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Uncertainty and its economic implications in Cyprus during a period of turmoil

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Economic uncertainty has been of great interest to researchers as well as economic policy-makers since the outburst of the global financial crisis and was even more intensified after the Covid-19 pandemic outbreak. The turbulence on a global scale pushed economic uncertainty to unprecedented levels. Especially during periods of turmoil, like the Covid-19 pandemic crisis and more recently the war between Russia and Ukraine, uncertainty is shown to negatively affect the output of the European economies and early empirical findings at the Economics Research Centre show similar results for the Cyprus economy. During such periods, the increase in uncertainty deteriorates output through different channels. The first channel is the irreversibility of investment, leading firms and investors to postpone investments until they have a clearer picture of the economy. Additionally, during periods of turmoil, households usually try to limit consumption and increase savings. Thus “precautionary savings” is another channel through which uncertainty dampens the economic activity of a country. Another channel is the increased risk aversion, thus increased risk premia caused by increased uncertainty. Therefore, tools that quantify economic uncertainty are vital to analyse its economic consequences and help guide policy makers.

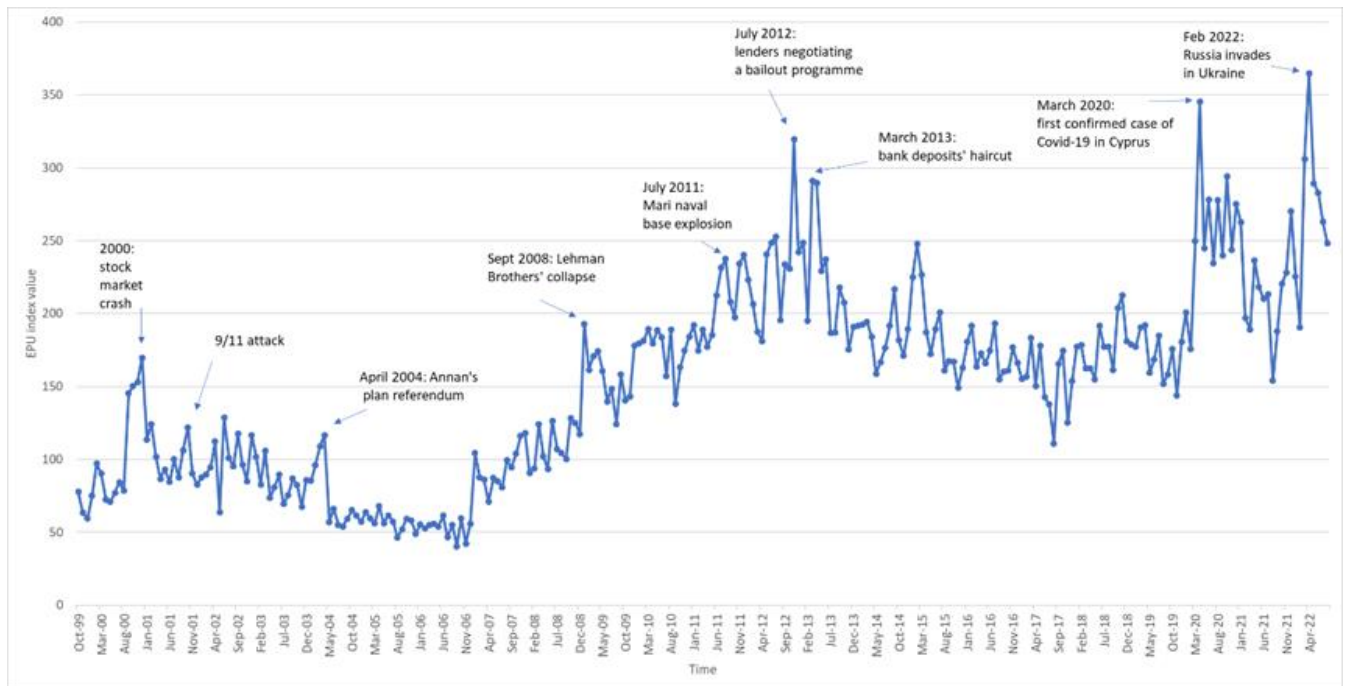
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Figure 1. Economic Policy Uncertainty index for Cyprus. October 1999 – August 2022



Many methods have been used by the literature to quantify economic uncertainty, one of them is the Economic Policy Uncertainty index (hereafter EPU). The EPU index was introduced by Baker, Bloom, and Davis (2016), and its construction is based on textual analysis of newspapers' digital archives and on newspapers' coverage frequency.¹ Presently, the EPU index is available for almost 30 countries (including 11 country members of the European Union).² Recently, the EPU index for Cyprus was constructed by the Economics Research Centre (ERC) of the University of Cyprus (Tzika, 2022). The estimated monthly Cyprus EPU over the period October 1999 – August 2022 is shown in Figure 1.^{3 4} The construction of the index uses the number of articles that contain at least one word for each of the following categories: Economy (E), Policy (P), and Uncertainty (U)⁵. More specifically, the EPU index scales and standardises monthly data which refer to newspaper articles that include specific keywords, for example, articles that contain simultaneously the words economy, and uncertainty, and reform or deficit.

¹ Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring economic policy uncertainty. *The quarterly journal of economics*, 131(4), 1593-1636.

² The data series for all countries are available at <https://www.policyuncertainty.com/>.

³ Tzika, P. (2022). The Economic Policy Uncertainty index for Cyprus. *Economic Policy Papers*. Economics research Centre. University of Cyprus, No 06-22 (https://ucyweb.ucy.ac.cy/erc/documents/DOP_2022/DOP_06-22.pdf)

⁴ The Economics Research Centre (ERC) of the University of Cyprus estimates economic uncertainty using other measures as well, which are based on macroeconomic models (https://ucyweb.ucy.ac.cy/erc/documents/DOP_2022/DOP_07-22.pdf) or on survey data (https://ucyweb.ucy.ac.cy/erc/documents/DOP_03-20.pdf), according to recent literature.

⁵ Specifically, the Greek words used for the construction of the index are the following: αβεβαιότητα/ανησυχία/αμφιβολία και οικονομία και πολιτική/ κυβέρνηση/ έλλειμμα/ «Κεντρική Τράπεζα Κύπρου»/ «Ευρωπαϊκή Κεντρική Τράπεζα»/ μεταρρύθμιση/ κούρεμα κλπ.

The first question addressed refers to the events that trigger increases in economic uncertainty in the country. It is obvious from Figure 1 that both domestic and foreign events affect economic policy uncertainty in Cyprus. Uncertainty in Cyprus until 2009 was relatively low and with low volatility, with the exception of 2000, when the stock market crashed. However, since 2009 the level of uncertainty began to increase until it peaked during the banking crisis in the country, 2012-13. Specifically, in December 2012 the EPU index rose to 240.34, in contrast to the mean of the index during the period before the global financial crisis (October 1999 to December 2008) which was 85.58, and in March 2013, the month of the bank deposits' haircut (bail-in), and the implementation of capital controls, the EPU index was equal to 290.97.

Over the last two years Cyprus, like most countries, has been facing unprecedented high levels of EPU, due to international anxiety about the course and the consequences of the Covid-19 pandemic. The value of the EPU index for Cyprus increased rapidly from 175.68 in February 2020 to 345.27 in April 2020 (one month after the first confirmed Covid-19 case in the country in March of the same year). A few months later, there is a small decline, however, uncertainty never went back to its pre-Covid-19 pandemic levels.

Recently, economic uncertainty has been on the rise globally, after the invasion of Russia in Ukraine (February 2022). The consequences of the war between Russia and Ukraine are already evident, especially in inflation terms. Ukraine produces high quantities of raw materials, like wheat and corn, while Russia is a huge energy provider, which leads to an increase in gas and energy prices, thus the increase of the cost of production. Consequently, the EPU index of all countries has increased over the last couple of months. More specifically, the German EPU reached a value equal to its highest value ever 785, while its second highest value was equal to 598 in December 2021, which could be attributed to the increased number of Covid-19 cases, while it was 498 in March 2020, at the beginning of the pandemic. The European EPU index⁶ takes its highest value ever in 2016, during the Brexit referendum, while the second-highest is in March 2022, after the invasion of Russia in Ukraine. Considering the global sociopolitical and economic consequences of the war between Russia and Ukraine, and also the financial and tourism linkages between Russia and Cyprus, it was expected that this intense situation would trigger further increases in the EPU values in the country. Specifically, uncertainty for economic policy in Cyprus exceeded any past value in April 2022, reaching 364.80.

The estimation of the EPU index for Cyprus helps to indicate how and how much economic uncertainty affects other macroeconomic variables in Cyprus. Using time series models, we identify the consequences of an increase in uncertainty on output, investment, consumption, and unemployment, as well as the duration of the responses. All variables have a negative response to uncertainty increases, apart from unemployment which responds positively. Estimations from different countries, including Cyprus, show that an increase in uncertainty (of one standard deviation) affects negatively especially investment, while the responses of GDP and employment are also significant and estimated at around 1% and 0.5% respectively, with these responses still obvious even after one year, but with diminishing value.

⁶ The European EPU index is the mean value of the EPU indices of the following European countries: France, Germany, Italy, Spain, and the UK.



Briefly, the EPU index for Cyprus quantifies uncertainty thus assisting in the following:

- 1) The estimation of the value and duration of the effects of an uncertainty increase on macroeconomic variables, like GDP, investment, and consumption.
- 2) The improvement of economic forecasts.
- 3) The implementation of more efficient economic policies.

In a nutshell, the Economics Research Centre will continue updating the EPU index on a quarterly frequency and analysing economic uncertainty and its effects on the economy of Cyprus.

The Economics Research Centre (ERC) of the University of Cyprus is an independent, non-profit organization with the aim of promoting scientific knowledge in economics, especially in matters concerning Cyprus.

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