



## Economic Policy Uncertainty (EPU) in Emerging Countries: The Case of Tunisia

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### ABSTRACT

**Purpose:** I aim to develop the first Economic Policy Uncertainty (EPU) indices for Tunisia covering the period from 2012 to 2022, using a methodology adapted from Baker et al. (2016). These indices assess the frequency of relevant terms in major Tunisian newspapers to gauge the level of economic policy uncertainty. Additionally, I investigate the impact of EPU on economic activity.

**Design/Methodology/Approach:** This study employs a textual analysis methodology and a Web-scraping algorithm to compute the news-based EPU indices. Additionally, using a VAR (Vector Autoregression) methodology and impulse response functions, the study examines the dynamic relationship between EPU and key macroeconomic variables, including GDP, consumption, industrial production, and the unemployment rate.

**Findings:** The results reveal that increases in EPU significantly predict declines in GDP, consumption, and industrial production, while positively correlating with the unemployment rate. Furthermore, monetary policy uncertainty emerges as the most influential factor contributing to EPU.

**Implications/Originality/Value:** These findings underscore the importance of clear and consistent policy frameworks in mitigate uncertainty and enhancing economic performance in emerging economies like Tunisia.



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### Introduction

Uncertainty has long been a central concept in economies. In recent years, media, academics, policymakers, and investors have focused particular attention on uncertainty as a significant factor shaping the economy and the financial world. Globalization, the rapid technological advances, political division, and the evolving environment have changed our way of life, leading to attending

alarming level of uncertainty not seen ever before. The global interconnectedness along with contagions in both monetary and financial markets have exasperated uncertainty. The level of instability and complexity reached in today's world, contributes strongly to the spectacular increase in uncertainty and the slowdown in economic growth across different countries. Numerous studies in the literature have shown that an increase in aggregate uncertainty is mainly due to increased uncertainty about government policies, often refereed as Economic Policy Uncertainty 'EPU' (see, e.g., Mishkin, 1999; Phan et al., 2021).

In light of political and economic instability, (EPU) has become an increasingly important feature in explaining significant issues in the financial world. Economic policy Uncertainty is broadly considered as unpredictable changes that impact profoundly the economic system and might induce alternations regulatory actions (Al-Thaqeb et al., 2022). Specifically, EPU is a type of uncertainty related to risk where agents are unable to predict the future path of economic policies and the consequence of policies already adopted by governments. This situation resulted in increasing risk premiums and delaying investment until this uncertainty has been resolved (Movsisyan, 2018; Sahinoz and Erdogan Cosar, 2018). Baker et al. (2016) reveal that EPU peaked up after the financial crisis, due to households and businesses uncertainty concerning the government's future fiscal and monetary regulations. They also argue that Economic policy uncertainty postponed the possibility of recovery after the GFC (2007-2009) as households and businesses delay their consumption and investment spending. These findings affirm the idea that a high level of EPU induce to the postponement of numerous decisions (Nakhli et al., 2022). For instance, high uncertainty related to COVID-19 pandemic led numerous firms and countries to taking longer to make economic and financial decisions (Al Thaqeb et al., 2019).

Numerous studies in the literature employ measures of uncertainty that are constructed using textual information collected from social media and news articles. The most commonly used proxy of uncertainty is the (EPU) index was computed by Baker et al. (2016). The authors adopted a novel approach based on newspaper coverage to computing economic policy uncertainty (EPU) using the ten largest newspapers in U.S. The coverage must contain at least one term in the economy, policy, and uncertainty categories. The fundamental concept of the uncertainty index is that an increase in articles about EPU indicates a progressive level of economic policy uncertainty experienced by government policies. Several studies in the literature, including those applied on Japan (Arbatli Saxegaard et al., 2022), Ireland (Zalla, 2017), Belgium (Algaba et al., 2020), and Turkey (Sahinoz and Erdogan Cosar, 2018), have used the methods of Baker et al. (2016) to develop their EPU index. Tunisia stands out as one of the countries that have experienced a substantial economic policy uncertainty (EPU). This began with the revolution in 2011; the rising of terrorist attacks frequency, the constitutional referendum to replace the parliamentary system with a presidential system, and ended with the adverse effects of COVID-19 outbreak. All these events made Tunisia an interesting case of study to computing his EPU and assessing its effects on a number of economic indicators.

Based on the discussion above this study contributes to the literature by (i) constructing an EPU for the Tunisian context using a web scraping algorithm. and (ii) assessing its effects on GDP, consumption, industrial production, and unemployment rate using VAR model during the sample period of Q3-2012: Q3-2022. Findings show that EPU index contains useful information that can predicts the Tunisian's economic performance. Furthermore, our findings recommend that reforms in the direction of monetary policy could reduce EPU.

The rest of this paper is structured as follows. Section 2 presents the literature review; section 3 describes the underlying methodology to construct the New based EPU index. Section 4 explores the relationship between the EPU index and aggregate economic performance. Finally, section 5 concludes.

## Literature review

(EPU) refers to the economic risk arising from unclear forthcoming government policies (Al Thaleb et al., 2019). Consequently, EPU can have substantial implications for both micro and macro-economic policy. The results from previous studies are almost mixed. According to Bloom (2009,2014) policy uncertainty can affect economic outcomes and low the growth of productivity. Gilchrist et al. (2014), Brunnermeier (2009), Caggiano et al. (2014,2017) argue that policy uncertainty can raise risk premium. Nallareddy and Ogneva (2016), and Bahmani-Oskooee and Maki (2018,2019a,2019b) argue that uncertainty regarding the growth of future corporate earnings can give insights for the evolving trend of gross domestic product.

Additionally, Leduc and Liu (2016), Jones and Olsen (2013) demonstrate that the EPU index affect negatively the inflation rate. However, Christou et al. (2017) suggest that the effect of EPU varies based on the strength of the economy and the country in question. Some authors, such as Carriere-Swallow and Cespedes (2013), argue that the EPU index has a more significant influence in developing markets due to credit restrictions. Conversely, Das and Kumar (2018) contend that the effect is less pronounced in emerging markets. Nevertheless, as outlined in introduction paragraph, our study makes several notable contributions to the existing literature by inspecting the effects of EPU on an emerging country, specifically Tunisia.

## Methodological Approach and Data Characteristics Construction of a News-based EPU Index for Tunisia

We construct a new robust EPU index based on 4 leading Tunisian newspapers for the period June 2012 to June 2022. We construct a monthly index according to Baker et al. (2016) methodology using newspapers articles frequencies containing a list of keywords related to different aspect of uncertainty. Accordingly, a given new article is considered a source of uncertainty and reflects the public's perception of economic uncertainty if it comprises at least one keyword in each of the following areas: Economics, Policy, and Uncertainty. As mention of policy keywords could differ significantly across countries due to institutional relevance, we include in policy terms, keywords related to monetary policy and relevant Tunisian institutions and their relevant abbreviations. Table 1 lists the French and Arabic wordings for each of the three keywords.

**Table 1: EPU components and keywords**

Word type	French words	Arabic words
Economic	'économie', 'économique', 'finance'	'مالي', 'مالية', 'اقتصاد'
Policy	'politique', 'gouvernement', 'autorité', 'parlement', 'inflation', 'taux de', 'change', 'export', 'devise', 'réforme', 'banque centrale', 'bct', 'taux d'intérêt', 'fiscal', 'tax', 'déficit', 'ministère', 'ministre'	حكومة، 'سلط', 'برلمان', 'بنك المركزي', 'اسعر', 'الفائدة', 'تضخم', 'اصرف', 'صادرات', 'تبادل', 'واردات', 'اضرائب', 'ضريبة', 'قانون', 'وزارة', 'خطة', 'الية'
Uncertainty	'incertain', 'incertitude', 'turbulent', 'volatil', 'instable', 'imprévisible', 'instabilité', 'crise', 'vérité', 'changement', 'indécision', 'aléa', 'fluctuation', 'indetermination', 'variabilité', 'trouble', 'oscillation', 'imprévisibilité', 'imprévisible', 'instabilité', 'instable', 'précarité', 'scepticism', 'crise', 'inconstance', 'variable', 'aléatoire', 'troubé', 'ambigu', 'fluctuant', 'flottement', 'perplexe', 'imprévue', 'obscur', 'inconnu', 'doute', 'confus', 'improbable', 'indéterminé', 'oscillant', 'vague'	تغير، 'تردد', 'خطر', 'تقلب', 'تذبذب', 'عدم', 'استقرار', 'غير مستقر', 'هشاشة', 'شك', 'أزمة', 'عشوائي', 'غامض', 'حيرة', 'غير متوقع', 'مجهول', 'شك', 'غير المرجح', 'ح', 'غير محدد', 'تأرجح', 'اربية'

The daily electronic archives of the four newspapers, namely, *web-manager*, *Business News*, *Realité.tn*, and *Arabesque.tn* are available on their websites. We choose these four newspapers from a sample of 30 electronic newspapers for two main reasons: (1) They possess the oldest and

most complete archive data, and (2) They are accredited by the Tunisian Federation of Newspaper Directors<sup>1</sup>.

To compute the News-based EPU index, we use the generic methodological steps proposed by Baker et al (2016) as follows: We scale the number of EPU articles by the total number of articles for the same month and the same newspaper, standardize the obtained series to unit standard deviation during the whole period and average them across the four newspapers and months. Lastly, we normalize it to have a mean of 100 before June 2012.

We also performed a 'Human Audit' to ensure the correctness of our Web-scraping algorithm. Then, we select randomly about 10% of the EPU articles from each newspaper and check that they contain the triple terms: "E," "P," and "U" to measure the economic policy uncertainty during the years 2013, 2016, 2018, and 2021. Years are selected randomly to ensure coverage of both periods of low and high economic uncertainty. The audit results have strongly supported the accuracy of the Tunisian EPU index.

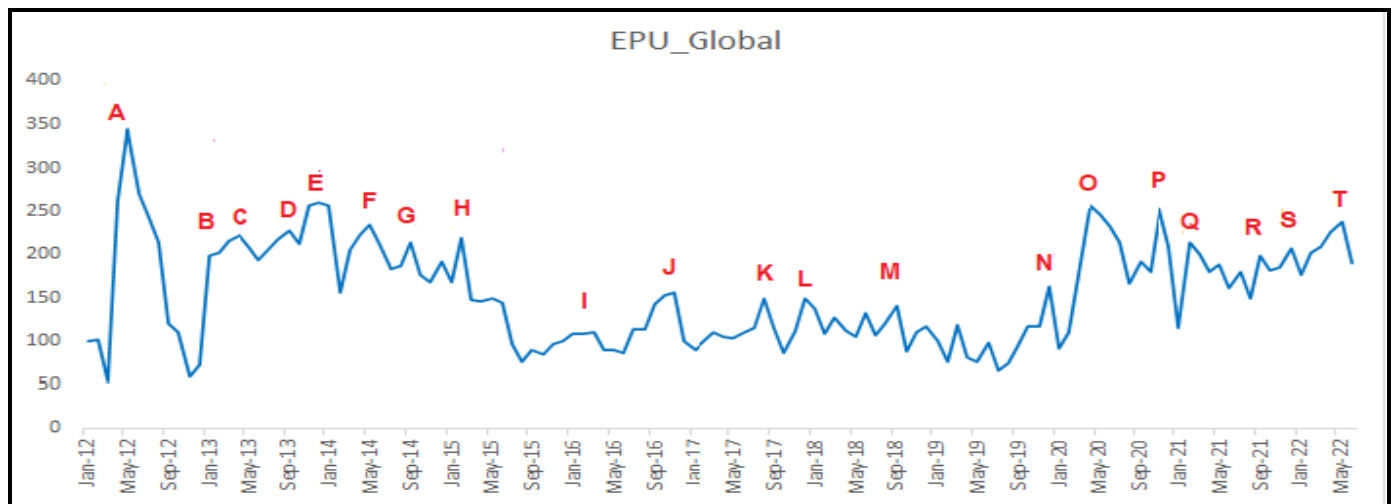
Fig.1. displays the resulting index. The EPU index replicates the crucial political events in the Tunisian economy after the Jasmin revolution. It also exhibits spikes that align with troubling political events, including the establishment of the Islamic political party "Ennahda" and radical groups like "Ansar Chariaa" in mid-2012, politicians' assassinations and armed clashes with terrorists in late 2013, the COVID-19 pandemic crisis in mid-2020, and shortages of certain foodstuffs due to the Russia-Ukraine war in mid-2022.

### **Propriety of the News-based EPU Index**

As mentioned earlier, the EPU index starts in June 2012 and ends in June 2022. This EPU captures the highly uncertain period for the Tunisian economy and key domestic policy changes, including the post-revolution with the highest political instability period, terrorist attacks, and the COVID-19 pandemic crisis. We further map actual events with the uncertainty index in Fig.1, the year 2012 emerges as the most tumultuous period for the Tunisian economy, marked by a sharp decline in real gross domestic product and a drastic increase in the unemployment rate across all categories. The current budget deficit continues to widen: almost 1% of GDP in January 2012 alone, compared to 0.5% in January 2011. The Inflationary pressures threaten the country's financial stability, household purchasing power, and national savings. Consumer price inflation reached 5.4% in February 2012, compared to 3.7% in 2011.

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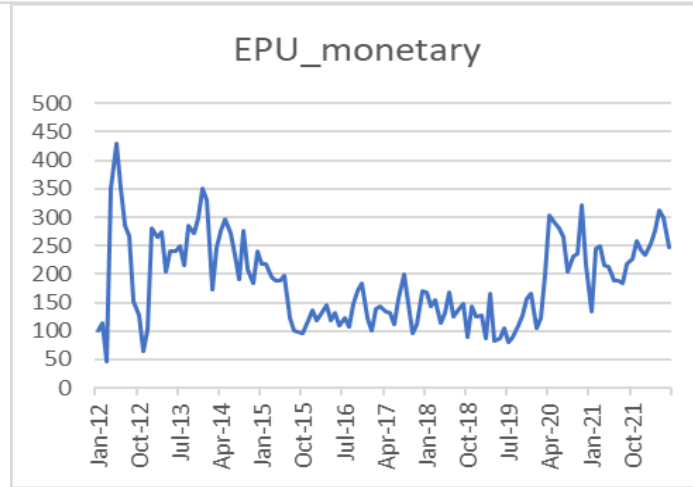
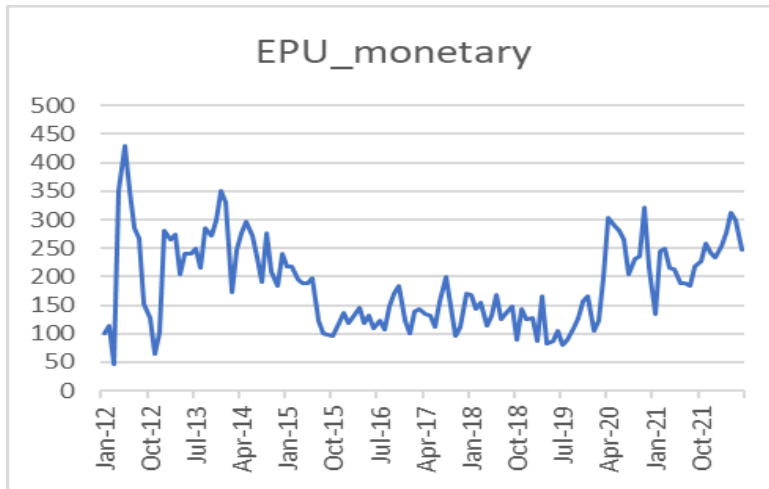
<sup>1</sup> Given the proliferation of dubious websites, posing as electronic newspapers and spreading propaganda, defamation, and disparagement of one or more political parties, the Tunisian Federation of Newspaper Editors set the most reliable newspapers that it recognizes as credible, and produced by competent and honest journalists with respect to the Decree-Law number 115 regulating the press sector.

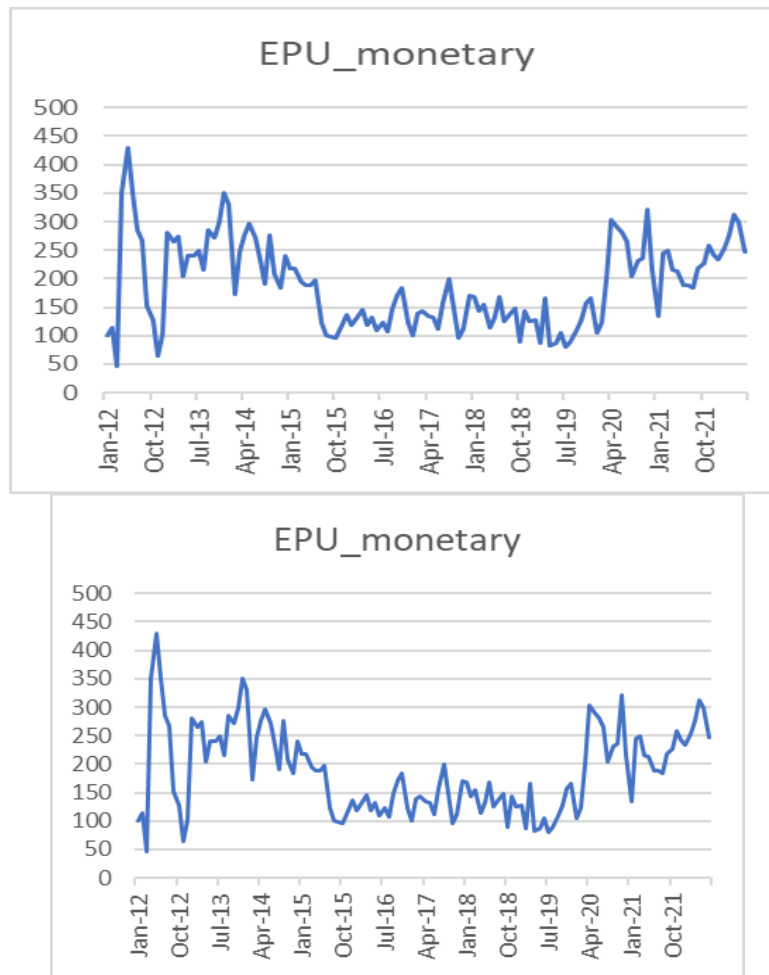


**Fig. 1: Tunisia Economic Policy Uncertainty**

**Notes:** **A**, May2012: First appearance of the jihadist association "Ansar Achariaa" directed by Abu Iyadh. **B**, March2013: Assassination of the politician Chokri Belaid, leader of the Popular Front party. **C**, May 2013: Two soldiers were injured due to the explosion of landmines at Mount Chaambi. **D**, July, 2013: The assassination of the politician Mohamed Brahmi, a Popular Front deputy, outside his home. **E**, December2013: Seven gendarmes were killed during armed clashes with terrorists and the Islamic political party gives up the government, in favor of a consensual ministerial formation directed by technocrats. **F**, June2014, National resources have decreased by 70% due to the increase in needs and social grievances. **G**, October2014, A series of terrorist attacks have targeted police and army forces in several parts of the country, particularly in the western strip. **H**, February2015: A terrorist attack has killed 24 people, mostly foreign tourists. The country is indeed on the front line of the jihadist threat, with fighters coming from Libya and Syria. **I**, March 7, 2016: The Jihadist group "Daech" attacked the city of Ben Guerdane in the south of Tunisia. **J**, September 2016: Tax reforms and increase in both corporate income and consumption taxes. **K**, September 2017: Moody's downgrading Tunisia's sovereign rating. **L**, February2018: Tunisia is on the blacklist of states highly exposed to money laundering and terrorist financing. **M**, October 2018: The Tunisian dinar depreciated by 40% against the euro, while the inflation rate officially rose to 7.5%. **N**, December 2019: An increase in the trade balance deficit to TND 19.4 billion, of which the energy balance deficit represents 40%. **O**, April 2020: The announcement of "drastic measures" to prevent the spread of the COVID-19 pandemic. **P**, October2020: A national curfew due to the deteriorating health situation related to the COVID-19 pandemic. **Q**, political instabilities. **R**, July 25, 2021: The president suspends the Parliament and takes full powers. **S**, 10/2021: Dissolution of the provisional body responsible for monitoring the constitutionality of bills. **T**, May2022: Alert about shortages of some foodstuffs, including wheat, due to the Russia-Ukraine war.

As shown in Fig. 1, between May 2013 and March 2015, the EPU index captures several political instabilities related to political assassinations and terrorist attacks. Additionally, in the most recent period, economic policy uncertainty spikes again with the COVID-19 pandemic outbreak in April 2020, and during shortages of some foodstuffs due to the Russia-Ukraine war in March 2022.





**Fig. 2: Economic Policy Uncertainty categories**

Beyond the EPU index, we construct four other uncertainty indices for monetary, fiscal, trade, and exchange rate policy. We then followed the same sequence of steps proposed by Daves et al (2016) for each of the four categories including additional criteria that involve the presence of at least one keyword related to the corresponding category. A newspaper article is included a policy category index if it meets the corresponding EPU criteria along with additional specific terms (see Table 2 for all specific term sets for each category). Fig 2 displays our Tunisian uncertainty indices for monetary, fiscal, trade, and exchange rate policy. All indices exhibit drastic jumps in 2012, which is mostly due to the troubling events occurred since the Jasmine revolution. The EPU decomposition reveals that monetary policy is the most significant economic uncertainty in Tunisia with 40 percent of articles containing monetary policy terms, 29 percent of articles containing trade policy, 20 percent of articles containing fiscal policy, and 11 percent of articles containing exchange rate policy terms, as shown in Fig 3.

**Table 2: Term sets for policy category**

Word type	French words	Arabic words
<b>Monetary policy</b>	'inflation', 'monétaire', 'politique monétaire', 'tmm', 'taux directeur', 'marché monétaire', 'réforme', 'banque centrale', 'bct', 'taux d'intérêt', 'ministère', 'ministre'	بنك المركزي, 'أسعار الفائدة', 'تضخم', 'نسبة مديريّة', 'نقد', 'قانون', 'وزارة', 'خطة', 'آلية'
<b>Trade policy</b>	'export', 'import', 'négociation', 'politique échange', 'commerce international', 'libre échange', 'libéralisation des échanges'	تصدير, "استيراد", "تفاوض", "سياسة التجارية", "تجارة الدولية", "تجارة الحرة", "تحرير التجارة"

<b>Fiscal policy</b>	'tax', 'loi de finance', 'fiscal', 'réforme', 'budget de l'état', 'trésor public', 'tva', 'impôt', 'imposition'	ضرائب', 'قانون المالية', 'أداءات', 'ضريبة', 'إعادة تشكيل', 'الموازنة العامة', 'خزينة', 'قيمة المضافة',
<b>Exchange rate policy</b>	'taux de change', 'réglementation de change', 'banque centrale', 'bct', 'politique de change', 'euro', 'dollars', 'EUR/TND', 'USD/TND'	تصدير", "استيراد", "تفاوض", "سياسة التجارية", "تجارة الدولية", "تجارة الحرة", "تحرير التجارة",

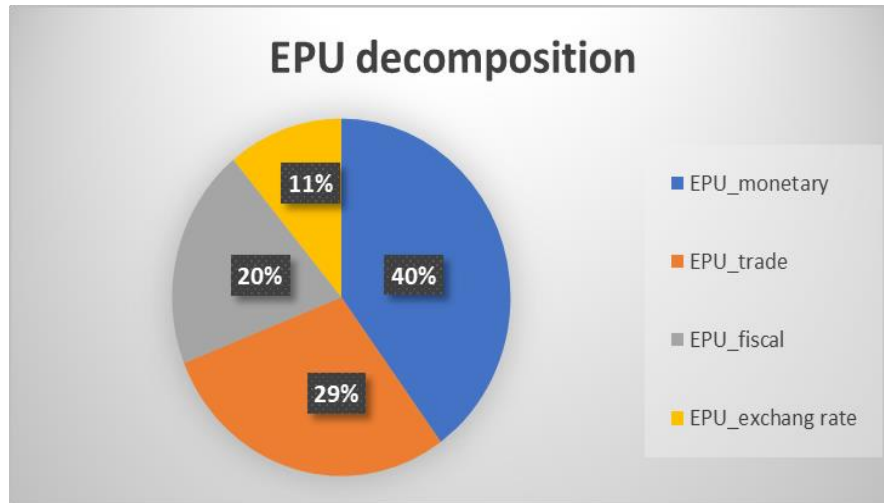


Fig.3 EPU decomposition

Source: Author's compilation

### Policy Uncertainty and Aggregate Economic Performance

Considering a VAR model to examine the impact of EPU index on Tunisia's economic performance. According to Aurelius et al (2017), we first analyze the relationship between the Tunisian EPU indices and the Tunisian GDP using a bivariate VAR model. The GDP is measured quarterly, and we then construct a quarterly version of the Economic Policy Uncertainty index. We determine the appropriate lag length for the VAR is chosen to be one lag according to the Akaike information criterion.

To further investigate the macroeconomic effect of EPU shocks, we consider VAR models which contain our EPU Global index, GDP, log consumption, log industrial production<sup>2</sup>, and unemployment rate. We collect quarterly from the DataStream database and the National Institute of Statistics (Tunisia) for the sample period of 2012: Q3-2022: Q3 (Table 3 displays descriptive statistics).

Table 3. Descriptive statistics

	EPU GLOBAL	GDP	CONSUMPTION	INDUSTRIAL PROD	UNEMPLOYMENT
<b>Mean</b>	151,15	1,19	9,64	4,61	15,88
<b>Median</b>	145,47	2,00	9,66	4,62	15,40
<b>Maximum</b>	257,74	15,70	9,74	4,71	18,40
<b>Minimum</b>	65,94	-21,30	9,50	3,84	14,90
<b>Std.Dev.</b>	55,65	4,76	0,06	0,13	1,02
<b>Skewness</b>	0,30	-2,11	-0,68	-5,56	1,27
<b>Kurtosis</b>	1,81	15,24	2,39	34,30	3,18
<b>J-B</b>	3,05	286,45	3,80	1884,35	11,12
<b>Prob</b>	0,22	0,00	0,15	0,00	0,00
<b># Obs.</b>	41,00	41,00	41,00	41,00	41,00



To ensure that EPU shocks are orthogonal to the other stochastic elements, the impulse response function must be carefully designed. Fig 4. illustrates the impulse response function, demonstrating a decrease in Gross domestic product subsequent to an uncertainty shock. The effects on GDP are statistically significant at the 5% level for 1 to 2 quarters after the policy uncertainty shock. Our findings affirm the negative relationship between GDP and global EPU.

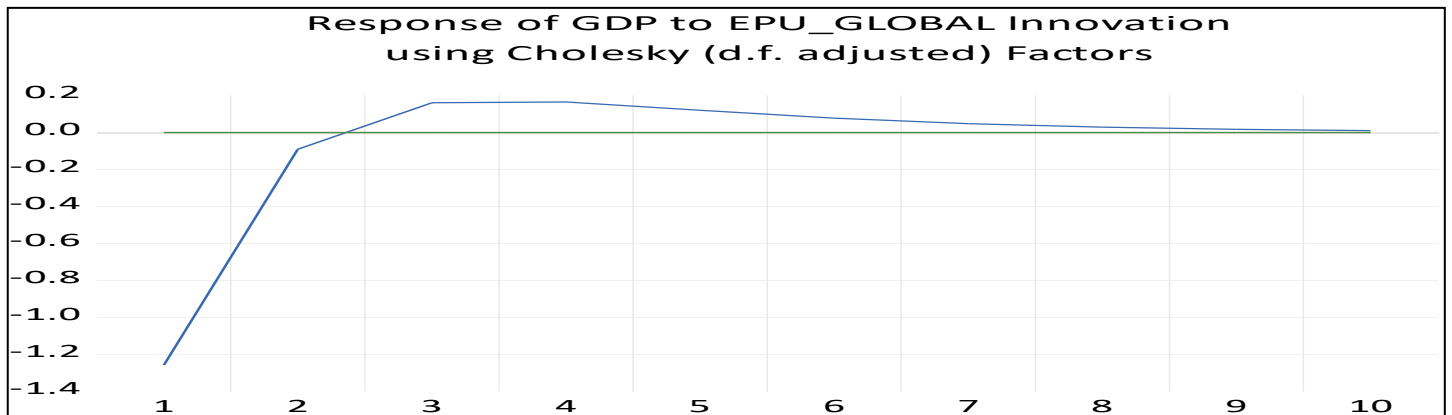


Fig 4: Impulse responses of the GDP to EPU shock in Bivariate-VAR

the fall in consumption lasts for 6 quarters at 95% significance level. The response of industrial production to a shock in EPU displays similar patterns, with a lasting effect for 3 quarters. The increase in the unemployment rate persists for 7 quarters with a significance level of 95%.

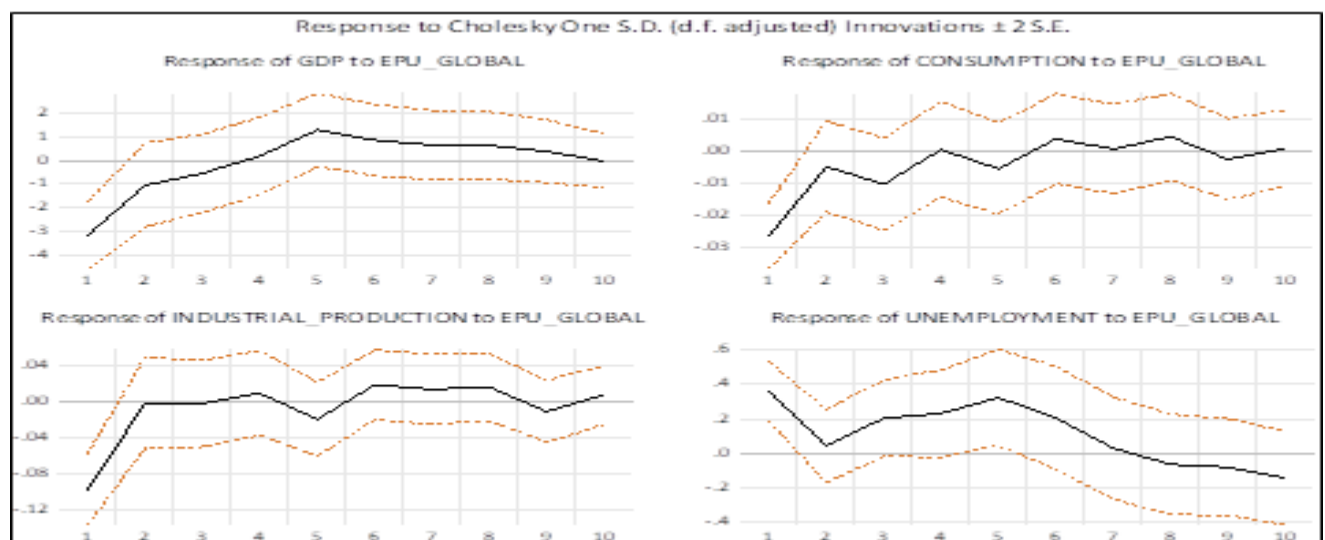


Fig 5: Responses of macroeconomic factors to EPU shocks in VAR models

### Conclusions and Policy Implications

This study aims to construct several new measures of EPU index for Tunisia using a web scrapping algorithm combined with a textual analysis methodology. EPU measures reflect frequency counts of articles containing terms related to economy, policy matters, and uncertainty in four leading Tunisian electronic newspapers from June 2012 to June 2022. Our findings reveal that an increase in EPU negatively impacts economic activity in Tunisia, as shown by the impulse response function for GDP, consumption, industrial production, and unemployment rate. The decomposition of the EPU indicates that monetary policy is the greatest source of uncertainty in the economy, followed by trade policy concerns.

These results highlight the predictive power of our EPU index for Tunisia's economic performance and yield several policy implications. First, policymakers should enhance their

monitoring of EPU by regularly tracking the EPU index to anticipate periods of heightened uncertainty and implement preemptive measures. Second, diversifying economic policies to develop sectors less sensitive to policy fluctuations can help mitigate the overall impact of uncertainty on the economy. Given that monetary policy is the most significant source of policy uncertainty, ensuring transparency and consistency in monetary policy decisions is essential. Additionally, since trade concerns are the second most cited source of EPU, reforms aimed at creating a stable trade environment, such as negotiating stable trade agreements and reducing trade barriers, are necessary.

## References

- Al-Thaqeb, S. A., & Algharabali, B. G. (2019). Economic policy uncertainty: A literature review. *J. Econ. Asymmetries*, 20, e00133.
- Algaba, A., Borms, S., Boudt, K., & Van Pelt, J. (2020). The Economic Policy Uncertainty Index for Flanders, Wallonia, and Belgium. *SSRN Electron. J.*
- Arbatli Saxegaard, E. C., Davis, S. J., Ito, A., & Miake, N. (2022). Policy uncertainty in Japan. *J. Jpn. Int. Econ.*, 64, 101192.
- Bahmani-Oskooee, M., & Maki-Nayeri, M. (2019a). Asymmetric effects of policy uncertainty on domestic investment in G7 countries. *Open Economies Review*, 1–19.
- Bahmani-Oskooee, M., & Maki-Nayeri, M. (2019b). Asymmetric effects of policy uncertainty on the demand for money in the United States. *Journal of Risk and Financial Management*, 12(1), 1.
- Bahmani-Oskooee, M., & Nayeri, M. M. (2018). Policy Uncertainty and the demand for money in Australia: An asymmetry analysis. *Australian Economic Papers*, 57(4), 456–469.
- Baker, S. R., Bloom, N., Davis, J., & Renault, T. (2016). Measuring Economic Policy Uncertainty. *The Quarterly Journal of Economics*, 1593-1636.
- Balcilar, M., Gupta, R., & Segnon, M. (2016b). The role of economic policy uncertainty in predicting US recessions: A mixed-frequency markov-switching vector autoregressive approach. *Economics the open-access. Open-Assessment E-Journal*, 10(27), 1–20.
- Barrero, J. M., Bloom, N., & Wright, I. (2017). Short and long run uncertainty (No. w23676). Washington DC: National Bureau of Economic Research.
- Bloom, N. (2009). The impact of uncertainty shocks. *Econometrica*, 77(3), 623–685.
- Bloom, N. (2014). Fluctuations in uncertainty. *The Journal of Economic Perspectives*, 28(2), 153–175.
- Brunnermeier, M. K. (2009). Deciphering the liquidity and credit crunch 2007–2008. *The Journal of Economic Perspectives*, 23(1), 77–100.
- Caggiano, G., Castelnuovo, E., & Figueres, J. M. (2017). Economic policy uncertainty and unemployment in the United States: A nonlinear approach. *Economics Letters*, 151, 31–34.
- Caggiano, G., Castelnuovo, E., & Groshenny, N. (2014). Uncertainty shocks and unemployment dynamics in US recessions. *Journal of Monetary Economics*, 67, 78–92.
- Carriere-Swallow, Y., & Cespedes, L. F. (2013). The impact of uncertainty shocks in emerging economies. *Journal of International Economics*, 90(2), 316–325.
- Christou, C., Cunado, J., Gupta, R., & Hassapis, C. (2017). Economic policy uncertainty and stock market returns in pacific-rim countries: Evidence based on a Bayesian Panel VAR model. *Journal of Multinational Financial Management*, 40, 92–102.
- Das, D., & Kumar, S. B. (2018). International economic policy uncertainty and stock prices revisited: Multiple and Partial wavelet approach. *Economics Letters*, 164, 100–108.
- Foerster, A. (2014). The asymmetric effects of uncertainty. *Economic Review*, 5–26 (Q III).
- Giglio, S., Kelly, B., & Pruitt, S. (2016). Systemic risk and the macroeconomy: An empirical evaluation. *Journal of Financial Economics*, 9(3), 457–471.
- Gilchrist, S., Sim, J. W., & Zakrajsek, E. (2014). Uncertainty, financial frictions, and investment dynamics (No. w20038). Washington DC: National Bureau of Economic Research.

- Leduc, S., & Liu, Z. (2016). Uncertainty shocks are aggregate demand shocks. *Journal of Monetary Economics*, 82, 20–35.
- Mishkin, F. S. (1999). Global Financial Instability: Framework, Events, Issues. *J. Econ. Perspect.*, 13, 3–20.
- Movsisyan, V. (2018). Economic Policy Uncertainty for Armenia. *Proc. Armen. Econ. Assoc. Annu. Conf.*, 1–18.
- Nakhli, M. S., Shahbaz, M., Ben Jebli, M., & Wang, S. (2022). Nexus between economic policy uncertainty, renewable & non-renewable energy, and carbon emissions: Contextual evidence in the carbon neutrality dream of the USA. *Renew. Energy*, 185, 75–85.
- Nallareddy, S., & Ogneva, M. (2016). Predicting restatements in macroeconomic indicators using accounting information. *The Accounting Review*, 92(2), 151–182.
- Phan, D. H. B., Iyke, B. N., Sharma, S. S., & Affandi, Y. (2021). Economic policy uncertainty and financial stability—Is there a relation? *Econ. Model.*, 94, 1018–1029.
- Sahinoz, S., & Erdogan Cosar, E. (2018). Economic policy uncertainty and economic activity in Turkey. *Appl. Econ. Lett.*, 25, 1517–1520.
- Sharif, A., Aloui, C., & Yarovaya, L. (2020). COVID-19 pandemic, oil prices, stock market, geopolitical risk, and policy uncertainty nexus in the US economy: Fresh evidence from the wavelet-based approach. *Int. Rev. Financ. Anal.*, 70, 101496.
- Zalla, R. (2017). Economic Policy Uncertainty in Ireland. *Atl. Econ. J.*, 45, 269–271.

