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Geopolitical Risks and Energy Uncertainty:

Implications for Global and Domestic Energy Prices

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Geopolitical Risks and Energy Uncertainty: Implications for Global and Domestic Energy Prices[1]

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Abstract: This paper investigates the interaction between global geopolitical risks and global energy uncertainty by focusing on their implications for global and domestic energy prices of 157 countries. The empirical investigation is based on a structural vector autoregression model covering the monthly sample period between 1996m1-2022m10, where global real economic activity is controlled for. The results show that a unit shock to global geopolitical risk (normalized to one standard deviation) results in about 1.13 units of an increase in global energy uncertainty (normalized to one standard deviation) in the long run (after two years), whereas the corresponding effects on global energy prices are statistically insignificant. In contrast, a unit shock to global energy uncertainty results in about 52% (57%) of a reduction in global energy prices (global economic activity), acting like negative global demand shocks. When statistically significant country-specific results are considered in the long run, a positive shock to the global geopolitical risk affects domestic energy prices positively (negatively) in 10% (10%) of oil producing countries, 32.1% (19.7%) of non-oil producing countries, 47.2% (0%) of advanced economies, 55% (0%) of euro area countries, 25% (22.4%) of emerging markets, and 22.2% (26.7%) of developing countries. In comparison, a positive shock to the global energy uncertainty affects domestic energy prices positively (negatively) in 5% (40%) of oil producing countries, 3.6% (54%) of non-oil producing countries, 0% (61.1%) of advanced economies, 0% (50%) of euro area countries, 3.9% (56.6%) of emerging markets, and 6.7% (37.8%) of developing countries. Important policy implications follow regarding the energy security of countries.

JEL Codes: E31, F62, Q41
Keywords: Geopolitical Risk; Energy Uncertainty; Energy Prices; Real Economic Activity

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1 Introduction

Geopolitical events such as conflicts, sanctions, and political instability can affect global energy markets through their impact on energy supply and energy demand (Bouoiyour et al., 2019; Noguera-Santaella, 2016). In an international context, the effects on energy supply can be through energy exporting countries, whereas those on energy demand can be through energy importing countries (Jiao et al., 2023; Shahbaz et al., 2023). As these developments create volatilities in energy prices and thus energy uncertainty at the global and domestic levels for energy producers, investors, and policymakers (Zhang et al., 2009; Qin et al., 2020), it is essential to understand the relationship between global geopolitical risks and global energy uncertainty in order to conduct optimal energy policies and get involved with international cooperation to address shared energy challenges (Cheng and Chiu, 2018; Meng and Yu, 2023).

Understanding the transmission of geopolitical risk to energy markets is an important task for policymakers who would like to mitigate the corresponding effects on their domestic energy prices (Bompard et al., 2017). As an example, by measuring the size of geopolitical risks and their impact on energy markets, policymakers can mitigate energy price volatility by using a mix of energy sources (Dutta and Dutta, 2022). Within this context, the difference between the effects of geopolitical risk on global versus domestic energy prices is hard to identify due to the geographical differences across countries interacting with the global nature of energy markets (Cui et al., 2023). Therefore, investigating the effects of global geopolitical risks and global energy uncertainty on energy prices at the global and country levels is essential to understand

the differing transmission channels of uncertainty arising from geopolitical conflicts across countries.

Based on this background, this paper investigates the interaction between global geopolitical risks (Caldara and Iacoviello, 2022) and global energy uncertainty (Dang et al., 2023) with a special focus on their implications for global and domestic energy prices (Ha et al., 2023).[3] The main idea is to measure the significance of shocks to global geopolitical risks and global energy uncertainty on the global and domestic energy prices, where we would also like to identify the nature of the shocks to global geopolitical risks and global energy uncertainty (e.g., global supply versus global demand shocks) by considering their impacts on global energy prices and global economic activity. This is similar to studies such as by Smales (2021), Assaf et al. (2021), and Mignon and Saadaoui (2024) who investigate the effects of geopolitical risks on energy prices, whereas we contribute to this literature by investigating the interaction between geopolitical risk and energy-related uncertainty with a special focus on their implications for global and domestic energy prices. Specifically, to our knowledge, this is the first comprehensive study investigating the effects of the interaction between global geopolitical risks and global energy uncertainty on the global energy prices as well as the domestic energy prices of a large number of countries.

The investigation is achieved by using structural vector autoregression models at the global and domestic levels, where monthly data covering the sample period of 1996m1-

[3] This is in contrast to the studies in the literature such as by Lee et al. (2023) who investigate the effects of geopolitical oil price risk on core inflation of countries and Saâdaoui and Jabeur (2023) who investigate the dependence between electricity prices and geopolitical risks.

2022m10 are employed.[4] In the estimation at the global level, the interaction between global geopolitical risk and global energy uncertainty is investigated by including the variables of global energy prices (based on U.S. dollars) and global real economic activity, whereas at the domestic level (for 157 countries), domestic energy prices (based on U.S. dollars) are included on top of these four variables.

The estimation results at the global level show that a unit shock to global geopolitical risk (normalized to one standard deviation) results in about 1.13 units of an increase in global energy uncertainty (normalized to one standard deviation) in the long run (after two years), which is consistent with earlier studies such as by Qin et al. (2020) and Yang et al. (2021) who show that geopolitical risks result in significant volatilities in energy markets. The estimation results also show that shocks to global geopolitical risk do not have any statistically significant effects on global energy prices, which is consistent with earlier studies such as by Alqahtani and Taillard (2020) and Yang et al. (2023) who show that oil prices do not respond to shocks to geopolitical risks.

In comparison, a unit shock to global energy uncertainty results in about 52% of a reduction in global energy prices and about 57% of a reduction in global economic activity in the long run. This result is similar to earlier studies such as by Assaf et al. (2021) who show evidence for market uncertainty having significant effects on energy markets. It is implied that positive global energy uncertainty shocks act like negative global demand shocks.

[4] This is similar to earlier studies such as by Ha et al. (2023) and Lebrand et al. (2023) who use country-specific structural vector autoregression models in different contexts.

As a unit shock to global energy prices increases global economic activity by about 4% in the long run, it is also implied that positive shocks to global energy prices act like positive global demand shocks. The contribution of global geopolitical risk to the volatility of global energy prices is only about 1%, whereas that of global energy uncertainty is about 6%. Overall, global energy prices are mostly affected by shocks to global energy uncertainty rather than by shocks to global geopolitical risk.

The estimation results at the domestic level (for 157 countries) show that positive shocks to global geopolitical risk have statistically significant positive effects only for the pooled sample of euro area countries in the short run (after one month), whereas positive shocks to global energy uncertainty have statistically significant negative effects only for the pooled sample of advanced economies and the euro area countries (in all horizons). As shocks to global energy uncertainty act like negative global demand shocks (as shown by the estimation results at the global level), it is implied that domestic energy prices in the pooled sample of advanced economies and euro area countries are the ones that are affected the most by such negative global demand shocks.

Global geopolitical risk contributes the most to the volatility of domestic energy prices in the pooled sample of developing countries, whereas global energy uncertainty contributes the most to the volatility of domestic energy prices in the pooled sample of oil producing countries. Nevertheless, the highest contribution to the volatility of domestic energy prices is achieved by global energy prices in the pooled samples of all country groups.

When statistically significant country-specific results are considered in the long run, a positive shock to the global geopolitical risk affects domestic energy prices positively

(negatively) in 10% (10%) of oil producing countries, 32.1% (19.7%) of non-oil producing countries, 47.2% (0%) of advanced economies, 55% (0%) of euro area countries, 25% (22.4%) of emerging markets, and 22.2% (26.7%) of developing countries. In comparison, a positive shock to the global energy uncertainty affects domestic energy prices positively (negatively) in 5% (40%) of oil producing countries, 3.6% (54%) of non-oil producing countries, 0% (61.1%) of advanced economies, 0% (50%) of euro area countries, 3.9% (56.6%) of emerging markets, and 6.7% (37.8%) of developing countries.

It is implied that energy producers, investors, and policymakers, especially those in advanced economies and euro area countries, may want to focus on the dynamics of both global geopolitical risk and global energy uncertainty. Nevertheless, as the highest contribution to the volatility of domestic energy prices is achieved by global energy prices, it is also essential to follow the developments in energy markets that are independent of geopolitical risks and energy uncertainty.

Specifically, energy producers, investors, and policymakers may want to diversify risk by producing, investing, or importing energy from alternative sources, which can be achieved by geographical diversification, supplier diversification, and fuel type diversification. Such a diversification strategy would make the interested parties less vulnerable to disruptions caused by geopolitical risks, energy uncertainty, political instability, environmental disasters, or supply chain issues in any single energy source, e.g., if one source experiences a problem, the others can help to compensate and maintain overall energy security. Promoting geopolitical stability could also foster trust and cooperation between countries, reducing the likelihood of conflict and promoting regional

stability, especially when they get involved with international cooperation to address shared energy challenges (Cheng and Chiu, 2018; Meng and Yu, 2023).

Overall, this paper contributes to the literature along the following lines. First, this paper investigates the interaction between global geopolitical risk and energy-related uncertainty with a special focus on their implications on energy prices, whereas the existing studies ignore this interaction (Smales, 2021; Assaf et al., 2021; Mignon and Saadaoui, 2024). This strategy is essential to identify the causal relationship between these variables and global/domestic energy prices, which is new to this paper. Second, global geopolitical risks are shown to be effective on energy-related uncertainty, but they are ineffective in explaining global energy prices as in Alqahtani and Taillard (2020) and Yang et al. (2023). This is in contrast to other studies such as by Smales (2021), Meng and Yu (2023), Saâdaoui and Jabeur (2023), and Mignon and Saadaoui (2024) who show evidence for a significant relationship between geopolitical risks and energy prices. This result is important, especially for policymakers, to understand which global shocks are more effective on domestic energy prices, so that policy actions can be taken to mitigate the negative effects on domestic energy markets. Third, about half of the countries investigated (based on 157 country-specific estimations) is shown to be affected by shocks to global geopolitical risk or global energy uncertainty, suggesting that it is essential for policymakers to follow the developments in these variables to understand domestic energy prices. Fourth, as it is shown that global energy prices contribute the most to the volatility of domestic energy prices, it is also important for policymakers to follow the developments in energy markets that are independent of geopolitical risks and energy uncertainty.

The rest of the paper is organized as follows. The next section introduces the empirical methodology and the data set. Section 3 depicts the empirical results at the global level, whereas Section 4 depicts the empirical results at the domestic level for the pooled sample of country groups. Section 5 presents country-specific results, whereas Section 6 concludes with policy suggestions. Additional tables and figures are provided in the Appendix.

2 Empirical Methodology and Data

This paper uses two different structural vector autoregression (SVAR) models to investigate the effects of global geopolitical risk and global energy uncertainty on energy prices, one at the global level and the other at the domestic level for 157 countries. The motivation behind using SVAR models is to identify the causal relationship between the variables considered as suggested in influential studies such as by Kilian (2013) and Baumeister and Hamilton (2018), where the identification is achieved through the time dimension.

As shown in the Appendix Table A.1, the 157 countries in the sample consist of 36 advanced economies, 76 emerging market economies, 45 low-income developing countries, 20 euro-area countries, 20 oil producing countries, and 137 non-oil producing countries.[5] All estimations are achieved by using monthly data for the period between 1996m1-2022m10, where each variable is described below.

[5] These categorizations are based on the 2023 country classification of the International Monetary Fund.

For the estimations, the global geopolitical risk index that is borrowed from Caldara and Iacoviello (2022) is constructed by using text-search results of the electronic archives from major newspapers for keywords representing adverse geopolitical events, whereas the global energy uncertainty index that is borrowed from Dang et al. (2023) is constructed by using text-search results of the country-specific reports by the Economist Intelligence Unit for keywords representing energy uncertainty. Hence, these are news-based indices that represent the media coverage of events related to geopolitical developments and energy uncertainty, whereas the literature has alternative measures such as oil price uncertainty that is identified through GARCH measures as in studies such as by Rahman and Serletis (2012), Kocaaslan (2019), and Apostolakis et al. (2021). It is implied that the empirical methodology and results of this paper (below) should be considered according to the news-based approach utilized in this paper.

2.1 Global SVAR Model

The global SVAR model is defined as $z_t = (gpr_t, geu_t, gep_t, gea_t)'$, where gpr_t is the global geopolitical risk borrowed from Caldara and Iacoviello (2022) and normalized to one standard deviation as in Caldara et al. (2022), geu_t is the global energy uncertainty (normalized to one standard deviation) borrowed from Dang et al. (2023) as the GDP-weighted global measure, gep_t represents year-on-year percentage changes (calculated as log differences multiplied by 100) in the global energy prices (based on U.S. dollars) obtained from the World Bank's Pink Sheet, and gea_t represents the global (real) economic activity as proposed by Kilian (2009) and corrected by Kilian (2019), which is expressed in percent deviations from trend.

In sum, global geopolitical risk and global energy uncertainty are normalized to one standard deviation (by dividing demeaned series by their standard deviations), global energy prices are represented as year-on-year percentage changes (to control for seasonality by construction and also for easier interpretation of the empirical results in annual terms), and global economic activity is expressed in percent deviations from trend.[6]

The corresponding descriptive statistics are presented in the Appendix Figure A.1. As is evident, global geopolitical risk, which is constructed by using keywords related to geopolitical risk in major newspapers, has three main spikes, representing the September 11 attacks in 2001, the beginning of the Iraq War in 2003, and the Russo-Ukrainian War in 2022. In comparison, global energy uncertainty, which is constructed by using energy-related keywords in country reports of Economist Intelligence Unit, is more volatile over time, including episodes based on oil supply disruptions, geopolitical risk, and pandemics. Global energy prices represented as year-on-year percentage changes reflect not only business cycles but also oil-supply related events. Finally, global economic activity, which is expressed in percent deviations from trend, mostly reflect global business cycles.

The formal investigation is based on the following expression:

$$A_o z_t = a + \sum_{k=1}^{12} A_k z_{t-k} + u_t \quad (1)$$

where u_t is the vector of serially and mutually uncorrelated structural innovations. For estimation purposes, the model is expressed in reduced form as $z_t = b + \sum_{k=1}^{12} B_k z_{t-k} + e_t$,

[6] Several other studies in the literature use year-on-year changes in SVAR models, including Hamilton (2008), Baumeister and Hamilton (2018), Hubert (2015), Sun (2015), Aastveit et al. (2023), Aruoba et al. (2022), Afanasyeva et al. (2020), Dery and Serletis (2024), and Gomes-Pereira (2024) among many others.

where $b = A_o^{-1}a$, $B_k = A_o^{-1}A_k$ for all k, and the number of lags is set to 12 based on the deviance information criterion.[7] It is postulated that the structural impact multiplier matrix A_o^{-1} has a recursive structure such that the reduced form errors e_t can be decomposed according to $e_t = A_o^{-1}u_t$, where shock sizes are standardized to unity.

The recursive structure imposed on A_o^{-1} requires an ordering of the variables used in the estimation for which we utilize the ordering in $z_t = (gpr_t, geu_t, gep_t, gea_t)'$. In particular, the global geopolitical risk gpr_t is ordered first as it is assumed to be independent of the developments in energy prices, although it can be affected by any other shock following the contemporaneous period. Global energy uncertainty geu_t can be affected by the global geopolitical risk contemporaneously, but it does not have a contemporaneous effect on the geopolitical risk. Global energy prices gep_t are ordered next as they can be affected contemporaneously by both the global geopolitical risk and global energy uncertainty, whereas they can affect all variables after the contemporaneous period. Global economic activity gea_t are ordered the last as they can be affected by all other global variables contemporaneously, including energy prices, because it is derived from a panel of dollar-denominated global bulk dry cargo shipping rates. It is important to emphasize that the results are very similar when alternative orderings of these variables are considered.[8]

[7] The results are very similar for alternative numbers of lags. The results of such robustness checks are available in the robustness subsection, below.
[8] The results of such robustness checks are available in the robustness subsection, below.

2.2 Domestic SVAR Models

The domestic SVAR models are estimated for each country individually. They are defined as $z_t = (gpr_t, geu_t, gep_t, gea_t, dep_t)'$, where the only difference (with respect to the global SVAR model) is the additional variable of domestic energy prices dep_t that are represented as year-on-year percentage changes. These domestic energy prices are obtained from Ha et al. (2023) for 157 countries (as listed and categorized in the Appendix Table A.1).[9] The year-on-year changes in domestic energy prices are further converted into year-on-year percentage changes in U.S. dollars by using the country-specific monthly U.S. dollar exchange rates obtained from the Bank for International Settlements.[10] The objective of domestic SVAR models is to estimate the effects of global geopolitical risk and global energy uncertainty on the domestic energy prices of different countries (and country groups).

2.3 Other Technical Details

All estimations are achieved by a Bayesian approach with independent normal-Wishart priors. Regarding the hyperparameters determining prior distributions of the parameters of interest, following studies such as by Dieppe et al. (2016) and Ordóñez et al. (2019), the overall tightness that governs the variance of lag terms (both own and cross-lags) is set to 0.1, the scaling coefficient controlling the speed at which coefficients for lags greater than 1 converge to 0 with greater certainty is set to 1, the parameter governing the variance of exogenous variables (i.e., the constant in this paper) is set equal to 100, and

[9] These domestic energy prices consist of either "Housing, Water, Electricity, Gas & Other Fuel" prices obtained from country-specific sources or already given as "Energy Price" obtained from OECD.Stat and Eurostat. See Ha et al. (2023) for further details.
[10] The corresponding webpage is https://www.bis.org/statistics/xrusd.htm.

the prior for the residual variance-covariance matrix is set to be an identity matrix.[11] This corresponds to generating posterior draws for the structural model parameters by transforming each reduced-form posterior draw. In particular, for each draw of the covariance matrix from its posterior distribution, the corresponding posterior draw for A_o^{-1} is constructed by using by triangular factorization, where shock sizes are standardized to unity.

In the Bayesian framework, a total of 2,000 samples are drawn, where a burn-in sample of 1,000 draws is discarded. The remaining 1,000 draws are used to determine the structural impulse responses and forecast error variance decomposition measures. While the median of each distribution is considered as the Bayesian estimator, the 16th and 84th quantiles of distributions are used to construct the 68% credible sets (which is the standard measure considered in the Bayesian literature). In all estimations, following Fry and Pagan (2005, 2011), rather than directly calculating the corresponding measures (e.g., median or 68% credible sets) across all draws for a particular horizon, we search for the draw that produces impulses closest to these measures by minimizing the distance between a measure and the selected draw for a horizon of two years. All estimations are achieved by using the BEAR toolbox introduced by Dieppe et al. (2016).

3 Estimation Results of the Global SVAR Model

This section depicts the empirical results of the global SVAR model.

[11] For robustness, we also consider alternative hyperparameters in the estimations below.

3.1 Responses of Global Variables

The cumulative impulse responses of global variables to global shocks are given in Figure 1 over time, whereas they are summarized in Table 1.

Shocks to global geopolitical risk increase global energy uncertainty in all horizons, where one unit of a shock in global geopolitical risk (normalized to one standard deviation) results in about 1.13 units of an increase in global energy uncertainty (also normalized to one standard deviation) after two years (which is the long-run measure used in this paper) in a statistically significant way. This result is consistent with earlier studies such as by Qin et al. (2020) and Yang et al. (2021) who show that geopolitical risks result in significant volatilities in energy markets. In comparison, the effects of global geopolitical risk on global energy prices and global economic activity are statistically insignificant (for any horizon) based on the 68% credible sets, which is consistent with earlier studies such as by Alqahtani and Taillard (2020) and Yang et al. (2023) who show that oil prices do not respond to geopolitical risks.

The effects of global energy uncertainty shocks on global energy prices and global economic activity are both negative and statistically significant for any horizon. It is implied that global energy uncertainty shocks act like negative global demand shocks as they decrease both mentioned variables. A unit shock to global energy uncertainty (normalized to one standard deviation) results in about 52% of a reduction in global energy prices and 57% of a reduction in global economic activity in the long run. This result is similar to earlier studies such as by Assaf et al. (2021) who show evidence for market uncertainty having significant effects on energy markets.

Global energy price shocks have a negative impact on global energy uncertainty only in the short run (up to one quarter), however the corresponding effects are statistically insignificant in the long run (based on the 68% credible sets). In comparison, shocks to global energy prices increase global economic activity in all horizons, suggesting that global energy prices act like positive global demand shocks. Regarding the magnitudes in the long run, a unit shock to global energy prices (measured as year-on-year percentage changes) results in about 4.36% of an increase in global economic activity (expressed in percent deviations from trend).

Shocks to global economic activity have positive effects on global energy prices, confirming that they act like positive global demand shocks as well. Specifically, a unit shock to global economic activity (expressed in percent deviations from trend) results in about 2.2% of an increase in global energy prices (measured as year-on-year percentage changes) in the long run.

Overall, shocks to global geopolitical risk are only effective on global energy uncertainty in a positive and statistically significant way, whereas shocks to global energy uncertainty are effective on both global energy prices and global economic activity in a negative and statistically significant way.

3.2 Drivers of Global Variables

The contribution of global variables to their forecast error variance decomposition are given in Figure 2 over time, whereas they are summarized in Table 2. We consider these measures as the drivers of global variables in this paper.

The contribution of global geopolitical risk to the volatility of global energy uncertainty is up to 4.34% in the long run, whereas the volatility of other global variables are affected in a negligible way by the global geopolitical risk. In comparison, global energy uncertainty contributes about 5.92% to the volatility of global energy prices, and it contributes about 2.20% to the volatility of global economic activity. Global energy prices contribute about 4.02% to the volatility of global economic activity in the long run, whereas global economic activity contributes about 9.13% to the volatility of global energy prices.

Overall, the total contribution of global geopolitical risk and global energy uncertainty to the volalatility of global energy prices is only about 7.23% in the long run, lower then the contribution of global economic activity.

3.3 Robustness Checks

This subsection achieves several robustness checks. These include considering alternative orderings of the variables in the global SVAR model, alternative numbers of lags, and alternative hyperparameters determining prior distributions of the parameters of interest. The corresponding results are provided in the Appendix Tables.

Robustness #1: This robustness check changes the ordering of variables in the global SVAR model as $z_t = (geu_t, gpr_t, gep_t, gea_t)'$, where the only difference with respect to the benchmark model is that the global energy uncertainty, geu_t, is ordered before the global geopolitical risk, gpr_t. The corresponding results for the responses of global variables are given in the Appendix Table A.2, whereas those for the drivers of global variables are given in the Appendix Table A.3.

As is evident, the responses of global energy prices and global economic activity are very similar to those in the benchmark case (Table 1), whereas the interaction between global geopolitical risk and global energy uncertainty has now changed. Specifically, ordering the global energy uncertainty first results in having statistically significant effects of the corresponding shocks on the global geopolitical risk, which was not the case in the benchmark model. Similarly, depending on the horizon, the response of global energy uncertainty to a shock to global geopolitical risk is lower (or statistically insignificant) in this robustness check.

The drivers of global energy prices and global economic activity in this robustness check are also very similar to those in the benchmark case (Table 2), where, again, the results representing the interaction between global geopolitical risk and global energy uncertainty are slightly different. Specifically, the contribution of global geopolitical risk to the global economic uncertainty is slightly lower in this robustness check, whereas the contribution of global economic uncertainty to the global geopolitical risk is slightly higher.

Robustness #2: This robustness check changes the ordering of variables in the global SVAR model as $z_t = (gpr_t, geu_t, gea_t, gep_t)'$, where the only difference with respect to the benchmark model is that the global (real) economic activity, gea_t, is ordered before the global energy prices, gep_t. The corresponding results for the responses of global variables are given in the Appendix Table A.4, whereas those for the drivers of global variables are given in the Appendix Table A.5.

As is evident, the responses of global energy prices and global economic activity following shocks to the global geopolitical risk and global energy uncertainty are very

similar to those in the benchmark case (Table 1), whereas the interaction between global energy prices and global economic activity has now changed. Specifically, ordering the global (real) economic activity before the global energy prices results in having higher statistically significant effects of the former on the latter and lower (or statistically insignificant) effects of the latter on the former.

The drivers of global variables in this robustness check are also very similar to those in the benchmark case (Table 2), where the results representing the interaction between global energy prices and global economic activity are slightly different. Specifically, with respect to the benchmark case, ordering the global (real) economic activity before the global energy prices has also resulted in slightly higher contributions of global economic activity on global energy prices and slightly lower contributions global economic prices on global economic activity.

Robustness #3: This robustness check doubles the number of lags to 24 (with respect to the benchmark lags of 12), whereas all other details are the same as in the benchmark case. The corresponding results for the responses of global variables are given in the Appendix Table A.6, whereas those for the drivers of global variables are given in the Appendix Table A.7. As is evident, the corresponding results are higly similar to those in the benchmark case, supporting their robustness in a significant way.

Robustness #4: This robustness check halves the number of lags to 6 (with respect to the benchmark lags of 12), whereas all other details are the same as in the benchmark case. The corresponding results for the responses of global variables are given in the Appendix Table A.8, whereas those for the drivers of global variables are given in the Appendix

Table A.9. As is evident, these results are also higly similar to those in the benchmark case, supporting their robustness one more time.

Robustness #5: This robustness check doubles the hyperparameter of overall tightness that governs the variance of lag terms (both own and cross-lags) by setting it equal to 0.2 (with respect to the benchmark value of 0.1), whereas all other details are the same as in the benchmark case. The corresponding results for the responses of global variables are given in the Appendix Table A.10, whereas those for the drivers of global variables are given in the Appendix Table A.11. As is evident, these results are also higly similar to those in the benchmark case, supporting their robustness.

Robustness #6: This robustness check doubles the hyperparameter of the scaling coefficient controlling the speed at which coefficients for lags greater than 1 converge to 0 with greater certainty by setting it equal to 2 (with respect to the benchmark value of 1), whereas all other details are the same as in the benchmark case. The corresponding results for the responses of global variables are given in the Appendix Table A.12, whereas those for the drivers of global variables are given in the Appendix Table A.13. As is evident, these results are also higly similar to those in the benchmark case, supporting their robustness.

Robustness #7: This robustness check doubles the hyperparameter governing the variance of exogenous variables (i.e., the constant in this paper) by setting it equal to 200 (with respect to the benchmark value of 100), whereas all other details are the same as in the benchmark case. The corresponding results for the responses of global variables are given in the Appendix Table A.14, whereas those for the drivers of global variables are given in

the Appendix Table A.15. As is evident, these results are also higly similar to those in the benchmark case, supporting their robustness.

Overall, the results of all robustness checks are higly in line with those of the benchmark specification, which supports the robustness of the results in Table 1 and Table 2 in a significant way.

4 Estimation Results of the Domestic SVAR Models

This section depicts the empirical results of the domestic SVAR models that are estimated for each country individually. The results in this section are summarized with respect to the pooled sample of the country groups of (i) oil producers, (ii) non-oil producers, (iii) advanced economies, (iv) euro area countries, (v) emerging markets, and (vi) developing countries as depicted in the Appendix Table A.1. In the following figures and tables, in technical terms, the pooled version of 1000 draws coming from all corresponding countries are used, where the median measure is accepted as the estimate, and the 68% credible sets are used to determine statistical significance for each country group.

4.1 Responses of Domestic Energy Prices

The cumulative impulse responses of domestic energy prices to a unit shock in global geopolitical risk are given in Figure 3 and summarized in Table 3. As is evident, shocks to global geopolitical risk have statistically significant effects only on the domestic energy prices of the pooled sample of euro area countries in the short run (after one month), whereas they are not statistically significant for any other country groups or horizons.

In comparison, shocks to global energy uncertainty reduce domestic energy prices of the pooled samples of advanced economies and euro are countries in a statistically

significant way in all horizons as shown in Figure 4 and Table 3, whereas they are not effective on any other country group in a statistically significant way. Regarding the magnitudes, a unit shock to global energy uncertainty (normalized to one standard deviation) reduces the domestic energy prices of advanced economies by about 11.40% and those of euro area countries by about 11.15% in a statistically significant way in the long run.

A unit shock to global energy prices (measured by year-on-year percentage changes) results in about 1.69% of an increase in those of advanced economies and 1.83% of an increase in those of euro area countries in the long run, whereas the corresponding effects on other country groups are statistically insignificant as shown in Figure 6 and Table 3. Finally, shocks to global economic activity result in higher domestic energy prices in advanced economies and euro area countries, where a unit shock results in about 0.78% of an increase in advanced economies and 0.84% of an increase in euro area countries in the long run as shown in Figure 6 and Table 3.

Overall, regarding the focus of this paper, shocks to global geopolitical risk have statistically significant positive effects only on the pooled sample of euro area countries, whereas shocks to global energy uncertainty result in lower domestic energy prices in advanced economies and euro area countries in all horizons. Regarding the existing literature, the former result is consistent with earlier studies such as by Smales (2021), Meng and Yu (2023), Saâdaoui and Jabeur (2023), and Mignon and Saadaoui (2024) who show evidence for a significant relationship between geopolitical risks and energy prices, whereas the latter result is consistent with Assaf et al. (2021) who show evidence for market uncertainty having significant effects on certain energy markets.

4.2 Global Drivers of Domestic Energy Prices

The contribution of global variables to the forecast error variance decomposition of domestic energy prices are considered as the global drivers of domestic energy prices in this paper.

The contribution of global geopolitical risk to the volatility of domestic energy prices are as high as 3.36% for the pooled sample of developing countries, whereas they are as low as 1.13% for the pooled sample of oil producing countries in the long run as shown in Table 4 and Figure 7. In contrast, the contribution of global energy uncertainty to the volatility of domestic energy prices is slightly higher, as high as 5.27% for the pooled sample of oil producing countries and as low as 3.01% for the pooled sample of euro area countries.

Global energy prices explain the volatility of domestic energy prices the most, where their contribution is as much as 25.9% for the pooled sample of euro area countries and as low as 8.84% for the pooled sample of developing countries. Global ecoomic activity explains the volatility of domestic energy prices as much as 9.71% for the pooled sample of euro area countries and as low as 5.56% for the pooled sample of developing countries.

Overall, the total contribution of global geopolitical risk and global energy uncertainty on the volatility of domestic energy prices is as much as 7.59% for the pooled sample of emerging markets and as low as 4.88% for the pooled sample of euro area countries.

5 Country-Specific Estimation Results

The previous section focused on the pooled sample of country groups to provide a general overview, whereas this section summarizes the country-specific results.

5.1 Country-Specific Responses of Domestic Energy Prices

The country-specific cumulative impulse responses of domestic energy prices to a unit shock in global geopolitical risk are given in the Appendix Table A.16, while the percentages of countries (within each country group) with statistically significant effects of global shocks on domestic energy prices are given in Table 5 for alternative horizons.

As is evident in Table 5, domestic energy prices in 20% of oil producing countries, 51.8% of non-oil producing countries, 47.2% of advanced economies, 55% of euro area countries, 47.4% of emerging markets, and 48.9% of developing countries respond to global geopolitical risk shocks in a statistically significant way in the long run (after two years). Regarding positive versus negative effects, according to Table 6 (Table 7), domestic energy prices in 10% (10%) of oil producing countries, 32.1% (19.7%) of non-oil producing countries, 47.2% (0%) of advanced economies, 55% (0%) of euro area countries, 25% (22.4%) of emerging markets, and 22.2% (26.7%) of developing countries are affected positively (negatively) following a positive shock to the global geopolitical risk in the long run.

In comparison, according to Table 5, domestic energy prices in 45% of oil producing countries, 57.7% of non-oil producing countries, 61.1% of advanced economies, 50% of euro area countries, 60.5% of emerging markets, and 44.4% of developing countries

respond to global energy uncertainty shocks in a statistically significant way in the long run (after two years).

Regarding positive versus negative effects, according to Table 6 (Table 7), domestic energy prices in 5% (40%) of oil producing countries, 3.6% (54%) of non-oil producing countries, 0% (61.1%) of advanced economies, 0% (50%) of euro area countries, 3.9% (56.6%) of emerging markets, and 6.7% (37.8%) of developing countries are affected positively (negatively) following a positive shock to the global energy uncertainty in the long run.

According to the Appendix Table A.16, domestic energy prices positively respond to a positive unit shock in global geopolitical risk the most in Iran (by 45.8%), Sudan (by 45.5%), Moldova (by 41.9%), St. Lucia (by 31.5%), Turkey (by 23.7%), Armenia (by 20.4%), Suriname (by 19.5%), Iraq (by 18.1%), Indonesia (by 17.9%), and Seychelles (by 17.5%) in a statistically significant way, all of which are either emerging market economies or low-income developing countries.

In comparison, domestic energy prices negatively respond to a positive unit shock in global geopolitical risk the most in Lebanon (by minus 73.5%), Egypt (by minus 49.3%), Barbados (by minus 41.3%), Sierra Leone (by minus 37.8%), Myanmar (by minus 32.2%), Sri Lanka (by minus 31.9%), Russian Federation (by minus 30.2%), Namibia (by minus 25.7%), Eswatini (by minus 24.8%), and Pakistan (by minus 24.6%) in a statistically significant way, all of which are either emerging market economies or low-income developing countries as well.

Among advanced economies and euro area countries, domestic energy prices positively respond to a positive unit shock in global geopolitical risk the most in Iceland (by 16.6%), Ireland (by 16.6%), Sweden (by 15.2%), Slovakia (by 13.7%), Cyprus (by 12.7%), Portugal (by 12.6%), Finland (by 11.5%), Czech Republic (by 10.8%), Austria (by 10.7%), Italy (by 10.4%), Denmark (by 10.1%), Germany (by 9.7%), Belgium (by 9.6%), France (by 9.5%), United Kingdom (by 9.3%), Switzerland (by 7.9%), and Croatia (by 7.1%) in a statistically significant way. It is important to emphasize that there are not any advanced economies (or euro area countries) of which domestic energy prices negatively respond to global geopolitical risk shocks in a statistically significant way.

Domestic energy prices positively respond to a positive unit shock in global energy uncertainty the most in South Sudan (by 99.7%), Indonesia (by 13.5%), Philippines (by 13%), Burkina Faso (by 10.7%), United Arab Emirates (by 6.2%), and Bangladesh (by 4%) in a statistically significant way, all of which are either emerging market economies or low-income developing countries.

In comparison, domestic energy prices negatively respond to a positive unit shock in global energy uncertainty the most in Argentina (by minus 60%), Zambia (by minus 40.6%), Mozambique (by minus 33.6%), Barbados (by minus 33.1%), and Azerbaijan (by minus 32.9%), all of which are either emerging market economies or low-income developing countries as well.

Among advanced economies and euro area countries, domestic energy prices negatively respond to a positive unit shock in global energy uncertainty the most in Lithuania (by minus 29%), San Marino (by minus 27.3%), Cyprus (by minus 25%), Slovakia (by minus 24.9%), and Croatia (by minus 18.3%) in a statistically significant

way. It is important to emphasize that there are not any advanced economies (or euro area countries) of which domestic energy prices positively respond to global energy uncertainty shocks in a statistically significant way.

Overall, regarding the focus of this paper, there are significant differences across countries regarding the effects of shocks to global geopolitical risk and global energy uncertainty on domestic energy prices. Specifically, positive shocks to global geopolitical risk mostly result in higher domestic energy prices, whereas positive shocks to global energy uncertainty mostly result in lower domestic energy prices, especially when advanced economies and euro area countries are considered.

5.2 Country-Specific Drivers of Domestic Energy Prices

The contribution of global variables to the forecast error variance decomposition of domestic energy prices are considered as the country-specific drivers of domestic energy prices in this paper.

According to the Appendix Table A.17, the contribution of global geopolitical risk to the volatility of domestic energy prices is the most for Barbados (by 69.1%), Sri Lanka (by 57%), Albania (by 54.9%), Nepal (by 54.6%), and Democratic Republic of the Congo (by 44.5%), all of which are either emerging market economies or low-income developing countries. In comparison, the contribution of global geopolitical risk to the volatility of domestic energy prices is the least (by about 1%) for Malaysia, Canada, United Arab Emirates, Spain, and Lithuania, most of which are advanced economies.

The contribution of global energy uncertainty to the volatility of domestic energy prices is the most for Argentina (by 73.1%), Bahamas (by 60%), Burkina Faso (by 52.1%),

Albania (by 38.3%), and Iraq (by 36.4%), all of which are either emerging market economies or low-income developing countries. In contrast, the contribution of global energy uncertainty to the volatility of domestic energy prices is the least (by about 1%) for Maldives, Macao, Sudan, Oman and Burundi, most of which are oil producing economies.

Overall, there are significant differences across countries regarding the effects of shocks to global geopolitical risk and global energy uncertainty on the volatility of domestic energy prices. The top countries of which domestic energy prices are affected the most by shocks to global geopolitical risk and global energy uncertainty are either emerging market economies or low-income developing countries, whereas the corresponding effects on domestic energy prices of advanced economies are relatively lower.

6 Concluding Remarks and Policy Suggestions

This paper has investigated the interaction between global geopolitical risks and global energy uncertainty with a focus on their implications for global and domestic energy prices. The investigation has been based on structural vector autoregression models covering the monthly period of 1996m1-2022m10.

The empirical results at the global level have shown that positive shocks to global energy uncertainty have negative and statistically significant effects on global energy prices, whereas the effects of shocks to global geopolitical risk are statistically insignificant. It is implied that energy producers, investors, and policymakers may want to focus more on the dynamics of global energy uncertainty rather than those of global geopolitical risk.

The empirical results including domestic energy prices (for 157 countries) have shown that the effects of global geopolitical risk on domestic energy prices are positive and statistically significant only for the pooled sample of euro area countries in the short run (after one month), whereas the effects of global energy uncertainty on domestic energy prices are negative and statistically significant only for the pooled samples of advanced economies and euro area countries (in all horizons).

Country-specific results suggest that there are significant differences across countries regarding the effects of shocks to global geopolitical risk and global energy uncertainty on domestic energy prices. Positive shocks to global geopolitical risk mostly result in higher domestic energy prices, whereas positive shocks to global energy uncertainty mostly result in lower domestic energy prices, especially when advanced economies and euro area countries are considered. Nevertheless, the top countries of which domestic energy prices are affected the most by shocks to global geopolitical risk and global energy uncertainty are either emerging market economies or low-income developing countries, whereas the corresponding effects on domestic energy prices of advanced economies are relatively minor.

Overall, it is implied that energy producers, investors, and policymakers, especially those in advanced economies and euro area countries, may want to focus on the dynamics of both global geopolitical risk and global energy uncertainty as domestic energy prices in 47.2% (55%) of advanced economies (euro area countries) are affected positively by shocks to global geopolitical risk, and domestic energy prices in 61.1% (50%) of advanced economies (euro area countries) are affected negatively by shocks to global economic uncertainty. However, as the highest contribution to the volatility of domestic energy

prices is achieved by global energy prices, it is also essential to follow the developments in energy markets that are independent of geopolitical risks and energy uncertainty.

In particular, energy producers, investors, and policymakers may want to diversify risk by producing, investing, or importing energy from alternative sources, which can be achieved by geographical diversification, supplier diversification, and fuel type diversification. Such a diversification strategy would make the interested parties less vulnerable to disruptions caused by political instability, environmental disasters, or supply chain issues in any single energy source, e.g., if one source experiences a problem, the others can help to compensate and maintain overall energy security. Promoting geopolitical stability could also foster trust and cooperation between countries, reducing the likelihood of conflict and promoting regional stability, especially when they get involved with international cooperation to address shared energy challenges.

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Table 1 - Responses of Global Variables

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.7903*	0.009	0.0013	-0.0006
Global Energy Uncertainty	0.2343*	1.6588*	-0.0016*	-0.0009
Global Energy Prices	-1.4754	-3.2473*	2.049*	0.0284*
Global Economic Activity	-0.9121	-7.7875*	0.6074*	2.0328*
	After One Quarter			
Global Geopolitical Risk	2.7095*	0.0738	0.0047	-0.0032*
Global Energy Uncertainty	0.4876*	2.6141*	-0.0041*	-0.0018
Global Energy Prices	-1.921	-9.27*	4.0049*	0.2003*
Global Economic Activity	-0.5286	-16.2118*	1.3437*	3.8835*
	After One Year			
Global Geopolitical Risk	3.9174*	0.198	0.0205	-0.0079
Global Energy Uncertainty	0.9408*	4.2386*	0.0122	-0.0065
Global Energy Prices	-2.0971	-39.5989*	8.7971*	1.5297*
Global Economic Activity	17.166	-42.5182*	3.3755*	9.19*
	After Two Years			
Global Geopolitical Risk	4.2249*	0.2226	0.0288	-0.0092
Global Energy Uncertainty	1.1272*	4.7532*	0.0309	-0.0032
Global Energy Prices	3.1005	-52.3387*	7.9485*	2.2051*
Global Economic Activity	37.8592	-56.8332*	4.3574*	13.7681*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Table 2 - Drivers of Global Variables

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.6962	0.0087	0.011	0.0361
Global Energy Uncertainty	2.1796	97.8034	0.066	0.0488
Global Energy Prices	0.0743	0.7167	98.3258	0.1628
Global Economic Activity	0.1461	1.5593	2.4609	95.011
	After One Quarter			
Global Geopolitical Risk	99.1417	0.2069	0.2186	0.2793
Global Energy Uncertainty	3.432	96.0767	0.0978	0.1719
Global Energy Prices	0.2924	1.8408	96.3548	1.5548
Global Economic Activity	0.5062	1.8412	3.4235	93.7028
	After One Year			
Global Geopolitical Risk	97.0497	0.5757	0.6758	0.7653
Global Energy Uncertainty	4.2895	92.8046	0.894	0.608
Global Energy Prices	0.9237	5.3296	84.5743	7.6504
Global Economic Activity	0.9602	2.3397	4.4573	90.6332
	After Two Years			
Global Geopolitical Risk	95.9661	0.7224	1.2001	1.0335
Global Energy Uncertainty	4.3443	91.5474	1.6483	1.114
Global Energy Prices	1.306	5.9277	81.6678	9.1381
Global Economic Activity	1.4219	2.1968	4.0203	89.7278

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Table 3 - Responses of Domestic Energy Prices

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Oil Producers	-0.1659	-0.411	0.0331	0.0036
Non-Oil Producers	0.1852	-0.6325	0.124*	0.0088
Advanced Economies	0.6397	-1.5275*	0.356*	0.009
Euro Area	0.8499*	-1.6581*	0.3475*	0.0197
Emerging Markets	0.0832	-0.3801	0.1002*	0.001
Developing Countries	-0.1631	-0.2227	0.0865	0.0003
	After One Quarter			
Oil Producers	-0.3924	-0.7917	0.083	0.0094
Non-Oil Producers	0.3254	-1.557	0.2728*	0.0349
Advanced Economies	1.2693	-3.1845*	0.6989*	0.0506
Euro Area	1.8314	-3.447*	0.7237*	0.0596*
Emerging Markets	-0.1282	-1.1853	0.2083*	0.0208
Developing Countries	-0.2738	-0.5308	0.1834*	0.0067
	After One Year			
Oil Producers	-1.0552	-2.0132	0.3157	0.0966
Non-Oil Producers	1.0296	-5.66	0.7387*	0.2595
Advanced Economies	4.1966	-10.0075*	1.7177*	0.4728*
Euro Area	5.3941	-10.3799*	1.7864*	0.5065*
Emerging Markets	-0.3946	-4.7649	0.5216	0.2032
Developing Countries	-0.7635	-2.3764	0.487*	0.095
	After Two Years			
Oil Producers	-0.9199	-2.7722	0.4608	0.2268
Non-Oil Producers	1.6669	-6.6614	0.7283	0.4192
Advanced Economies	7.3112	-11.4024*	1.6914*	0.7832*
Euro Area	8.9286	-11.1506	1.8298*	0.8444*
Emerging Markets	-0.1631	-5.7062	0.4804	0.3314
Developing Countries	-1.0641	-3.0054	0.5183	0.2025

Notes: The numbers represent the median (across the pooled draws of the corresponding countries) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets (of the pooled draws of the corresponding countries).

Table 4 - Global Drivers of Domestic Energy Prices

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Oil Producers	0.6995	2.0298	4.2584	4.7352
Non-Oil Producers	0.7345	1.0612	5.1834	0.5621
Advanced Economies	0.3476	1.0617	17.5868	0.3480
Euro Area	0.3476	1.4483	19.5655	0.3016
Emerging Markets	0.6413	0.9158	3.2935	0.6312
Developing Countries	1.1724	0.8517	2.7458	0.8503
	After One Quarter			
Oil Producers	0.8325	3.1774	5.6026	6.6033
Non-Oil Producers	1.1434	1.7916	7.6174	1.2146
Advanced Economies	0.6871	1.5323	23.0827	0.9458
Euro Area	0.6871	1.8668	24.1126	0.9814
Emerging Markets	1.2192	1.6517	4.6983	1.0916
Developing Countries	1.8745	1.2446	3.6005	1.4402
	After One Year			
Oil Producers	1.1051	4.8086	10.6606	7.9579
Non-Oil Producers	2.3625	3.3265	12.0612	5.0578
Advanced Economies	1.3313	3.1318	25.8808	6.8257
Euro Area	1.3313	2.8644	26.7238	6.9309
Emerging Markets	2.5852	3.7795	9.1340	4.9004
Developing Countries	3.2212	2.9726	7.5097	4.2834
	After Two Years			
Oil Producers	1.1279	5.2744	14.4298	8.5778
Non-Oil Producers	3.0260	4.2109	13.1957	6.9337
Advanced Economies	1.8643	3.4652	25.5045	9.2018
Euro Area	1.8643	3.0141	25.9044	9.7126
Emerging Markets	3.0431	4.5493	10.7026	6.8056
Developing Countries	3.3608	3.7882	8.8392	5.5644

Notes: The numbers are based on the median (across the pooled draws of countries) forecast error variance decomposition of domestic energy prices.

Table 5 - Percentage of Countries with Statistically Significant Effects on Domestic Energy Prices

	Shock Variable:			
	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Oil Producers	40.0	45.0	55.0	75.0
Non-Oil Producers	46.7	61.3	79.6	38.7
Advanced Economies	50.0	80.6	97.2	27.8
Euro Area	60.0	95.0	100.0	20.0
Emerging Markets	44.7	53.9	75.0	43.4
Developing Countries	44.4	51.1	62.2	55.6
	After One Quarter			
Oil Producers	30.0	60.0	60.0	60.0
Non-Oil Producers	46.7	67.9	84.7	58.4
Advanced Economies	41.7	86.1	97.2	61.1
Euro Area	50.0	100.0	100.0	75.0
Emerging Markets	42.1	64.5	78.9	53.9
Developing Countries	51.1	55.6	73.3	64.4
	After One Year			
Oil Producers	20.0	55.0	50.0	60.0
Non-Oil Producers	50.4	61.3	81.8	78.1
Advanced Economies	38.9	83.3	97.2	86.1
Euro Area	45.0	80.0	100.0	90.0
Emerging Markets	44.7	61.8	68.4	72.4
Developing Countries	55.6	40.0	77.8	73.3
	After Two Years			
Oil Producers	20.0	45.0	65.0	80.0
Non-Oil Producers	51.8	57.7	71.5	78.1
Advanced Economies	47.2	61.1	88.9	86.1
Euro Area	55.0	50.0	95.0	90.0
Emerging Markets	47.4	60.5	67.1	76.3
Developing Countries	48.9	44.4	62.2	75.6

Notes: The percentage of countries (within each country group) with statistically signficiant effects on domestic energy prices is calculated based on the 68% credible sets of country-specific cumulative impulse responses of domestic energy prices to the corresponding shocks.

Table 6 - Percentage of Countries with Statistically Significant Positive Effects on Domestic Energy Prices

	Shock Variable:			
	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Oil Producers	5.0	5.0	40.0	35.0
Non-Oil Producers	27.7	10.9	77.4	21.2
Advanced Economies	41.7	2.8	97.2	22.2
Euro Area	55.0	0.0	100.0	20.0
Emerging Markets	19.7	10.5	68.4	25.0
Developing Countries	20.0	15.6	60.0	20.0
	After One Quarter			
Oil Producers	5.0	10.0	45.0	35.0
Non-Oil Producers	24.8	9.5	82.5	44.5
Advanced Economies	36.1	0.0	97.2	61.1
Euro Area	50.0	0.0	100.0	75.0
Emerging Markets	15.8	10.5	72.4	40.8
Developing Countries	22.2	15.6	71.1	33.3
	After One Year			
Oil Producers	5.0	10.0	45.0	45.0
Non-Oil Producers	30.7	2.2	78.1	68.6
Advanced Economies	38.9	0.0	97.2	86.1
Euro Area	45.0	0.0	100.0	90.0
Emerging Markets	22.4	5.3	63.2	65.8
Developing Countries	26.7	2.2	73.3	48.9
	After Two Years			
Oil Producers	10.0	5.0	55.0	60.0
Non-Oil Producers	32.1	3.6	67.2	67.9
Advanced Economies	47.2	0.0	88.9	83.3
Euro Area	55.0	0.0	95.0	90.0
Emerging Markets	25.0	3.9	57.9	67.1
Developing Countries	22.2	6.7	60.0	53.3

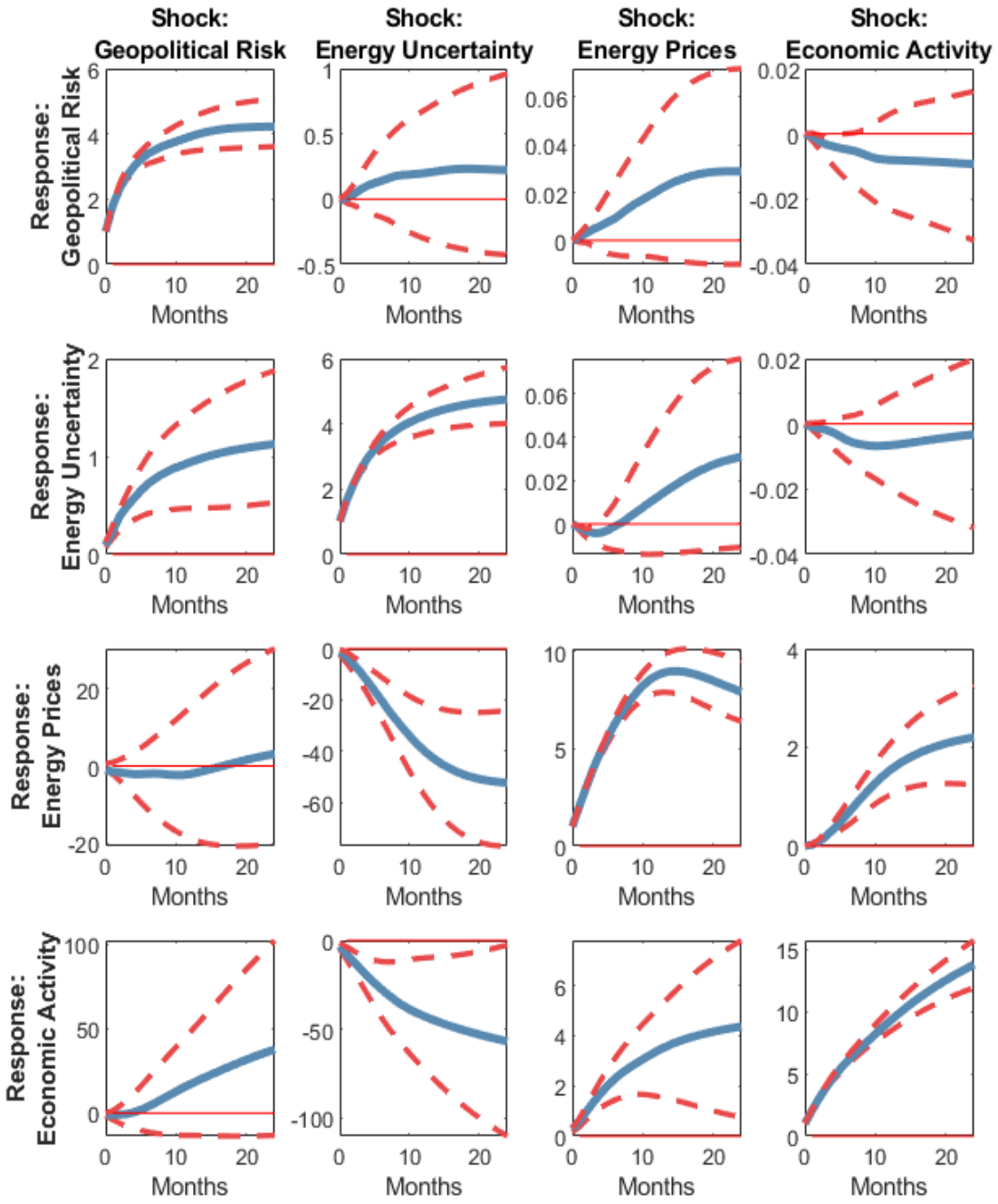
Notes: The percentage of countries (within each country group) with statistically signficiant effects on domestic energy prices is calculated based on the 68% credible sets of country-specific cumulative impulse responses of domestic energy prices to the corresponding shocks.

Table 7 - Percentage of Countries with Statistically Significant Negative Effects on Domestic Energy Prices

	Shock Variable:			
	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Oil Producers	35.0	40.0	15.0	40.0
Non-Oil Producers	19.0	50.4	2.2	17.5
Advanced Economies	8.3	77.8	0.0	5.6
Euro Area	5.0	95.0	0.0	0.0
Emerging Markets	25.0	43.4	6.6	18.4
Developing Countries	24.4	35.6	2.2	35.6
	After One Quarter			
Oil Producers	25.0	50.0	15.0	25.0
Non-Oil Producers	21.9	58.4	2.2	13.9
Advanced Economies	5.6	86.1	0.0	0.0
Euro Area	0.0	100.0	0.0	0.0
Emerging Markets	26.3	53.9	6.6	13.2
Developing Countries	28.9	40.0	2.2	31.1
	After One Year			
Oil Producers	15.0	45.0	5.0	15.0
Non-Oil Producers	19.7	59.1	3.6	9.5
Advanced Economies	0.0	83.3	0.0	0.0
Euro Area	0.0	80.0	0.0	0.0
Emerging Markets	22.4	56.6	5.3	6.6
Developing Countries	28.9	37.8	4.4	24.4
	After Two Years			
Oil Producers	10.0	40.0	10.0	20.0
Non-Oil Producers	19.7	54.0	4.4	10.2
Advanced Economies	0.0	61.1	0.0	2.8
Euro Area	0.0	50.0	0.0	0.0
Emerging Markets	22.4	56.6	9.2	9.2
Developing Countries	26.7	37.8	2.2	22.2

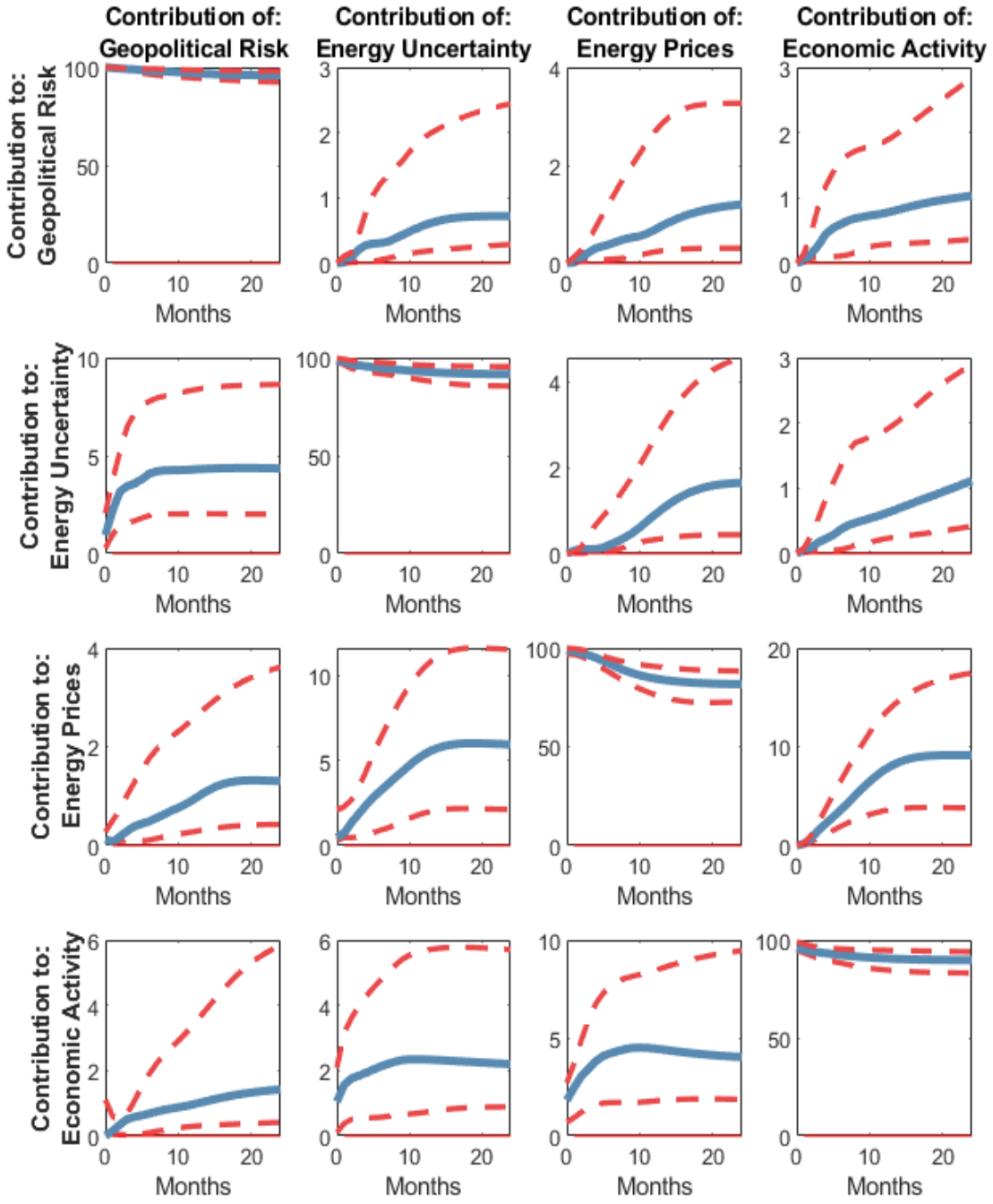
Notes: The percentage of countries (within each country group) with statistically signficiant effects on domestic energy prices is calculated based on the 68% credible sets of country-specific cumulative impulse responses of domestic energy prices to the corresponding shocks.

Figure 1 – Responses of Global Variables



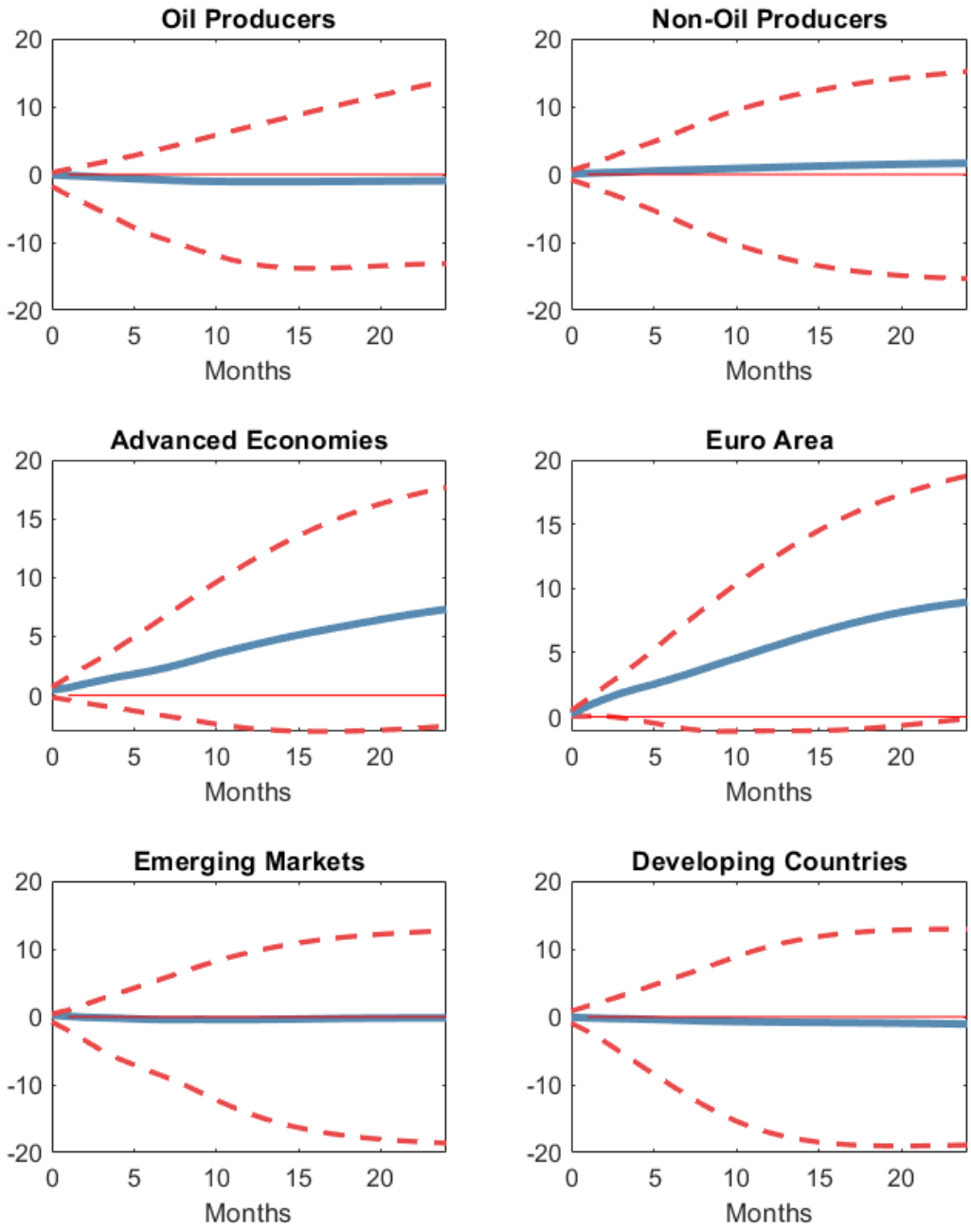
Notes: Figures represent the cumulative impulse responses of global variables. Solid lines represent the median across 1000 draws, whereas dotted lines represent the 68% credible sets.

Figure 2 – Drivers of Global Variables



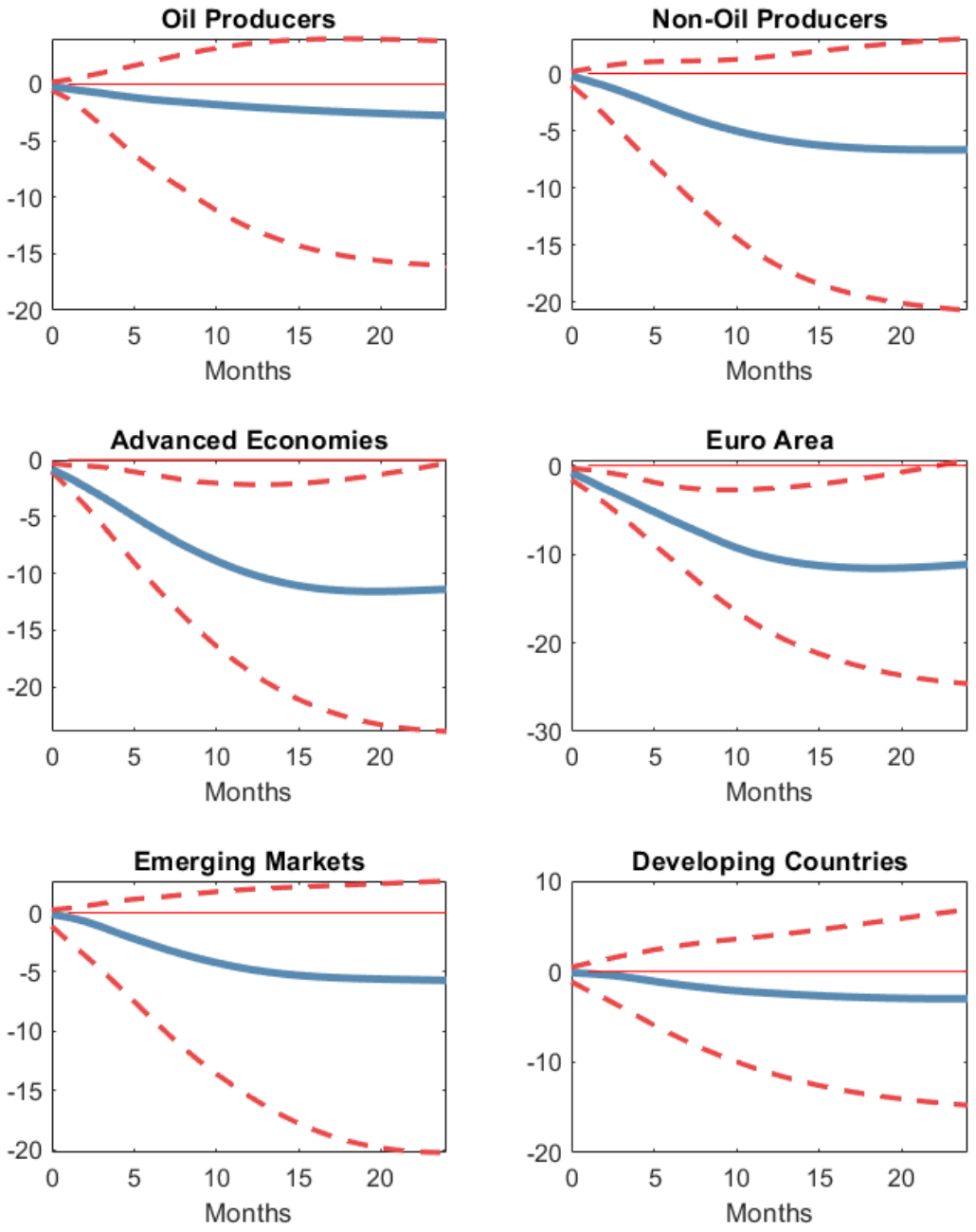
Notes: Figures are based on the forecast error variance decomposition of global variables. Solid lines represent the median across 1000 draws, whereas dotted lines represent the 68% credible sets.

Figure 3 – Responses of Domestic Energy Prices to a Shock in Global Geopolitical Risk



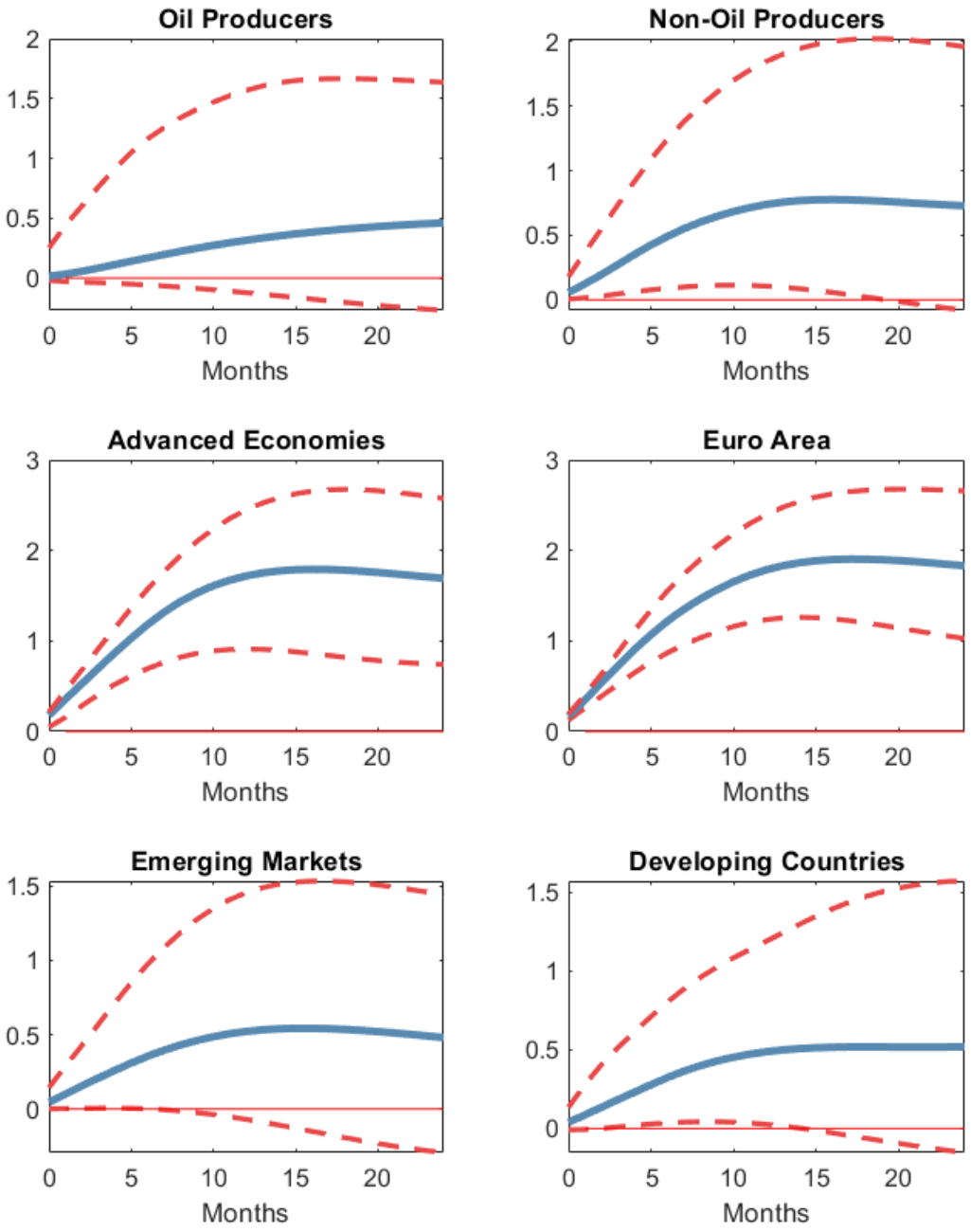
Notes: Figures represent the cumulative impulse responses of domestic energy prices of country groups. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 4 – Responses of Domestic Energy Prices to a Shock in Global Energy-Related Uncertainty



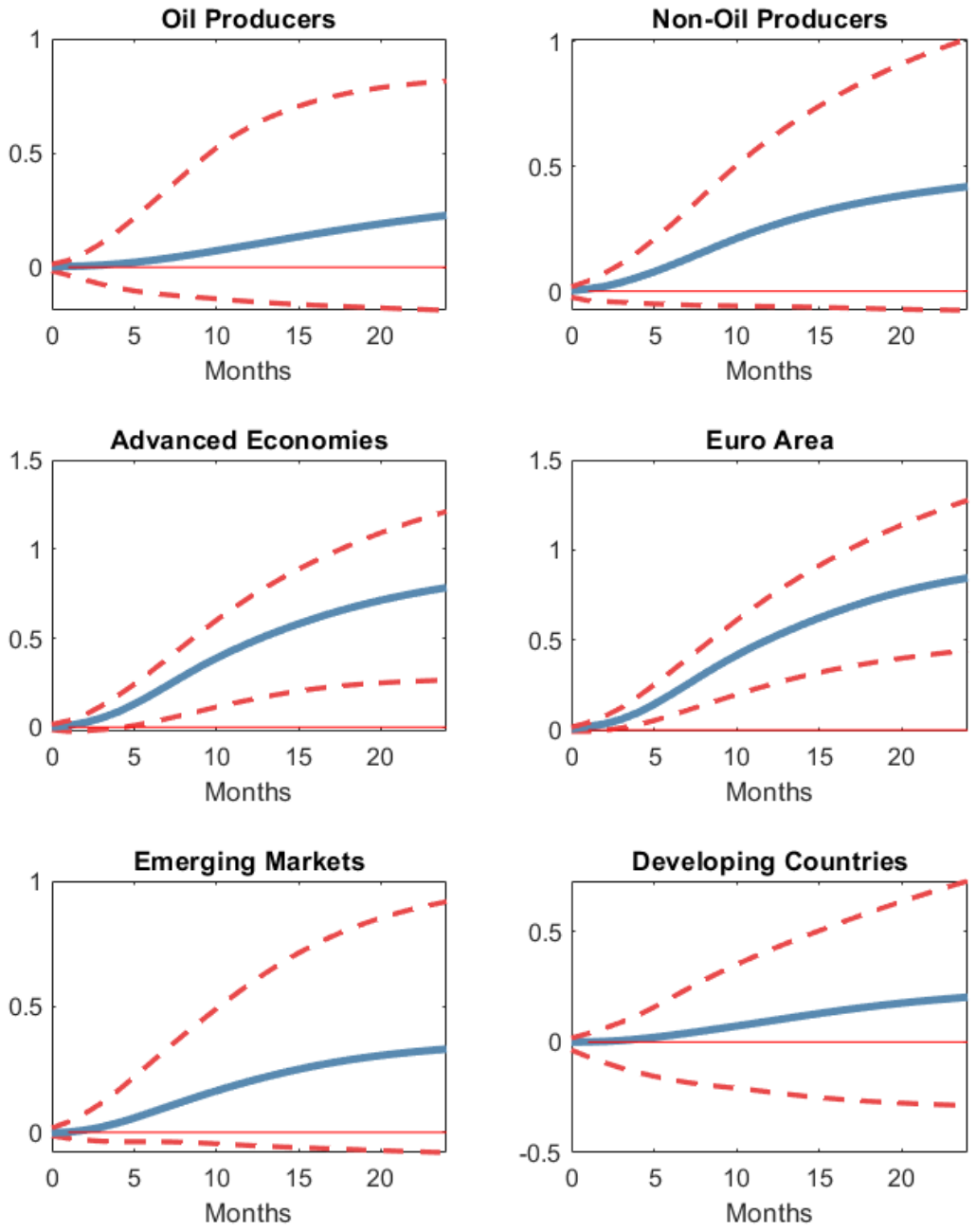
Notes: Figures represent the cumulative impulse responses of domestic energy prices of country groups. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 5 – Responses of Domestic Energy Prices to a Shock in Global Energy Prices



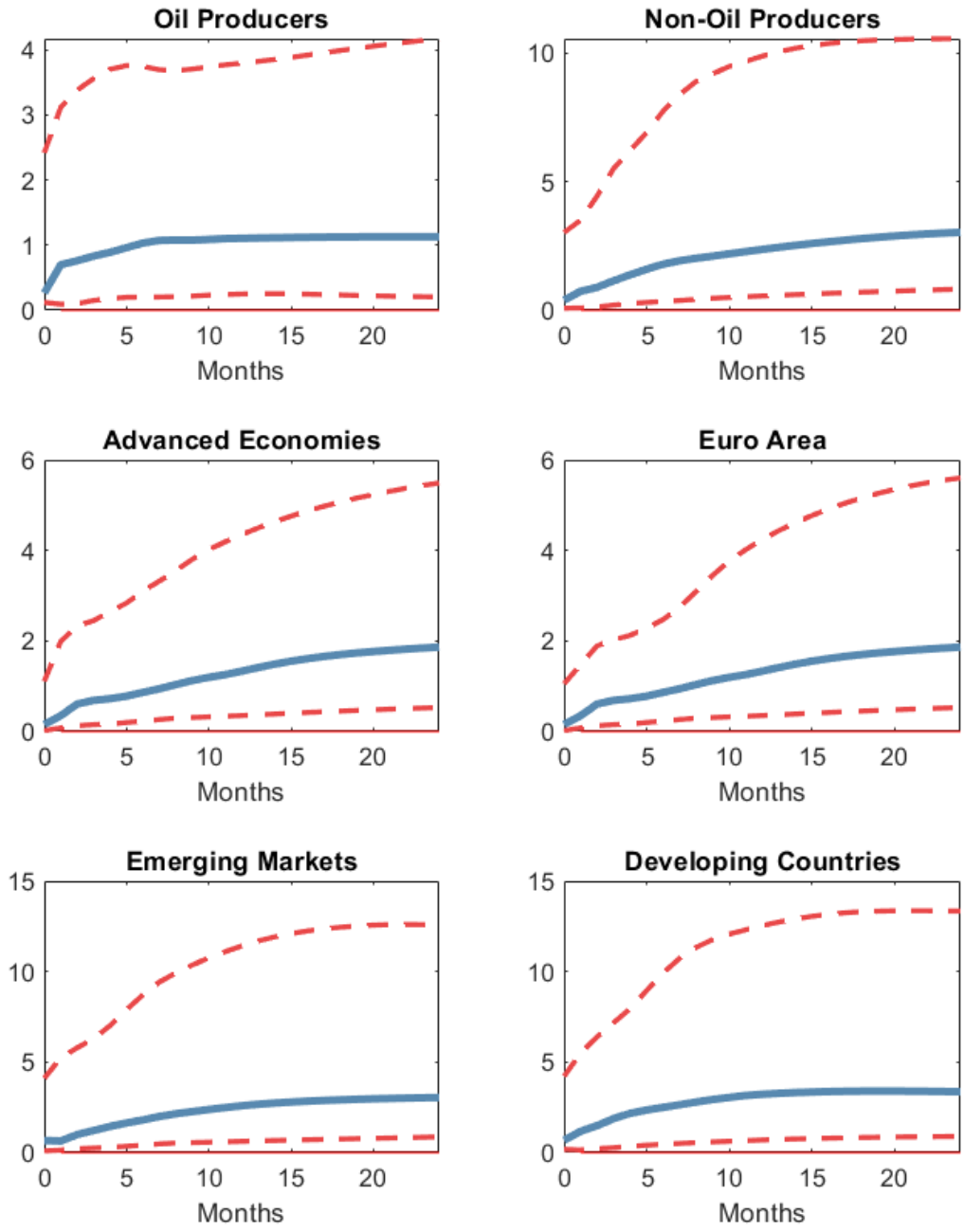
Notes: Figures represent the cumulative impulse responses of domestic energy prices of country groups. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 6 – Responses of Domestic Energy Prices to a Shock in Global Real Economic Activity



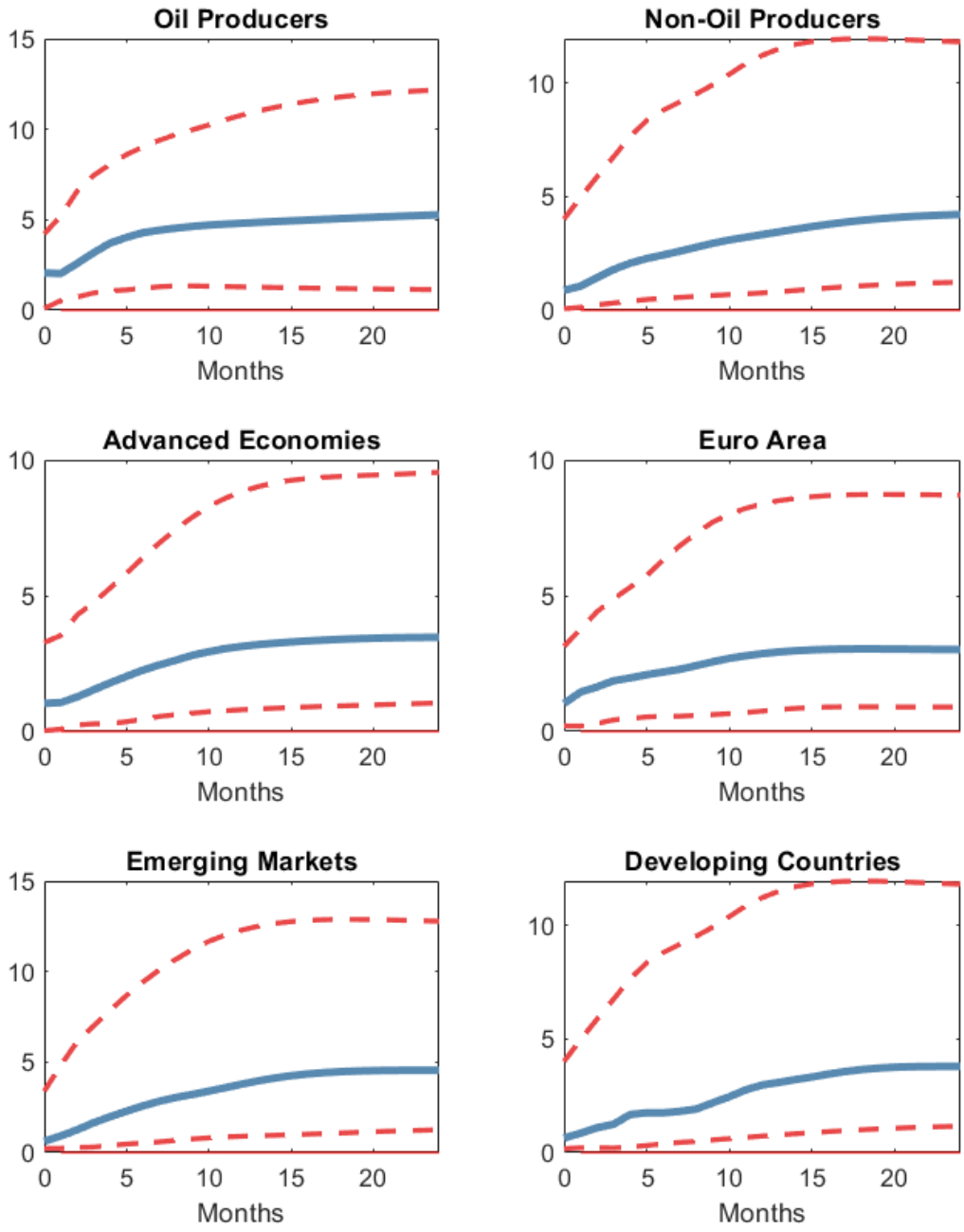
Notes: Figures represent the cumulative impulse responses of domestic energy prices of country groups. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 7 – Contribution of Global Geopolitical Risk to Domestic Energy Prices



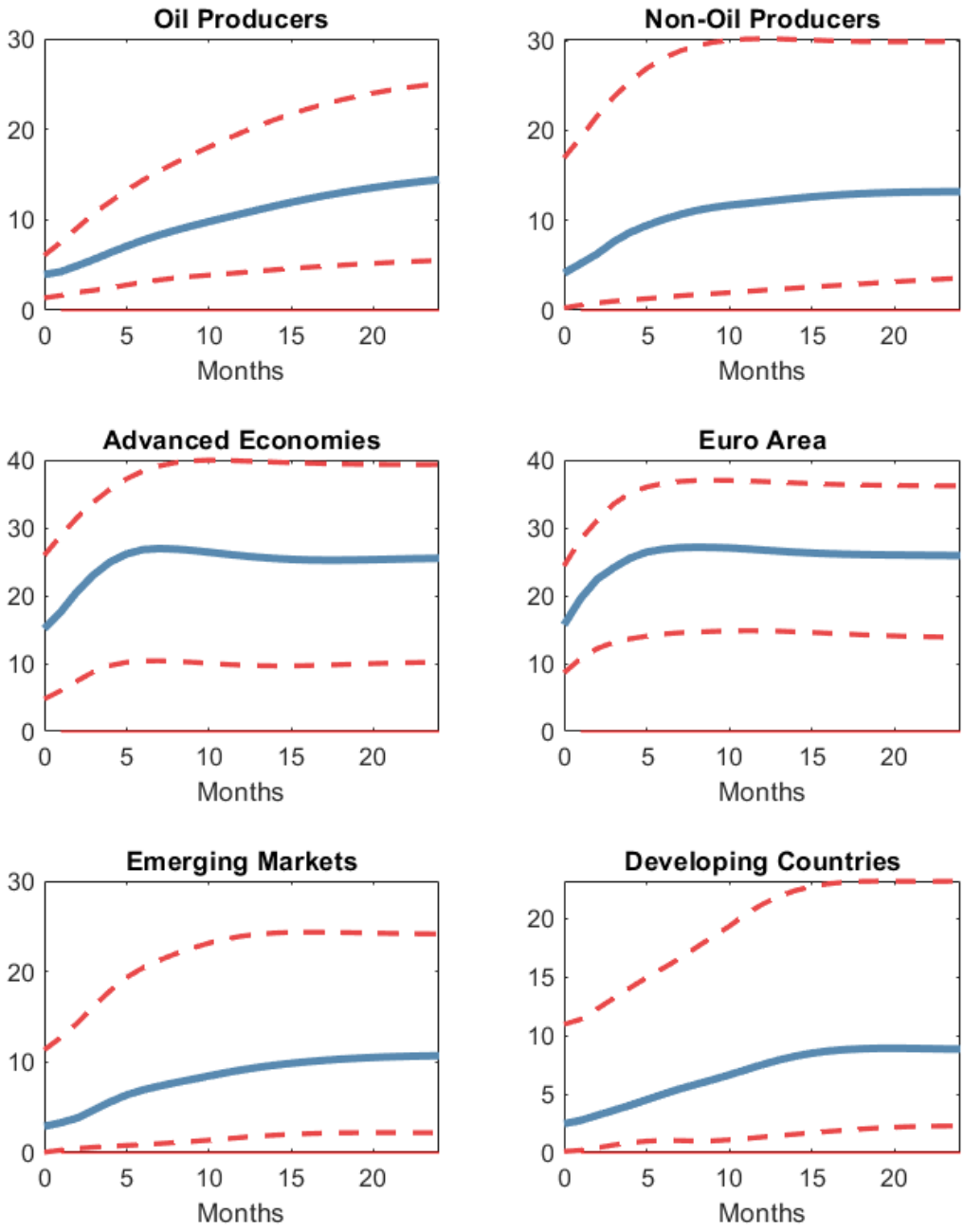
Notes: Figures are based on the forecast error variance decomposition of domestic energy prices. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 8 – Contribution of Global Energy-Related Uncertainty to Domestic Energy Prices



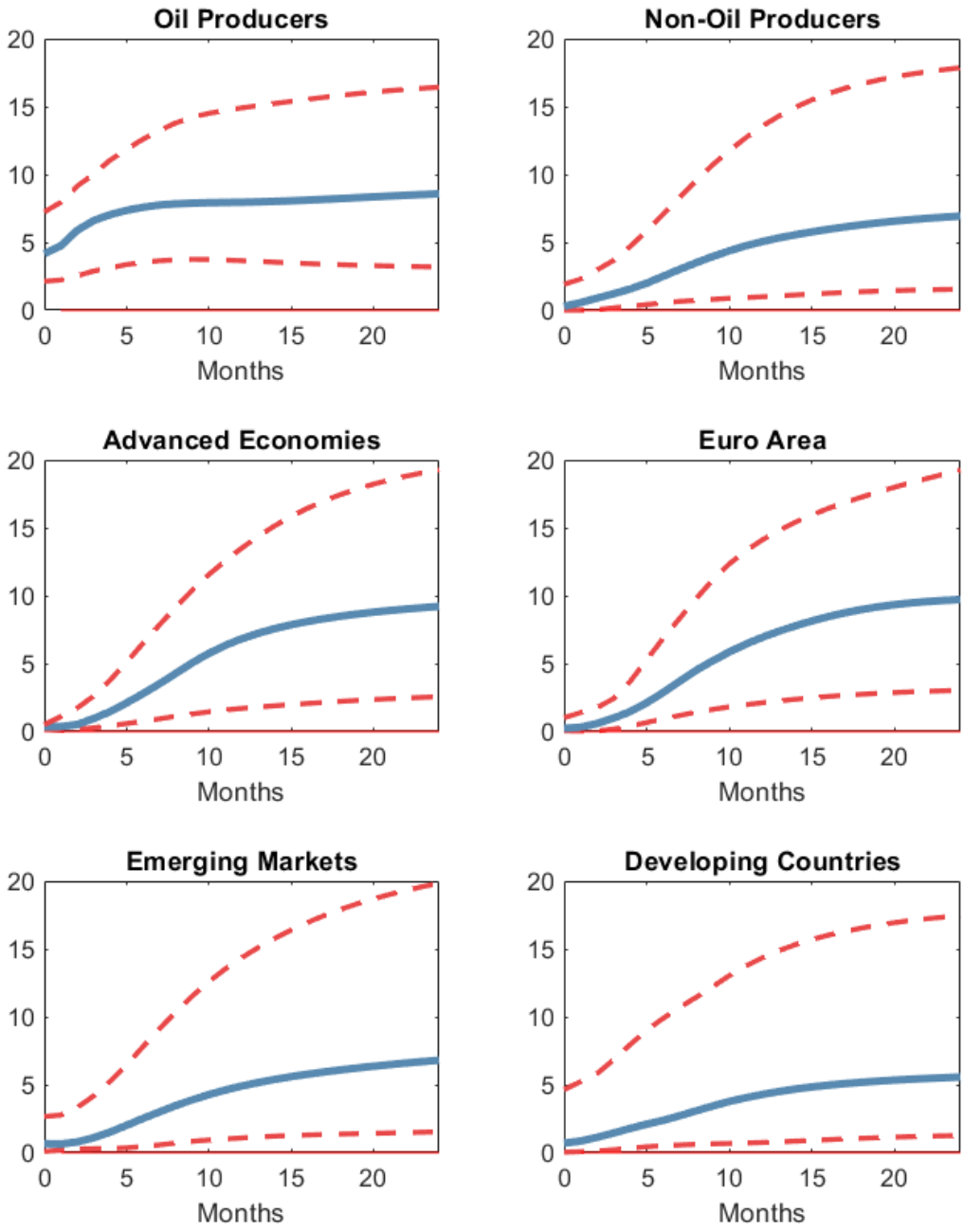
Notes: Figures are based on the forecast error variance decomposition of domestic energy prices. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 9 – Contribution of Global Energy Prices to Domestic Energy Prices



Notes: Figures are based on the forecast error variance decomposition of domestic energy prices. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Figure 10 – Contribution of Global Real Economic Activity to Domestic Energy Prices



Notes: Figures are based on the forecast error variance decomposition of domestic energy prices. Solid lines represent the median of the pooled version of 1000 draws across the corresponding countries, whereas dotted lines represent the corresponding 68% credible sets.

Appendix Table A.1 - List of Countries

Country Name	Country Code	Advanced Economies	Emerging Market Economies	Low-Income Developing Countries	Euro Area	Oil producers	Non-Oil Producers
Aruba	ABW	0	1	0	0	0	1
Albania	ALB	0	1	0	0	0	1
United Arab Emirates	ARE	0	1	0	0	1	0
Argentina	ARG	0	1	0	0	0	1
Armenia	ARM	0	1	0	0	0	1
Austria	AUT	1	0	0	1	0	1
Azerbaijan	AZE	0	1	0	0	1	0
Burundi	BDI	0	0	1	0	0	1
Belgium	BEL	1	0	0	1	0	1
Benin	BEN	0	0	1	0	0	1
Burkina Faso	BFA	0	0	1	0	0	1
Bangladesh	BGD	0	0	1	0	0	1
Bulgaria	BGR	0	1	0	0	0	1
Bahrain	BHR	0	1	0	0	1	0
Bahamas	BHS	0	1	0	0	0	1
Bosnia and Herzegovina	BIH	0	1	0	0	0	1
Belarus	BLR	0	1	0	0	0	1
Belize	BLZ	0	1	0	0	0	1
Bolivia	BOL	0	1	0	0	0	1
Brazil	BRA	0	1	0	0	0	1
Barbados	BRB	0	1	0	0	0	1
Brunei Darussalam	BRN	0	1	0	0	1	0
Botswana	BWA	0	1	0	0	0	1
Canada	CAN	1	0	0	0	1	0
Switzerland	CHE	1	0	0	0	0	1
Chile	CHL	0	1	0	0	0	1
China	CHN	0	1	0	0	0	1
CÃ´te d Ivoire	CIV	0	0	1	0	0	1
Cameroon	CMR	0	0	1	0	0	1
Congo, Dem. Rep.	COD	0	0	1	0	0	1
Congo, Rep.	COG	0	0	1	0	1	0
Colombia	COL	0	1	0	0	0	1
Cabo Verde	CPV	0	1	0	0	0	1
Costa Rica	CRI	0	1	0	0	0	1
Cyprus	CYP	1	0	0	1	0	1
Czech Republic	CZE	1	0	0	0	0	1
Germany	DEU	1	0	0	1	0	1
Djibouti	DJI	0	0	1	0	0	1
Dominica	DMA	0	1	0	0	0	1
Denmark	DNK	1	0	0	0	0	1
Dominican Republic	DOM	0	1	0	0	0	1
Algeria	DZA	0	1	0	0	1	0
Egypt, Arab Rep.	EGY	0	1	0	0	0	1
Spain	ESP	1	0	0	1	0	1
Estonia	EST	1	0	0	1	0	1
Ethiopia	ETH	0	0	1	0	0	1
Finland	FIN	1	0	0	1	0	1
Fiji	FJI	0	1	0	0	0	1
France	FRA	1	0	0	1	0	1
Gabon	GAB	0	1	0	0	1	0
United Kingdom	GBR	1	0	0	0	0	1
Georgia	GEO	0	1	0	0	0	1
Ghana	GHA	0	0	1	0	0	1
Guinea	GIN	0	0	1	0	0	1
Gambia, The	GMB	0	0	1	0	0	1
Equatorial Guinea	GNQ	0	1	0	0	1	0
Greece	GRC	1	0	0	1	0	1
Grenada	GRD	0	1	0	0	0	1
Guatemala	GTM	0	1	0	0	0	1
Hong Kong SAR, China	HKG	1	0	0	0	0	1
Honduras	HND	0	0	1	0	0	1
Croatia	HRV	1	0	0	1	0	1
Haiti	HTI	0	0	1	0	0	1
Hungary	HUN	0	1	0	0	0	1
Indonesia	IDN	0	1	0	0	0	1
India	IND	0	1	0	0	0	1
Ireland	IRL	1	0	0	1	0	1
Iran, Islamic Rep.	IRN	0	1	0	0	1	0
Iraq	IRQ	0	1	0	0	1	0
Iceland	ISL	1	0	0	0	0	1
Israel	ISR	1	0	0	0	0	1
Italy	ITA	1	0	0	1	0	1
Jamaica	JAM	0	1	0	0	0	1
Jordan	JOR	0	1	0	0	0	1
Japan	JPN	1	0	0	0	0	1
Kenya	KEN	0	0	1	0	0	1
Kyrgyz Republic	KGZ	0	0	1	0	0	1
Cambodia	KHM	0	0	1	0	0	1
Kiribati	KIR	0	0	1	0	0	1
St. Kitts and Nevis	KNA	0	1	0	0	0	1
Korea, Rep.	KOR	1	0	0	0	0	1
Kuwait	KWT	0	1	0	0	1	0
Lao, PDR	LAO	0	0	1	0	0	1
Lebanon	LBN	0	1	0	0	0	1
Liberia	LBR	0	0	1	0	0	1
St. Lucia	LCA	0	1	0	0	0	1
Sri Lanka	LKA	0	1	0	0	0	1
Lesotho	LSO	0	0	1	0	0	1
Lithuania	LTU	1	0	0	1	0	1
Luxembourg	LUX	1	0	0	1	0	1
Latvia	LVA	1	0	0	1	0	1
Macao SAR, China	MAC	1	0	0	0	0	1

Appendix Table A.1 - List of Countries

Country Name	Country Code	Advanced Economies	Emerging Market Economies	Low-Income Developing Countries	Euro Area	Oil producers	Non-Oil Producers
Morocco	MAR	0	1	0	0	0	1
Moldova, Rep.	MDA	0	0	1	0	0	1
Madagascar	MDG	0	0	1	0	0	1
Maldives	MDV	0	1	0	0	0	1
Mexico	MEX	0	1	0	0	0	1
North Macedonia	MKD	0	1	0	0	0	1
Mali	MLI	0	0	1	0	0	1
Malta	MLT	1	0	0	1	0	1
Myanmar	MMR	0	0	1	0	0	1
Montenegro	MNE	0	1	0	0	0	1
Mongolia	MNG	0	1	0	0	0	1
Mozambique	MOZ	0	0	1	0	0	1
Mauritania	MRT	0	0	1	0	0	1
Mauritius	MUS	0	1	0	0	0	1
Malawi	MWI	0	0	1	0	0	1
Malaysia	MYS	0	1	0	0	0	1
Namibia	NAM	0	1	0	0	0	1
Niger	NER	0	0	1	0	0	1
Nigeria	NGA	0	0	1	0	1	0
Nicaragua	NIC	0	0	1	0	0	1
Netherlands	NLD	1	0	0	1	0	1
Norway	NOR	1	0	0	0	1	0
Nepal	NPL	0	0	1	0	0	1
Oman	OMN	0	1	0	0	1	0
Pakistan	PAK	0	1	0	0	0	1
Panama	PAN	0	1	0	0	0	1
Philippines	PHL	0	1	0	0	0	1
Poland	POL	0	1	0	0	0	1
Portugal	PRT	1	0	0	1	0	1
Paraguay	PRY	0	1	0	0	0	1
Qatar	QAT	0	1	0	0	1	0
Russian Federation	RUS	0	1	0	0	1	0
Rwanda	RWA	0	0	1	0	0	1
Saudi Arabia	SAU	0	1	0	0	1	0
Sudan	SDN	0	0	1	0	0	1
Senegal	SEN	0	0	1	0	0	1
Singapore	SGP	1	0	0	0	0	1
Solomon Islands	SLB	0	0	1	0	0	1
Sierra Leone	SLE	0	0	1	0	0	1
El Salvador	SLV	0	1	0	0	0	1
San Marino	SMR	1	0	0	0	0	1
Serbia	SRB	0	1	0	0	0	1
South Sudan	SSD	0	0	1	0	0	1
Suriname	SUR	0	1	0	0	0	1
Slovakia	SVK	1	0	0	1	0	1
Slovenia	SVN	1	0	0	1	0	1
Sweden	SWE	1	0	0	0	0	1
Eswatini	SWZ	0	1	0	0	0	1
Seychelles	SYC	0	1	0	0	0	1
Chad	TCD	0	0	1	0	1	0
Togo	TGO	0	0	1	0	0	1
Thailand	THA	0	1	0	0	0	1
Trinidad and Tobago	TTO	0	1	0	0	1	0
Tunisia	TUN	0	1	0	0	0	1
Turkey	TUR	0	1	0	0	0	1
Tanzania, United Rep.	TZA	0	0	1	0	0	1
Uganda	UGA	0	0	1	0	0	1
Ukraine	UKR	0	1	0	0	0	1
Uruguay	URY	0	1	0	0	0	1
United States	USA	1	0	0	0	0	1
St. Vincent and the Grenadines	VCT	0	1	0	0	0	1
Vietnam	VNM	0	0	1	0	0	1
Samoa	WSM	0	1	0	0	0	1
South Africa	ZAF	0	1	0	0	0	1
Zambia	ZMB	0	0	1	0	0	1

Notes: The list of countries is determined based on data availability of domestic energy prices. A country groups takes a value of 1 if a country belongs to it and 0 otherwise.

Appendix Table A.2 - Responses of Global Variables: Robustness #1

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.7838*	0.179*	0.0011	-0.0012*
Global Energy Uncertainty	0.054*	1.6879*	-0.0014	-0.0009*
Global Energy Prices	0.1033	-4.3115*	2.0431*	0.0252*
Global Economic Activity	0.5904	-7.0825*	0.5017*	2.0144*
	After One Quarter			
Global Geopolitical Risk	2.7011*	0.35*	0.0033	-0.0044*
Global Energy Uncertainty	0.2151*	2.5569*	-0.0031	-0.002*
Global Energy Prices	-0.2542	-10.037*	3.9179*	0.1817*
Global Economic Activity	4.1599	-15.4517*	1.1998*	3.8776*
	After One Year			
Global Geopolitical Risk	3.9274*	0.6567*	0.0181	-0.0076
Global Energy Uncertainty	0.4935*	4.2643*	0.0151	-0.006
Global Energy Prices	1.5208	-40.7235*	8.757*	1.533*
Global Economic Activity	20.6706	-38.5729*	3.3345*	9.2132*
	After Two Years			
Global Geopolitical Risk	4.2495*	0.7401*	0.0256	-0.0092
Global Energy Uncertainty	0.6558	4.7584*	0.0353	-0.0055
Global Energy Prices	7.5832	-45.5345*	7.8991*	2.1615*
Global Economic Activity	42.7095	-47.8843	3.9746*	13.6703*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.3 - Drivers of Global Variables: Robustness #1

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	98.5436	1.4067	0.0263	0.0738
Global Energy Uncertainty	0.1641	99.4889	0.1057	0.0627
Global Energy Prices	0.1408	0.786	98.2135	0.2792
Global Economic Activity	0.056	1.4354	1.9517	95.7774
	After One Quarter			
Global Geopolitical Risk	97.6064	1.5977	0.0527	0.1763
Global Energy Uncertainty	0.8606	98.4939	0.224	0.2372
Global Energy Prices	0.2468	1.7607	96.1368	1.4461
Global Economic Activity	0.2795	1.7763	2.7164	93.587
	After One Year			
Global Geopolitical Risk	95.246	2.2481	0.7273	0.8432
Global Energy Uncertainty	1.4786	95.7302	0.9679	0.602
Global Energy Prices	0.7527	5.4238	84.1589	7.5141
Global Economic Activity	0.9909	2.2418	4.2914	90.5423
	After Two Years			
Global Geopolitical Risk	94.5005	2.3424	1.1644	1.1475
Global Energy Uncertainty	1.729	94.0038	1.6341	1.1331
Global Energy Prices	1.1594	5.821	80.8055	9.8308
Global Economic Activity	1.6209	2.1647	4.0361	90.1763

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.4 - Responses of Global Variables: Robustness #2

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.807*	0.0084	0.0006	-0.0013*
Global Energy Uncertainty	0.2357*	1.6619*	-0.0021*	-0.0003
Global Energy Prices	-1.0191	-4.1649*	2.0379*	0.1604*
Global Economic Activity	-1.4993	-7.2378*	0.0488*	2.0157*
	After One Quarter			
Global Geopolitical Risk	2.7029*	0.0686	0.005	-0.0044*
Global Energy Uncertainty	0.4568*	2.528*	-0.0029	-0.0024*
Global Energy Prices	-1.9592	-9.5948*	3.8766*	0.4652*
Global Economic Activity	-0.6792	-18.0033*	0.3172*	3.8263*
	After One Year			
Global Geopolitical Risk	3.9703*	0.2107	0.0195	-0.0072
Global Energy Uncertainty	0.932*	4.1985*	0.0158	-0.0048
Global Energy Prices	-2.8554	-39.2044*	8.4392*	2.1104*
Global Economic Activity	18.8905	-40.8175*	1.3804	9.1568*
	After Two Years			
Global Geopolitical Risk	4.2385*	0.2949	0.0304	-0.0078
Global Energy Uncertainty	1.0547*	4.6726*	0.0312	-0.0033
Global Energy Prices	4.5122	-51.5924*	7.4428*	2.7716*
Global Economic Activity	40.8391	-53.5421	1.2124	13.5488*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.5 - Drivers of Global Variables: Robustness #2

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.6414	0.0318	0.0244	0.0306
Global Energy Uncertainty	2.1751	97.6305	0.0006	0.039
Global Energy Prices	0.1006	0.8375	96.4799	2.1468
Global Economic Activity	0.2208	1.7215	0.0983	97.9082
	After One Quarter			
Global Geopolitical Risk	99.183	0.149	0.1485	0.307
Global Energy Uncertainty	3.4125	95.9863	0.0209	0.1567
Global Energy Prices	0.3559	1.7826	92.9177	4.5149
Global Economic Activity	0.4626	1.9031	0.5273	96.7405
	After One Year			
Global Geopolitical Risk	97.1921	0.5668	0.7391	0.7642
Global Energy Uncertainty	4.4966	93.1296	0.9683	0.7061
Global Energy Prices	1.086	5.2739	77.6793	13.5191
Global Economic Activity	1.0108	2.2591	1.1205	93.7513
	After Two Years			
Global Geopolitical Risk	96.142	0.7231	1.0195	1.1398
Global Energy Uncertainty	4.6112	91.6872	1.5572	1.1373
Global Energy Prices	1.3238	6.1577	74.7476	15.1724
Global Economic Activity	1.7188	2.2017	1.7307	92.5179

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.6 - Responses of Global Variables: Robustness #3

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.7799*	0.021	0.0005	-0.0011
Global Energy Uncertainty	0.2595*	1.6819*	-0.0025*	0*
Global Energy Prices	0.7167	-5.7721*	2.0874*	0.028*
Global Economic Activity	0.037	-7.3238*	0.6359*	2.0668*
	After One Quarter			
Global Geopolitical Risk	2.695*	0.0461	0.0027	-0.0038
Global Energy Uncertainty	0.482*	2.5519*	-0.007	-0.0021*
Global Energy Prices	0.5827	-14.4467*	3.9932*	0.2098*
Global Economic Activity	2.1622	-16.1019*	1.5561*	3.9744*
	After One Year			
Global Geopolitical Risk	3.7723*	-0.0358	0.0176	-0.0082
Global Energy Uncertainty	0.7881*	3.7627*	0.0071	-0.0081
Global Energy Prices	-1.1963	-53.7557*	8.6078*	1.5935*
Global Economic Activity	19.1861	-43.9686*	4.263*	9.0997*
	After Two Years			
Global Geopolitical Risk	4.1441*	-0.0625	0.0301	-0.0103
Global Energy Uncertainty	0.9527*	4.0651*	0.0294	-0.0094
Global Energy Prices	3.0904	-62.4612*	7.2551*	2.2075*
Global Economic Activity	44.1419	-56.3063	5.0929*	13.342*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.7 - Drivers of Global Variables: Robustness #3

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.7053	0.0344	0.0303	0.1431
Global Energy Uncertainty	2.4032	97.247	0.0801	0.0199
Global Energy Prices	0.0898	2.4994	97.0628	0.0584
Global Economic Activity	0.0886	1.094	2.3958	94.8815
	After One Quarter			
Global Geopolitical Risk	99.1639	0.1132	0.0554	0.2766
Global Energy Uncertainty	4.0575	95.7938	0.2726	0.1913
Global Energy Prices	0.2804	4.5833	93.6278	1.3796
Global Economic Activity	0.2682	1.9631	3.8726	93.0637
	After One Year			
Global Geopolitical Risk	97.3093	0.4287	0.507	0.9104
Global Energy Uncertainty	4.3868	93.131	0.9539	0.648
Global Energy Prices	0.8172	11.2649	76.0538	11.0017
Global Economic Activity	0.9211	2.3996	5.067	90.141
	After Two Years			
Global Geopolitical Risk	96.2707	0.5572	1.036	1.2807
Global Energy Uncertainty	4.4729	91.3864	1.4975	1.0763
Global Energy Prices	1.0365	11.3688	73.5713	12.5475
Global Economic Activity	1.578	2.3108	4.7537	89.5663

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.8 - Responses of Global Variables: Robustness #4

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.793*	0.0159	0.0004	-0.001*
Global Energy Uncertainty	0.2615*	1.7041*	-0.0005*	0
Global Energy Prices	-0.5316*	-2.0007*	2.0611*	0.0318*
Global Economic Activity	1.0457	-7.2566*	0.2479*	2.0563*
	After One Quarter			
Global Geopolitical Risk	2.7274*	0.0464	0.0036	-0.0037*
Global Energy Uncertainty	0.4774*	2.6035*	-0.0031	-0.0014
Global Energy Prices	-3.0053	-6.342*	4.0746*	0.1769*
Global Economic Activity	3.7212	-14.4914*	0.7481*	3.9733*
	After One Year			
Global Geopolitical Risk	3.8701*	0.2095	0.0165	-0.0069
Global Energy Uncertainty	1.0663*	4.4226*	0.011	-0.0041
Global Energy Prices	-6.8657	-37.7514*	8.6346*	1.2396*
Global Economic Activity	24.6245	-33.7266*	2.6524*	9.7651*
	After Two Years			
Global Geopolitical Risk	4.0641*	0.1967	0.0221	-0.0066
Global Energy Uncertainty	1.2186*	4.7653*	0.0273	-0.0018
Global Energy Prices	-5.4421	-56.4622*	9.4776*	2.1314*
Global Economic Activity	43.6033	-45.2979	3.6004	13.8457*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.9 - Drivers of Global Variables: Robustness #4

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.8495	0.0307	0.0316	0.0113
Global Energy Uncertainty	2.4735	97.852	0.0008	0.0008
Global Energy Prices	0.3215	0.3308	98.5658	0.0389
Global Economic Activity	0.1925	0.9567	1.2187	97.2593
	After One Quarter			
Global Geopolitical Risk	99.2002	0.0719	0.158	0.1328
Global Energy Uncertainty	3.5635	95.9979	0.0223	0.0397
Global Energy Prices	0.4034	1.1932	96.933	0.6254
Global Economic Activity	0.2495	1.2888	1.6437	95.8325
	After One Year			
Global Geopolitical Risk	96.9309	0.5445	0.7511	0.7275
Global Energy Uncertainty	4.76	93.2484	0.786	0.627
Global Energy Prices	0.981	5.5745	86.8342	5.3753
Global Economic Activity	1.1794	1.6193	2.329	92.4915
	After Two Years			
Global Geopolitical Risk	96.3911	0.6549	0.9402	1.0541
Global Energy Uncertainty	4.7788	91.3948	1.2439	1.0197
Global Energy Prices	1.2168	6.7424	82.9536	7.2821
Global Economic Activity	1.4846	1.773	2.8523	91.1608

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.10 - Responses of Global Variables: Robustness #5

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.8047*	-0.0058	0.0014	-0.0028*
Global Energy Uncertainty	0.2784*	1.6249*	-0.0001	-0.0012*
Global Energy Prices	-1.4617	-3.7542	2.0888*	0.0337*
Global Economic Activity	-0.553	-10.0229*	0.6479*	2.0965*
	After One Quarter			
Global Geopolitical Risk	2.6699*	0.0502	0.0057*	-0.0079*
Global Energy Uncertainty	0.5113*	2.4097*	-0.0037	-0.0069*
Global Energy Prices	-3.1312	-9.286*	4.0476*	0.2932*
Global Economic Activity	0.7347	-19.4723*	1.6812*	4.0021*
	After One Year			
Global Geopolitical Risk	4.0226*	0.3125	0.0186	-0.0125
Global Energy Uncertainty	0.8776*	4.2413*	0.0145	-0.0085
Global Energy Prices	1.6789	-49.4514*	9.0875*	1.8835*
Global Economic Activity	21.6282	-45.7969*	4.0811*	9.2033*
	After Two Years			
Global Geopolitical Risk	4.6458*	0.4535	0.0382	-0.0166
Global Energy Uncertainty	1.0976*	4.9901*	0.0428	-0.0061
Global Energy Prices	16.2272	-56.5851*	7.271*	2.3725*
Global Economic Activity	59.3463	-56.5323	4.9124*	13.8368*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.11 - Drivers of Global Variables: Robustness #5

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.6578	0.083	0.0791	0.076
Global Energy Uncertainty	3.049	95.8619	0.2572	0.092
Global Energy Prices	0.2364	0.7072	98.4502	0.2326
Global Economic Activity	0.1203	2.2445	2.8025	94.9498
	After One Quarter			
Global Geopolitical Risk	98.4846	0.1821	0.1347	1.0482
Global Energy Uncertainty	4.5119	93.3734	0.6063	0.5742
Global Energy Prices	0.4809	1.7523	94.6458	2.5138
Global Economic Activity	0.4413	2.804	5.1643	91.4763
	After One Year			
Global Geopolitical Risk	95.5358	0.9178	1.1048	1.4763
Global Energy Uncertainty	5.2252	89.9972	1.7652	1.4846
Global Energy Prices	1.2373	7.8817	78.2297	10.7321
Global Economic Activity	1.6585	3.0934	6.7901	86.3466
	After Two Years			
Global Geopolitical Risk	93.6172	1.4596	1.7247	1.9801
Global Energy Uncertainty	5.8401	87.5037	3.4007	2.054
Global Energy Prices	2.3493	7.9028	75.5753	12.0393
Global Economic Activity	3.0868	3.0431	5.7691	84.2757

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.12 - Responses of Global Variables: Robustness #6

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.7612*	0.0066	0.0014*	-0.0007
Global Energy Uncertainty	0.2233*	1.7045*	-0.0004	-0.0003
Global Energy Prices	-0.3507	-2.5641*	2.0073*	0.0194*
Global Economic Activity	0.6676	-7.1349*	0.3807*	1.9945*
	After One Quarter			
Global Geopolitical Risk	2.7636*	0.0635	0.0048*	-0.0027
Global Energy Uncertainty	0.4877*	2.6431*	0.0002	-0.0017
Global Energy Prices	-1.5192	-9.0899*	3.8068*	0.1199*
Global Economic Activity	2.333	-14.1478*	0.8919*	3.845*
	After One Year			
Global Geopolitical Risk	3.8872*	0.1478	0.0199	-0.0082
Global Energy Uncertainty	1.0585*	3.9201*	0.005	-0.0062
Global Energy Prices	-9.2949	-39.2517*	8.6136*	1.0476*
Global Economic Activity	13.2151	-39.7932*	3.0195*	9.7017*
	After Two Years			
Global Geopolitical Risk	3.9495*	0.0919	0.0288	-0.0101
Global Energy Uncertainty	1.2131*	4.0398*	0.0107	-0.0091
Global Energy Prices	-12.9629	-58.934*	10.9036*	2.2497*
Global Economic Activity	23.4792	-63.9584*	4.836*	13.9825*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.13 - Drivers of Global Variables: Robustness #6

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.9243	0.0156	0.019	0.0072
Global Energy Uncertainty	1.9322	98.6273	0.0123	0.0141
Global Energy Prices	0.2128	1.1882	98.0042	0.082
Global Economic Activity	0.1102	1.0561	1.6528	96.3386
	After One Quarter			
Global Geopolitical Risk	99.561	0.1101	0.0967	0.0815
Global Energy Uncertainty	3.3943	96.6083	0.0581	0.0761
Global Energy Prices	0.378	2.11	96.327	0.5086
Global Economic Activity	0.3036	1.3992	2.0403	95.507
	After One Year			
Global Geopolitical Risk	97.8903	0.3483	0.5407	0.4375
Global Energy Uncertainty	5.3428	92.9232	0.3899	0.3917
Global Energy Prices	0.7332	5.3657	87.908	4.134
Global Economic Activity	0.7817	1.7718	3.0102	92.7349
	After Two Years			
Global Geopolitical Risk	97.3174	0.3746	0.6838	0.6227
Global Energy Uncertainty	5.3645	92.0461	0.5129	0.6622
Global Energy Prices	0.8894	6.1667	82.0415	8.1985
Global Economic Activity	0.9111	1.8218	3.6194	91.2604

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.14 - Responses of Global Variables: Robustness #7

Response of:	Shock Variable: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	1.7903*	0.009	0.0013	-0.0006
Global Energy Uncertainty	0.2343*	1.6588*	-0.0016*	-0.0009
Global Energy Prices	-1.4754	-3.2473*	2.049*	0.0284*
Global Economic Activity	-0.9121	-7.7875*	0.6074*	2.0328*
	After One Quarter			
Global Geopolitical Risk	2.7095*	0.0738	0.0047	-0.0032*
Global Energy Uncertainty	0.4876*	2.6141*	-0.0041*	-0.0018
Global Energy Prices	-1.921	-9.27*	4.0049*	0.2003*
Global Economic Activity	-0.5286	-16.2118*	1.3437*	3.8835*
	After One Year			
Global Geopolitical Risk	3.9174*	0.198	0.0205	-0.0079
Global Energy Uncertainty	0.9408*	4.2386*	0.0122	-0.0065
Global Energy Prices	-2.0971	-39.5989*	8.7971*	1.5297*
Global Economic Activity	17.166	-42.5182*	3.3755*	9.19*
	After Two Years			
Global Geopolitical Risk	4.2249*	0.2226	0.0288	-0.0092
Global Energy Uncertainty	1.1272*	4.7532*	0.0309	-0.0032
Global Energy Prices	3.1005	-52.3387*	7.9485*	2.2051*
Global Economic Activity	37.8592	-56.8332*	4.3574*	13.7681*

Notes: The numbers represent the median (among 1000 draws) cumulative responses to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.15 - Drivers of Global Variables: Robustness #7

Contribution to:	Percentage Contribution of: Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
	After One Month			
Global Geopolitical Risk	99.6962	0.0087	0.011	0.0361
Global Energy Uncertainty	2.1796	97.8034	0.066	0.0488
Global Energy Prices	0.0743	0.7167	98.3258	0.1628
Global Economic Activity	0.1461	1.5593	2.4609	95.011
	After One Quarter			
Global Geopolitical Risk	99.1417	0.2069	0.2186	0.2793
Global Energy Uncertainty	3.432	96.0767	0.0978	0.1719
Global Energy Prices	0.2924	1.8408	96.3548	1.5548
Global Economic Activity	0.5062	1.8412	3.4235	93.7028
	After One Year			
Global Geopolitical Risk	97.0497	0.5757	0.6758	0.7653
Global Energy Uncertainty	4.2895	92.8046	0.894	0.608
Global Energy Prices	0.9237	5.3296	84.5743	7.6504
Global Economic Activity	0.9602	2.3398	4.4572	90.6332
	After Two Years			
Global Geopolitical Risk	95.9661	0.7224	1.2001	1.0335
Global Energy Uncertainty	4.3443	91.5474	1.6483	1.114
Global Energy Prices	1.306	5.9277	81.6678	9.1381
Global Economic Activity	1.4219	2.1968	4.0203	89.7278

Notes: The numbers represent the median (across 1000 draws) forecast error variance decomposition of global variables. * represents significance based on the 68% credible sets.

Appendix Table A.16 - Country-Specific Responses of Domestic Energy Prices

		Shock Variable:			
Country Name	Country Code	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
Aruba	ABW	7.947*	-7.205*	0.327*	0.61*
Albania	ALB	-16.002*	-15.345*	-0.081	0.1
United Arab Emirates	ARE	3.756	6.199*	-0.56*	0.22*
Argentina	ARG	-18.497*	-60.037*	0.37*	0.442*
Armenia	ARM	20.367*	-7.69*	1.495*	0.419*
Austria	AUT	10.693*	-4.786	1.847*	0.889*
Azerbaijan	AZE	-10.683	-32.948*	0.096	1.772*
Burundi	BDI	-10.719*	-2.901	0.476*	0.462*
Belgium	BEL	9.639*	-8.166	2.396*	0.952*
Benin	BEN	-17.999*	-4.495	0.171	-0.197*
Burkina Faso	BFA	-0.408	10.693*	-0.079	-0.287*
Bangladesh	BGD	-8.482*	3.958*	-0.863*	-0.326*
Bulgaria	BGR	5.283	-26.703*	-0.265	0.384*
Bahrain	BHR	-1.226	1.34	-0.078	-0.267*
Bahamas	BHS	4.547*	-9.091*	-0.001	0.033
Bosnia and Herzegovina	BIH	-3.903	-7.544*	0.688*	0.48*
Belarus	BLR	2.103	-9.774	1.402*	0.726*
Belize	BLZ	1.337*	-1.706*	0.149*	0.038*
Bolivia	BOL	1.849	-1.007	0.258*	0.315*
Brazil	BRA	12.929*	-3.118	1.311*	1.318*
Barbados	BRB	-41.322*	-33.058*	0.672*	-0.179
Brunei Darussalam	BRN	-2.102	-2.049	0.46*	0.019
Botswana	BWA	-5.272	5.4	0.324	-0.209*
Canada	CAN	3.596	-14.429*	2.651*	1.025*
Switzerland	CHE	7.896*	-7.368	1.786*	0.982*
Chile	CHL	2.976	-13.035*	1.3*	1.04*
China	CHN	-15.441*	-4.243	0.29	0.543*
CÃ´te d Ivoire	CIV	11.386*	4.943	0.118	0.462*
Cameroon	CMR	-19.329*	-1.831	0.204	-0.235*
Congo, Dem. Rep.	COD	14.836*	-14.637*	-0.633	0.42
Congo, Rep.	COG	-2.882	-6.596*	0.749*	0.017
Colombia	COL	7.994	-11.179*	0.91*	1.405*
Cabo Verde	CPV	-16.687*	-7.596	1.175*	0.413*
Costa Rica	CRI	-1.947	-9.081*	1.842*	0.883*
Cyprus	CYP	12.738*	-25.035*	2.409*	1.04*
Czech Republic	CZE	10.809*	-13.666*	1.163*	0.97*
Germany	DEU	9.705*	-5.987	1.916*	0.68*
Djibouti	DJI	1.165	-1.322*	0.223*	-0.059*
Dominica	DMA	0.765	-0.417	0.473*	0.036
Denmark	DNK	10.109*	-10.03*	1.502*	0.595*
Dominican Republic	DOM	-2.569	-17.756*	0.368	0.442*
Algeria	DZA	-2.044	-7.489*	0.792*	0.409*
Egypt, Arab Rep.	EGY	-49.323*	-11.53	-0.621	0.789*
Spain	ESP	4.13	-10.249*	1.912*	1.065*
Estonia	EST	7.388	-11.782*	2.25*	0.889*
Ethiopia	ETH	6.056	-1.051	1.162*	0.098
Finland	FIN	11.505*	-6.659	1.609*	0.864*
Fiji	FJI	-17.847*	-12.829*	0.922*	-0.03
France	FRA	9.482*	-4.243	1.515*	0.817*
Gabon	GAB	-21.82*	-1.539	-0.004	-0.07
United Kingdom	GBR	9.301*	-16.135*	2.086*	0.854*
Georgia	GEO	5.54	-25.796*	2.404*	0.961*
Ghana	GHA	-3.661	6.327	-0.641	0.366*
Guinea	GIN	-16.521*	-7.351	0.044	0.304*
Gambia, The	GMB	13.488	5.158	0.565*	0.539*
Equatorial Guinea	GNQ	-9.01	-1.142	-0.186	-0.215*
Greece	GRC	7.7	-5.696	2.283*	1.201*
Grenada	GRD	-0.365	-3.143*	0.53*	0.361*
Guatemala	GTM	4.29*	-3.963*	0.495*	-0.036
Hong Kong SAR, China	HKG	-2.291	-1.079	0.033	-0.091*
Honduras	HND	-1.209	-6.01*	0.197*	0.24*
Croatia	HRV	7.124*	-18.331*	1.397*	0.695*
Haiti	HTI	-5.33	8.329	-0.028	0.833*
Hungary	HUN	6.388	-17.765*	0.399	1.045*
Indonesia	IDN	17.872*	13.512*	0.199	0.471
India	IND	1.31	-0.997	-0.294*	0.394*
Ireland	IRL	16.581*	-6.709	1.879*	0.882*
Iran, Islamic Rep.	IRN	45.848*	8.529	0.844	0.815*
Iraq	IRQ	18.051*	-7.522*	0.839*	0.632*
Iceland	ISL	16.592*	-15.725*	0.373	0.241
Israel	ISR	2.252	-9.978*	1.385*	0.974*
Italy	ITA	10.411*	-8.86	2.152*	0.753*
Jamaica	JAM	2.357	-13.516*	1.129*	0.923*
Jordan	JOR	1.059	-3.851*	0.433*	0.186*
Japan	JPN	-0.008	-15.789*	0.443	0.774*
Kenya	KEN	-8.378*	-9.181*	0.759*	0.002
Kyrgyz Republic	KGZ	14.24*	-5.645	1.029*	1.132*
Cambodia	KHM	-1.415	-0.77	0.495*	0.475*
Kiribati	KIR	4.093	-11.612*	0.185	0.064
St. Kitts and Nevis	KNA	-0.484	0.898	0.329*	0.029
Korea, Rep.	KOR	6.201	-14.322*	0.907*	0.554*
Kuwait	KWT	-1.907	-1.048	-0.297*	-0.068*
Lao, PDR	LAO	-7.815	-10.761*	0.27	0.14

Appendix Table A.16 - Country-Specific Responses of Domestic Energy Prices

		Shock Variable:			
Country Name	Country Code	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
Lebanon	LBN	-73.505*	-2.512	1.393*	2.381*
Liberia	LBR	-11.008*	-4.269	1.279*	0.123
St. Lucia	LCA	31.51*	-8.837*	1.125*	0.296*
Sri Lanka	LKA	-31.898*	0.816	-1.341*	-0.246*
Lesotho	LSO	-11.303	-22.018*	1.632*	0.44*
Lithuania	LTU	5.219	-28.959*	1.639*	0.759*
Luxembourg	LUX	7.619	-9.2	2.122*	1.21*
Latvia	LVA	7.569	-13.161*	1.7*	1.14*
Macao SAR, China	MAC	-3.089	-1.131	0.389*	0.091
Morocco	MAR	-13.384*	-2.804	-0.302*	-0.2*
Moldova, Rep.	MDA	41.911*	-9.424	2.971*	0.572
Madagascar	MDG	-5.945	6.012	0.634*	0.36*
Maldives	MDV	-1.76	0.946	-0.155	0.364*
Mexico	MEX	-3.193	-18.145*	1.731*	0.252
North Macedonia	MKD	1.698	-14.553*	1.351*	0.599*
Mali	MLI	-16.217*	0.138	-0.008	-0.216*
Malta	MLT	5.512	-9.253*	0.143	0.65*
Myanmar	MMR	-32.197*	-11.456*	0.236	-0.086
Montenegro	MNE	5.414*	2.117	1.026*	-0.38*
Mongolia	MNG	-4.817	-20.003*	1.073*	0.545*
Mozambique	MOZ	-14.297	-33.634*	3.571*	0.802*
Mauritania	MRT	4.857*	-0.045	0.651*	0.118*
Mauritius	MUS	6.545*	-12.357*	0.663*	0.467*
Malawi	MWI	3.517	-2.133	1.465*	0.388*
Malaysia	MYS	0.929	-7.383*	0.159	0.347*
Namibia	NAM	-25.746*	-12.857*	-0.415	-0.306
Niger	NER	-16.405*	-3.175	0.704*	-0.82*
Nigeria	NGA	5.403	-25.388*	1.323*	0.332*
Nicaragua	NIC	0.981	-1.814*	0.497*	0.119*
Netherlands	NLD	9.716	-14.954*	3.258*	0.305
Norway	NOR	9.495	-14.485*	2.205*	0.904*
Nepal	NPL	1.565*	-2.815*	0.028	0.064
Oman	OMN	-2.328	-1.371	0.007	0.301*
Pakistan	PAK	-24.607*	-8.427*	-1.221*	0.079
Panama	PAN	3.642	-3.929*	0.635*	0.193*
Philippines	PHL	8.542*	13.04*	-0.055	0.586*
Poland	POL	9.588*	-9.947*	1.557*	1.139*
Portugal	PRT	12.613*	-3.499	1.156*	0.783*
Paraguay	PRY	-1.777	-12.664*	1.335*	0.773*
Qatar	QAT	7.499	-10.419*	0.867*	-0.028
Russian Federation	RUS	-30.241*	17.361	1.257*	0.591*
Rwanda	RWA	15.774*	-7.862*	0.739*	0.596*
Saudi Arabia	SAU	-2.564	-1.854	-0.107	0.23*
Sudan	SDN	45.499*	-5.231	-0.159	1.148*
Senegal	SEN	-0.862	5.018	0.175	0.634*
Singapore	SGP	-9.08	-13.437*	0.815*	0.518*
Solomon Islands	SLB	5.41*	-4.896*	0.497*	0.302*
Sierra Leone	SLE	-37.768*	2.264	0.53*	-0.152
El Salvador	SLV	1.377	-17.091*	0.987*	-0.096
San Marino	SMR	-1.618	-27.283*	2.695*	0.02
Serbia	SRB	-6.344	-11.011*	1.148*	0.321*
South Sudan	SSD	-49.044	99.72*	5.189*	-4.446*
Suriname	SUR	19.477*	6.715	-1.323*	0.657*
Slovakia	SVK	13.665*	-24.934*	1.586*	0.292
Slovenia	SVN	2.28	-16.826*	1.211*	0.903*
Sweden	SWE	15.207*	-6.552	1.449*	0.659*
Eswatini	SWZ	-24.753*	-14.339*	0.039	0.189
Seychelles	SYC	17.857*	-21.08*	2.276*	0.666*
Chad	TCD	-12.465	-0.8	1.21*	-0.667*
Togo	TGO	7.841*	-2.751	0.406	0.473*
Thailand	THA	-8.24*	2.658	0.261	-0.129
Trinidad and Tobago	TTO	-1.137	-1.269	0.125*	0.267*
Tunisia	TUN	-6.769	0.998	-0.139	0.429*
Turkey	TUR	23.698*	-12.587*	1.451*	1.254*
Tanzania, United Rep.	TZA	-18.022*	-4.277	1.223*	-0.392*
Uganda	UGA	3.101	-3.139	0.201	0.806*
Ukraine	UKR	-7.701	6.804	0.206	0.134
Uruguay	URY	15.037*	-5.842	0.704*	0.721*
United States	USA	3.366	-13.517*	2.459*	0.852*
St. Vincent and the Grenadines	VCT	3.55*	-6.549*	0.818*	0.12*
Vietnam	VNM	1.218	-6.384*	0.576*	0.478*
Samoa	WSM	-12.585*	-15.987*	0.36	0.606*
South Africa	ZAF	3.096	-29.338*	1.798*	0.832*
Zambia	ZMB	14.945	-40.612*	3.347*	0.669*

The numbers represent the median (across 1000 draws) cumulative responses of country-specific domestic energy prices to unit shocks in global variables. * represents significance based on the 68% credible sets.

Appendix Table A.17 - Country-Specific Drivers of Domestic Energy Prices

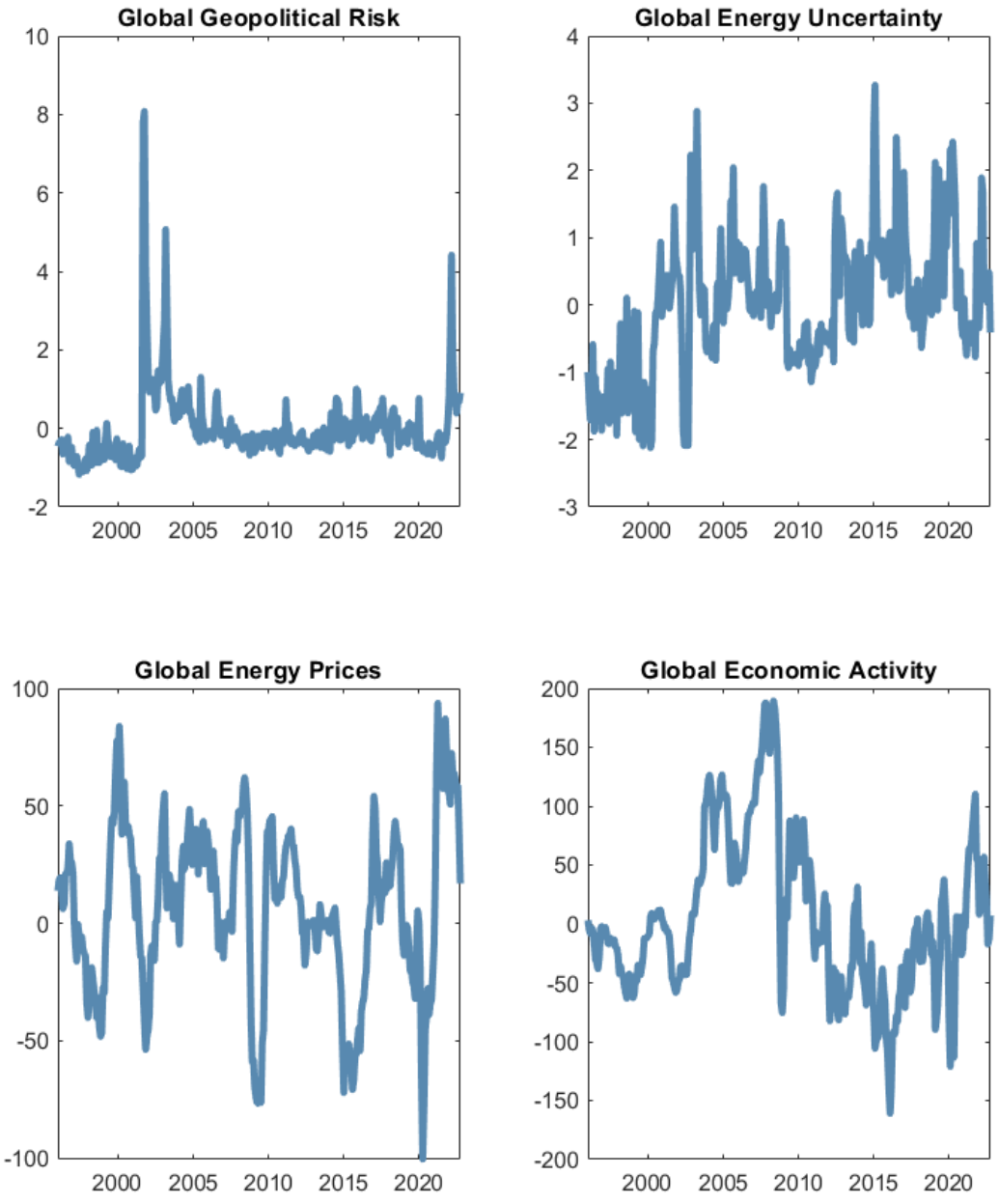
		Percentage Contribution of:			
Country Name	Country Code	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
Aruba	ABW	3.5323	4.4348	8.5450	18.5387
Albania	ALB	54.8539	38.3005	0.0732	0.0451
United Arab Emirates	ARE	1.1121	5.3736	13.5771	8.2080
Argentina	ARG	26.3103	73.1340	0.0370	0.0370
Armenia	ARM	7.6319	2.4169	14.3396	5.4322
Austria	AUT	2.2413	1.9526	28.0863	11.0174
Azerbaijan	AZE	1.4652	7.3809	2.3294	21.2418
Burundi	BDI	7.3622	1.3450	3.1279	7.5756
Belgium	BEL	1.7901	1.7487	31.8397	10.5182
Benin	BEN	8.1000	2.9389	4.6016	2.9685
Burkina Faso	BFA	2.5790	52.1208	23.8964	10.9069
Bangladesh	BGD	6.7819	3.9823	25.8056	15.7417
Bulgaria	BGR	1.3608	8.8015	2.7556	2.3285
Bahrain	BHR	1.6611	1.8034	2.4415	15.4158
Bahamas	BHS	24.9645	60.0379	0.1597	0.1537
Bosnia and Herzegovina	BIH	1.6588	4.1338	11.8434	8.4045
Belarus	BLR	2.0178	2.7143	7.7859	5.2093
Belize	BLZ	5.3669	9.3059	17.9786	4.3742
Bolivia	BOL	1.3885	1.4254	4.2034	20.4754
Brazil	BRA	2.5377	1.3837	8.5156	13.8421
Barbados	BRB	69.0731	29.7717	0.0326	0.0102
Brunei Darussalam	BRN	2.1753	1.8771	16.3764	2.1117
Botswana	BWA	3.4334	3.5377	15.2350	3.6477
Canada	CAN	1.1097	3.4829	57.6396	11.6514
Switzerland	CHE	1.8527	1.9604	37.3040	16.2652
Chile	CHL	1.6966	4.1322	23.0096	16.7013
China	CHN	5.9356	3.0513	10.4896	18.7335
CÃ´te d Ivoire	CIV	3.3652	2.9242	5.2552	5.0767
Cameroon	CMR	11.8164	5.4296	14.9634	2.6453
Congo, Dem. Rep.	COD	44.4990	17.4433	0.3815	0.2998
Congo, Rep.	COG	1.1605	3.0502	15.9710	1.0965
Colombia	COL	1.7286	2.3390	6.5230	23.5904
Cabo Verde	CPV	3.1038	3.0722	15.8362	3.8032
Costa Rica	CRI	1.6967	4.4605	31.8624	14.4757
Cyprus	CYP	2.4497	7.9041	33.7922	11.1428
Czech Republic	CZE	2.6504	5.2697	14.3066	13.0158
Germany	DEU	1.9951	2.1604	30.0235	6.9731
Djibouti	DJI	20.8465	4.0298	9.3469	31.4232
Dominica	DMA	1.4286	5.0285	22.4758	2.3481
Denmark	DNK	2.2185	3.7662	23.3148	5.9923
Dominican Republic	DOM	1.4638	7.3620	3.4374	5.0526
Algeria	DZA	1.5181	3.8524	20.1497	10.4341
Egypt, Arab Rep.	EGY	8.9879	1.6953	3.1869	4.5721
Spain	ESP	1.1397	3.3098	31.9830	12.9931
Estonia	EST	1.4563	2.2793	26.2975	10.0733
Ethiopia	ETH	1.8081	1.4457	13.9751	3.4374
Finland	FIN	2.6413	2.8101	30.2948	11.0744
Fiji	FJI	3.8994	3.7239	6.6586	3.3221
France	FRA	2.0462	2.1635	27.4598	10.5874
Gabon	GAB	6.5064	2.2264	2.7873	2.4153
United Kingdom	GBR	2.1143	5.0538	30.6892	10.9337
Georgia	GEO	2.4572	7.0779	22.9425	13.7004
Ghana	GHA	1.4341	2.4255	4.2890	3.8110
Guinea	GIN	2.5556	3.9456	2.4862	3.6837
Gambia, The	GMB	1.6669	1.8348	10.5713	7.8089
Equatorial Guinea	GNQ	6.7819	2.3178	2.8729	3.1659
Greece	GRC	1.3684	2.1955	33.7209	13.7368
Grenada	GRD	4.0356	2.9617	25.3636	21.4439
Guatemala	GTM	6.6024	6.1022	28.9261	3.2077
Hong Kong SAR, China	HKG	1.4057	1.4590	1.6864	3.5803
Honduras	HND	1.4897	9.7808	6.6512	15.1008
Croatia	HRV	2.1929	8.7860	28.6526	9.6944
Haiti	HTI	2.4887	2.3966	1.7285	9.1954
Hungary	HUN	1.3555	5.9647	11.2113	11.7952
Indonesia	IDN	3.0517	1.8122	2.2482	2.1822
India	IND	1.3080	1.5961	6.7136	8.6926
Ireland	IRL	4.7799	1.9003	25.2153	10.4269
Iran, Islamic Rep.	IRN	4.5074	2.8903	2.5335	6.1776
Iraq	IRQ	21.1345	36.3785	11.0028	24.8187
Iceland	ISL	3.4123	4.4848	12.9489	4.0723
Israel	ISR	1.5041	3.5660	31.5696	20.8421
Italy	ITA	2.0068	2.1346	24.5963	6.9876
Jamaica	JAM	2.0625	6.9090	20.5032	21.4044
Jordan	JOR	3.8234	3.5688	15.1164	9.9293
Japan	JPN	1.2145	5.9368	5.6857	11.4155
Kenya	KEN	3.1647	5.0205	8.8330	2.1842
Kyrgyz Republic	KGZ	3.0250	2.7814	8.7274	33.2937
Cambodia	KHM	1.8920	2.3006	15.2011	21.4062
Kiribati	KIR	1.1607	4.4829	11.7167	1.9852
St. Kitts and Nevis	KNA	2.0023	5.8049	14.7447	4.6634
Korea, Rep.	KOR	1.5553	4.4628	13.9445	5.7455
Kuwait	KWT	1.9423	6.7563	12.8183	4.2100
Lao, PDR	LAO	1.4034	3.1800	2.2619	2.0248

Appendix Table A.17 - Country-Specific Drivers of Domestic Energy Prices

		Percentage Contribution of:			
Country Name	Country Code	Global Geopolitical Risk	Global Energy Uncertainty	Global Energy Prices	Global Economic Activity
Lebanon	LBN	17.6398	3.4751	3.7141	32.1270
Liberia	LBR	3.5105	7.5885	14.6347	3.6722
St. Lucia	LCA	28.4285	4.1569	18.1436	6.3330
Sri Lanka	LKA	56.9957	9.1248	13.6476	3.8714
Lesotho	LSO	1.8477	7.8281	23.2300	3.5714
Lithuania	LTU	1.1576	10.2108	12.7575	6.0021
Luxembourg	LUX	1.3718	2.2646	35.4440	17.5967
Latvia	LVA	1.8259	3.7002	16.8859	19.4496
Macao SAR, China	MAC	1.3308	1.2649	4.2691	2.1627
Morocco	MAR	7.6241	7.9843	7.7888	2.9537
Moldova, Rep.	MDA	9.9108	4.8934	25.0955	6.1863
Madagascar	MDG	1.6382	1.6182	3.7499	2.7514
Maldives	MDV	1.2990	1.1920	2.3788	9.5125
Mexico	MEX	1.2520	6.9693	29.9628	2.1120
North Macedonia	MKD	1.3395	7.4104	25.6304	9.1458
Mali	MLI	7.4393	1.9539	4.7871	2.9300
Malta	MLT	1.4857	3.5275	4.4301	6.4229
Myanmar	MMR	12.0348	5.2880	7.5491	4.7049
Montenegro	MNE	29.8360	7.2629	48.4805	2.9353
Mongolia	MNG	1.6251	9.6270	12.4265	7.6491
Mozambique	MOZ	3.2770	8.0956	29.9471	5.4636
Mauritania	MRT	3.6809	1.4073	19.1401	2.9705
Mauritius	MUS	2.5306	6.0186	7.9186	6.5760
Malawi	MWI	9.1416	5.2639	14.9482	2.5498
Malaysia	MYS	0.9435	3.8733	6.5196	6.7266
Namibia	NAM	3.7331	3.3502	11.1885	2.2268
Niger	NER	2.9271	4.3826	8.9072	10.0248
Nigeria	NGA	1.5411	9.9232	10.2290	5.9475
Nicaragua	NIC	1.9705	3.9529	27.9277	6.8874
Netherlands	NLD	1.3870	2.4726	30.3367	1.6521
Norway	NOR	1.4674	3.0143	31.6784	6.3266
Nepal	NPL	54.5847	17.7159	0.2431	0.2063
Oman	OMN	1.4810	1.3152	1.1429	30.2573
Pakistan	PAK	12.6257	8.7675	18.3895	3.0358
Panama	PAN	2.1286	4.4085	22.5030	6.5910
Philippines	PHL	2.4600	4.8291	2.3622	7.1539
Poland	POL	2.5420	2.2480	23.7106	16.8313
Portugal	PRT	3.1950	2.3745	17.0337	9.1610
Paraguay	PRY	1.4099	5.3415	19.1206	14.8277
Qatar	QAT	2.6454	8.0410	13.0424	2.4953
Russian Federation	RUS	3.7387	3.1178	15.0627	4.5774
Rwanda	RWA	5.3002	4.0528	8.8391	19.2615
Saudi Arabia	SAU	1.7537	2.1938	2.6127	25.9908
Sudan	SDN	4.2022	1.2829	1.9081	2.3745
Senegal	SEN	1.8628	2.6165	5.8091	7.9655
Singapore	SGP	2.0578	7.2045	10.7033	15.8202
Solomon Islands	SLB	7.3473	12.2164	25.1105	16.7244
Sierra Leone	SLE	23.9874	1.9931	7.4217	1.9579
El Salvador	SLV	1.9273	29.1225	18.3932	6.5924
San Marino	SMR	2.5198	31.0429	47.5512	0.6910
Serbia	SRB	1.8446	4.9132	16.8199	3.5854
South Sudan	SSD	2.2205	11.4085	4.3422	18.6491
Suriname	SUR	4.6331	2.2771	11.1190	6.6788
Slovakia	SVK	2.3022	6.7680	11.7879	1.6318
Slovenia	SVN	1.4793	8.0881	19.6615	14.6304
Sweden	SWE	3.5415	2.5257	25.5644	5.4634
Eswatini	SWZ	2.6279	2.5826	8.2053	1.6426
Seychelles	SYC	4.4796	5.9392	23.6951	5.6128
Chad	TCD	2.3676	1.4036	7.8853	9.3128
Togo	TGO	1.8863	2.5053	5.0697	4.5747
Thailand	THA	3.8666	1.7382	4.3894	2.8491
Trinidad and Tobago	TTO	1.5040	3.3326	3.3490	28.2165
Tunisia	TUN	1.9395	3.0644	9.1352	9.9452
Turkey	TUR	8.5064	2.2048	10.5305	14.0060
Tanzania, United Rep.	TZA	5.6753	1.8715	11.1012	7.0663
Uganda	UGA	1.5512	1.4585	1.9536	13.5265
Ukraine	UKR	1.4722	1.9726	6.0322	2.3904
Uruguay	URY	4.1117	2.1911	9.4501	10.7196
United States	USA	1.6007	4.6766	65.1116	13.8267
St. Vincent and the Grenadines	VCT	3.4418	13.2674	54.7270	6.4232
Vietnam	VNM	1.4770	4.3730	17.9303	24.0452
Samoa	WSM	2.4402	8.5149	10.8354	10.8513
South Africa	ZAF	1.5080	11.8058	31.4730	9.0356
Zambia	ZMB	2.6105	15.8658	36.7373	3.1263

The numbers represent the median (across 1000 draws) forecast error variance decomposition of country-specific domestic energy prices.

Figure A.1 – Descriptive Statistics



Notes: Global geopolitical risk and global energy uncertainty are normalized to one standard deviation. Global energy prices are represented as year-on-year percentage changes. Global economic activity is expressed in percent deviations from trend.