	9,303.0	2.7249	5,085.4	3,414.1
2016	9,555.9	6,411.0	3.0267	3,157.2	2,118.1
2017	18,383.9	12,356.5	3.6543	5,030.8	3,381.4
2018	56,264.2	37,518.6	4.8221	11,667.9	7,780.5
Total	137,729.1	92,105.4	-	49,433.6	32,973.5

*: General Assembly of CBRT decided to keep net profit in retained earnings after distributing regulatory amount to employees and shareholders as a requirement of CBL.

Source: Derived from CBRT, 2018.

Net profits of CBRT have been waving over between 2000 and 2018. There are not dividend distributions in some years. There is not Treasury share in net profit due to net loss of CBRT at the end of fiscal years for 2003, 2004, and 2005. Besides, dividend distribution decision was not taken by General Assembly of CBRT for the year 2007. As a sum, there is TL 137.7 billion net profits totally for the period of 2008-2018. Turkish Treasury have had TL 92.1 billion share from net profit of CBRT. When examining these figures in USD, net profits totally for the period of 2008-2018 is USD 49.4 billion and USD 32.9 billion is share of Turkish Treasury from net profit of CBRT.

4.4. Current Legislation about Dividend Distribution of CBRT

CBL regulates dividend distribution of CBRT. The details of dividend distribution of CBRT are regulated as follows (CBL, 1970, article 60):

- \geq 20% to the reserve fund,
- \triangleright 6% of the nominal value of its share capital to the shareholders as the first dividend,

After deducting the above-stated percentages; a maximum of 5% of the remaining amount to the staff members of the Bank in an amount not to exceed the sum of two months' of their salaries and 10% to the extraordinary reserve fund,

 \blacktriangleright A second dividend to the shareholders in the ratio of a maximum of 6% of the nominal value of its share capital by a decision of the General Assembly,

> The balance in net profit shall be transferred to Treasury after this allocation.

As article 60 of CBL regulates, shareholders of CBRT except for Treasury take a little dividend from net profit. On the other hand, Treasury has taken approximately (on average) 67% dividends of net profit from CBRT between 2000 and 2018.

4.5. Outcomes of the Proposals If Applied for the Period between 2000 and 2018

There are two sides of the proposals recommended in the study. First is to transfer Treasury's share in profit of CBRT to reserves. Second is to increase Treasury share in CBRT by applying with the first proposal.

Firstly, effects of transferring share of Treasury in CBRT's profit to reserves are analyzed.

Table 5: Accumulation of Reserves by Transferring Treasury's Share in Profit of CBRT toReserves between 2000 and 2018

		rofit Treasury USD/TL1		USD/TL	Accumulat	ion of Reserves
Year	Net Profit (Million TL)	Share in Net Profit (Million TL)	USD/TL FER as of Year End	FER as of Next Year's March End	By Year End FER	By Next Year's March End FER
2000	751.9	472.4	0.6267	0.9706	753.7	486.7
2001	5,154.5	3,257.7	1.2313	1.3603	2,645.7	2,394.9
2002	31.3	12.2	1.5131	1.6634	8.1	7.3
2003	-1,548.4	-	1.5003	1.3222	-	-
2004	-509.7	-	1.4292	1.3113	-	-
2005	-131.4	-	1.3473	1.3351	-	-
2006	3,102.5	921.3	1.4380	1.4096	640.7	653.6
2007	220.3	-	1.3078	1.2383	-	-
2008	1,990.1	1,334.6	1.2991	1.7128	1,027.3	779.2
2009	2,736.7	1,833.5	1.5545	1.5357	1,179.4	1,193.9
2010	1,288.1	857.1	1.5076	1.5823	568.5	541.7
2011	8,565.2	5,752.6	1.6781	1.7879	3,428.1	3,217.5
2012	4,346.4	2,911.3	1.8011	1.8105	1,616.4	1,608.0

	No4 Dece 64	Treasury	LICD/TH FED	USD/TL	Accumulat	tion of Reserves
Year	Net Profit (Million TL)	Share in Net Profit (Million TL)	USD/TL FER as of Year End	FER as of Next Year's March End	By Year End FER	By Next Year's March End FER
2013	5,028.8	3,362.2	1.9054	2.2218	1,764.6	1,513.3
2014	8,641.6	5,801.4	2.1918	2.5885	2,646.9	2,241.2
2015	13,857.3	9,303.0	2.7249	2.8969	3,414.1	3,211.3
2016	9,555.9	6,411.0	3.0267	3.6725	2,118.1	1,745.6
2017	18,383.9	12,356.5	3.6543	3.8879	3,381.4	3,178.2
2018	56,264.2	37,518.6	4.8221	5.4517	7,780.5	6,881.9
Total	137,729.1	92,105.4	-	-	32,973.5	29,654.6

Source: CBRT, 2018; CBRT, 2019a.

As Table 4 and 5 illustrate, there is TL 137.7 billion net profits totally for the period of 2008-2018 and Treasury's share is TL 92.1 billion in this net profit. If amount of belonging to Treasury was transferred to the reserves by using year-end USD/TL FER, there would be additional reserves at amount of USD 32.97 billion. Or, if amount of belonging to Treasury was transferred to the reserves by using next year's March-end USD/TL FER, there would be additional reserves at amount of USD 29.65 billion. As it can be seen from calculations, there is substantial difference between two options depending on the timing of the transferring operation. According to the authors, it is much more reliable to take into consideration next year's March-end USD/TL FER due to the fact that there is an article in article of association of CBRT to require General Assembly meeting to be held until the next year's March-end. So, such an operation could be completed after how profit are distributed or used taken by the General Assembly of CBRT. A need to renewal of current regulation is ignored here and it is handled in forthcoming subpart of the study.

Secondly, effects of increasing share of Treasury in CBRT, by applying with the first proposal, on reserves are analyzed.

Year	Net Profit (Million TL)	USD/TL FER as of Next Year's March End	Accumulation of Reserves By Next Year's March End FER
2000	751.9	0.9706	774.6
2001	5,154.5	1.3603	3,789.3
2002	31.3	1.6634	18.8
2003	-1,548.4	1.3222	-

Table 6: Accumulation of Reserves by Transferring Treasury's Share in Profit of CBRT toReserves between 2000 and 2018

Year	Net Profit (Million TL)	USD/TL FER as of Next Year's March End	Accumulation of Reserves By Next Year's March End FER
2004	-509.7	1.3113	-
2005	-131.4	1.3351	-
2006	3,102.5	1.4096	2,200.9
2007	220.3	1.2383	-
2008	1,990.1	1.7128	1,161.9
2009	2,736.7	1.5357	1,782.1
2010	1,288.1	1.5823	814.1
2011	8,565.2	1.7879	4,790.7
2012	4,346.4	1.8105	2,400.7
2013	5,028.8	2.2218	2,263.4
2014	8,641.6	2.5885	3,338.5
2015	13,857.3	2.8969	4,783.4
2016	9,555.9	3.6725	2,602.0
2017	18,383.9	3.8879	4,728.5
2018	56,264.2	5.4517	10,320.4
Total	137,729.1	-	45,769.4

Source: CBRT, 2018; CBRT, 2019a.

As Table 6 illustrates, there is TL 137.7 billion net profits totally for the period of 2008-2018. If Treasury had 100% of CBRT, and all profit is transferred to reserves by using next year's Marchend USD/TL FER, then there would be USD 45.8 billion as additional reserves. This in a substantial important in terms of reserves especially when taking into account that there is USD 30.2 billion net reserves as of 2019 March.

4.6. Necessary Steps to Apply the Proposal

A set of proposals are recommended to strengthen reserves of CBRT in the study. They consist of mainly 2 subparts which are i) to transfer Treasury's share in profit of CBRT rather than distributing; ii) and to apply this proposal with the increasing the share of Treasury in CBRT. However, it is clear that there are legislations to regulate how net profit of CBRT is distributed among shareholders. As mentioned above, dividend distribution of CBRT is regulated in CBL article 60. Similar articles take place in article of association of CBRT (CBRT, 2019b). For this reason, to apply the proposals, the removal of these regulations in CBL and article of association of CBRT is a must. After that, a regulation, which states that Treasury's share in profit of CBRT is

transferred to reserves when General Assembly of CBRT makes a decision about profit distribution, is necessary. CBRT meets General Assembly until next year's March end and makes a decision how CBRT uses net profit. After that, necessary transactions could be completed to transfer Treasury's share in profit to reserves. The most possible date to complete this transaction is next year's March end. That is why FER of next year's March end is used in the analysis.

It is an important point to be stated that net profits of CBRT is quite high and Treasury takes high share in profit of CBRT. Transferring Treasury's share to reserves fully would make an important financial effect on Treasury due to the fact that dividend distribution would not be made. In order to decrease negative effects of the proposals on Treasury, there would be a transition period and share of Treasury in profit could be decreased by 10% percent in each year. After approximately 6-7 years transition period, the proposals could be fully applied. Effect of decreasing dividend distribution to Treasury would be tolerated with the improvement in financial stability and macroeconomic indicators which would be provided with the application of proposals.

5. Conclusion

It is commonly known in Turkey that reserves of CBRT are very low and there is a discussion about level of reserves that CBRT has. Apart from the political discussion, it is obvious that reserves of CBRT have been decreasing. For this reason, it is important to develop proposals to increase reserves. In order for this aim, some proposals are developed and recommended in this study. The proposals mainly consist of two subparts which are i) to transfer Treasury's share in profit of CBRT rather than distributing; ii) and apply this proposal with the increasing the share of Treasury in CBRT.

According to the analysis, CBRT has TL 137.7 billion net profit, and Treasury's share is TL 92.1 billion for the period of 2000-2018. In this period, if Treasury's share in profit of CBRT was transferred reserves by using next year's March end FER, total USD 29.7 billion additional reserves would be accumulated. When taking into account that CBRT's gross reserves is USD 75.4 billion and net reserves is USD 30.2 billion as of 2019 March end, it is obvious that the proposal is very effective in order to increase reserves. Besides this, much more reserves can be accumulated by adopting our second proposal which is to increase Treasury's share in CBRT which is 55% currently. If Treasury's share in CBRT were increased to 100%, then accumulated reserves would reach to USD 45.8 billion for the period of 2000-2018 by using next year's march end FER.

Implementation of the proposals would provide important contribution to increase of reserves of CBRT. Ability and capacity of CBRT to intervene to FER when financial shocks are seen would be increased by strengthening reserves. Hence, contribution to financial stability from many perspectives, especially stabilization of FER and decreasing inflation by this way would be provided. This cycle would be followed with increasing efficiency of monetary policy, decreasing interest rates, decreasing public debt and interest payments. For these reason, it is highly recommended to apply proposals recommended in the study to the related authorities if strengthening of reserves of CBRT is desired.

REFERENCES

- Acemoğlu, D. and Robinson, J. A. (2018). Why Nations Fail: The Origin of Power, Prosperity and Poverty.
- Aizenman, J., Cheung, Y. W. and Ito, H. (2015). International Reserves Before and After The Global Crisis: Is There No End To Hoarding? *Journal of International Money and Finance*, 52, 102-126.
- Aizenman, J., Lee, Y. and & Rhee, Y. (2007). International Reserves Management and Capital Mobility in a Volatile World: Policy Considerations and a Case Study of Korea. *Journal of the Japanese and International Economies*, 21(1), 1-15.
- Aizenman, J. & Marion., N. (2003). The High Demand for International Reserves in the Far East: What is Going on? *Journal of the Japanese and international Economies*, 17(3), 370-400.
- Benecká, S. & Komarek, L. (2018). International Reserves: Facing Model Uncertainty. *Economic Systems*, 42(3), 523-531.
- CBRT. (2018). Independent Audit Reports, <u>https://www.tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/About+The+Bank/O</u> <u>rganization/Independent+Audit+Reports</u>, 01.05.2019.
- CBRT. (2019a). EVDS (Data Central), <u>https://evds2.tcmb.gov.tr/index.php?/evds/serieMarket</u>, 01.05.2019.
- CBRT. (2019b). Article of Association, https://www.tcmb.gov.tr/wps/wcm/connect/TR/TCMB+TR/Main+Menu/Banka+Hakkinda/M evzuat/TCMB+Esas+Mukavelesi, 05.05.2019.
- CBL. (1970). Central Bank Law numbered 1211. Published in Official Gazette dated 01.26.1970 and numbered 13409.
- Cinel, E. A. & Yamak, N. (2014). Determinants of the Central Bank Foreign Currency Reserves: The Case of Turkey. *Economic Approach*, 25(93), 21-38.
- Eğilmez, M. (2017). Central Bank Reserves, <u>http://www.mahfiegilmez.com/2017/04/merkez-bankas-rezervleri.html</u>, 03.10.2018.
- Eren, B. (2017). Factors Affecting the Rezerv Request Required Countries And Reserve Authority. Proficiency Thesis of CBRT, <u>http://www.tcmb.gov.tr/wps/wcm/connect/4da1ac52-bbb4-4cef-a37b-84a1b14a026a/Bekir+Uzmanl%C4%B1k+Tezi-23.10.2017.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-4da1ac52-bbb4-4cef-a37b-84a1b14a026a-m3fBagm, 07.05.2019.</u>
- Cinel, E. A. & Yamak, N. (2014). Determinants of the Central Bank Foreign Currency Reserves: The Case of Turkey. *Economic Approach*, 25(93), 21-38.
- Fukuda, S. I. & Kon, Y. (2012). Macroeconomic Impacts of Foreign Exchange Reserve Accumulation: Theory and International Evidence. In: Kawai, M., Morgan, P.J., Takagi, S. (Eds.), Monetary and Currency Policy Management in Asia. *Edward Elgar Publishing*.
- Ghosh, A. (2016). What Drives Gold Demand in Central Bank's Foreign Exchange Reserve Portfolio? *Finance Research Letters*, 17, 146-150.
- Jo, G. J. (2011). Analysis of International Reserve Hoarding in Korea. *Pacific Economic Review*, 16(2), 154-167.

- Kartal, M. T. (2018). New Player to Turkish Financial Markets: Turkey Product Specialized Exchange's Role and Potential Contributions. 5. International Social, Human and Economic Sciences Symposium, 25.10.2018, Abstract Book, 209-210.
- Kasman, A & Ayhan, D. (2008). Foreign Exchange Reserves and Exchange Rates in Turkey: Structural Breaks, Unit Roots and Cointegration. *Economic Modelling*, 25(1), 83-92.
- Mahraddika, W. (2019). Does International Reserve Accumulation Crowd out Domestic Private Investment? *International Economics*, https://doi.org/10.1016/j.inteco.2019.02.003.
- Minjie, M. and Degong, M. (2016). The Effect of Export Rebate on RMB Exchange Rate and Foreign Exchange Reserves-Based on the Data from 1996 to 2014. Journal of Sichuan University (Philosophy and Social Science Edition), 1(9).
- Oktay, B, Öztunç, H. & Serin, Z. V. (2016). Determinants of Gold Reserves: An Empirical Analysis for G-7 Countries. *Procedia Economics and Finance*, 38, 8-16.
- Pina, G. (2017). International Reserves and Global Interest Rates. *Journal of International Money and Finance*, 74, 371-385.
- Qian, X. & Steiner, A. (2014). International Reserves and the Composition of Foreign Equity Investment. *Review of International Economics*, 22(2), 379-409.
- Reinhart, C. M., Reinhart, V. and & Tashiro, T. (2016). Does Reserve Accumulation Crowd out Investment? *Journal of International Money and Finance*, 63, 89-111.
- Romero, A. M. (2005). Comparative Study: Factors that Affect Foreign Currency Reserves in China and India. Honors Projects, Economics Department, Illinois Wesleyan University, United States.
- Schröder, M. (2017). Mercantilism and China's Hunger for International Reserves. *China Economic Review*, 42, 15-33.
- Sula, O. (2011). Demand for International Reserves in Developing Nations: A Quantile Regression Approach. *Journal of International Money and Finance*, 30(5), 764-777.
- TSI. (2019). Main Statistics, <u>http://www.turkstat.gov.tr/UstMenu.do?metod=temelist</u>, 01.05.2019.
- World Bank. (2019). GDP, <u>https://data.worldbank.org/indicator/ny.gdp.mktp.cd?view=map</u>, 01.05.2019.
- Yüksel, S. and Özsarı, M. (2017). Identifying Macroeconomic Factors Influencing the Foreign Exchange Reserves of the Central Bank of Turkey. *Finance, Politic and Economic Comments*, 54(631), 41-53.