Kiel Insight 2024.11

# The impact of economic policy uncertainty on the German economy

*Lukas Berend und Nils Jannsen*

Economic policy uncertainty, as measured by media articles, has been very high in Germany for some time. It rose sharply after the start of the war in Ukraine and in the wake of the energy crisis. After initially falling with the drop in energy prices, it has been on a clear upward trend again since spring 2023 (Figure 1). It is striking that economic policy uncertainty in Germany has been significantly higher than in neighboring European countries or worldwide since 2022, whereas it had developed very similar until then. A high level of uncertainty can dampen overall economic activity, in particular by discouraging firms and private households from investing (Bloom 2009). In this note, we empirically assess the extent to which increased economic policy uncertainty has contributed to the weak economic performance in Germany.

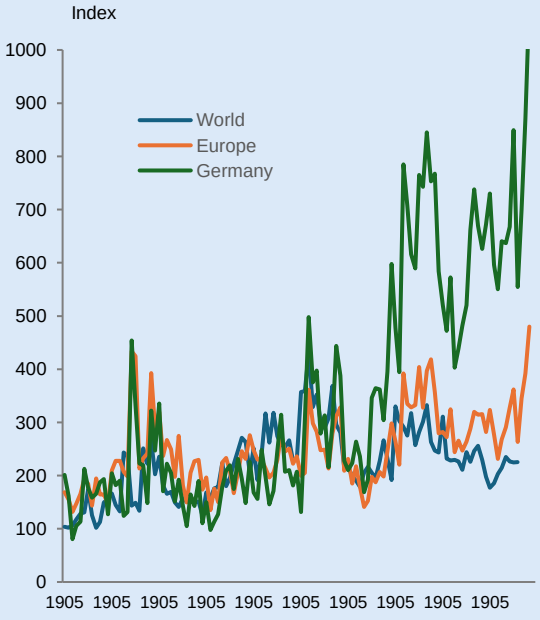
A well-known indicator for measuring economic policy uncertainty evaluates articles in selected newspapers (Baker et al. 2016). The higher the frequency of keywords related to economic policy uncertainty, the higher the indicator. Fluctuations in the indicator can easily be linked to events that have increased economic policy uncertainty, such as the Brexit vote or the start of the war in Ukraine. Of course, such an indicator also has weaknesses. For example, the upward trend in the indicator could be related to a higher news coverage of economic policy uncertainty - and to some extent of the indicator itself - without uncertainty actually being higher. In addition, there is evidence that the results may also depend on the scaling used, i.e. how the number of keywords is related to the number of articles that have been evaluated (Buliskeria et al. 2023).

A vector autoregressive model (VAR) is used for the empirical analysis of the effects of fluctuations in economic policy uncertainty on GDP. In addition to GDP, the following variables are included in the model as control variables: stock prices and their volatility based on the DAX, interest rates measured by two-year German government bonds, the number of persons in employment and consumer prices. The variables are included as log-levels with the exception of DAX volatility and interest rates. The model is estimated using monthly data for the period from January 1993 to September 2024. GDP, which is only available on a quarterly basis, is interpolated to monthly data using industrial production. Three lags of the variables are included in the model. Based on common methods (Baker et al. 2016; Jurado et al. 2015), the effects of economic policy uncertainty are identified under the assumption that uncertainty can affect all other variables contemporaneously but is not affected by these variables contemporaneously (Cholesky identification).

According to the results, a one standard deviation increase in economic policy uncertainty (equivalent to an increase of around 30 percent) dampens German GDP by around 0.15 percent at its peak (Figure 2).

The maximum effect is reached quite quickly. Thereafter, the negative impact diminishes. An increase in uncertainty has a stronger impact on industrial production, with a maximum effect of around 0.4 percent (Figure 3). This is plausible as a decline in investment activity has a particularly strong impact on industrial production. Significant negative effects are also found when producer prices for gas and electricity are included in the model (to control for the effects of the energy crisis) or when the identification of uncertainty shocks is adjusted so that economic policy uncertainty can be affected by all other variables in the VAR contemporaneously, but can only affect the other variables with a lag of one month. However, the maximum effect of economic policy uncertainty on GDP is then smaller. The effects of

***Figure 1:***
**Uncertainty**




Monthly data.

*Source*: Economic Policy Uncertainty.

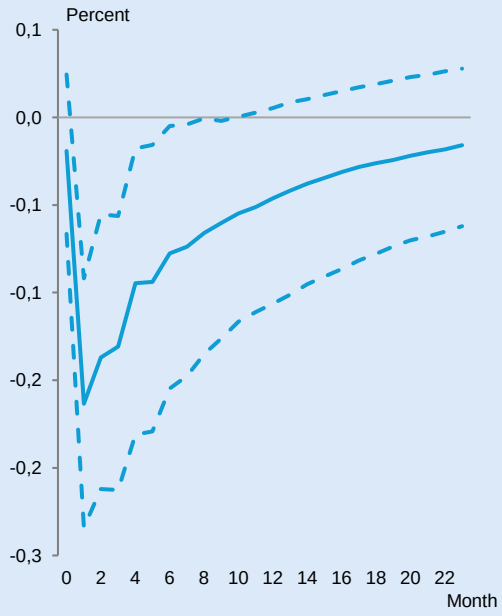
Jens Boysen-Hogrefe, Dominik Groll, Timo Hoffmann, Nils Jannsen, Stefan Kooths, Christian Schröder und Nils Sonnenberg (2024). German Economy in Winter 2024: No Recovery in sight; Kieler Konjunkturberichte Nr. 120 (2024|Q4), Kiel Institute for the World Economy, Box 1 (p.08 – 10).

policy uncertainty are also smaller (and less statistically significant) when the model is only estimated up to 2019, i.e. before for the period before the recent sharp increases. This may indicate that policy uncertainty has non-linear effects on GDP, i.e. larger increases have a disproportionately large impact, while smaller fluctuations have only a small effect on GDP. Similar effects are found when the model is used to estimate the effects of global or European policy uncertainty. Overall, the results are qualitatively in line with numerous other studies on the effects of uncertainty on the economy that are based on alternative uncertainty measures or identification methods (Ademmer et al. 2019; Ademmer and Jannsen 2019; Bachmann et al. 2013; Baker et al. 2016; Born et al. 2018; Junker and Michelsen 2024; Jurado et al. 2015, Meinen and Röhe 2017). However, the quantitative impact depends on the specifications chosen.

The VAR analysis can be used to estimate the extent to which the increase in economic policy uncertainty in Germany has dampened GDP in recent years. If economic policy uncertainty in Germany had developed in line with economic policy uncertainty in Europe since the beginning of 2021, and if this lower level had been due solely to the identified shocks to economic policy uncertainty, German GDP would have developed much more favorably. At its peak, the higher uncertainty in Germany could therefore explain up to 2 percent lower GDP (Figure 4). On average since 2021, GDP is estimated to have been about 1 percent below the level that would have been expected at the European level of uncertainty. Of course, when interpreting these results, it is important to bear in mind that a fundamental problem with such analyses - namely that economic policy uncertainty is likely to be driven by factors that also affect GDP - can only be addressed to a limited extent by the identification method used here, as well as by other methods. For example, poor economic policy conditions are likely not only to increase uncertainty but also to directly dampen GDP. However, some of these factors are difficult to control for in empirical analyses. This suggests that the approach used here tends to overestimate the direct effects of economic policy uncertainty. In addition, the results can vary considerably in quantitative terms depending on the empirical specification.

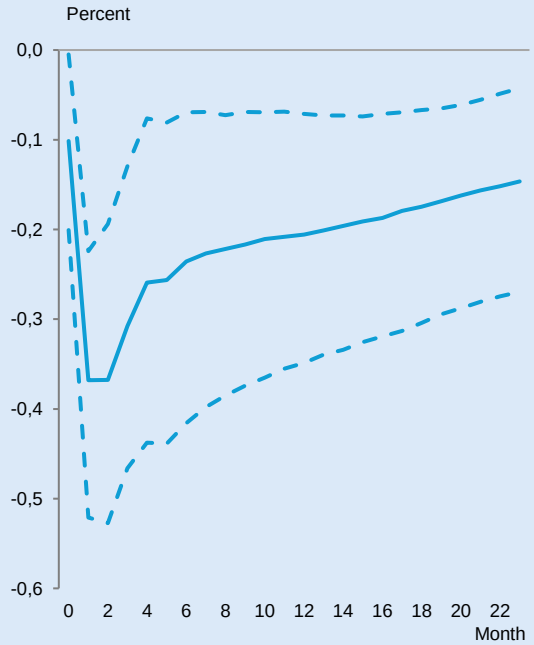
All in all, the high level of economic policy uncertainty in Germany is likely to dampen GDP significantly, although the quantitative effect is difficult to assess. If the federal government's apparently divisive on economic policy has contributed to the high level of economic policy uncertainty, the early end of the legislative period could shorten the period of high economic policy uncertainty and depending on the outcome of the elections, reduce uncertainty and contribute to an economic upturn. However, it seems likely that geopolitical and trade risks alone will keep policy uncertainty high for the time being.

***Figure 2:***
**GDP**



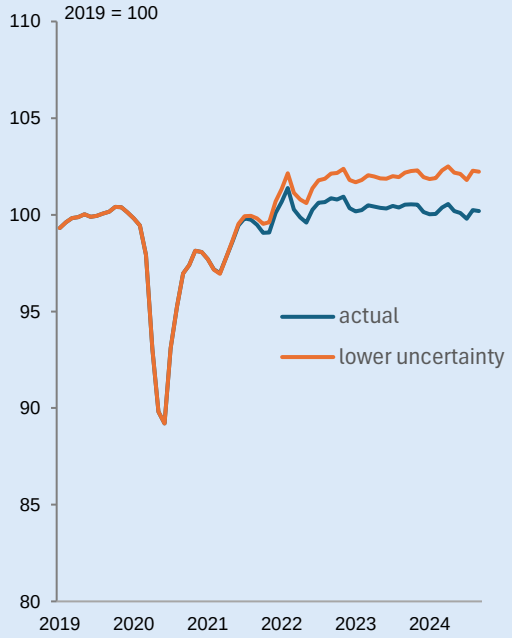

Monthly data. Effects of an uncertainty shock that leads to an increase in economic policy uncertainty by one standard deviation (increase of around 30 percent). Dashed lines: 68 percent interval.
*Sources*: Economic Policy Uncertainty; Federal Statistical Office; Kiel Institute.

***Figure 3:***
**Industrial production**




Monthly data. Effects of an uncertainty shock that leads to an increase in economic policy uncertainty by one standard deviation (increase of around 30 percent). Dashed lines: 68 percent interval.
*Sources*: Economic Policy Uncertainty; Federal Statistical Office; Kiel Institute.

***Figure 4:***
**GDP under current and lower uncertainty**




Monthly data. Lower uncertainty: GDP path if uncertainty in Germany had been the same as in Europe due to smaller uncertainty shocks since 2021. 3-months average.

*Sources*: Economic Policy Uncertainty; Federal Statistical Office; Kiel Institute.

## Literatur


Ademmer, M., und N. Jannsen (2019). Globale Unsicherheit und deutsche Konjunktur. Wirtschaftsdienst 99(7): 519-520.

Ademmer, M., J. Beckmann und N. Jannsen (2019). Zu den Auswirkungen des jüngsten Anstiegs der globalen wirtschaftspolitischen Unsicherheit. Kiel Insight 2019.7.

Bachmann, R., S. Elstner und E.R. Sims (2013). Uncertainty and Economic Activity: Evidence from Business Survey Data American Economic Journal: Macroeconomics 5(2): 217–249.

Baker, S. R., N. Bloom und S. J. Davis (2016). Measuring Economic Policy Uncertainty, The Quarterly Journal of Economics, vol. 131(4), 1593-1636.

Bloom, N. (2009). The impact of uncertainty shocks. Econometrica 77 (3): 623-685.

Born, B., S. Breuer und S. Elstner (2018) Uncertainty and the Great Recession. Oxford Bulletin of Economic and Statistics 80: 951-971.

Buliskeria, N., J. Baxa und T. Sestorad (2023). Uncertain Trends in Uncertain Times. Czech National Bank Working Paper Series 16/2023.

Junker, S., und C. Michelsen (2024). Wirtschaftspolitische Unsicherheit: Investitionen bleiben aus. vfa Economic Policy Brief 11.24.

Jurado, K., S. Ludvigson und S. No (2015). Measuring Uncertainty. American Economic Review 105(3): 1177-1216.

Meinen, P., und O. Röhe (2017). On measuring uncertainty and its impact on investment: cross-country evidence from the euro area. European Economic Review 92: 161-179.