A Hiccup in Turkey’s Prolonged Credit Fueled Economic Transition: A Comparative Analysis of Before and After the August Rout

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Abstract
Purpose: The study attempts to analyze the impact of economic and non-economic factors on the Turkish economy which was plunged into a currency crisis in August 2018 due in most part to sanctions and tariffs imposed by the U.S.
Design and Methodology: Turkey’s economy is characterized as one with high inflation and persistent chronic deficits. The study was based on a literature review of the adverse impact of America’s weaponizing dollar and abuse of sanction power on Turkish economy. The study analyzes developments that laid the foundation for the collapse of Turkey’s a decade-long credit-fueled economy. The broad analysis of Turkey’s most severe currency shock since the unprecedented 2001 economic crisis looks at various exogeneous and endogenous aspects.
Findings: The study shows that Turkish economy possesses instability-inflicting imbalances such as high inflation, growing budget deficit, massive dollarization, alarming levels of external debt, and chronic current account deficit. The study concludes that the causes of Turkey’s gloomy economic situation are not all homegrown, its lackluster performance is blamed on attacks of non-economic basis. Another key finding is that Turkey is in desperate need of foreign capital flows as Turkey’s options to service its massive external debt through foreign borrowing have become substantially limited since the 2018 August rout.
Practical Implications: In general terms, interest rates are of great importance as a monetary policy tool, but in Turkey, the relationship between the U.S. and Turkey sometimes plays a more pivotal role in determining the interest rate elevation and the consequent spike in inflation. The article offers insights to government authorities who should commit to structural and fiscal reforms to put the economy back on the right track for a faster recovery, or else let it collapse beyond repair.
Originality/Value: The conclusions and findings in this study impact the perspective of the Turkish central bank with regard to policy responses under economic and financial distress that may arise from economic, non-economic, political and non-political driving and contributing factors. Because of premature and late responses, Turkish citizens are a lot poorer now than they were prior to the August rout in 2018.

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1.0 Introduction

Turkey’s near meltdown economy, a casualty of speculative attacks on Turkish lira in August 2018 and the subsequent unfolding events, is forecast to contract in 2019 after a decade-long credit-fueled boom. The Fed’s historically low interest rates due to its expansive monetary policies in the aftermath of the 2008 global financial crisis (GFC) were a trap luring Turkish banks to borrow cheap greenbacks (i.e. dollar glut) which were lent back domestically to private businesses who now agonizingly face the amplified dollar dilemma because their substantially devalued cash flows are in lira while their foreign debt is mostly dollar (and euro) denominated (see Figure 1). According to the Turkish central bank (TCMB), Turkey’s hemorrhaged gross external debt has alarmingly exceeded $400 billion at the end of 2017 and people fear that things may get a lot worse (double-dip recession) before recovery. Many economists forecast further contraction in the broader economic activity in 2020; a wide ranging estimates show that Turkey’s fragile economy may contract between 1% and 5% in 2020.

![Figure 1: Outstanding Loans Received From Abroad By Private Sector (Billion $)](https://www.tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/Statistics/Chart+Gallery)

Although the August rout of 2018, the biggest currency shock since the 2001 Turkish economic crisis, could toss Turkey back in a high inflationary mode; Turkish government authorities have dismissed the recent severe economic trouble and blamed the crisis on dysfunctional and hostile policies of non-economic basis. For the past four decades, Turkey’s economy has been characterized as one with high inflation and persistent chronic of current account deficit (for a fuller discussion, see Altug et al., 2008; Aricanli & Rodrik, 1990; Eken & Schadler, 2012); nevertheless, Turkey’s present gloomy economic situation is far more improved than that of the late 1960s during which the average exchange rate of USD/TRY was about nine lira per dollar (see Boratav, 2009; Boratav & Yeldan, 2001).
The new millennium has not only brought the biggest currency shock and the resultant economic collapse in Turkey’s history, but also instigated a fresh start in Turkey’s unstable political arena. The financial dismay of 2001 crisis greatly benefited the Justice and Development Party (AKP) which was formed in August 2001 shortly after the collapse of the triad coalition led by Prime Minister Bülent Ecevit. After winning 363 parliamentary seats in the November 2002 elections, the leader Recep Tayyip Erdoğan became prime minister in March 2003 of a non-coalition government; he wanted to remove the national infamy of chronic inflation and repeated military coups for good (Önis & Aysan, 2000; Özatay & Sak, 2002; Yeldan, 2001). In the face of Turkey’s huge progress of fiscal and structural reforms since 2002, its economic growth (stable exchange rates) has been costly and crisis-ridden.

| Table 1: History of the IMF’s Lending Arrangements with Turkey |
|------------|------------------|----------------|----------------|----------------|
| No | Facility | Date of Arrangement | Expiration Date | Amount Agreed | Amount Drawn | Amount Outstanding |
| 19 | Standby Arrangement | May 11, 2005 | May 10, 2008 | 6,662,040 | 4,413,602 | 4,066,620 |
| 18 | Standby Arrangement | Feb 04, 2002 | Feb 03, 2005 | 12,821,200 | 11,914,000 | 155,925 |
| 17 | Standby Arrangement Supplemental Reserve | Dec 22, 1999 | Dec 20, 2001 | 15,038,400 | 11,738,960 | 0 |
| 16 | Standby Arrangement | Jul 08, 1994 | Mar 07, 1996 | 610,500 | 460,500 | 0 |
| 15 | Standby Arrangement | Apr 04, 1984 | Apr 03, 1985 | 225,000 | 168,750 | 0 |
| 14 | Standby Arrangement | Jun 24, 1983 | Apr 03, 1984 | 225,000 | 56,250 | 0 |
| 13 | Standby Arrangement | Jun 18, 1980 | Jun 17, 1983 | 1,250,000 | 1,250,000 | 0 |
| 12 | Standby Arrangement | Jul 19, 1979 | Jun 17, 1980 | 250,000 | 230,000 | 0 |
| 11 | Standby Arrangement | Apr 24, 1978 | Jul 18, 1979 | 300,000 | 90,000 | 0 |
| 10 | Standby Arrangement | Aug 17, 1970 | Aug 16, 1971 | 90,000 | 90,000 | 0 |
| 9 | Standby Arrangement | Jul 01, 1969 | Jun 30, 1970 | 27,000 | 27,000 | 0 |
| 8 | Standby Arrangement | Apr 01, 1968 | Dec 31, 1968 | 27,000 | 27,000 | 0 |
| 7 | Standby Arrangement | Feb 15, 1967 | Dec 31, 1967 | 27,000 | 27,000 | 0 |
| 6 | Standby Arrangement | Feb 01, 1966 | Dec 31, 1966 | 21,500 | 21,500 | 0 |
| 5 | Standby Arrangement | Feb 01, 1965 | Dec 31, 1965 | 21,500 | 0 | 0 |
| 4 | Standby Arrangement | Feb 15, 1964 | Dec 31, 1964 | 21,500 | 19,000 | 0 |
| 3 | Standby Arrangement | Feb 15, 1963 | Dec 31, 1963 | 21,500 | 21,500 | 0 |
| 2 | Standby Arrangement | Mar 30, 1962 | Dec 31, 1962 | 31,000 | 15,000 | 0 |
| 1 | Standby Arrangement | Jan 01, 1961 | Dec 31, 1961 | 37,500 | 16,000 | 0 |

Source: IMF, https://www.imf.org/external/np/fin/tad/extarr2.aspx?memberKey1=980&date1key=2008-03-31

After 19 standby agreements and more than $40 billion in short-term loans (Table 1), privatization of the state-owned entities since the 1980s and capital market liberalization in the 1990s have been

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1 Only two parties managed to pass the 10% threshold to enter the parliament (this was a second time occurrence since 1961); AKP got 34.3% of votes and the Republican People’s Party (CHP) got 19.38% of votes and 178 seats.

2 From 1950 to 2019, there have been four single-party governments; Democratic Party (1950-1960), Justice Party (1965-1971), Motherland Party (1983-1991), Justice and Development Party (2002-present). There were coalition governments in-between; four governments (1973-1980) and seven governments during 1991-2002.

3 Economic boom in the 1950s was interrupted by the 1960 military coup; the growth was reasonably moderate in the 1960s; export boom and resultant good growth in the 1980s; good growth and single digit inflation (2017) during AKP.

4 The US President Ronald Reagan and the UK’s Prime Minister Margaret Thatcher made privatization become a household name; their eternal legacies and unique approaches have been referred to as “Reaganomics” and “Thatcherism.”
rather bad for Turkey, therefore the 2001 economic crisis was inevitable. Furthermore, the seeds of Turkey’s current economic problems had been planted by the last three bailout packages prior to and in the aftermath of the 2001 crisis (Önis, 2009; Raina & Bakker, 2003). After the AKP’s win in the 2007 parliamentary elections (47% of seats), Prime Minister Erdoğan had said “No IMF in Turkey’s future”⁵ (Eken & Schadler, 2012); accordingly, Turkey made its last payment of the outstanding balance from the 19th standby agreement to the IMF in May 2008. Many contend that Turkey’s divorce from the IMF can hardly qualify as a graduation since the country is on the brink of a financial collapse.

### Table 2: Descriptive Statistics for Exchange Rates Before August Rout

| Currency Pair | Mean  | Standard Error | Median  | Mode  | Standard Deviation | Sample Variance | Kurtosis | Skewness | Range  | Minimum  | Maximum  | Count  |
|---------------|-------|----------------|---------|-------|--------------------|-----------------|----------|----------|--------|----------|----------|--------|
| USD/TYR       | 2.3875| 0.0148         | 2.0954  | 1.5800| 0.8443             | 0.7128          | -0.3259  | 0.8410   | 3.4867 | 1.3960   | 4.8827   | 3274   |
| USD/EUR       | 0.8020| 0.0014         | 0.7802  | 0.7350| 0.0780             | 0.0061          | -0.1586  | 0.3061   | 0.3019 | -1.1586  | -1.1586  | 3274   |
| USD/GBP       | 0.6667| 0.0011         | 0.6443  | 0.6222| 0.0610             | 0.0037          | -0.1775  | 1.0013   | 0.2470 | 0.5827   | 0.8297   | 3274   |
| USD/CHF       | 0.9603| 0.0010         | 0.9619  | 0.9650| 0.0577             | 0.0033          | -1.2143  | 0.1321   | 0.4342 | 0.7278   | 1.1620   | 3274   |
| USD/JPY       | 99.7977| 0.2493        | 101.8403| 120.2650| 14.2647            | 203.4813        | -1.2445  | -0.1099  | 49.8890| 75.7460  | 125.6350 | 3274   |
| USD/AUD       | 1.1545| 0.0252         | 1.1203  | 0.9797| 0.1533             | 3.8450          | 0.5730   | 0.0800   | 48.9890| 90.9070  | 125.6350 | 3274   |
| USD/ARS       | 8.9984| 0.0077         | 6.8020  | 3.4850| 0.7265             | 5.7265          | 1.7720   | 0.4136   | 25.1986| 3.7852   | 28.9838  | 3274   |
| USD/BRL       | 2.5261| 0.0049         | 2.2669  | 1.7720| 0.7453             | 1.7720          | -1.2667  | 0.1321   | 2.6082 | 1.5324   | 4.1406   | 3274   |
| Mean USD/THB  | 32.74 | 32.74          | 32.74   | 32.74| 32.74              | 32.74           | 32.74    | 32.74    | 32.74  | 32.74    | 32.74    | 32.74  |

Notwithstanding the IMF’s repeated failures on account of its policy errors in tandem with politically influenced objectives, it would be fair to conclude that the IMF’s last three stabilization programs with Turkey involving IMF’s strings-attached lending (i.e. fiscal and structural reforms) were successful in stabilizing exchange rates (see Table 2) and reducing consumer price index – CPI (inflation). In 2005

⁵ Hurriyet Daily News, http://www.hurriyetdailynews.com/no-imf-in-turkeys-future-erdogan-141401
after removing six zeros from the old lira, the average exchange rate of USD/TRY was 1.3440; despite the outbreak of the GFC of 2008, lira appreciated against the dollar (1.3020). Between 2005 and 2010, Turkish lira barely lost value against the dollar (1.4050, a depreciation of circa 5%). In stark contrast to a mix of fear and speculation, Turkey managed to escape the adverse effects of the GFC with a minor dent in its economy. Regardless, Turkey is in constant need of capital inflows in order to service its foreign denominated debt obligations and finance government-supported infrastructure projects to leap into the next higher level of economic performance to catch up with the advanced nations.

Turkey had milestone achievements in the 1990s; as such, a customs union agreement between the European Union (EU) and Turkey was signed on 31 December 1995 in accordance to the decision taken by EC-Turkey Association Council on 6 March 1995; and in 1996, the Customs Union enabled the establishment of a free trade area (FTA) allowing free flow of goods between Turkey and the EU without any customs restrictions (i.e. agricultural products were covered by the Association Council’s 1998 decision). Another landmark decision came in December 1999 at the Helsinki summit (delayed twice due to the fall of the Soviet Union and German reunification), Turkey’s candidacy to join the EU became official. At the backdrop of the EU related developments and domestic events, a report (end-2004) by the European Commission indicated that Turkey complied with the Copenhagen political criteria and Turkey’s accession negotiations began on 3 October 2005. Unfortunately, negotiations were halted in 2007 as Cyprus used its veto power to boycott the opening up new chapters.

The economic crisis of 2001, inevitable contagion of contemporaneous crises throughout the 1990s (for Asian crisis’ contagion, see Baig & Goldfajn, 1999), was a wake-up call for the Turkish government and its regulatory body of banking and supervision (abbreviated as BDDK in Turkish). Following the 2001 crisis, financial authorities finally understood the critical importance of painstaking fiscal and monetary policy decisions that manifestly contributed to stability; as a result, government debt ratios declined substantially and inflation was tamed during 2005-07 and 2012-17 (average CPI of 5-6%). A stable macroeconomic environment resulting from higher growth, profitable banks, and improved FSIs alleviated risks and this resulted in positive country ratings. These factors and more have made Turkey’s image shine at home and abroad, triggering a surge in FDIs and FPIs (IMF, 2007).

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6 Although the Customs Union Agreement between Turkey and the EU was signed in December 1995, the process actually began more than half a century ago with signing of the Ankara Agreement in 1963 to abolish tariffs and quotas.

7 In 1963, Turkey signed the Ankara Agreement (EEC-Turkey Association Agreement) and became an associate member of the EU in the following year (1964). More than two decades later, Turkey applied for full membership on 14 April 1987.

8 1999 was the darkest year, earthquakes in August and November at the magnitude of at least 7.2 claimed more than twenty thousand lives and cost billions of dollars. Just as Turkish people were trying to deal with tremendous pain and suffering, they were hit by an economic crisis which was the biggest financial shock in Turkey’s history. The farfetched implications of two crises, natural and financial, took an unbearable toll on the citizens of Turkey. Directly related or not,

9 FSI: Financial soundness indicators; FDI: Foreign direct investment; FPI: Foreign portfolio investment (stocks and bonds).
2.0 Literature Review

Turkish economy has encountered numerous economic and financial shocks, three of which turned into high-magnitude crises and the fourth potential economic crisis is in the works since the August rout of 2018, but virtually all of them were somewhat related to the first external borrowing that took place by the Ottoman Empire in the mid-19th century before it was succeeded by the new Republic of Turkey (Akyüz & Boratav, 2003; Celasun, 1998; Ertuğrul & Selçuk, 2001; Kibritcióglu, 2001). Once militarily superb and financially resilient Ottoman Empire – for the first time since its establishment in 1299 – was forced to borrow consequent of its fatal decision to participate in the costly Crimean War (1853-56), this also marked the beginning of the ailing Empire’s everlasting addiction to foreign borrowing (Inalcik & Quataert, 1995; Caillard, 1894). Over a century later, Turkey’s gloomy economic situation attests that not a thing has changed; then, the Ottoman Empire was besieged by loans from Britain and France that put a leash on its economy forcing Sultan Abdülhamid II to create the Ottoman Public Debt Administration (OPDA) in 1881 in order to administer war reparations and the Empire’s debt (Blaisdell, 1929; also see Birdal, 2010 for striking similarities between OPDA and the IMF).

As Keynes (1919; 1936) advocated the necessity of government intervention during a depression like crisis; in the early days of the war-devastated Turkish Republic (1923-38), Atatürk realized that any type of a factory to produce goods had to be built by the government due to a lack of skilled labor, raw materials, private capital, and potential investors. Therefore, this was the start of an era in which any sort of production in Turkey was done by the state-owned enterprises (see Boratav, 2009; Nas, 2008). Bredenkamp et al. (2009) argue that the Turkish economy ensuing severe financial or economic crises tends to follow an inward-looking growth strategy characterized by rigorous regulation, protection from foreign rivalry, and increasing state ownership in commercial activity. Without an exception, a crisis in Turkey is fostered by a credit-fueled boom that turns ordinary folks into avid buyers; this in turn creates large deficits and substantially increases debt levels of households and private firms.

10 For further readings, see Taskinsoy (2008; 2012a, b, c; 2013a, b; 2019 a, b, c, d).
11 For longer discussion and historical perspective on the Ottoman Empire’s public debt, see Caillard (1894), Eldem (2005), Owen (1987), Urquhart (1833), Fısk (1968), Genç (1987), Issawi (1966), and Goodhart (1972).
12 Mustafa Kemal’s well-organized resistance army was victorious in the Turkish War of Independence, which expelled the occupying armies; subsequently, Mustafa Kemal abolished the Ottoman Empire in 1922 by overthrowing Sultan Mehmet VI Vahdettin and established the Turkish Republic in 1923. Atatürk was elected as the President in 1923 and the Grand National Assembly of Turkey (TBMM) honored him with the title Atatürk in 1934 which means “Father of the Turks”.
13 Although at times the Turkish economy has enjoyed low inflation and a more manageable deficits of current account and government budget, it is still highly vulnerable to endogenous and exogenous shocks due to its extremely high reliance on external borrowing to service its debt obligations that come due in the short-term and in the long-run. Another big reason why Turkey’s economy is susceptible to shocks is the fact that the country has always lagged behind compared to peers in terms of adopting and implementing international banking standards (see Taskınsoy, 2013a, b; 2018 a, b, c; 2019 e, f, g, h). Due to the United States’ repeated abuse of sanction power and its use of dollar as a weapon of economic destruction, Turkey (also China and Russia) has been trying to accumulate gold to reduce its elongated addiction on the U.S. dollar (for a fuller discussion on alternatives to dollar, see Taskınsoy 2018d; 2019i, j, k).
The homegrown invents in the late 1950s as well as at the onset of the 1960s (i.e. devaluation of lira in August 1958, military coup in May 1960, a standby agreement with the IMF in January 1961, and the execution of its Prime Minister Adnan Menderes by hanging in September 1961) set the stage for Turkey’s inevitable balance of payments and debt crisis in 1977-79, which was also contributed by macro events that triggered the oil crisis in the same decade (for a perspective on Adnan Menderes and his Democratic Party, see Akin, 2002; Albayrak, 2004; Armaoğlu, 1994; Aydemir, 2013).

Source: World Bank; http://datatopics.worldbank.org/world-development-indicators/

**Figure 2:** Gross Domestic Product and GDP Per Capita

GDP ($billion): 14.0 (1960), 17.09 (1970), 68.79 (1980), 150.7 (1990), 130.7 (1994), 273.0 (2000), 200.3 (2001), 764.3 (2008), 950.6 (2013), 851.1 (2017), and below 800 billion in 2019.

GDP Per Capita ($USD): 509.42 (1960), 489.93 (1970), 1,564.25 (1980), 2,794.35 (1990), 2,270.34 (1994), 4,316.55 (2000), 3,119.60 (2001), 10,850.87 (2008), 12,542.72 (2013), 10,540.62 (2017).

The decade of the 1960s in many aspects was challenging, increasing instability was apparent in every facet of life; consequently, GDP growth was low attributable to high inflation (circa 16% in 1959-60) and large current account deficit (Dibooğlu & Kibritcioglu, 2001; Domaç, 2003). In 1960, the GDP of $14 billion is only 1.6% of the 2017 GDP of $851 billion and the GDP per capita of $509 is less than 5% of $10,541 in 2017. In addition to augmented political turmoil and social unrest, the devaluation
of lira in August 1958 caused a spike on inflation and a surge in dollarization that in turn resulted in a contraction in the broader economy. While Turkey was muddling with extreme problems at home, the IMF was waiting anxiously on the sideline to put a leash on the Turkish economy via its strings-attached bailout loans; due to the mounting political and financial pressure, Turkey gave in and signed its first standby agreement with the IMF in January 1961. Turkey expanded its GDP in the 1970s compared with the previous decade, the GDP per capita fell by about 4%, from $509 in 1960 to $490 in 1970 (see Dibooğlu and Kibritçioğlu, 2004; Karacal & Bahmani-Oskooee, 2008; Pongsaparn, 2002).

The decade of the 1980s – coined as a “lost decade”14 – began in Turkey with the inheritance of great inflation from the 1970s plus another military coup in 1980; extreme negative effects of the oil crisis15 and a reversal in capital flows led to a severe balance of payment and currency crises in Turkey in the late 1970s. As part of the standby agreements (11, 12, and 13) during 1978-80, the IMF’s prerequisite of financial and trade liberalization (i.e. opening-up domestic capital markets to foreign competition) had produced more instability than stability in Turkey in the long-run (see Furman & Stiglitz, 1998; Stiglitz, 2004; Rodrik, 2001). Most academic experts, including Rogoff and Prasad (2003), Stiglitz (2004), Howitt and McAfee (1992) support the World Bank’s econometric evidence that capital market liberalization inflicts instability, however the IMF has neither acknowledged nor refuted the evidence (for fuller discussion, see Stiglitz, 2004).16 Increased capital inflows in the form of FDIs and FPIs is a common feature of capital-market liberalization, but the downside is that financial integration may make some developing and emerging market economies more prone to crises.

As the 1980s was a “lost decade” for many countries in Latin America (i.e. unable to service foreign debt, suspend payments or unilaterally declare a debt moratorium), the 1990s had qualified as a lost decade for Turkey as its economy was in deep recession by the mid-1990s ensuing the 1994 economic crisis (Aricanli & Rodrik, 1990; Boratav & Yeldan, 2001; Celasun, 1989; Ekinci, 1990). Mody and Schindler (2005) argue that the growth during Özal administration responded strongly to the capital

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14 In the 1960s and 1970s, some countries in Latin America, namely Brazil, Argentina and Mexico incurred far more foreign debt than their ability to repay them back (principle plus interest). In just several years, the debt stock of Latin America exceeded from $75 billion in 1975 to over $300 billion in 1983.

15 The Organization of the Petroleum Exporting Countries (OPEC) sharply raised the oil prices as a retaliation to the U.S. for its aid to Israel during the Arab-Israeli conflict and the subsequent Yom Kippur War in 1973. The price of oil skyrocketed from circa $3/barrel in 1969 to $12/barrel in early 1974. For economic effects of the 1973-79 oil crisis, see Burbidge and Harrison (1984); Finn (2000); Blanchard & Gali (2010); Skeet (1988); Leduc & Sill (2004).

16 Under neoclassical economics, assuming perfect information, perfect capital markets, and perfect competition exist, capital market liberalization should lead to growth and reduced volatility; however, it should also be noted that there is asymmetry of information, imperfect capital markets with frictions, and competition is far from perfect (Obstfeld & Rogoff, 2000). Procyclicality, arbitrage, high volatility in exchange rates, and beggar-thy-neighbor policies are other issues (Lewis, 1995). The biggest negative effect of capital market liberalization is that it reduces the government’s ability and capacity to adequately respond to macroeconomic shocks. The IMF’s capital market liberalization has made Turkey more prone to economic and financial crises because Turkey greatly lacks of transparency (i.e. imperfect information).
market and trade liberalization, however the anticipated positive impact of the fiscal and structural reforms\textsuperscript{17} was undermined by a poor financial discipline by the government. The perceived success of Özal’s economic programs were overshadowed by the growing current account deficit bubble and staggering foreign debt. Additionally, Rijckeghem and Üçer (2005) argue that rising political turmoil, growing concerns about bank soundness, and worsening economic indicators created a perfect storm that subverted market confidence. Rawdanowicz (2010) points out that financial or economic crises in Turkey are usually the end result of Turkey’s chronic current account and budget deficits.

### Table 3: Turkey’s GDP, GDP Per Capita, and Budget Deficit (2000-2018)

| Year | Annual GDP $\text{million}$ | Annual GDP Growth % | GDP Per Capita $ | Per Capita Growth % | Budget Deficit $\text{million}$ | Budget Deficit % |
|------|-----------------------------|---------------------|----------------|---------------------|---------------------------------|-----------------|
| 2018 | 766,428                     | 2.6                 | 9,346          | -11.3               | -14,800                         | -1.90           |
| 2017 | 851,521                     | 7.4                 | 10,537         | -2.6                | -19,946                         | -2.34           |
| 2016 | 863,390                     | 3.2                 | 10,817         | -0.9                | -20,107                         | -2.33           |
| 2015 | 859,449                     | 6.1                 | 10,915         | -9.2                | -10,872                         | -1.27           |
| 2014 | 934,075                     | 5.2                 | 12,022         | -3.0                | -13,353                         | -1.43           |
| 2013 | 950,328                     | 8.5                 | 12,395         | 7.3                 | -13,963                         | -1.47           |
| 2012 | 873,696                     | 4.8                 | 11,553         | 3.7                 | -15,988                         | -1.83           |
| 2011 | 832,497                     | 11.1                | 11,141         | 6.4                 | -5,720                          | -0.74           |
| 2010 | 772,290                     | 8.5                 | 10,476         | 17.9                | -19,042                         | -2.68           |
| 2009 | 644,470                     | -4.9                | 8,882          | -16.9               | -42,821                         | -6.17           |
| 2008 | 764,643                     | 0.8                 | 10,692         | 11.8                | -20,466                         | -2.80           |
| 2007 | 675,010                     | 5.0                 | 9,563          | 21.1                | -9,860                          | -1.50           |
| 2006 | 550,796                     | 7.1                 | 7,899          | 8.5                 | 3,950                           | 0.80            |
| 2005 | 501,163                     | 9.0                 | 7,278          | 22.3                | -5,648                          | -1.20           |
| 2004 | 404,853                     | 9.6                 | 5,953          | 28.2                | -17,393                         | -4.40           |
| 2003 | 311,944                     | 5.6                 | 4,543          | 29.4                | -27,197                         | -9.00           |
| 2002 | 238,342                     | 6.4                 | 3,589          | 17.6                | -23,477                         | -10.20          |
| 2001 | 200,305                     | -5.8                | 3,053          | -27.6               | -46,705                         | -23.90          |
| 2000 | 273,085                     | 6.6                 | 4,219          | 5.0                 | -18,265                         | -6.80           |
| 1994 | 179,208                     | -5.1                | 3,024          | -29.0               | -26,860                         | -10.00          |

\textbf{Source:} https://countryeconomy.com/deficit/turkey

Capital-market liberalization as the IMF policy required for bailout loans combined with large deficits of current account and government budget as well as lira’s devaluation led to the 1994 economic crisis (Bruno and Easterly, 1998; Feldstein, 1998; Rodrik, 1997; Stiglitz, 1997). In each of Turkey’s three high-magnitude crises, the GDP declined 5% or more (see Table 3) and lira plummeted in excess of 50% against the dollar; circa 60% in 1994, 70% in 2001, and 50% in 2009. At the backdrop of deteriorated economic indicators (a recipe for currency crises, i.e. Kaminsky et al., 1998), inflation “a monetary phenomenon” (Friedman, 1970) skyrocketed in 1994 (125%) and 2001 (70%), but tamed during 2008-09 (circa 10%). Egeli (1999) argues that crisis-inflicting aspect of budget deficit is more

\textsuperscript{17} Turgut Özal, as the Prime Minister in 1983 after the military coup ended in 1982, was the main architect behind transforming the Turkish economy from import-focused to export-focused through privatization. Reforms included developing sound monetary policies, encouraging FDIs, reducing subsidies, and discouraging price controls.
apparent in developing and emerging market economies than advanced nations (Peker & Acar, 2010), Şen et al (2007) believe that geopolitical alignments and military risks could tick inflation upward. Under the helm of the IMF, macroeconomic policy adjustments were main concern of tackle in Turkey during and after the 2001 crisis; enormously challenging task was to prevent falling asset prices and try to keep inflation tamed; moreover, fiscal policy (Friedman, 1948) was reserved to provide limited support for capital outflows and to finance, if needed, any bank re-structuring or assuming private debt of ailing insolvent banks (Gros & Selçuki, 2013). These essential reforms could be seen as the first phase in the long recovery process (Quinn, 2003), nevertheless they need be taken immediately to restore the investor confidence and at the same time allow a sustainable growth to resume without any speculation or doubt of its resilience (Bredenkamp et al., 2009). Risks were still tilted to the downside as Turkey’s protracted bid for its accession to the EU was blocked by Cyprus in December 2009 plus then the Prime Minister Erdoğan had blamed the IMF and its policies for Turkey’s economic problems and said “No IMF in Turkey’s future”18 and “the IMF chapter will not be reopened”19.

The repeated speculative attacks on lira in August 2018 were unprecedented and the ensuing massive damage on the Turkish economy has been far greater than that of Turkey’s antecedent crises (1994, 2001, and 2009). The value of lira against dollar plummeted, the fastest drop in the history of lira; in a matter of just several months, lira depreciated20 from 3.78 in January 2018 to intraday high of 7.24 in August 2018 (as of 2 August 2019, USD/TRY is 5.60), this was the biggest currency shock since the 2001 economic crisis (Taskinsoy, 2019b; c; d). As illustrated in Figure 3 (A to F), consumer price index (A) peaked at 25.24% in October 2018 (highest in a decade), which in fact doubled from August 2017 level. Producer price index (B) saw the largest spike; from 2-3% in October 2016, it almost hit 50%. Dollarization persists very strong (C), $185 billion in April 2019 but reached as high as $210 billion (dollarization is expected to lose steam after the TCMB lowered the fund rate by 425 basis points on July 25, 2019). International investment position (D) dropped significantly after August 2018, which saw further decline after President Erdoğan sacked the TCMB governor. Short-term external debt on a maturity basis (E) is little over $175 billion ($75 billion of debt matures in 2019). Interest rates for bank loans and deposits (F) are still very high, this situation has been a huge strain on the economy; peaked at around 26%; currently, approximately 22% for deposits and 30% for commercial loans.

18 Hurriyet Daily News, http://www.hurriyetdailynews.com/no-imf-in-turkeys-future-erdogan-141401
19 http://www.hurriyetdailynews.com/imf-chapter-will-not-be-reopened-says-erdogan-143029.
20 Turkish lira depreciated about 100% against dollar in 10 years, whereas lira recently lost more than 80% of its value in a matter of just two weeks in mid-August 2018. April 10, 2005 (1.35), April 10, 2006 (1.35), April 10, 2007 (1.37), April 10, 2008 (1.29), April 10, 2009 (1.57), April 10, 2010 (1.49), April 10, 2011 (1.52), April 10, 2012 (1.79), April 10, 2013 (1.79), April 10, 2014 (2.10), April 10, 2015 (2.62), April 10, 2016 (2.85), April 10, 2017 (3.73), January 2, 2018 (3.76), August 13, 2018 (6.91, intraday high of 7.24), December 31, 2018 (5.28), February 13, 2018 (5.27).
A. Consumer Price Index (CPI) – Annual Change (%)

B. Producer Price Index (PPI) – Annual Change (%)

C. Resident’s FX Deposits with Banks (Billion $)

D. International Investment Position (Billion $)

E. Short-Term External Debt Statistics (Billion $)

F. Interest Rates for Banks’ Loans and Deposits (%)

**Source:** TCMB – Turkish Republic Central Bank
https://www.tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/Statistics/Chart+Gallery

**Figure 3:** Various Economic Indicators of Turkish Economy
Although the Turkish lira has appreciated substantially against dollar since August 2018 (from 7.24 on August 13 to 5.61 on August 2, 2019), Turkey’s unemployment rate surged to 14.7 in February 2019, which is the highest level in a decade. Out of the working-age population of 32.3 million, about 14% or 4.2 million people are unemployed; in 2017, only three million were unemployed (Figure 4). The biggest jump was in the youth (i.e. between 15 and 24 years old) unemployment rate, surged from circa 17% in 2017 to 23% in 2018 (i.e. an increase of 37 percent). As the Turkish economy had contracted over 3% in 2018 and further contraction is anticipated in 2019, the unemployment rate may be pushed over 15% in the near-term as some firms may lay off workers.

Source: World Bank; http://datatopics.worldbank.org/world-development-indicators/

Figure 4: Unemployment Rates (2012-18)

Unemployment rates of Turkey: 10.1% in December 2010, 8.4% in September 2011, 8.4% in September 2012, 9.3% in September 2013, 10.5 in September 2014, 10.3 in September 2015, 11.4 in Sep 2016, 10.7 in Sep 2017, 11.5 in Sep 2018, and 14.7 in January-February period in 2019.

Owing to the political stability since 2002 helped by a ruling party without a coalition²¹, Turkish lira has experienced rare stability. Between July 23, 2009 and August 1, 2018; lira’s low volatility during this period was positively correlated with major currency pairs (see Table 4). A correlation of close to one indicates a positive relationship; USD/ARS (0.9738), USD/IDR (0.8874), USD/BRL (0.8825), USD/CAD (0.8664), USD/MYR (0.8586), USD/RUB (0.8418), USD/GBP (0.8067), USD/AUD (0.7952), and USD/EUR (0.7436). Table 5 illustrates the correlation between lira and other major currencies following the August rout; unfortunately, Turkish lira’s plummet against dollar tops the list when it is compared with the same currency pairs in Table 4, no statistically meaningful correlation; USD/ZAR (0.5745), USD/BRL (0.5553), USD/CNY (0.3941) had faced some volatility against dollar.

²¹ From 1950 to 2019, there have been four single-party governments; Democratic Party (1950-1960), Justice Party (1965-1971), Motherland Party (1983-1991), Justice and Development Party (2002-present). There were coalition governments in-between; four governments (1973-1980) and seven governments during 1991-2002.
Table 4: Exchange Rate Correlation Before The August Rout (July 23, 2009 – August 1, 2018)

| Currency Paire | USD/TRY | USD/EUR | USD/GBP | USD/CHF | USD/JPY | USD/CAD | USD/BRL | USD/RUB | USD/CNY | USD/IDR | USD/MYR | USD/PHP | USD/SGD | USD/THB | USD/NR | USD/ZAR |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| USD/TRY       | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/EUR      | 0.7436  | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/GBP      | 0.8067  | 0.7556  | 1       |         |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/CHF      | 0.1307  | 0.3153  | 0.3740  | 1       |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/JPY      | 0.7009  | 0.7137  | 0.4729  | 0.1779  | 1       |         |         |         |         |         |         |         |         |         |         |        |
| USD/CAD      | 0.8654  | 0.8712  | 0.7395  | 0.2924  | 0.8269  | 1       |         |         |         |         |         |         |         |         |         |        |
| USD/RUB      | 0.7952  | 0.8254  | 0.6818  | 0.4385  | 0.8286  |         | 1       |         |         |         |         |         |         |         |         |        |
| USD/CNY      | 0.9738  | 0.6752  | 0.8037  | 0.1548  | 0.6477  | 0.8334  | 1       |         |         |         |         |         |         |         |         |        |
| USD/IDR      | 0.8825  | 0.8567  | 0.6666  | 0.1871  | 0.8292  | 0.9536  | 0.8441  | 1       |         |         |         |         |         |         |         |        |
| USD/MYR      | 0.8418  | 0.8768  | 0.6978  | 0.2225  | 0.8029  | 0.9657  | 0.8187  | 0.9610  | 1       |         |         |         |         |         |         |        |
| USD/PHP      | 0.1728  | 0.2020  | 0.5167  | 0.6526  | 0.0745  | 0.2616  | 0.2242  | 0.0756  | 0.1727  | 1       |         |         |         |         |         |        |
| USD/SGD      | 0.1084  | 0.7945  | 0.6334  | 0.1380  | 0.9003  | 0.9357  | 0.8509  | 0.9541  | 0.9175  | 0.0179  | 1       |         |         |         |         |        |
| USD/THB      | 0.8586  | 0.8349  | 0.8230  | 0.3780  | 0.7318  | 0.9503  | 0.8191  | 0.8939  | 0.5010  | 0.4288  | 0.8689  | 1       |         |         |         |        |
| USD/NR       | 0.8312  | 0.5218  | 0.7540  | 0.4450  | 0.5441  | 0.7636  | 0.8489  | 0.6844  | 0.6820  | 0.5286  | 0.7045  | 0.8259  | 1       |         |         |        |
| USD/ZAR      | 0.4309  | 0.5747  | 0.5578  | 0.7746  | 0.8868  | 0.6802  | 0.4129  | 0.5361  | 0.5923  | 0.7014  | 0.4943  | 0.7522  | 0.6946  | 1       |         |        |

Source of data: Oz Forex; https://www.ofx.com/en-us/forex-news/historical-exchange-rates/

Table 5: Exchange Rate Correlation After The August Rout (August 1, 2018 – July 22, 2019)

| Currency Paire | USD/TRY | USD/EUR | USD/GBP | USD/CHF | USD/JPY | USD/CAD | USD/BRL | USD/RUB | USD/CNY | USD/IDR | USD/MYR | USD/PHP | USD/SGD | USD/THB | USD/NR | USD/ZAR |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| USD/TRY       | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/EUR      | -0.0212 | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/GBP      | -0.0243 | 0.3166  | 1       |         |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/CHF      | -0.2981 | 0.7357  | -0.0921 | 1       |         |         |         |         |         |         |         |         |         |         |         |        |
| USD/JPY      | 0.1743  | -0.7178 | -0.3236 | -0.4937 | 1       |         |         |         |         |         |         |         |         |         |         |        |
| USD/CAD      | 0.2053  | 0.5773  | 0.2800  | 0.2524  | -0.4190 |         |         |         |         |         |         |         |         |         |         |        |
| USD/RUB      | -0.4098 | 0.5949  | -0.0195 | 0.6715  | -0.6384 | 1       |         |         |         |         |         |         |         |         |         |        |
| USD/CNY      | 0.1644  | 0.6362  | 0.1015  | 0.2692  | -0.5746 | 0.3483  | 1       |         |         |         |         |         |         |         |         |        |
| USD/IDR      | 0.5553  | -0.0837 | -0.0665 | -0.0255 | -0.0705 | 0.0219  | -0.1170 | 1       |         |         |         |         |         |         |         |        |
| USD/MYR      | -0.0951 | -0.5129 | -0.0465 | -0.1354 | 0.3129  | 0.0716  | -0.7455 | 0.2623  | 1       |         |         |         |         |         |         |        |
| USD/PHP      | 0.3941  | -0.1751 | 0.3216  | -0.1273 | 0.0187  | -0.2406 | -0.0320 | 0.0812  | 0.1284  | 1       |         |         |         |         |         |        |
| USD/SGD      | 0.3618  | -0.5001 | -0.1466 | -0.2779 | 0.5093  | -0.3498 | -0.3665 | 0.0357  | 0.4486  | 0.6282  | 1       |         |         |         |         |        |
| USD/THB      | 0.1744  | 0.1058  | 0.4201  | 0.0562  | -0.3090 | 0.1226  | 0.2395  | -0.0512 | 0.0768  | 0.7282  | 0.4680  | 1       |         |         |         |        |
| USD/NR       | 0.3372  | -0.7781 | -0.4345 | -0.3859 | 0.6133  | -0.3373 | -0.5782 | 0.2969  | 0.6206  | 0.2585  | 0.7350  | 0.0242  | 1       |         |         |        |
| USD/ZAR      | 0.3511  | -0.2562 | 0.1802  | -0.0684 | 0.1689  | -0.1922 | -0.2643 | 0.1529  | 0.3960  | 0.7451  | 0.7957  | 0.6393  | 0.5276  | 1       |         |        |

Source of data: Oz Forex; https://www.ofx.com/en-us/forex-news/historical-exchange-rates/
3.0 Concluding Remarks

Before the recent August rout, for analysis purpose, the Turkish economy is usually divided into two distinct periods; before and after the 2001 economic crisis. Except a brief period of stability (2003-08), Turkey and its economy possess instability-inflicting imbalances; as such, high inflation, growing budget deficit, massive dollarization, alarming levels of external debt, and chronic current account deficit (i.e. a severe contraction in the economy along with lower imports reduced it since 2018). The 2001 economic crisis was unprecedented in many aspects, but the August rout and the subsequent devaluation of lira as the greatest shock since 2001 left long-lasting damages; as a result, the Turkish economy has debilitated and found itself in an inevitable financial emergency.

Turkey’s gloomy economic situation as well as its mounting domestic issues are not all homegrown, the Turkish economy’s lackluster performance is blamed on attacks of non-economic basis; as such, a Turkish court had convicted the U.S. pastor Andrew Brunson of terrorism charges and sentenced him to 38 months in prison and subsequent 25% US tariffs on steel imports; the failed coup attempt by a fraction of the Turkish military (July 15, 2016); widespread implications of the U.S. and China trade war; and rising oil prices due to the intensified U.S. sanctions on Iran and the OPEC’s decision to lower production of oil. Since late 2018, households and private companies have been persistent piling up dollar-denominated assets; economists and experts claim that this is an expected behavior during malignant economic times. After the 19 standby agreements with the IMF, the results clearly show that the IMF’s strings-attached lending has not served Turkey well. The IMF’s contractionary monetary and fiscal policies plus intervention in exchange-rate markets contributed to instability.

Due to the lack of financial, fiscal, and monetary discipline, privatization of the state-owned entities since the 1980s and capital market and trade liberalization in the 1990s have produced instability rather than stability, therefore the 2001, 2009 economic and currency crises and the August rout of 2018 were inevitable; in fact, any potential crisis in the near future will also be triggered by the same factors that are never resolved. The biggest negative effect of capital market liberalization is that it has reduced the government’s ability and capacity to adequately respond to macroeconomic shocks. The IMF’s capital market liberalization has made Turkey more prone to economic and financial crises because Turkey continues to lack transparency (i.e. imperfect information) and governance.

Turkey’s gloomy economic situation is in desperate need of foreign capital flows as Turkey’s options to service its debt obligations through external barrowing have become substantially limited in recent years. With massive foreign debt stock (about $400 billion which is over 50% of its 2018 GDP), Turkey must find ways to attract capital inflows in the form of FDIs and FPIs.
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