BOX 1

Fragmentation and uncertainty drags on the Liechtenstein economy

by Andreas Brunhart, Martin Geiger, and Elias Hasler

Current global political and economic developments are weighing heavily on Liechtenstein's economy. As a very small and highly open economy, Liechtenstein is particularly exposed to external shocks. Since 2022, the slowdown – driven by supply-chain disruptions, Russia's war against Ukraine, elevated energy and other commodity prices, and the global tightening of monetary policy to contain inflation – has dampened real GDP (see Figure B1.1).



Figure B1.1
Liechtenstein's real GDP in international comparison (index; Q4 2019 = 100)

Sources: Office of Statistics, OECD, Liechtenstein Institute (GDP estimate 2024, quarterly GDP estimates; price, seasonal, and structural break adjustments)

Liechtenstein has historically exhibited a strong sensitivity to international business-cycle conditions, reflecting its small size and its sectoral concentration in investment-goods manufacturing and financial services. Figure B1.1 – an international comparison of indexed real GDP – underscores the resulting high volatility. This pattern characterises small economies, given limited domestic buffers, a reduced scope for counter-cyclical monetary or fiscal policy, and lower diversification (Brunhart, 2025). Volatility in Liechtenstein's GDP is further amplified by its sectoral composition. Liechtenstein ranks among the European OECD countries with the highest gross value-added shares in industry and the second highest in financial and insurance services (Brunhart and Geiger, 2024, p. 337). Investment-goods manufacturing and financial services – two key pillars of the domestic economy – are typically more cyclical than aggregate GDP[1]. These structural features contribute to pronounced fluctuations in output.

1 *Demand for capital goods is characterised by "wait-and-see" behavior and tends to be deferred more often, which is why investment typically fluctuates more strongly than GDP (see e.g. Francois and Woerz 2009). The evaluation of Eurostat data shows that – on average across EU countries (since 2000) – the standard deviation of the quarterly growth rate of real gross value added in the sector "financial and insurance activities" is more than twice as high as that of the total gross value added of all sectors.*

BOX 1

Liechtenstein reacts not only sensitively to international economic developments but also earlier than its peers (Brunhart, 2017). The tendency for Liechtenstein's GDP to lead that of neighbouring countries cannot be explained by the sensitivity to general global business-cycle dynamics (Geiger and Hasler, 2021). Instead, it likely reflects the economy's heightened vulnerability to major disruptions, stemming from its strong dependence on foreign trade – particularly exports of investment goods and financial services. Rising geopolitical fragmentation and broader uncertainty are transmitted quickly through external demand channels, amplifying the impact on domestic activity.

While Liechtenstein's economy is highly sensitive to the global business cycle, the nature of current shocks is particularly adverse. The typically larger cyclical response in Liechtenstein, relative to its larger neighbours, was muted during the COVID-19 recession in 2020 (Brunhart, Geiger and Ritter, 2022). Since then, however, the economy has been affected both earlier and more severely by global fluctuations and rising geopolitical tensions.

The global economy is becoming increasingly fragmented, accompanied by heightened uncertainty. The first panel of Figure B1.2 shows the Geopolitical Fragmentation Index (GFI) developed by

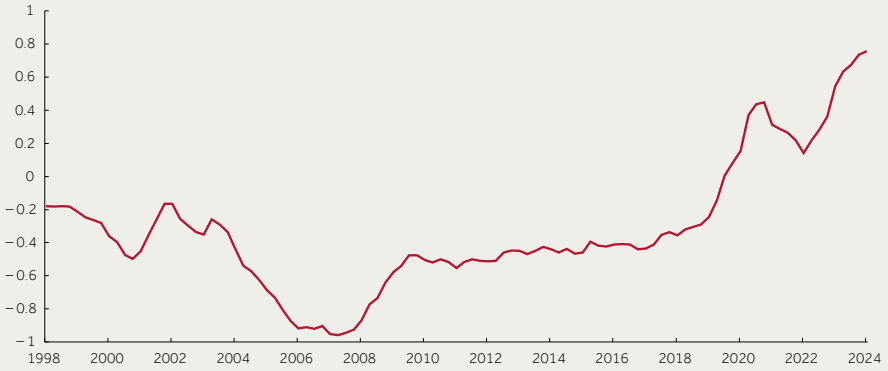


Figure B1.2
Panel A: Geopolitical Fragmentation Index (index)

Source: Fernández-Villaverde et al. (2024).

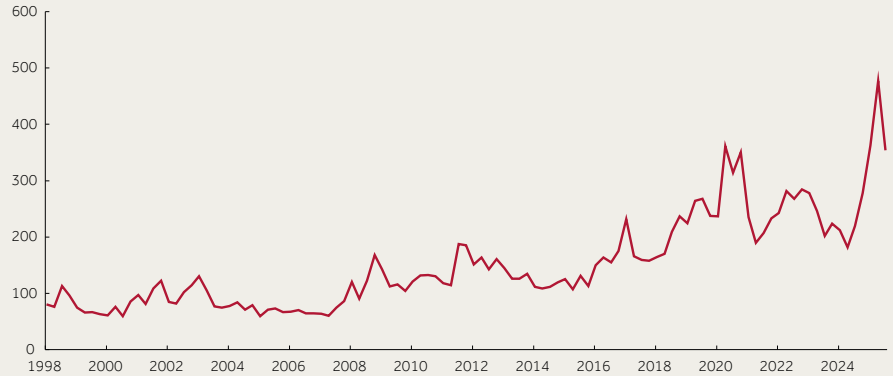


Figure B1.2
Panel B: Economic Policy Uncertainty Index (index)

Source: Baker et al. (2016).

BOX 1

Fernández-Villaverde et al. (2024). Estimated using a dynamic hierarchical factor model, the GFI captures latent fragmentation across four dimensions: (1) trade, (2) finance, (3) mobility, and (4) policy. Higher values signal greater fragmentation – countries drifting apart – while lower values reflect deeper integration and interdependence. The index has trended upward for nearly a decade, coinciding with the Brexit referendum, shifts in US trade policy beginning under the first Trump administration, and Russia's invasion of Ukraine. The latest data point (2024 Q1) marks the highest level since the beginning of the series, and fragmentation has likely increased further since.

Political and economic fragmentation are contributing to heightened uncertainty regarding the future framework of international economic cooperation and global economic developments. The Panel B of Figure B1.2 shows the global Economic Policy Uncertainty (EPU) index by Baker et al. (2016). While the global financial crisis of 2008 – 09 and, in particular, the COVID-19 pandemic were characterised by unprecedented uncertainty – with uncertainty itself shaping the economic outcomes of those episodes – the first two quarters of 2025 have recorded even higher EPU readings. Continued political and economic tensions, with countries drifting apart, are thus associated with record levels of economic policy uncertainty.

Recent economic and political disruptions involve both first-moment news shocks and second-moment uncertainty shocks. Events linked to political and economic fragmentation appear to both convey information about, and create uncertainty over, financial and economic conditions, impacting the global economy through various channels. News shocks alter expectations about future economic conditions, which can immediately influence current activity, for example via wealth effects and investment decisions. Uncertainty shocks, conversely, decrease the predictability of outcomes, leading to precautionary behaviour, delayed investment, and tighter credit conditions (see e.g. Caldara et al., 2016 or Baker et al., 2024). To evaluate the effects of first-moment and second-moment shocks, we estimate the effects of surges in the GFI and EPU on quarterly real GDP employing local projections of the following form for several European economies:

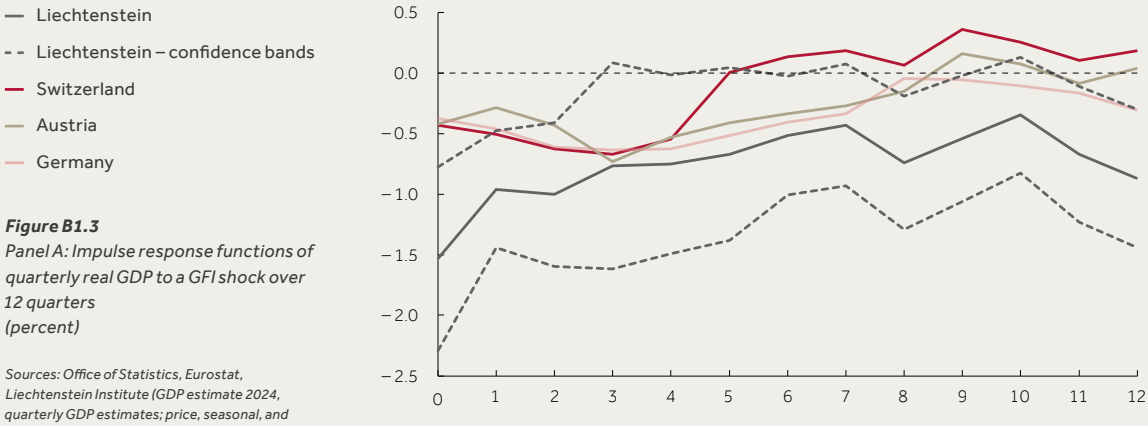


Figure B1.3
Panel A: Impulse response functions of quarterly real GDP to a GFI shock over 12 quarters
(percent)

Sources: Office of Statistics, Eurostat, Liechtenstein Institute (GDP estimate 2024, quarterly GDP estimates; price, seasonal, and structural break adjustments). Own calculation of local projections. Dashed lines indicate the 68 percent confidence intervals. Impulse response functions are normalised to a standard-deviation shock in the respective indices.

$$y_{(t+h)} = \alpha_h + \sum_{(l=0)}^{2} \beta_{(l,h)} x_{(t-l)} + \sum_{(l=1)}^{2} \gamma_{(l,h)} y_{(t-l)} + \delta_h t^2 + \theta_h t + \varepsilon_h$$

The dependent variable, y_t, denotes indexed real GDP in period t (for comparability) and x_t is either the GFI, or the EPU, respectively. Figure B1.3 shows the impulse response functions based on the series of $\beta_{(0,h)}$-coefficients associated with an unanticipated surge in the indices.

A rise in geopolitical fragmentation leads to an immediate and strong response of the Liechtenstein economy. An average shock in the GFI reduces Liechtenstein's real GDP by about 1.5 per cent within the quarter (as shown in Panel A of Figure B1.3). This effect is markedly larger than in Germany, Switzerland or Austria, for which the on-impact response lies outside the 68 percent confidence interval of the Liechtenstein estimate. Moreover, the response in Liechtenstein tends to be more persistent. These findings suggest that rising geopolitical fragmentation is particularly detrimental to the Liechtenstein economy compared to the reference countries. Further analysis of GFI subindices indicates that this sensitivity is primarily driven by reactions to trade and financial fragmentation, unsurprising given Liechtenstein's high reliance on goods exports and financial services.

A swift and strong reaction is also evident in response to surges in uncertainty. Similar to the GFI, a rise in the EPU index leads to a particularly strong and immediate decline in Liechtenstein's real GDP (see Panel B of Figure B1.3). Overall, the analyses indicate a high sensitivity of Liechtenstein's economy to first- and second-moment shocks associated with recent geopolitical disruptions, including shifts in US trade policy and the deterioration in international security. These findings also help explain Liechtenstein's tendency to respond very early to international business-cycle fluctuations.

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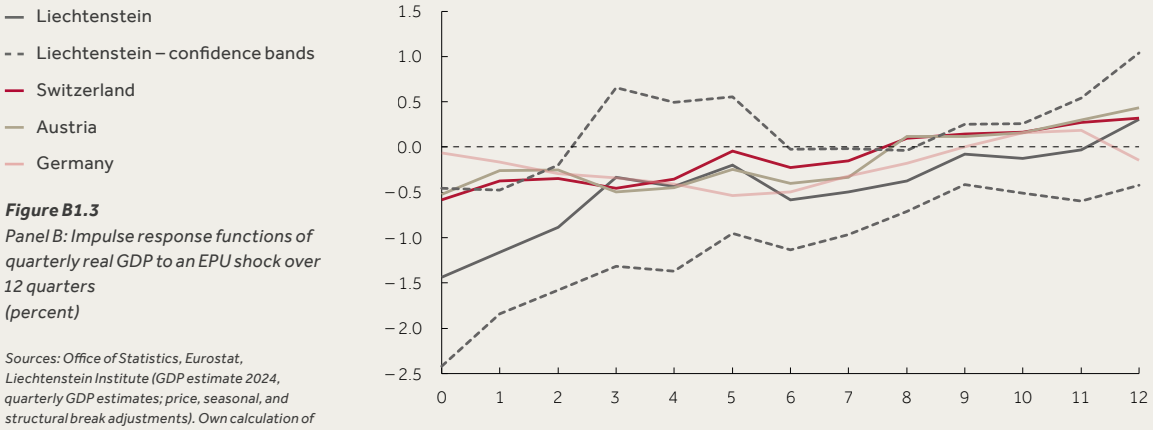


Figure B1.3
Panel B: Impulse response functions of quarterly real GDP to an EPU shock over 12 quarters
(percent)

Sources: Office of Statistics, Eurostat, Liechtenstein Institute (GDP estimate 2024, quarterly GDP estimates; price, seasonal, and structural break adjustments). Own calculation of local projections. Dashed lines indicate the 68 percent confidence intervals. Impulse response functions are normalised to a standard-deviation shock in the respective indices.

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