# The Uncertainty Perception of Turkish Monetary Policy and How Different from the Market?

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## Abstract

A significant gap in the literature of economic policy uncertainty remains: economic policy uncertainty not only affects the economic and financial decisions of households, firms, and investors, but also affects the decision-making processes of policymakers. In this sense, this study aims to provide insights into Türkiye's monetary policy decisions by estimating monetary policy uncertainty(MPU) and assessing how the Central Bank of the Republic of Türkiye perceives current and potential economic uncertainties. To achieve this, we have analyzed the minutes of monetary policy committee meetings, monthly price and inflation development reports, press releases on interest rates, and annual activity reports. A key observation from the Türkiye's monetary policy uncertainty index is the fact that the primary driver of MPU is political events. On the other hand, it is evident that the perception of monetary policy uncertainty tends to decrease as the presidential terms progress toward the present day. This trend aligns with the fact that many governors were unable to complete their terms, which is an interesting observation in itself.

**Keywords:** Monetary Policy, Economic Policy Uncertainty, Republic of Türkiye's Central Bank, Policymakers Decision

**JEL Codes:** D81, E52, E58, E61

## 1. Introduction

Economic policy uncertainty (EPU) primarily addresses three key questions. The first concerns who is responsible for making economic policy decisions and designing policy frameworks. The second focuses on the decision-making process regarding which policy actions or frameworks will be implemented. The third seeks to determine when policymakers will implement these arrangements. Baker, Bloom, and Davis (2016) explored these questions and developed the economic policy uncertainty index, particularly in the context of policy uncertainty. While the EPU considers non-economic factors such as political or social crises alongside economic uncertainty, it also captures uncertainty related to both short-term policy changes and long-term forecasts.

Uncertainty in the formulation of economic policies leads to deteriorating expectations, which in turn negatively impact economic activities. In times of economic policy uncertainty, economic agents (such as businesses, investors, and households) are unable to predict with confidence whether, when, and how the government will alter its economic policies (Kim and Paik, 2022:31). In other words, unexpected developments affecting the economic ecosystem, along with changes in fiscal, monetary, or government policies, create an unpredictable environment for economic decision-making. Economic policy uncertainty arises from two broad sources: economic and non-economic factors. The first source stems from economic challenges, including ineffective or inadequate monetary and fiscal policies, gaps in policy implementation, undefined future government policies, and the absence of clear regulatory frameworks. The second source comprises various social and political factors, such as crises, political events, epidemics, elections, and terrorist incidents, all of which contribute to heightened economic policy uncertainty.

During periods of high economic uncertainty, companies hesitate to make decisions regarding employment and investment, while consumers become cautious about spending (Baker, Bloom, & Davis, 2016). In the short term, heightened uncertainty leads to information asymmetry in the market, and if this asymmetry intensifies, its effects may extend into the long term. While fluctuations in energy prices tend to have shorter-term impacts, changes in exchange rates and senior management positions influence both short- and long-term economic conditions (Al-Thagep & Algharabali, 2019:2). Such factors, which contribute to uncertainty over different time horizons, further complicate policymakers' decision-making processes. In response, policymakers may choose to: (i) delay action to gain a clearer understanding of the situation or (ii) implement aggressive measures to contain and manage uncertainty (Silva & Araujo, 2023:2).

Recent research focuses on defining uncertainty, identifying the factors that cause it, determining appropriate responses, and, most importantly, exploring how uncertainty is measured. The literature on economic uncertainty measurement can be categorized into three main approaches: data-based, survey-based, and text-based methods. Among the various

uncertainty indices developed, only a few attempt to capture the overall state of the economy. Data-based indices measure the volatility of economic and financial indicators. These include indices that track the volatility of option prices in the Standard & Poor's 500 index (Chicago Board Options Exchange), the variance risk premium (Bollerslev, Tauchen, & Zhou, 2009), macroeconomic uncertainty at the country level (Jurado, Ludvigson, & Ng, 2015), and financial uncertainty at the country level (Ludvigson, Ma, & Ng, 2019). Survey-based indices assess the uncertainty perceptions of different economic agents. For example, the index proposed by Leduc and Liu (2016) measures consumer uncertainty regarding car purchases and sales over the next 12 months. Similarly, Altig, Barrero, Bloom, Davis, Meyer, and Parker (2020) estimate business uncertainty concerning employment and car sales for the upcoming year.

More recent studies on uncertainty have employed text analysis methods. Da, Engelberg, and Gao (2014) analyzed internet-based texts to assess investors' emotions and fears. Manela and Moreira (2017) examined uncertainty in news articles from The Wall Street Journal, while Hollander, Van Lent, and Tahoun (2017) utilized transcripts from quarterly corporate conference calls. In another study aimed at measuring uncertainty, Ahir, Bloom, and Furceri (2018) developed the World Uncertainty Index by analyzing the frequency of the term uncertainty in the annual reports of 143 different countries. Similarly, Silva and Araujo (2023) used central bank meeting minutes to assess the uncertainty that emerged during the COVID-19 health crisis.

Studies on economic uncertainty measurements that adopt a text-based approach take into account different sources and different areas of the economy. However, the number of studies that adopt a more holistic approach as well as alternative uncertainty measures for different areas is quite limited. At this point, Baker, Bloom and Davis (BBD, 2016) have recently adopted a more holistic approach to examine the effects of the 2008 Global Financial Crisis and a series of economic, political and social tensions in the European Region on the economy and have proposed an economic policy uncertainty (EPU) index. In this index based on text analysis, they argue that the use and frequency of the keywords "Economy or Economics" representing the economy, "Uncertainty or Uncertain" representing uncertainty, and "Politics or Congress, Deficit, Federal Reserve, Legislation, Regulation or White House" representing policy in articles written in the ten most widely read newspapers in America indicate economic policy uncertainty. This approach can be applied to many different areas and allows the media sector to present its views on the economy from different perspectives.

For monetary policy to be effective and reliable, transparency should enable economic agents to better understand the current state of the economy and adjust their decisions accordingly (Gorodnichenko et al., 2024). Macroprudential policies are playing an increasingly important role, particularly in shaping forward-looking expectations. Recent studies on economic uncertainty measurement have shifted focus from traditional monetary and fiscal

policies to the role of communication channels in macroprudential policy practices. The use of both written and verbal communication is gaining prominence, particularly in research employing rule-based text analysis methods. Furthermore, advancements in text analysis techniques, alongside the development of machine learning and big data models, are accelerating progress in this field. At this stage, policymakers' macroprudential policy practices are being closely monitored, with research examining their impact on economic indicators and financial markets.

With the growing use of textual sources and the expanding literature on economic policy uncertainty (EPU), numerous studies have explored the effects of EPU on household spending and investment decisions, as well as firms' investment and employment decisions. Additionally, many studies have examined how EPU impacts economic performance and financial markets. However, a significant gap in the literature remains: economic policy uncertainty not only affects the economic and financial decisions of households, firms, and investors, but also influences the decision-making processes of policymakers. To the best of our knowledge, no existing study has investigated EPU from the perspective of policymakers. As a contribution to this gap, our study seeks to examine EPU through the lens of policymakers, addressing the following questions: (i) What role do policymakers play when EPU rises significantly? (ii) Which developments that trigger EPU have the most impact on policymakers' decision-making processes? (iii) How do policymakers categorize the events that lead to economic policy uncertainty? (iv) To what extent do policymakers' perceptions of EPU align with actual economic developments?

Türkiye presents a particularly interesting case in the sense of economic policy uncertainty, largely due to the numerous economic and political crises it has faced domestically and internationally over the past three decades, as well as its recent shifts in monetary policy approaches. For a country like Türkiye, which struggles with a chronic current account deficit, the recent surge in foreign exchange demand, the fact that the Turkish Lira (TL) is not a reserve currency, and the increased exchange rate pass-through to domestic prices following significant depreciation against foreign currencies, have all contributed to heightened inflation uncertainties. Despite the central bank's monetary policy measures under the inflation targeting regime, single-digit inflation figures were only sustained until 2016. Since then, inflation has remained volatile at double-digit levels, with a substantial increase in the years that followed (Kara & Sarıkaya, 2021).

Since 2010, the Central Bank of the Republic of Türkiye (CBRT) has focused on issues such as bank credit growth, capital flows, and the current account deficit, often at the expense of prioritizing the inflation target (Gürkaynak et al., 2015). Persistently exceeding the inflation targets outlined in medium-term programs has negatively impacted the credibility of the central bank, leading to deteriorating expectations among households, firms, and investors, which in

turn increases the perception of economic policy uncertainty. The recent abandonment of the Taylor Principle[1], along with the belief that high interest rates lead to high inflation and, therefore, should be lowered to reduce inflation, contradicts the goal of achieving price stability (Gürkaynak et al., 2023). This policy shift, likely adopted to alleviate political pressures for lower interest rates, undermines the central bank's policy rate and renders it ineffective. As a result, this approach, implemented by a state institution whose primary objective is price stability, leaves households, firms, and investors uncertain about future economic conditions. Furthermore, frequent foreign exchange interventions in an attempt to alleviate inflationary pressure caused by lower borrowing rates for the Turkish Lira (TL) and the appreciation of foreign currencies exacerbate challenges in managing the central bank's foreign exchange reserves. The fact that net foreign exchange reserves are approaching historically negative levels raises concerns about how Türkiye's balance of payments uncertainties will be addressed.

The approach of inflation nearing three-digit figures in the second half of 2022 has brought discussions about the implemented policy and the resulting economic uncertainty to the forefront of public discourse. The abandonment of the policy regime during this period, along with the shift toward a return to traditional approaches, may lead to a misleading interpretation of monetary policy. While the central bank should ideally use the policy rate as the primary tool in the fight against inflation [2](except in special cases), in practice, a combination of the upper end of the interest rate corridor and the late liquidity window rate used to fund banks has been employed, rather than the policy rate itself (Gürkaynak et al., 2023). While policymakers may have intended to control inflation to some extent with this practice, the perception among economic agents that inflation is not being adequately addressed has intensified inflationary pressures, exacerbating the uncertainty created by these pressures in the economy. Moreover, political considerations surrounding the 2023 general and 2024 local elections have constrained policymakers from effectively utilizing interest rates. In the ensuing period, from the perspective of policymakers, the central bank appears to have adopted a cautious approach, gradually increasing the policy rate to combat inflation and manage expectations through macroprudential policies. However, the failure to re-anchor expectations and the deterioration in the behavior of economic agents have shifted the focus of researchers toward the uncertainty surrounding economic policies.

Estimating the Economic Policy Uncertainty (EPU) methodology for Türkiye presents several challenges. First, the limited number of studies on Türkiye in the existing literature, coupled with the unavailability of the EPU index created by these studies, makes it impossible to compare the estimated methodologies. Second, the classification of the political views of newspapers into right and left-wing perspectives could introduce bias into the results of the

[1] See Taylor(1993).
[2] In Turkey, the synchronization of monetary and fiscal policies cannot be fully achieved in the fight against inflation. For this reason, monetary policy tools are used effectively in the fight against inflation.

estimation. Another challenge is that the articles used to estimate EPU contain information on how well the authors understand and interpret economic conditions. If the authors lack sufficient economic knowledge or have weak interpretive abilities, this could lead to inaccurate positive or negative determinations in the EPU index. Furthermore, both political and economic articles can influence the EPU index, as they may convey positive or negative signals regarding the state of the economy. While newspaper articles are valuable for EPU estimation, they primarily reflect the perceptions of economic agents rather than offering direct economic evaluations. In essence, the economic estimates and opinions expressed in these articles represent the views of the authors, not those of firms, investors, or households. These articles serve as instruments for shaping perceptions, not as direct reflections of the perceptions of key economic agents. In countries with high political tension, such as Türkiye, relying solely on newspaper articles for estimating EPU can result in incomplete or inaccurate information. Additionally, considering the views and evaluations of official institutions or organizations that closely monitor the economy could provide a more comprehensive and accurate approach to estimating the EPU index.

The primary objective of our study is to estimate Türkiye's monetary policy uncertainty using the approach developed by Baker, Bloom, and Davis (2016), with a focus on incorporating the views of policymakers. In this context, our study makes several unique contributions to the literature. First, we contribute by incorporating a range of official sources, including the Central Bank of the Republic of Türkiye's monetary policy meeting minutes, monthly price and inflation reports, press releases on interest rates, and annual activity reports. These materials are published regularly on a monthly and/or annual basis and contain general assessments of past periods, as well as projections for future periods. By analyzing these texts, we can draw inferences about economic assessments and forward-looking projections related to monetary policy uncertainty, directly from official sources.

Second, our study offers a fresh perspective by presenting the views of policymakers responsible for the economy on economic uncertainty. Previous studies that rely on newspapers as a source may lead to incomplete inferences about how uncertainty is perceived by companies, investors, and households. By focusing on policymakers' perspectives, we can distinguish between short-term economic fluctuations and permanent uncertainties that have a greater and more lasting impact on the economy. Policymakers may predict that certain fluctuations or recessions will resolve quickly, and as a result, may not consider them as monetary policy uncertainty. This approach can help prevent false signals in economic policy uncertainty estimates, such as misclassifying temporary changes as permanent uncertainties or vice versa. The third contribution of our study is that by utilizing official sources, which are publicly available, the index estimate becomes transparent, verifiable, and easily replicable. This enhances the reliability and robustness of our findings, making it easier for other researchers to validate or build upon our work.

This paper is organized as follows: The first section provides the introduction. The second section reviews the relevant literature on economic policy uncertainty. The methodology used to estimate economic policy uncertainty is outlined in the third section. The fourth section presents the estimation results. Finally, the last section offers a discussion and conclusion based on the empirical findings.

## 2. Literature Review

Economic uncertainty refers to situations where there is a lack of clarity or predictability about future economic conditions, which can significantly affect the decision-making process of various economic agents. The causes of uncertainty can vary, ranging from fluctuations in economic indicators to unforeseen political or social events. The responses to this uncertainty, however, differ depending on whether the actors involved are investors, firms, households, or policymakers. During periods of high uncertainty, investors typically seek to minimize potential losses, often opting for safer assets or holding off on investments. Firms may delay or suspend investment and employment decisions, and may even reduce their workforce if the uncertainty persists. Households, depending on the nature of the uncertainty, may adjust their spending behavior. For instance, if inflation is expected to rise, they may bring their purchases forward in anticipation of higher prices. However, in the face of economic policy uncertainty, households may reduce their spending in an effort to preserve resources amid an unpredictable economic environment.

In such circumstances, the general response of economic agents is often to adopt a "wait and see" approach, delaying economic decisions until the uncertainty is clarified. This is particularly true for investors, firms, and households, who refrain from making moves until they feel confident that the uncertainty has been resolved. However, these agents do not play an active role in eliminating the uncertainty. In contrast, policymakers focus on the actions they can take to mitigate uncertainty. Rather than adopting a passive stance, they assess what measures can be implemented to reduce uncertainty and prevent potential negative impacts on the economy. Policymakers also consider whether the measures they take could have unintended side effects in other areas of the economy, and strive to balance these effects in their decision-making.

The most widely recognized measure of uncertainty is the "Volatility Index (VIX)," often referred to as the fear index. The VIX reflects the volatility in stock option pricing of the Standard & Poor's 500 index traded on the Chicago Board Options Exchange. Other data-based indices, such as those developed by Jurado, Ludvingson, and Ng (2015) and Ludvingson, Ma, and Ng (2019), assess macroeconomic and financial uncertainties at the country level. Survey-

based indices, on the other hand, focus on estimating uncertainty within specific sectors of the economy. For example, Leduc and Liu (2016) measure uncertainty related to customer expectations about vehicle purchases and sales over the next 12 months. Similarly, Altig, Barero, Bloom, Davis, Meyer, and Parker (2020) estimate uncertainty regarding business expectations for employment and sales within the same time frame.

Uncertainty indices based on text analysis vary depending on the text sources used. For instance, Da, Engelberg, and Gao (2014) created an uncertainty index by analyzing investors' emotions and fears through Google Trends data. Manela and Moreira (2017) focused on the frequency of the term "uncertainty" in "Wall Street Journal" news articles. Van Lent and Tahoun (2017) used quarterly conference texts, while Ahir, Bloom, and Furceri (2018) utilized annual activity reports from countries. Silva and Araujo (2019) employed central bank minutes to estimate uncertainty during the Covid-19 pandemic.

The text-based economic policy uncertainty approach developed by Baker, Bloom, and Davis (2016), which takes a holistic view of the economy and can also be applied to specific sectors, offers a more comprehensive method compared to other uncertainty approaches. Few studies in Turkish literature have applied the BBD methodology to estimate economic policy uncertainty. One such study by Ermisoglu and Kanik (2013) created a two-component economic policy uncertainty index, incorporating news from Hurriyet, Milliyet, and Zaman newspapers, as well as inflation expectations. Their index, which covered the period from 1997 to 2013, revealed that economic policy uncertainty increased during key events such as the September 11, 2001 terrorist attacks in the U.S., Türkiye's 2007 general elections, the 2008 global financial crisis, and the 2011 European debt crisis.

Şahinoz and Coşar (2018) expanded the scope of previous studies by including newspapers with high circulation and increasing the number of sources. Their study, covering the period from 1998 to 2016, analyzed news from Cumhuriyet, Hürriyet, Milliyet, Sabah, Türkiye, and Yeni Şafak. The findings indicated that Türkiye’s economic policy uncertainty increased during national elections, the European Union debt crisis, and global financial crises. However, the study did not find empirical evidence linking some social and political events to economic uncertainty.

Jirasavetakul and Spilimbergo (2018) took a different approach by examining economic policy uncertainty from a foreign perspective. Using data from the global Factiva news provider, they analyzed the period from 1996 to 2017. Their findings aligned with previous studies but also identified additional events that heightened economic policy uncertainty, such as the 2013 Gezi Park protests, the significant depreciation of the Turkish Lira in 2014, and the Russia-Türkiye political crises in 2015.

Bilgin et al. (2018) adopted a "Google Search Trends"-based approach to estimate Türkiye's macroeconomic and financial uncertainty. They selected keywords from categories such as "Asset Prices," "Costs," "Economic Recession," "Exchange Rates," "General Indicators," and "Labor Force Statistics" to construct an index representing macroeconomic and financial indicators. The results demonstrated that this index effectively detected periods of high uncertainty.

In the latest study, Topçu and Oran (2021) refined the approach of Şahinoz and Coşar (2018) by incorporating Dünya, a newspaper focused on economics, alongside six other newspapers. Their findings were consistent with previous research, confirming that the resignation of Prime Minister Ahmet Davutoğlu in 2016, the July 15 coup attempt, and the 2016 U.S. presidential election contributed to economic policy uncertainty. However, as with other studies relying on newspaper data, political biases in news coverage posed challenges to the objectivity of economic policy uncertainty measurements.

## 3. Methodology

The EPU index utilizes a text-based methodology. The version created for the U.S. relies on the ten most widely circulated newspapers[3]. These newspapers look for occurrences of the three key terms: economy, politics, and uncertainty. To qualify as reflecting economic policy uncertainty, the articles must contain the terms "economy" or "economics" to represent the economy, "Congress, White House, Deficit, Federal Reserve, Legislation, Regulation" to represent policy, and "uncertain" or "uncertainty" to indicate uncertainty. For each month ($t$), and for each frequency ($n$ = 1, 2, ..., 10), any article meeting the criteria is recorded, creating a series denoted as $Z_{n,t}$. The variance for each $n$ is then calculated using the following methodology:

$$\sigma_n^2 = \sum_{n=1}^{L}\left(Z_{n,t} - \mu_n\right)^2 / N_n \quad (1)$$

Here, $L$ represents the total number of newspapers for all observations, and $N_n$ refers to the total number of observations for each newspaper series. $\mu_n$ is the mean of the series for each newspaper. After calculating the variance, $Z_{n,t}$ is then divided by its standard deviation to standardize it as follows:

[3] The index, which is calculated using monthly observations, is available until 1985. However, when annual observations are considered, the index extends back to 1900. In the case of the annual observation-based index, the number of newspapers included for consistency before 1985 is reduced to six.

$$\bar{Z}_{n,t} = Z_{n,t}/\sigma_n \quad (2)$$

Here $\bar{Z}_{n,t}$ represents the standardized $Z_{n,t}$ series. The next step consists of combining the series by calculating the mean of $\bar{Z}_{n,t}$ as follows:

$$U_t = \sum_{n=1}^{N} \sum_{t=1}^{T} \bar{Z}_{n,t} / N \quad (3)$$

Here, *N* represents the total number of newspapers, $U_t$ denotes the total average for each *t*, and the raw version of the economic policy uncertainty series is transformed into an index $Y_t$ by normalizing it in the following way:

$$Y_t = \frac{U_t}{N} * 100 \quad (4)$$

In this study, we applied the monetary policy uncertainty methodology proposed by BBD to measure Türkiye's monetary policy uncertainty. However, our study introduces some innovations and advantages to the empirical literature within the framework of this methodology. First, we utilized official announcement texts regularly shared with the public by the CBRT during the estimation phase. The use of non-traditional monetary policy tools has become increasingly important in mitigating the negative consequences of the 2008 Global Financial Crisis. Among these tools, central banks adopted transparent management practices as part of their communication policies, sharing meeting minutes and various financial reports with the public, thereby attempting to manage expectations by leveraging their credibility in the market. These official announcement texts offer a valuable source for estimating monetary policy uncertainty. Secondly, monetary policy meeting minutes, price and inflation development reports, press releases on interest rates, and annual activity reports provide both general assessments of past economic and financial developments and information on measures, plans, projections, and policy designs aimed at addressing future uncertainties. This enables more accurate detection and inferences when estimating monetary policy uncertainty.

We adopted the monetary policy uncertainty methodology proposed by BBD to measure Türkiye's monetary policy uncertainty. In this process, we utilized the CBRT's regularly published monthly and/or annual monetary policy committee meeting minutes, price and inflation development reports, press releases on interest rates, and annual activity reports as primary sources. Similar to the EPU estimation methodology, we examined the frequency with which terms such as "money, interest, reserves or mandatory reserves, central bank, inflation, price stability, economy" were used together to represent monetary aspects, "policy or policies" to represent policy aspects, and "uncertain or uncertainty"[4] to represent uncertainty in the

[4] The keywords related to monetary policy uncertainty are provided in Table A1 in the appendix.

official sources[5]. For each month *t*, we reported each instance that met the criterion at a frequency of *n* = 1, 2, 3, 4, and created a series named $Z_{n,t}$ after collecting all observations. The variance for $Z_{n,t}$was then calculated using the following methodology:

$$\sigma^2 = \sum_{n=1}^{L}\left(Z_{n,t} - \mu_n\right)^2 / N \quad (5)$$

Where $\sigma$ is the standard deviation of the series, *L* and *N* represent the total number of monetary policy textual sources and observations, and $\mu_n$ is the mean of the series $Z_t$ for each *n*. After calculating the variance, to standardize $Z_t$ and convert it into an index, $Z_t$ is divided by its standard deviation, and the formula is as follows:

$$Y_t = (Z_t/\sigma)*100 \quad (6)$$

Here $Y_t$ represents the standardized and indexed monetary policy uncertainty $Z_t$ series.

When adapting the BBD methodology to this context, we faced challenges in quantifying the intensity of monetary policy uncertainty. In the original approach, multiple newspapers and numerous daily articles are analyzed, allowing both the presence and degree of economic policy uncertainty to be assessed. In contrast, central bank monetary policy committee meeting minutes, price and inflation development reports, press releases on interest rates, and annual activity reports (excluding) are single, low-frequency texts. Consequently, monetary policy uncertainty can only be evaluated within each specific monetary policy text cluster. In order to address this, we coded instances of monetary policy uncertainty detected in the texts as "1" and all other observations as "0." However, this binary approach did not allow us to measure the degree of uncertainty. To overcome this limitation, we propose calculating the frequency of the term "uncertainty" within these single and low-frequency source texts to quantify the magnitude of monetary policy uncertainty. This method enables a more detailed measurement of both the degree and extent of monetary policy uncertainty.

## 4. Empirical Findings

In this study, we examined monthly data[6] between 2006 and 2024, analyzing the minutes of the Central Bank of the Republic of Türkiye's monetary policy committee meetings, price and inflation development reports, press releases on interest rates, and central bank annual activity

[5] Due to the limitations of Turkish Natural Language Processing (NLP) processes for text analysis, the relevant keywords were also used with the various suffixes they can take in Turkish.
[6] There is no consistent or sufficient source text available for the monetary policy meeting minutes and other reports prior to 2006.

reports to measure Türkiye's monetary policy uncertainty.[7] Our study contributes to the literature in several ways, particularly regarding the sources used. Firstly, central bank texts primarily reflect the views of policymakers on monetary policy uncertainty. In contrast, many studies in the literature rely on newspaper articles, which often reflect the political biases of their sources (e.g., right or left-wing perspectives). Newspaper news shapes the perceptions of households, investors, and firms. However, the limited expertise of columnists in economic matters, their evaluations, and their potential political and/or ideological biases can lead to distorted or biased interpretations. On the other hand, central bank texts represent the official views and decisions of the monetary policy committee, offering a more accurate and objective analysis of the economy. By examining these official sources, our study provides insights into how monetary policy perceives current uncertainties and predicts potential future economic policy uncertainty.

Figure 4.1 presents the estimation results for Türkiye's monetary policy uncertainty. A key observation from the monetary policy uncertainty index is the rapid fluctuations in the views of monetary policymakers. Specifically, the uncertainty levels can increase sharply at one point, reaching a peak, only to decline significantly in the subsequent observation without leaving any lasting effect. Another notable finding is the decreasing volatility of monetary policy uncertainty in recent times. Particularly after 2016, when inflation was high, monetary policy uncertainty reached its lowest levels during certain periods. Notably, between the beginning of 2021 and the last months of 2022, monetary policy uncertainty consistently tested its lowest levels. However, during this same period, inflation surged from 20% to 70%.

The primary driver of Türkiye's monetary policy uncertainty is political events. When examining periods of peak uncertainty (excluding the Covid-19 Health Crisis), it is evident that all significant developments stem from political origins. For instance, political and policy-related events, such as the 2008 Justice and Development Party Closure Case, the 2009 March Local Elections, the 2010 Constitutional Referendum, the 2013 Gezi Park Protests, the 17-25 December 2014 Corruption and Bribery Allegations, the 2015 General Elections, the Türkiye-Russia Aircraft Crisis, the 2016 FETÖ Coup Attempt, various terrorist incidents, and the 2023 inflation uncertainty, have had a greater impact on monetary policy uncertainty than the 2008 Global Financial Crisis. Additionally, events like the 2017 Constitutional Referendum, the 2018 Exchange Rate Crisis, the 2019 Peace Spring Operation, and the 2020 Covid-19 Health Crisis have contributed to economic uncertainty as well.

When examining uncertainties stemming from the economy's own dynamics, it is evident that foreign economic tensions play a key role in triggering monetary policy uncertainty. For instance, events such as the 2006 outflow of capital from developing countries, the 2008 Global

[7] For periods without a meeting in the review period, a value of "0" was assigned, indicating the absence of monetary policy uncertainty.

Financial Crisis, the 2011 European Debt Crisis, and the 2012 US Fiscal Cliff Discussions have all contributed to uncertainty. In this context, it can be inferred that policy makers are concerned about the potential impacts of economic and financial difficulties in the countries to which Türkiye exports the most, such as the US and the European Union. This highlights the fact that Türkiye's monetary policy uncertainty is influenced not only by domestic social and political developments but also by significant international economic and financial events.

Monetary policy uncertainty (MPU) shows a low and negative correlation with some economic and financial indicators that are thought to be linked to uncertainty (Table 4.1). When comparing the findings to previous studies, two key points emerge. The first is the negative correlation between Türkiye's Credit Default Swap (CDS) prices and monetary policy. Specifically, as MPU increases, CDS prices decrease. This relationship deviates from the findings in the literature and could be due to CDS being more closely tied to financial market factors or economic tensions. For example, despite increased MPU during the 2013 Gezi protests, the 2016 coup attempt, and the 2019 Peace Spring Operation, Türkiye's CDS pricing did not rise. This suggests that CDS pricing is not significantly impacted by certain political and social tensions. Instead, it reflects economic and financial developments, especially in international markets. In countries like Türkiye, where economic uncertainty often arises from political factors, CDS prices may reflect the belief that such developments are temporary, while economic stability remains intact.

The correlations between MPU and indicators such as the Borsa Istanbul 100 Index (BIST100) and total credit volume align with the literature. During periods of heightened uncertainty, investors tend to hesitate, leading to postponed or canceled investment decisions. Similarly, households and firms reduce their credit demands for consumption, investment, and expenditures. The negative correlation between exchange rate volatility and MPU suggests that the Turkish Lira appreciates during periods of uncertainty, as reduced credit demand from firms and households leads to a tighter supply of Turkish Lira in the market. The second observation is that while the correlations in line with the literature are present, they are relatively weak. This trend is also evident in current literature, where compatible correlation relationships tend to be weak. However, both the existing studies and our research might be overlooking an important factor. Attempting to validate the correlation through market data, especially when three-quarters of the developments causing economic policy uncertainty stem from political tensions/events, may naturally lead to weaker correlations. To better assess the relevant indices, one potential solution could be to compare the MPU index with political stability or instability indices. This would help determine whether the MPU index yields results that align more closely with market data or political stability indicators.

**Table 4.1:** Correlation Relations

| **Monetary Policy Uncertainty** | |
|---|---|
| Credit Default Swap | -0.128 |
| BIST100 | -0.214 |
| USD/TL Exchange Rate Volatility | -0.227 |
| Total Credit Volume Volatility | -0.250 |

**Note:** Authors own calculation.

When examining Türkiye's monetary policy uncertainty across the terms of the central bank governors, important insights into the average perception of uncertainty can be drawn (Figure 4.2). Initially, it is evident that the perception of monetary policy uncertainty tends to decrease as the presidential terms progress toward the present day. This trend aligns with the fact that many governors were unable to complete their terms, which is an interesting observation in itself. Additionally, when considering developments that could influence economic uncertainty during each presidential term, it is apparent that uncertainty perceptions significantly decrease in certain periods. Another notable aspect is the standard error figures for each presidential term. These figures reflect the volatility in how uncertainty perceptions fluctuate during the governor's term. Essentially, they measure how quickly uncertainty perceptions change from one observation to the next within a given presidential term. For instance, if a standard error for a particular presidential term is high, it suggests that while a significant level of monetary policy uncertainty was detected in one observation, there was either no or very little uncertainty in subsequent periods. On average, the standard error figures for the presidential terms range between 5.50 and 5.90, although two presidential terms stand out with significantly different statistics from the average. These discrepancies highlight periods of particularly volatile uncertainty perceptions.

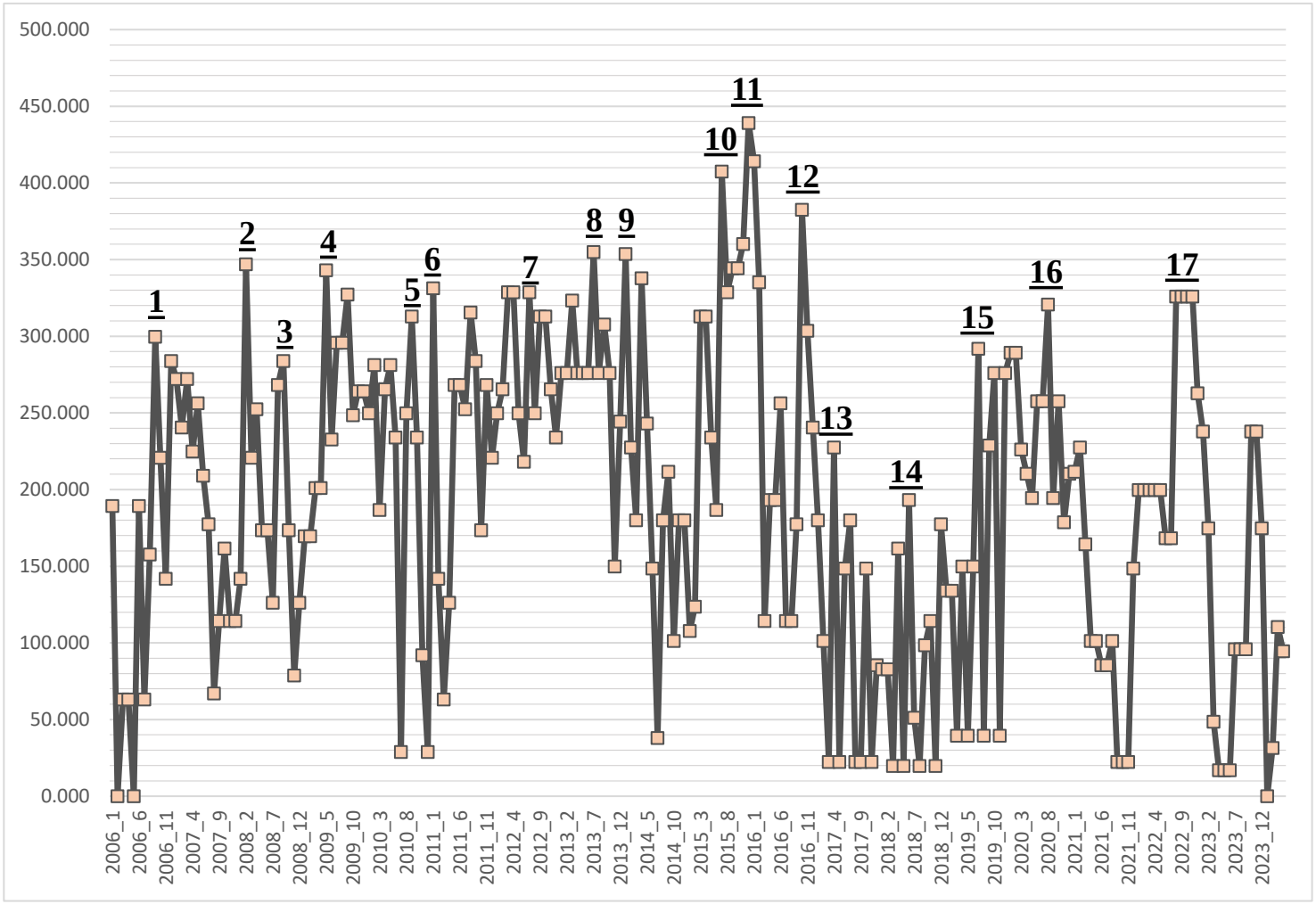
Durmuş Yılmaz, who assumed office in April 2006, faced a series of economic and political tensions in Türkiye during his tenure. Notably, this period saw a significant outflow of hot money from developing countries, compounded by the 2008 Justice and Development Party closure case and the global financial crisis, which heightened economic uncertainty. Similarly, during Erdem Başçı's term as central bank governor, events such as the European debt crisis, the US fiscal cliff discussions, the Türkiye-Russia plane crisis, and the Gezi Park protests contributed to high levels of uncertainty. This suggests that the monetary policymakers during these periods were highly attuned to both domestic and international developments that directly

impacted the Turkish economy. The standard error statistics in the graph further support this interpretation.

An interesting observation is that, despite significant economic and political developments such as the 2016 FETÖ coup attempt, the 2017 constitutional referendum, the 2018 currency crisis, and the 2019 Peace Spring Operation, the average perception of uncertainty remained relatively low during Murat Çetinkaya's term as central bank governor. This indicates that policymakers during this period may have made incomplete assessments regarding the current state of the economy and developments. In the cases of Murat Uysal and Naci Ağbal, the Covid-19 health crisis played a central role in shaping the uncertainty in the economy. The uncertainty during this period was largely centered around the economic impact of the global pandemic. However, during Şahap Kavcıoğlu's term, the adoption of an unconventional monetary policy beginning in September 2021—based on the belief that lower interest rates would reduce inflation, contrary to orthodox economic theories—led to increased inflation uncertainty. As a result, households and firms brought forward their demands for consumption, spending, employment, and investment decisions.

Under the leadership of Hafize Gaye Erkan, following the 2023 general elections, there was a shift away from the belief that inflation would decrease with lower interest rates. Steps were taken to return to orthodox economic policies. However, during this period of frequent use of unconventional monetary policies, policymakers struggled to anchor the forward-looking expectations of households, investors, and firms. Additionally, Türkiye's international foreign exchange reserves (including monetary and non-monetary gold) reached historically negative levels during this time. The failure to assess the effects of the 2023 general and 2024 local elections, as well as the February 6, 2023 Kahramanmaraş Earthquakes, on the economy during both Şahap Kavcıoğlu and Hafize Gaye Erkan's presidencies suggests that monetary policymakers may have made incomplete or inaccurate assessments regarding the impacts of political and social events on the Turkish economy.

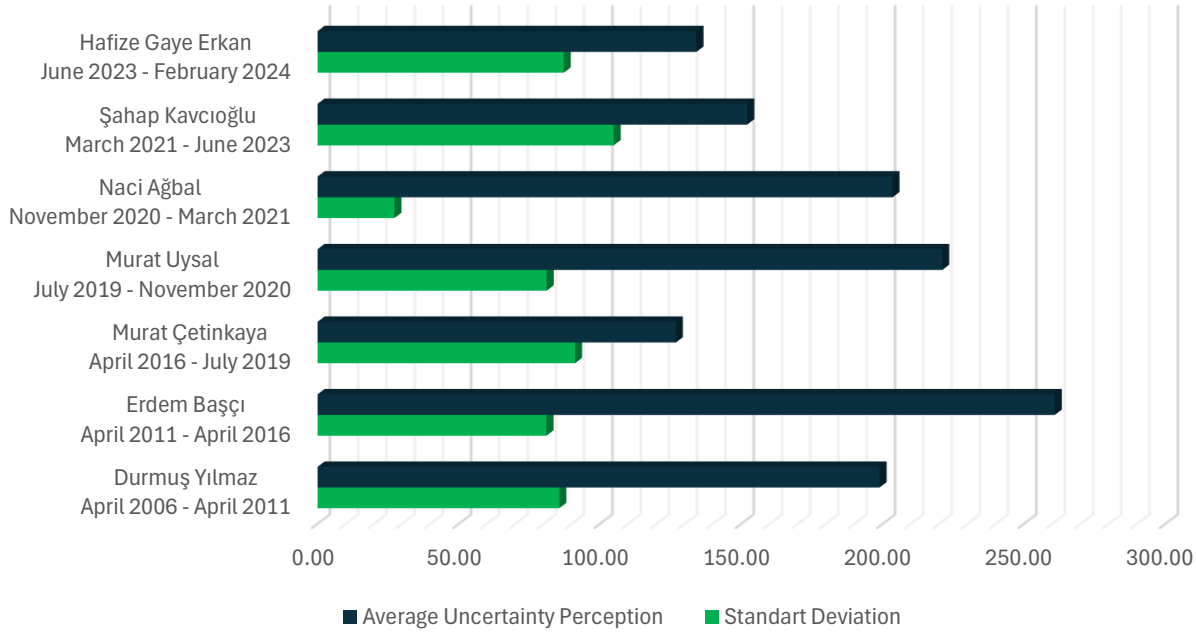
**Figure 4.1.** Türkiye's Monetary Policy Uncertainty




**Expressions of Numbers in Figure 4.1**

| | |
|---|---|
| **1** | The term of Süreyya Serdengeçti, the governor of the CBRT, ended |
| **2** | The Justice and Development Party Closure Case |
| **3** | The 2008 Global Financial Crisis |
| **4** | The 2009 March Local Elections |
| **5** | The Constitutional Referendum |
| **6** | The European Debt Crisis |
| **7** | Fiscal Cliff Discussions in the US |
| **8** | The Gezi Park Protests |
| **9** | The 17-25 December Corruption and Bribery Allegations |
| **10** | The 2015 General Elections |
| **11** | The Türkiye-Russia Aircraft Crisis |
| **12** | The FETO Coup Attempt and Other Terrorist Incidents |
| **13** | The Constitutional Referendum |
| **14** | The Presidential Election |
| **15** | Operation Peace Spring |
| **16** | The COVID-19 Health Crisis |
| **17** | Inflationary uncertainties. |

**Figure II: Central Bank Governors**




**Note:** Authors own calculation.

## 5. Discussion and Conclusion

This study aims to provide insights into Türkiye's monetary policy decisions by estimating monetary policy uncertainty and assessing how the Central Bank of the Republic of Türkiye perceives current and potential economic uncertainties. To achieve this, we analyzed the minutes of monetary policy committee meetings, monthly price and inflation development reports, press releases on interest rates, and annual activity reports, following the text-based methodology developed by Baker, Bloom, and Davis (2016). To measure monetary policy uncertainty, we first identified keywords related to money, policy, and uncertainty within these sources. We then assessed the severity of uncertainty by calculating the frequency of the term "uncertainty" in the relevant texts. Finally, we normalized the raw data and transformed it into an index.

Although monetary policy uncertainty aligns with findings in the economic policy uncertainty literature, it differs in two key aspects. First, compared to existing studies, economic policy uncertainty appears to overlook a significant portion of economic, social, and political events that monetary policy classifies as uncertain. Unlike newspaper reports, which reflect economic policy uncertainty, official central bank sources more reliably identify developments that generate or have the potential to generate uncertainty in Türkiye's economy and monetary policy. This suggests that relying on newspaper reports to measure Türkiye's economic policy uncertainty may lead to the omission of critical factors contributing to uncertainty. Official

sources, authored by experts in the field, provide a more informed perspective, whereas newspaper reports depend on the economic knowledge and interpretations of individual journalists.

Secondly, the monetary policy uncertainty index reveals that a significant portion of Türkiye's economic and monetary policy uncertainties arise from political and social events. These uncertainties can be categorized into two main areas: political events—including election cycles, corruption and bribery scandals, coup attempts, terrorist incidents, and diplomatic crises—and social events, such as domestic protests and global health crises. Together, these factors account for nearly three-quarters of the major events driving monetary policy uncertainty. Notably, the frequency of election cycles in Türkiye heightens uncertainty regarding changes in senior economic leadership (Topçu & Oran, 2021). This underscores the strong influence of social and political conditions on economic and monetary policy uncertainties in Türkiye.

Additionally, economic and financial tensions abroad also contribute to Türkiye's monetary policy uncertainty. As globalization deepens and capital flows accelerate, economic and financial disruptions in one country can quickly spread through interconnected markets. Countries like Türkiye, which lack a reserve currency and run a current account deficit, are particularly vulnerable to such shocks. Their heightened dependence on short-term capital flows (often referred to as hot money) makes them highly sensitive to economic and financial developments in key trading partners.

When monetary policy uncertainty is analyzed based on the tenure of central bank governors, significant variations in perceptions emerge. These differences may stem not only from the governors themselves but also from changes in the composition of the monetary policy board and decision-makers. During their terms, policymakers assess economic conditions and make forward-looking projections, guiding their policy decisions accordingly. Based on these assessments, they either maintain existing policies or implement necessary adjustments. However, in certain periods, monetary authorities may misinterpret prevailing conditions, leading to incomplete or misguided policy actions.

As we move from past to present, the increasing turnover of central bank governors and frequent staff changes have contributed to delays in the implementation of long-term policy programs. Different leadership teams may interpret economic, social, and political developments differently, leading to adjustments in policy direction that can deviate from the original objectives. While policymakers can design appropriate strategies for the challenges of their respective periods, the effects of such policies—especially in the short term—may not always be immediately visible. In some cases, short-term negative consequences can trigger

reactions from households and businesses, creating pressure on the government and, in turn, monetary policymakers.

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## Appendix

**Table A1. Monetary Policy Uncertainty Keywords**

| Monetary | Policy | Uncertainty |
|---|---|---|
| Reserve, central bank, money supply, open market operations, quantitative easing, money, CBRT overnight borrowing rate, CBRT, interest rates, central bank governor, late liquidity window, inflation | Policy, Policies | Uncertain, Uncertainty |