

Turkey's Great Moderation after 2002

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WHICH WAY TO THE ECONOMIC FREEDOM REVOLUTION?

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ABSTRACT: Turkey's post–2002 economic performance is remarkable in most of its various aspects. In this paper, it will be argued that this successful performance has a strong similarity to the USA's Great Moderation. The USA had an economic boom period between 1982–2002 which has been called the Great Moderation by John B. Taylor and some other important economists. As convincingly proved by Taylor's works on the subject, that happened because the Fed had quite approximately followed Taylor Rule in the conduct of its interest rate policy throughout the moderation years. Beginning with the year 2003, Turkey's main economic policies have progressed from pure discretionary nature towards rule–like manner. This policy progress has led to the long and sound economic progress that goes on today. However, based on an application of productivity norm of monetary policy to interest rate policy of TCMB, we will be able to diagnose an instability source that appears within Turkey's economy. This diagnosis provides us a few concrete policy proposals which may support Turkey's economic development in the future.

Keywords: The Great Moderation; Rule–based policy; Rule–like policy; Turkey's economy; Productivity norm of monetary policy.

Introduction

The USA had an economic boom period between 1982–2002 which has been called the Great Moderation by John B. Taylor and some other important economists. This Great Moderation constituted USA's longest and soundest economic growth in the post–1913 era. As convincingly proved by Taylor's works on the subject, that happened because the Federal Reserve (the Fed) had quite approximately followed Taylor Rule in the conduct of its interest rate policy throughout the moderation years. Other developed and emerging countries also conducted rules–based or rule–like economic policies and that extended the Great Moderation into a global success as well.

Turkey's post–2002 economic performance is remarkable in most of its various aspects. During the last 14 years, Gross Domestic Product (GDP) has increased more than twofold. After its lost decade of 1990s, and eventually beginning with the year 2003, Turkey's main economic policies have progressed from pure discretionary and *ad hoc* nature towards rule–like manner that has provided a foreseeable policy framework. Policymakers' adoption of this rule–like manner, in turn, has been perceived by market actors as strong and highly credible policy commitments. Turkey's Great Moderation has emerged largely due to this rule–like policy making which has been leading to economic 'stability' and 'growth' tendencies basically harmonious with each other. It should especially be emphasized that post–2002 fiscal and monetary policies provided an enormous economic freedom in its financial aspect. The government debt stock in relative to GDP has been steadily decreased. Monetary policy has been much more foreseeable and conducive to the coordination of price mechanism than it had during the 1990s. Economic actors now have a considerable freedom to use society's loanable funds according to their own needs and expectations. As the state gives ground to private actors in the loanable funds market, resources drain to real sector, not to public sector which characteristically uses funds according to political priorities. Therefore, competition in general increases and the economy grows.

It will be argued here that these factors unleash a number of sound and, thus, sustainable growth sources. However, based on an application of productivity norm of monetary policy to interest rate policy of Central Bank of Republic of Turkey (TCMB–Türkiye Cumhuriyet Merkez Bankası), we will be able to diagnose an instability source that appears within Turkey's economy. Contrary to some commentators' claim that, for Turkey's economy, there is only one risk which stems from a possible global trade shock as happened in 2009, excess money supply produced by TCMB creates a financial instability effect that prevents better performance of the general economy. As a particular experience, TCMB's excess money supply produced between 2009 and 2013 was responsible for artificial growth rates far exceeding 5 percent and an overheated economy in which inflation rate may easily surpass 10 percent frontier. Macro–prudential measures of post–2013 intentionally slowed the economy, decreasing GDP's artificial growth rates to 5 percent proximity.

Yearly Consumer Price Inflation (CPI) rate in general hovers around 5–10 percent which limits price system's ability to coordinate economic activities much more effectively. And also, there are some concrete indicators that an excess capital accumulates in real estate

construction sector. Yet, this paper claims that real sources of growth are far more powerful than monetary, i.e., the artificial growth source that stems from excess money supply of TCMB.

USA unfortunately deviated from Taylor Rule in a great scale after the Dotcom Bubble. And this was a fatal mistake. If Turkey retains the correct features of its economic policy, its economic freedom will gain power and its Great Moderation will continue well into 2020s. Turning its ‘rule-like’ policies into *explicitly declared and strictly binding* ‘rule-based’ policies will increase the benefits of predictability and economic freedom. Adopting a fiscal rule that will target a below 10 percent government debt stock/GDP ratio will be a correct way to enhance financial aspect of economic freedom of Turkey. Finally, if TCMB follows what productivity norm suggests, it will cease to be an instability source and will not lead economic actors into error by deviating individual prices from their natural levels.

USA’s Great Moderation; 1982–2002

On 15th of June 1971, USA’s closure of gold window was the beginning of a new and unique period from the aspect of monetary policy. The USA Dollar has been completely left to arbitrary management of the Fed. Even though the Fed attempted to seem like it was controlling the situation by relying upon the Phillips Curve, its stop-go policy in fact was a result of its indecision, in other words, not knowing what to do. As a wrong paradigm, Phillips Curve was the leading one of economic policies causing the combination of inflation fervor and economic recession. Phillips Curve would never reach to 1980s. In 1979, Paul Volcker became the head of the Fed. Volcker determined price stability as the primary objective, and he also achieved that. In 1987, when he handed over the reins to Alan Greenspan, the economy was at a much better position when compared to 1970s. Growth rates got closer to the natural levels, and labor force participation rates started a stable and high-level increase (Taylor 2016). Greenspan’s steering initiated the period which was the closest to rule-based policy execution, despite the use of statements relying upon the personal charisma such as “Greenspan standard” and “Maestro”. This period was the longest period of association of steady growth and low inflation rates since the establishment of the Fed (Taylor 2012, 1020).

This most successful period of the Fed, which started in 1982 and ended in 2002 (or arguably in 2007), was the period in which the Fed had quite approximately followed Taylor Rule in the conduct of its interest rate policy. *Since it provided a combination of steady growth and approximate price stability*, this long period of welfare was called the Great Moderation. In this period, a few of recessions were felt, but they took very short time and were averted mildly. Together with the decrease in inflation rates, the interest rates also declined. The rates of unemployment drew back to natural levels. The volatility in basic macroeconomic indicators such as inflation, interest rates, and growth rates significantly decreased. The inconsistencies that stemmed from monetary policy were minimized, and economic actors adapted their expectations and decisions to changing conditions more healthfully. Differing from pre-1980 and post-2002 periods, the monetary policy did not become unrecognizable *by stop being a monetary policy*, it did not become a part of fiscal

policy or intervene to credit allocation. In other words, in the Great Moderation period, monetary policy focused on the task which it could and must do. The result was the longest and healthiest economic growth period of USA since the year 1913, when the Federal Reserve had been established (see also Taylor 1993 and Taylor 2010).

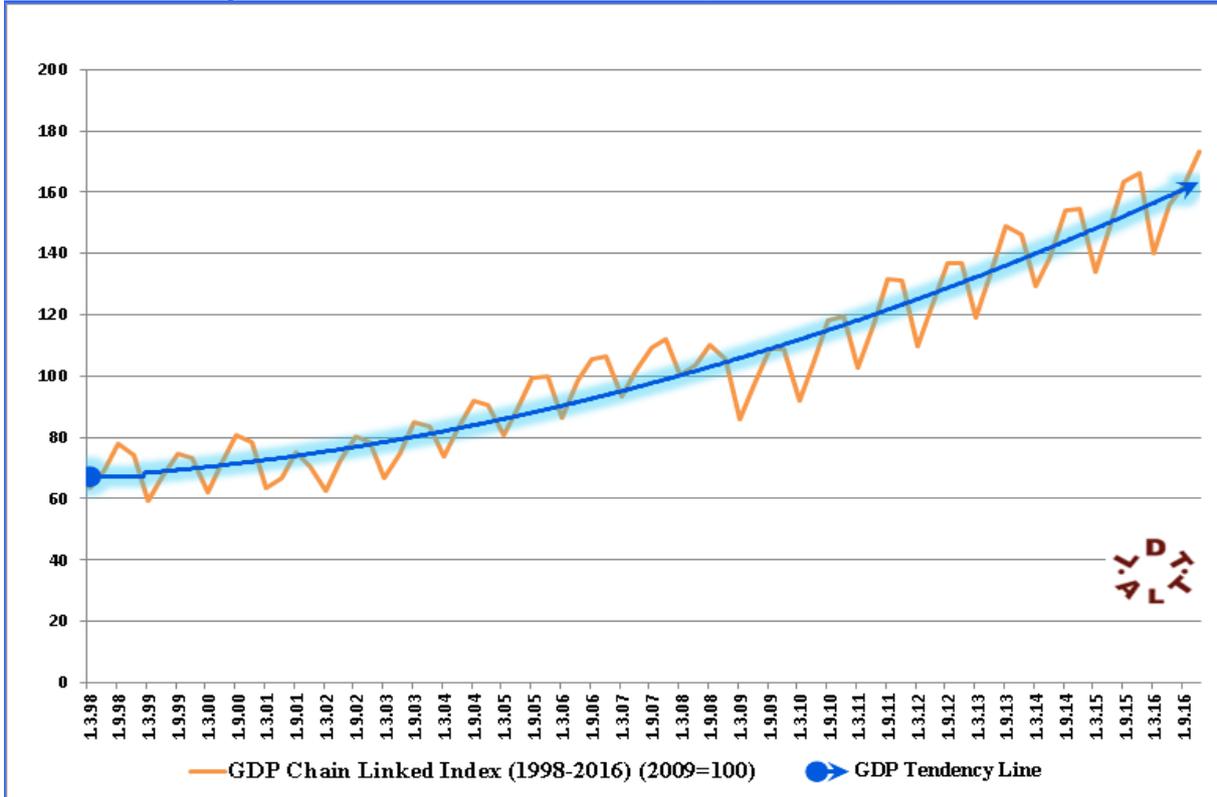
Turkey's Great Moderation; From Discretionary to Rule-Like

Turkey made a very bad starting to the new century. And, even before this bad beginning, 1990s were already like a lost decade. Irritating political instabilities, irresponsible and extravagant fiscal policies, inflationist monetary policy, and the domination of populism and populist policies were the characteristics of this period. The crisis in early 2001 was a severe political depression and a real economic collapse. *The economic destruction nearly in its every aspect was an inevitable result of bad economic policies.* The economic settlements that had been postponed and accumulated throughout 1990s were concentrated within a several years of 1999–2002. The economic depression of these years was a combination of public debt crisis, business cycle crisis, and foreign exchange crisis. Public finance has bankrupted the government by losing its solvency. Monetary policy has deteriorated the price system, and prepared the ground for widespread bankruptcies. Currency peg practice created an artificial foreign currency shortage, and inevitable collapse of this practice caused dramatic fluctuations in exchange rates.

After 2002, the performance of Turkey's economy was highly different. As it will be discussed in detail below, positive and dramatic changes occurred in monetary and fiscal policies that are the main elements of economic policy. As a result of these policies, GDP, which was 236 billion dollars in 2002, increased to 950 billion dollars in 2013 and 935 billion dollars in 2014. In 2015 and 2016, even though GDP grew 6.06 and 3.20 percent, since USD appreciated against Turkish Lira (TRY), the USD equivalent of GDP was calculated to be 862 and 863 billion dollars respectively (TurkStat, GDP and GDP per capita). Since 2002, yearly GDP has contracted only in 2009, mainly because there was a steep collapse in global trade volume (for GDP tendencies see also Figure 1 and 2). Turkey's CPI drew back to the levels lower than 10 percent since 2004 (TurkStat, CPI). Although the inflation rates after 2003 do not seem very successful when compared to those of developed countries, it courses within a very predictable range of 5–10 percent annually. And this is a very low level when considered from the aspect of Turkey's historical standards. This predictability limits the damages of inflation, *especially when compared with losses stemmed from broken price system of 1990s.* After 2002, the interest rates in credit market significantly declined, and this trend allowed the usage of the most of financial resources in accordance with the discipline of private sector.

In this period, Turkey did not achieve only an increase in GDP, but the welfare created has served for the enlargement of the middle class. The Gini Coefficient, which was 0.440 in 2002, was calculated to be 0.404 in 2015, and this indicates a better income distribution (TurkStat, Gini Coefficient). While the portion of population earning less than 4.3 dollars per day was 30.30 percent in 2002, the same ratio was dramatically declined to 1.62 percent as at the end of 2014 (TurkStat, Individual Poverty Rates).

Figure 1: GDP – Chain Linked Index; 1998–2016 (2009=100)



Source: Produced from TurkStat data.

Figure 2: GDP – Million USD at Current Prices; 1998–2016



Source: Produced from TurkStat data.

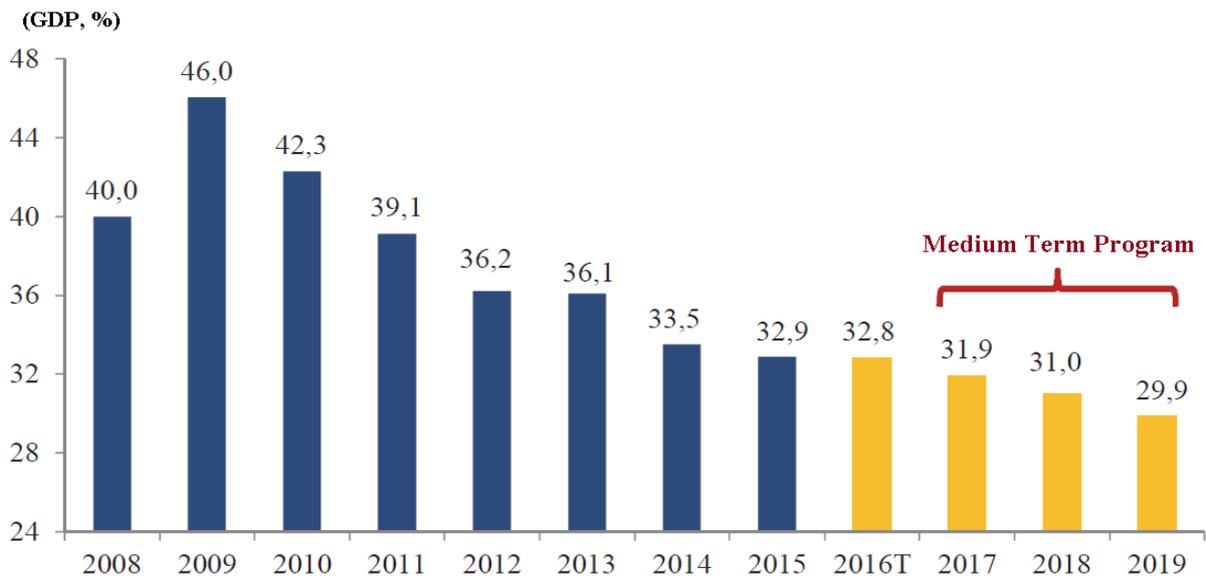
The main reason of performance difference in Turkey's economy was the dramatic change in the economic policy path. The completely discretionary and *ad hoc* decisions of 1990s have been transformed into more 'rule-like'; systematic and predictable policies. The bitter fruits of 1990s' economic policies, which have peaked in 1999–2002, seem to cause the period of collapse, which we as a country have learned. I would argue that, *when examined in the light of liberal norms, even though the economic policies after 2002 were away from the perfectness, they represent a dramatic advance in terms of conducting correct policies with a long term outlook.*

Responsible Fiscal Policy; The Biggest Equilibrating Power

Rule-like and responsible fiscal policy is where economic policy comes closest to liberal principles. It is not surprising that, this accurate policy provides the largest portion of contribution to positive economic outcomes. In consequent of this policy, the ratio of our General Government Debt Stock Defined by EU to GDP decreased from 74 percent in 2002 to about 33 percent in 2016, (as can be seen from Figure 3). While the ratio of General Governmental Budget Deficit was 10.8 percent in 2002, it decreased to 2 percent proximity as at the end of 2016. When compared to Maastricht Criteria, which require the ratio of debt stock to the national income to be 60 percent at maximum and budget deficit to be 3 percent at maximum, these values indicate to a very successful fiscal policy. Turkey's status from these two criteria is very promising when compared to average numbers of OECD countries, European countries, and emerging countries. This improvement in budget discipline can be also seen through the ratio of budget interest expenses to GDP. While the ratio of budget interest expenses to GDP has been calculated to be 24 percent as at 2001, it has steadily decreased to 2 percent as at 2016. Thus, the public sector has no tendency to exploit the growth of national income and the enlargement in private sector in order to continuously enlarge its own scope.

This improvement in fiscal policy significantly and positively changes the operation of our economy. As a part of the Medium Term Program (The Ministry of Finance 2017), the government offers a rule-like promise towards decreasing the rate of debt stock to national income, and targets the numbers sustaining the improvements in the policy in coming years. This commitment is accepted and considered by the economic actors as reliable and realizable. After 2002, Turkey performed privatization approximately in 50 billion dollars (Sabah 2016). *But, it should be clarified that the aforementioned responsible practice in our fiscal policy is the largest privatization in the last fourteen years.* As a result of this policy, the government significantly decreased its domination in the loanable funds and, in fact, significantly decreased its expropriation. When compared to 1990s, much larger portion of the funds have been transferred from the public sector, which operate inefficiently, to the usage of private sector, which have to operate much efficiently under the pressure of profit and loss discipline.

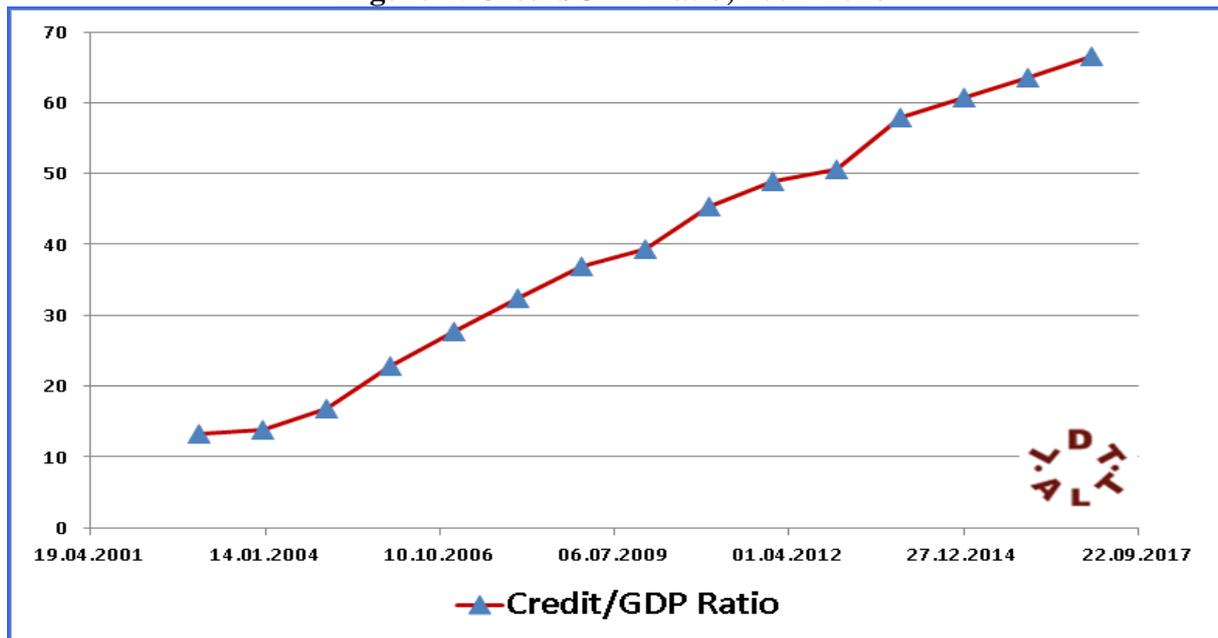
Figure 3: General Government Debt Stock Defined by EU; 2008–2019



Source: The Ministry of Finance, 2017, *Annual Economic Report 2016*, p. 40. (GDP with former series, 2016T: value estimated as of the source’s publication date).

In Figure 4, it can be seen how this largest privatization has changed the allocation of loanable funds in terms of society’s freedom of using its sources. As the government withdraws from the market of loanable funds, the ratio of credits offered to non-financial sector to GDP has increased. Credit/GDP ratio, which was 13 percent in 2002, steadily increased up to 66 percent proximity as at the end of 2016. This means that the credit volume that was 48 billion TRY in 2002 increased to 1 trillion and 734 billion TRY in 2016. This abundance of credit leads to decreasing credit market interest rates which had been at the level of preventing possible investment projects during the 1990s.

Figure 4: Credit/GDP Ratio; 2002–2016



Source: Produced from BRSA data.

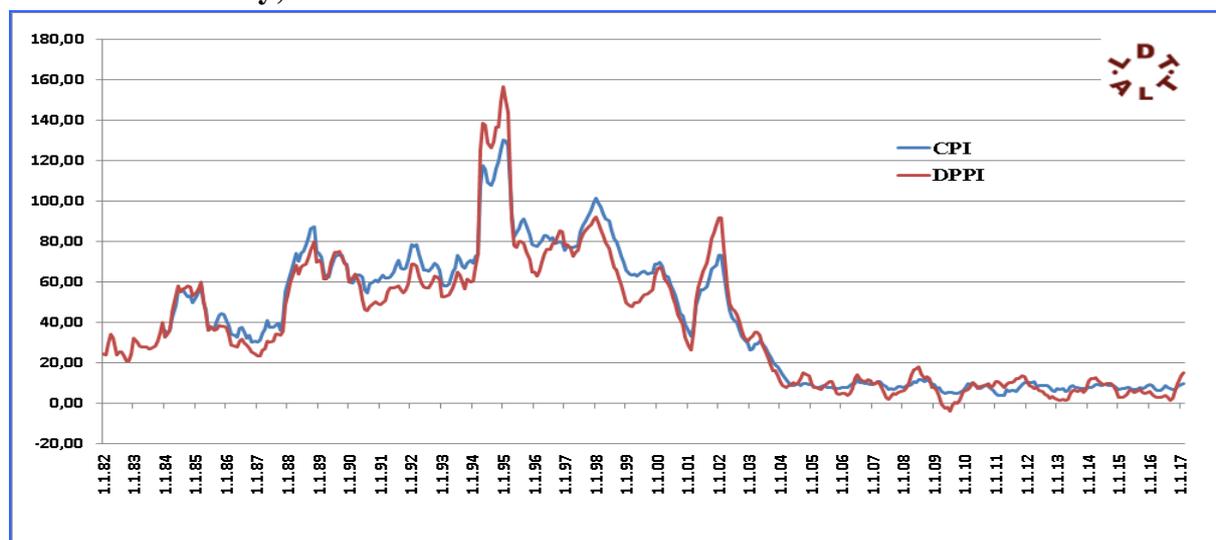
However, it should be especially stated that the fiscal policy has a long way to go. Adopting a fiscal rule that aims to decrease the ratio of General Government Debt Stock Defined by EU to GDP to less than 10 percent and keep it at this level in future will significantly increase the stimulating effects of fiscal policy. In other words, declaration of a simple, clear, and feasible fiscal rule and strictly following the rule –which is more difficult than declaring it– will transform the rule–like policy to rule–based policy. Such a transformation, at the same time, will be one of the vital elements of efforts for improving the general investment environment.

Monetary Policy; Running the Price System

The course of our monetary policy is an important part of Turkey’s great economic change in 2000s. *The monetary policy caused an average 70.4 percent inflation rate for the period of 1993–2002.* As it can be seen in Figure 5, this high level of inflation rates also showed large fluctuations. A high level of inflation is pretty much destructive. But, unfortunately, this was not our only problem. Largely fluctuating inflation rates were the extra load increasing this destructive power. As a whole our price system was operating noisily and radiating wrong signals. In short, it was an economy, where scarce funds that the private sector could use were inaccurately allocated and the price system was very inefficient in general.

This paralyzed price system’s effect on credit supply was especially important. As Steven Horwitz expressed (2003, 78), “..., ongoing inflation (particularly if rates are variable and unpredictable) may well cause lenders to reduce the overall amount of credit they supply, which would represent a real loss in comparison to an economy in monetary equilibrium.” That was what exactly happened during 1990s in Turkey. Inflation was decreasing the real values of back payments of debtors, in other words, it was discouraging new loans that could be given by creditors. Particularly, *high inflation rates which had a wide volatility* were making pricing decisions of creditors daunting and too risky.

Figure 5: Domestic Producer Price Index (DDPI) and Consumer Price Index (CPI) Inflation in Turkey; 1982–2016



Source: Produced from TurkStat data.

The CPI rate, which was 18.4 percent in 2003, declined to 9.3 percent in 2004, and rarely exceeded over 10 percent to this date. This inflation rate, which remained much predictable than it was in 1990s, significantly improved the effectiveness of our price system. In the post-2004 period, there is a rule-like policy of keeping the CPI rate under 10 percent. This may be called an implied promise of keeping the CPI rate below 10 percent frontier. *It can be clearly seen that the price system's ability to coordinate the economic activity significantly improved after 2004.* Economic actors look at a body of indicators radiating much more accurate signals. As a result of that, more efficient allocation of funds and the increases in productivity can be possible. The direction of inflation is largely predictable. And this enhances the perspectives of actors in long-term contracts, and strengthens their ability of adaptation to the changing economic conditions. This transformation is one of the robust reasons of economic growth after 2003, and is also the correct part of monetary policy.

As a part of monetary policy, not making an exchange rate targeting, or adhering to the freely fluctuating exchange rates system is another correct aspect. This is the fundamental factor preventing a foreign currency crisis since 2001. Economic actors perform adaptations in foreign currency supply and demand in accordance with their needs and changing conditions. The parity movements occurring as a result of these adaptations make large-scaled exchange rate changes unnecessary, and prevent the foreign currency shortages. As stated by John Chown (2013, 95–96);

Turkey had long suffered chronic inflation at rates above 50 percent per annum. The collapse of the currency against the dollar was checked by an IMF stabilisation package in November 1999 coupled with a credible 'crawling peg' exchange rate policy. Purchasing power parity held during this period against the US dollar, which the IMF thought was the obvious target. Unfortunately, this was a period when the euro zone currencies fell sharply against the dollar and Turkey's competitiveness against its main trading partners deteriorated by over 30 percent. There was the inevitable crisis in early 2001 and, after the central bank had fallen into a classic trap and wasted \$ 10 billion in support operations, the currency was floated in February. As so often happens, things have to get worse before they get better and, in this case, a new government succeeded in getting expenditure under control, granting independence to the central bank and liberalising the economy. This initiated a period of prosperity from which they have not so far looked back.

This unfortunate experience of February 2001 was really shocking. The government had emphasized that the exchange rate regime would be 'credible', but this policy was in fact a price control and was bound to be a futile effort. Eventually, far from being credible, it ended with a fiasco. İstanbul Equity Market (Borsa İstanbul) collapsed. The repo interest rates reached up to 7,500 percent. TCMB was not able to maintain the currency peg even though it had spent 10 billion dollars. The USD/TRY parity rate, which was 1 \$=670,000 TRY before the crisis, peaked to 1 \$=1,161,000 TRY. The number of unemployed individuals, which was 1,452,000 as of the end of 2000, increased to 2,412,000 after the crisis.

Interim Results; Lessons from 1990s

Some intermediate results can be obtained from the above-mentioned accounts. When policies of the 1990s that had been continued until 2002 and the policies of the post-2002 period are compared from the aspect of long-term results, there are some crucial lessons to learn.

- (I) *The excess money supply in a large scale that caused an average inflation rate of 70.4 percent in the period of 1993–2002 did not result in a credit abundance.* Mainly because excess money supply, (i.e., money created out of thin air as a result of policymakers' arbitrary aims rather than meeting an increase in money demand) could not replace the real savings *in the long term*. In other words, *excess money supply is the artificial, deceptive, and temporary savings that must be result in inflation* (decrease in the purchasing power of money). For this reason, excess money supply is not suitable for overcoming the natural and inevitable scarcity of resources (and credit).
- (II) The extravagant fiscal policy of 1990s is *another factor aggravating the scarcity of resources (and credit)*. By transforming the natural scarcity to *artificial scarcity level*, the extravagant fiscal policy worsened the situation. In fact, *despite the much more limited money supply that resulted with the inflation rates below 10 percent after 2004*, the increase of credit/GDP ratio from about 13 percent up to 66 percent was the common consequence of more prudent fiscal policy and more responsible monetary policy.

Hence, when addressing the expansion of private sector and the increase in national income through the abundance of credit and the decrease in interest rates, preventing excess money supply and following a responsible fiscal policy are the correct ways leading to successful results in the long-term.

Determining the Problem in Monetary Policy

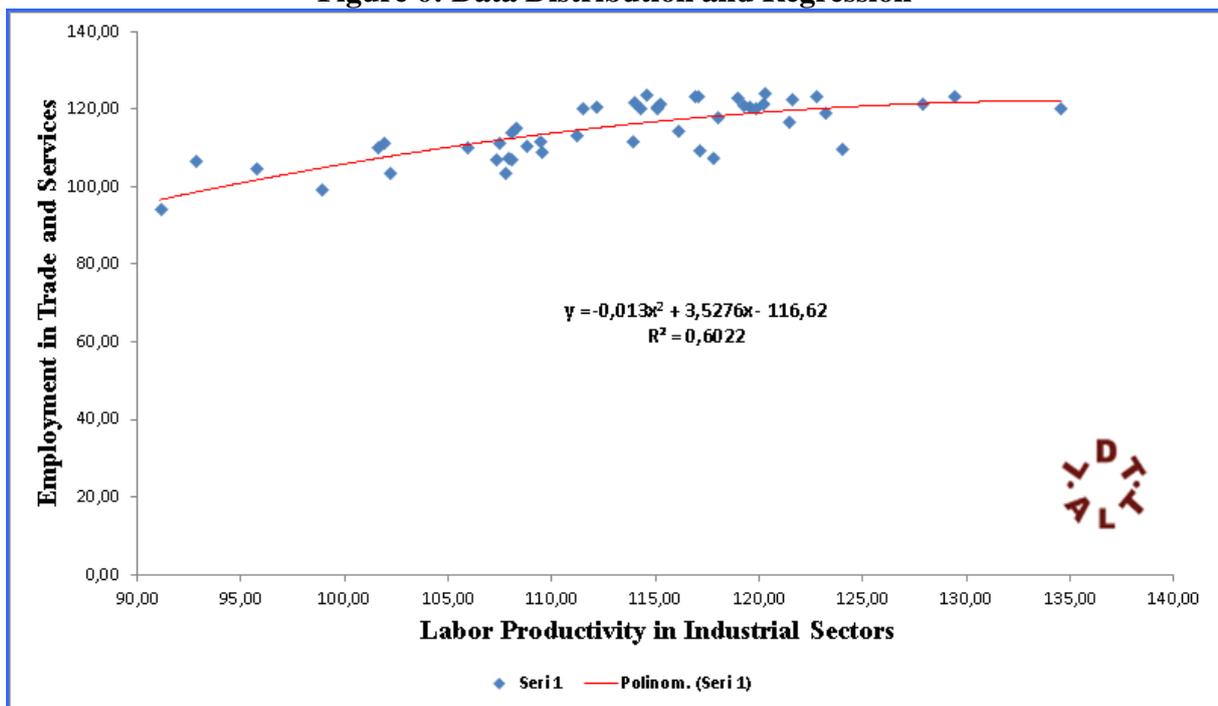
The debates regarding the stability of Turkey's economy, especially after 2009, concentrated unfortunately between two opposite opinions. As far as I can see, the common aspect of these two perspectives is that they sacrifice the economic reasoning to the political priorities. A perspective asserts invalid assertions that an economic decline is being experienced in Turkey and the welfare level of society worsens. Another perspective asserts that in Turkey there is no problem caused from economic policy and that we may have a crisis only due to the external shocks, or that we may have economic recessions or declines as a result of political turmoils such as Gezi Park Protests, 17 December or 15 July Coup attempts. *Both of these opposing opinions are false*. I believe that this can be explained with the implementation of productivity norm of monetary policy to the post-2009 period of Turkey.

Productivity norm is a monetary policy rule proposing that the central banks shall not prevent the decreases in price levels that stem from improvements in labor and capital productivity. The norm argues for complete free movement of market rates of interest based

on the pure time preference theory of interest rates (see also Herbener ed. 2011, 11–58). The productivity norm asserts that the decreasing price level would ensure the course of economy in a sustainable natural growth rate, and consequently increases in society’s welfare level shall not be prevented via excess or inefficient monetary supply. The productivity norm argues that, so long as there is no monetary disequilibrium, the increase in general economic welfare might be feasible with an economy producing more and realizing price level declines as a result of abundant goods and services (see also Selgin 1997).

The productivity norm, by comparing the course of policy interest rates to the course of total productivity of production factors in the same diagram, can diagnose monetary disturbances that TCMB may cause. Unfortunately, in Turkey, there is no official statistical data that report the ‘total factor productivity’, or the ‘total labor’ or ‘total capital’ productivity, which can be used as an alternative to a non-existent total factor productivity data. But the quarterly time series of Index of Production per Person Employed which is prepared by Directorate General for Productivity of The Ministry of Science, Industry, and Technology for the periods of 2005–2012 and 2010–2016 are calculated for industrial and agricultural sectors. For this reason, since the trade and all service sectors are excluded, it does not provide the ‘total labor productivity’. Turkish Statistics Institute (TurkStat) has a Trade and Services Employment Indices and Percentage Changes. Trade and Services Employment Indices have been prepared for the quarterly periods of 2005–2012 and 2010–2016. It can be theoretically asserted that the course of Index of Production per Person Employed and Trade and Services Employment Indices would not have a very different distributions. When a regression calculation is made between two time series, the result is $R^2=0,60$ that corroborates the theoretical expectation. In Figure 6, the distribution and regression results of two time series are presented.

Figure 6: Data Distribution and Regression



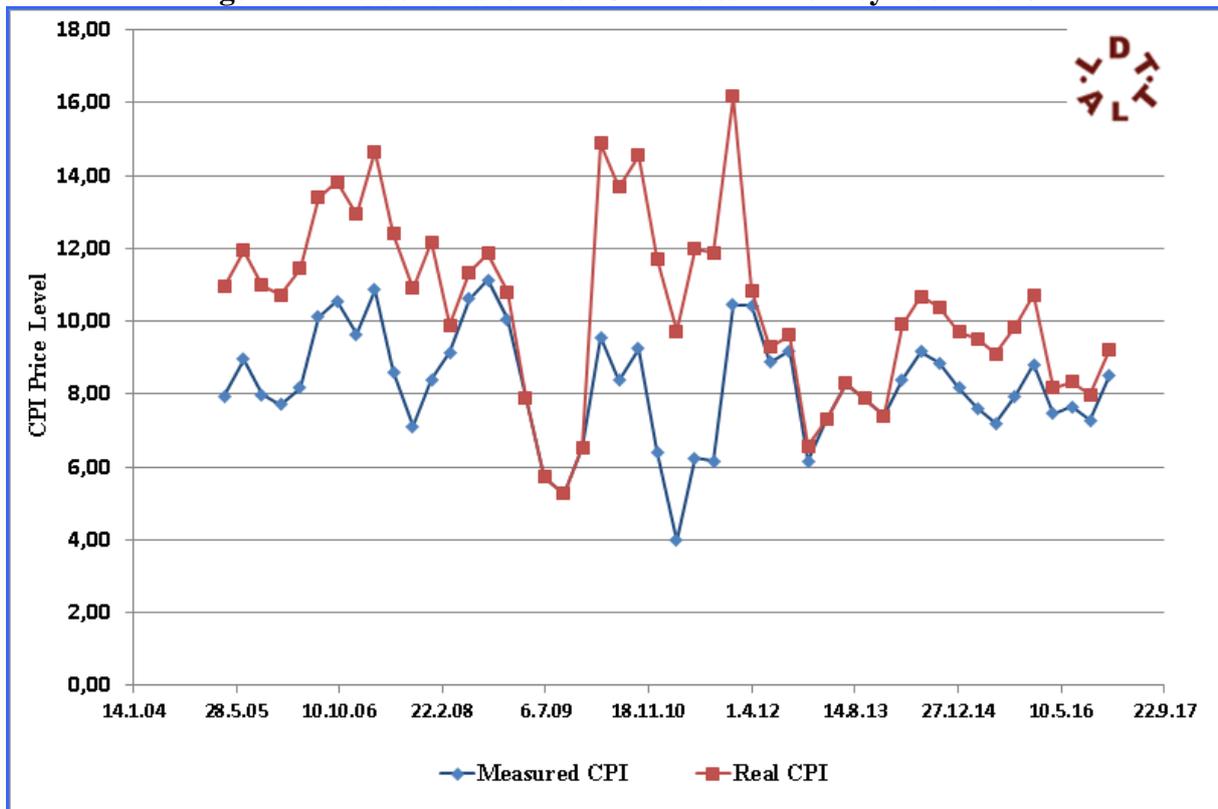
Source: Author’s calculations.

Hence, it is possible to think that there is a significant relationship between these two time series. Based on this result, *the proxy total labor productivity* can be obtained by combining these two time series. It is very likely that, if we could have the official data of total labor productivity rather than its proxy, it would not show very different course. It can be said that we draw the outlook significantly closer to reality.

a) Real Inflation Rate of Turkey after 2005

The real inflation rate of Turkey, which was calculated after the required data organization and combination, is presented in Figure 7. As the productivity norm asserts, the real inflation rate is calculated by adding the productivity increase rates to the measured inflation rates. Despite that there is an economy producing more through moderate increases in productivity, the moderate price declines are not observed. On the contrary, the measured rate of inflation has never fallen below 4 percent because TCMB creates money in a large scale that exceeds the level of sterilizing the price-declining effects of productivity increases. As it can be seen in the diagram, the first finding is that the real average inflation rate was higher than 10 percent in the period after 2005. The decrease in purchasing power of households is more than the measured CPI rate indicates.

Figure 7: Measured and Real CPI Rates in Turkey 2005–2016



Source: Author’s calculations.

TCMB falls behind the price stability target much more than it thinks. The second point is about the efficiency of price system. As explained above, the effectiveness of price

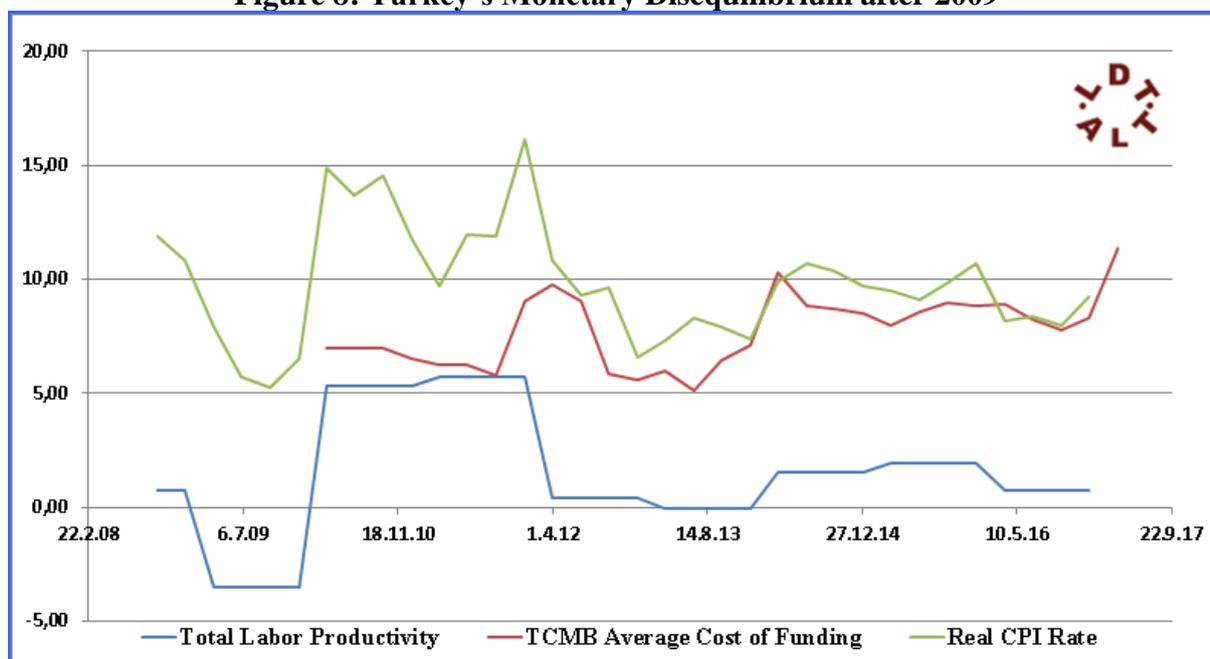
system in 2000s has made significant progress. But, *when considering in the lights of productivity norm*, this progression has a long way to go. Even now, we cannot allocate the funds to most appropriate usages because of the inefficiencies in the price system's coordination on economic activities. The inflation keeps being an important problem suppressing our national income and causing significant waste of resources. With a real price stability defined and targeted as zero percent, or the better, a benign deflation progressing at the level of increase in total productivity rate of production factors, it is possible to further increase the national income and to enhance the resource allocation efficiency. Our monetary policy unfortunately prevents us from this path for development.

b) TCMB as a Source of Instability; 2009 and Later

As an advanced analysis step, comparing the total labor productivity and real inflation rate with the policy interest rates of TCMB might explain the macroeconomic cycle of Turkey between 2009 and 2016. Figure 8 illustrates this comparison. Blue line indicates the total labor productivity, green line the real inflation rate, and red line the TCMB average cost of funding rate.

The TCMB average cost of funding rate represents the policy interest rate. It is operational as of January 2011. But, by using weekly repo rate of TCMB for 2010, it is possible to pull the red line back to the end of 2009. The Great Crash 2008 and the ensuing recession was also a fluctuation for us, but which was an external factor and effects of which were limited to only one year. In the period after 2009, the critical point is that TCMB's policy rates generally fall below the real inflation rate; in other words, our real policy interest rate is negative or very close to zero.

Figure 8: Turkey's Monetary Disequilibrium after 2009



Source: Author's calculations.

The gap between the green line and the red one is the empirical prove of the fact that TCMB followed an extensively loose policy and caused an excessive money supply. The main factor initiating the fluctuation in our economy's last six years is TCMB's excessively low level of policy interest rates. *This policy was a mistake because we have had no problem of monetary disequilibrium or any real risk of deflation.* The large gap between the TCMB average cost of funding rate and real inflation rate in the period of 2010–13 was caused from excess money supply created by TCMB. As a result, we had GDP growth rates of 8.49–11.11–4.79–8.49 percent consecutively, which were, except for 2012, far higher than the Turkey's average structural growth rate.

Even though the explanation of 'excessive growth' in 2010–13 was left unclear by the policymakers, the discourse of 'soft landing' came to the fore. This discourse was also the confession that the economic growth in 2010–13 was not sustainable. Because it can be safely asserted that it is not reasonable to attempt to prevent a healthy and natural economic growth. Economic policymakers were right about the need for slowdown. The credit volume increasing yearly higher than 30 percent was the indicator of that the inflation will exceed 10 percent frontier and will reach up to 20 percent unless we slowdown. The discourses of 'economy is overheated' and 'we should slowdown' were the manifestations of this awareness. The greatest part of this rapid credit expansion was real estate loans and that fact indicated the increasing risk of an asset bubble. There was another warning signal; Turkey suddenly became leader among the European countries in terms of having skyscrapers (*Dünya* 2014). If we did not slowdown, the imbalances in capital allocation would accumulate, and we would have inflated an asset balloon by our own policy.

In fact, the confirmation of such a problem and an early warning signal indicating that the risks on Turkey's economy were not only external ones were expressed in a study by Zafer Yükseler (2011, 39) in which he examined the current account balance of Turkey in comparison with fifteen other countries. Yükseler has stated in conclusion of his study that

when current account balance performance of Turkey in the period of 1997–2010 is compared to those of fifteen countries, two points come to the fore. First one is the low personal saving rate in Turkey and the recent decrease in this ratio. Especially in the period of 2005–2010..., the main reason of increasing current accounts deficit in Turkey was the decrease in savings ratio. The increases in loan options and the facilitation of access of consumers to financing sources increased the consumer credits and decreased the individuals' propensity to save. Second point is that, in the examined period, Turkey has lost its competitive power against especially emerging countries in the list of fifteen.

... Because of the economy's loss of competitive power, it was observed that local and foreign companies avoid from investing in sectors bringing foreign currency into domestic markets, and instead preferred investing in sectors such as shopping malls, residences, office building, communication, and energy...

In short, the corrosion in savings and increase in easy credits were making the economic growth of 2010–2013 unsustainable. And TCMB had at least an important responsibility and contribution to this negative tendency.

Furthermore, there is a significant contextual similarity between our artificial growth period of 2010–2013 and Housing Bubble of USA. The ‘too low for too long’ interest policy followed by the Fed in 2000s coincided with the productivity increases in USA economy. The productivity increases did not reflect to the consumer price index as a decline, despite the additional contribution of imported cheap goods of Chinese and other developing countries. The inflation caused from too loose monetary policy sterilized the pressure that was suppressing the prices. In other words, although it has created hidden inflation, Fed referred to the low level of measured inflation level, and asserted that it maintained the price stability, that the money emitted to the economy did not cause disequilibrium, and that its policy saved USA economy from the recession caused from the Dotcom Bubble. But, in fact, by preventing the declines in prices, Fed also prevented the important increases in consumer welfare and laid the foundation of the Housing Bubble. *Another experience was added into the chain of experiences emphasizing that ensuring the price stability does not mean the economic stability. This was also an experience proving that the productivity norm would be a policy superior to price stability targeting.*

Since Turkey’s policymakers did not want interest rates to increase, the slowdown through direct credit control and fiscal policy was preferred as of the end of 2013. Tax rates were increased in certain products. And under the title of macro–prudential measures, credit line and term limitations in certain credit types have been implemented. Along with these measures, the velocity of money decreased; in other words, economy started to slowdown. As of the end of 2014, it was understood that we entered into the range of a slow growing. The growth rate, which was 5.17 percent in 2014, increased to 6.06 percent in 2015, and then again decreased to 3.2 percent in 2016. The real problem was not the low growth rates of these years but the artificially high growth rates in the 2010–13 period. In medium–term, the economy was progressing at an equilibrium level; our monetary policy was the factor deteriorating its short–term pace. In fact, it should be added that, since we allowed the operation of floating exchange rate regime, the foreign trade deficit turned away from the dangerous path through the exchange rate arrangements. At this point, it should be also expressed that the decreasing energy and commodity prices also supported this positive equilibrating process.

Monetary policy was the latest factor in the slowdown period of 2014–2016. However, TCMB could lead the equilibrating process by following the productivity norm, and allow the balancing mechanism of free market to work via interest rates as well. Thus, the tax increases and credit controls might not have been needed. Slowing growth rates of 2014–2016 evidenced that the monetary policy is ineffective on the economic growth in medium and long term *at the best scenario*. The ‘realization’ of this best possibility was not luck for us. The possibility became reality, because we had a fiscal policy, which were sterilizing the artificial growth resources created by TCMB and bring the much robust growth trends into motion. Without this policy, the monetary acceleration of TCMB might have caused a widespread

crisis in our economy. Real growth resources of *our economic structure* overcome the *artificial growth resource created by TCMB*. The dominant factor is still the advances in private sector's growth skills.

Based on this explanation regarding the period of 2009–2016, productivity norm is a useful guide in analyzing the TCMB's policy. The norm is a robust indicator illustrating the decreases and increases in risks regarding the macroeconomic instabilities. Enlarging gap between real inflation rate and TCMB average cost of funding rate should be seen as a warning signal. If this enlargement extends over a long period, a possibility of an asset bubble that may damage the entire economy also increases. It is possible to forecast that, the economic experiences of forthcoming decades in Turkey might add new evidences to the guiding and analyzing ability of the productivity norm. And also, adopting the productivity norm could transform our monetary policy into a rule-based framework which would prevent monetary disequilibria.

Conclusion; From Rule-like to Rule-Based

According to the results of this study, maintaining the price stability may get the approval of “yes but not enough” from a liberal perspective. In other words, the price stability can only be the second best following the productivity norm. A central bank following productivity norm would contribute better to the economic growth and macroeconomic stability. *The productivity norm ensures the removal of the effects of monetary excess and shortage on the price indices and individual prices.* Prices which do not deviate from their natural levels will fulfill their task as good as possible. Thus, prices will change only as a result of real dynamics, and this will prevent the cluster of entrepreneurial errors from spreading throughout the economy. The harmony between the consumer preferences and investment plans would increase and the all actors of economy would benefit from this. Naturally, some local/sectoral failures and bankruptcies would happen, because the economical actors may not adopt the most suitable and perfect decisions. But, in an economy where productivity norm is followed, cluster of entrepreneurial errors which are large and mistaken enough to cause macroeconomic fluctuation would not occur.

A rule-based economic policy enhances the efficiency of price system. The price system should convey right signals in a timely manner. Controlling the interest rates and consequently intervening into the credit allocation should not be the duty of central banks and governments. Determining the winners and losers of economy via the monetary policy is not either ethical or economical. From this aspect, the profit-loss discipline of market is much more effective and much more objective. When the monetary policy is sterilized from the power of influencing the income and wealth distribution, central banks would not be able coerce its citizens into work under unfair competition or gain unfair advantage at the expense of others. *Protecting economic actors from misleading prices and the effects of unfair competition that stem from central bank's policies is part and parcel of a country's economic freedom.*

The central banks may adopt policy rules by themselves. But, in this case, the arbitrarily adopted rules may also be arbitrarily left. The advantages of having a rule would be

very much limited. As a better option, legislative assembly may impose rules on central bank. But the best option is to have a rule constitutionally binding. This constitutional preference would absolutely limit the arbitrary management of policy, *and consequently* it would be the first best method of preventing the central banks from being the source of macroeconomic instability.

References

Chown, John. 2013. “Lessons from Monetary History”. In *The Euro – the Beginning, the Middle...and the End?*, edited by Philip Booth, 95–6. London: The Institute of Economic Affairs.

<http://www.iea.org.uk/publications/research/the-euro-%E2%80%93-the-beginning-the-middle-and-the-end>

Dünya. 2016. (Turkish newspaper), “Avrupa’da en fazla gökdelen Türkiye’de”, 24.04.2016, Accessed October 11, 2017.

<http://www.dunya.com/gundem/avrupada-en-fazla-gokdelen-turkiyede-haberi-244773>

Herbener, Jeffrey M. 2011. “Introduction”. In *The Pure Time–Preference Theory of Interest*, edited by Jeffrey M. Herbener, 11–58. Alabama: Ludwig von Mises Institute.

<https://mises.org/library/pure-time-preference-theory-interest-0>

Horwitz, Steven. 2003. “The Costs of Inflation Revisited”, *The Review of Austrian Economics*, 16:1, 77–95. Kluwer Academic Publishers.

http://www.gmu.edu/rae/archives/VOL16_1_2003/5_Horwitz.pdf

Selgin, George A. 1997. *Less Than Zero: The Case for a Falling Price Level in a Growing Economy*, London: The Institute of Economic Affairs and Mises Institute.

http://mises.org/books/less_than_zero_selgin.pdf

Sabah. 2016. (Turkish newspaper), “Özelleştirmede 160 milyarlık rekor”, 04.04.2016, Accessed October 11, 2017.

<http://www.sabah.com.tr/ekonomi/2016/04/04/ozellestirmede-160-milyarlik-rekor>

Taylor, John B. 1993. “Discretion versus Policy Rules in Practice”, Carnegie–Rochester Conference Series on Public Policy 39, 195–214, North Holland.

<http://web.stanford.edu/~johntayl/Papers/Discretion.PDF>

Taylor, John B. 2010. “Swings in the Rules–Discretion Balance”, Prepared for the Conference on the Occasion of the 40th Anniversary of *Microeconomic Foundations of Employment and Inflation Theory*, pp. 15–16, Columbia University.

<http://web.stanford.edu/~johntayl/Rules%20versus%20discretion.pdf>

Taylor, John B. 2012. “Monetary Policy Rules Work and Discretion Doesn’t: A Tale of Two Eras”, *Journal of Money, Credit and Banking*, 44:6, 1017–1030, The Ohio State University.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1538-4616.2012.00521.x/abstract>

Taylor, John B. 2016. “Economic Exasperation”, *Economics One; A Blog by John B. Taylor*, April 8, <https://economicsone.com/2016/04/08/economic-exasperation/>

Yükseler, Zafer. 2011. *Türkiye'nin Karşılaştırmalı Cari İşlemler Dengesi ve Rekabet Gücü Performansı (1997–2010 Dönemi)*, p. 39, Ankara: Türkiye Cumhuriyet Merkez Bankası.
http://www.tcmb.gov.tr/wps/wcm/connect/c134b451-a83d-4dd3-a6f9-d2095ede2a2a/yukseler_cari.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACEc134b451-a83d-4dd3-a6f9-d2095ede2a2a

Banking Regulation and Supervision Agency. Statistics, Monthly Reports, Interactive Monthly Bulletin, Balance Sheet Data of Turkish Banking Sector, http://www.bddk.gov.tr/WebSitesi/english/Statistical_Data/Monthly_Reports/Monthly_Reports.aspx

The Ministry of Finance. 2017. *Annual Economic Report 2016*, January 2017, p. 40, Ankara. <http://www.gep.gov.tr/Pro/Dyn.aspx?prmts=21>

The Ministry of Finance. 2017. *Medium Term Program (2017–2019)*, Ankara. <http://www.bumko.gov.tr/TR,42/orta-vadeli-program.html>

The Ministry of Science, Industry and Technology. “Index of Production per Person Employed, (2005=100), 2005–2012 and (2010 Ort.=100), 2010–2016”, Quarterly Productivity Statistics, <http://vi.sanayi.gov.tr/productivitystatistics/>

Turkish Statistical Institute, ‘Trade and Services Employment Indices and Percentage Changes, (2005=100), 2005–2012’ and ‘Trade and services seasonal and calendar adjusted employment index and percentage changes (2010=100), 2005–2016’. In ‘Statistics by Theme’ – ‘Trade and Services’ – ‘Trade and Services Indices’ – ‘Statistical Tables and Dynamic Search’ <http://www.turkstat.gov.tr/UstMenu.do?metod=kategorist>

Turkish Statistical Institute, Gross Domestic Product and GDP per Capita. In ‘Main Statistics’ – ‘National Accounts’ – ‘Gross Domestic Product by Production Approach’. <http://www.turkstat.gov.tr/UstMenu.do?metod=temelist>

Turkish Statistical Institute, Gini Coefficient and S80/S20 ratio by equivalised household disposable income. In ‘Main Statistics’ – ‘Income, Living, Consumption and Poverty’. <http://www.turkstat.gov.tr/UstMenu.do?metod=temelist>

Turkish Statistical Institute, The Poverty Rates According to Poverty Line Methods. In ‘Main Statistics’ – ‘Income, Living, Consumption and Poverty’. <http://www.turkstat.gov.tr/UstMenu.do?metod=temelist>

Turkish Statistical Institute, Consumer Price Index (Jan. 1984–Sep. 2016) and Domestic Producer Price Index (Jan. 1982–Sep. 2016) Annual Changes. In ‘Statistics by Theme’ – ‘Inflation & Price’. <http://www.turkstat.gov.tr/UstMenu.do?metod=kategorist>