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POLICY BRIEF

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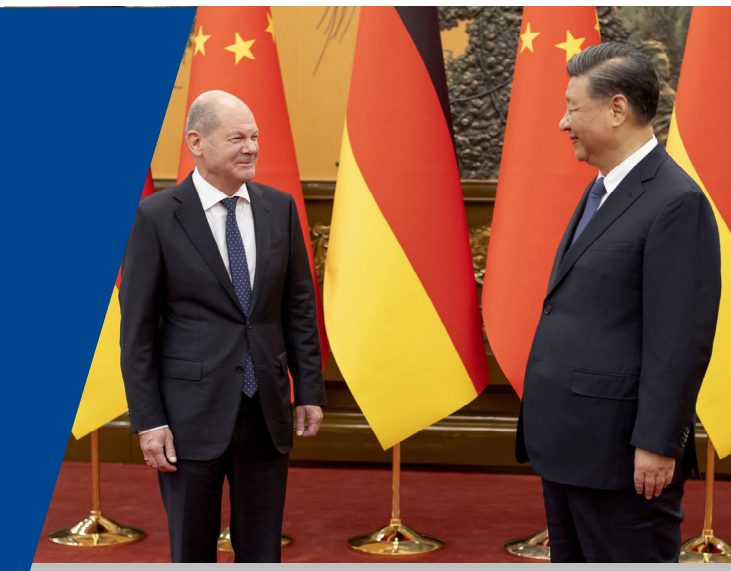
What if? The Effects of a Hard Decoupling from China on the German Economy



No. 170 January 2024

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- An abrupt decoupling results in a short-run loss of 5 percent of GNE for Germany, reducing to a long-term loss of about 1.5 percent.
- The short-term economic impact is comparable to the global financial crisis and COVID-19 pandemic, but these costs, though severe, are manageable.
- A more gradual de-risking approach minimizes costs compared to a sudden, hard decoupling.

Kiel Institute for the World Econonomy
ISSN 2195–7525

Leibniz Association

OVERVIEW/ÜBERBLICK

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Keywords: Derisking, Decoupling, Sanctions, Embargoes

- Die Studie untersucht die wirtschaftlichen Auswirkungen einer harten Entkopplung zwischen China und Deutschland mit einer Simulation eines Szenarios ähnlich einem Kalten Krieg 2.0 mit Fragmentierung der Weltwirtschaft.
- Eine abrupte Entkopplung führt zu einem kurzfristigen Verlust von 5 Prozent des BNE für Deutschland, der sich langfristig auf etwa 1,5 Prozent verringert.
- Kurzfristige wirtschaftliche Auswirkungen sind vergleichbar mit der globalen Finanzkrise und der COVID-19-Pandemie, aber diese Kosten, obwohl schwerwiegend, sind handhabbar.
- Ein schrittweiser De-Risikierungsansatz führt zu deutlich kleineren Kosten im Vergleich zu einer plötzlichen, harten Entkopplung

Schlüsselwörter: De-Risking, Entkopplung, Sanktionen, Embargos

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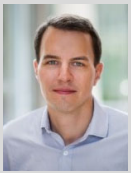

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WHAT IF? THE EFFECTS OF A HARD DECOUPLING FROM CHINA ON THE GERMAN ECONOMY[1]

David Baqaee, Julian Hinz, Benjamin Moll, Moritz Schularick, Feodora A. Teti, Joschka Wanner, and Sihwan Yang

1 EXECUTIVE SUMMARY

- We quantify the economic effects of a hard decoupling between the Chinese and German economies in a hypothetical scenario akin to a "Cold War 2.0", i.e., a dis-integration or fragmentation of the world economy into three distinct blocs: the G7 or "Western" economics, China and her allies, as well as neutral countries. Within this framework, we examine an extreme case: a complete cessation of trade between Germany (as well as the rest of the G7 economies and their allies) and China. Following a hard decoupling, international trade will have to be entirely reoriented towards trade within the two Rival blocks and between the two blocks and the neutral countries.
- By examining an extreme scenario where trade between the two "cold war" blocks goes to zero, we aim to delineate the boundaries of possible outcomes and provide a worst case perspective to inform the debate on the economic costs of foreign policy options in case they arise, f.i., in the context of a conflict over Taiwan. In 2022, the debate on Germany's dependence on Russian gas and the economic costs of the end of Russian gas supplies showed that interest groups become powerful players in real-time decision-making processes when uncertainty is high (Moll, Schularick, and Zachmann 2023). We explore the key issues ex ante allowing policy makers in Germany and Europe to weigh policy options ahead of time.
- We rely on the Baqaee and Farhi (2021) model which has demonstrated its usefulness last year when it was used to gauge the impact of an end of Russian gas supplies to Germany (Bachmann et al. 2022; Moll, Schularick, and Zachmann 2023). In the event of an abrupt "cold turkey" hard decoupling scenario, Germany is likely to experience a GNE

[1] This paper was prepared for the CEPR Paris Symposium in December 2023 and is an abbreviated version of a longer paper that will be published as Baqaee et al. (2023). We thank Dave Donaldson, Beatrice Weder di Mauro, and Jeromin Zettelmeyer for useful comments. Benjamin Moll acknowledges support from the Leverhulme Trust and the European Union's Horizon 2020 research and innovation programme (grant agreement No. 865227). Feodora Teti gratefully acknowledges support received from the German Research Foundation through CRC TRR 190 (project number 280092119). Moritz Schularick gratefully acknowledges support from the German Research Foundation through his Leibniz-Prize. The views expressed in this paper are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

loss of approximately 5 percent on impact in the first few months and 4 percent over the horizon of one year. The Baqaee and Farhi (2021) model does not incorporate short run business cycle amplification effects, e.g. Keynesian aggregate demand amplification in the presence of nominal rigidities, so the corresponding economic costs need to be added on top. In the long run, the German welfare loss from no longer being able to trade with China would be about 1.5 percent of GNE.

- From a macroeconomic standpoint, these are severe costs, reflecting China's importance in German and global trade. The short-run costs would compare to the GDP falls witnessed in the global financial crisis and during the Covid pandemic. Moreover, about one quarter of the short-run costs would be permanent, i.e., German welfare would be lower in every single year going forward. While severe, these costs are not devastating and could be managed with appropriate policy as crises of similar magnitudes have been successfully managed in the past.
- The relevant elasticities of substitution, in particular trade elasticities get larger over time (the "le Chatelier principle," see e.g. Paul A. Samuelson 1947; Paul A. Samuelson 1983; Milgrom and Roberts 1996). A key implication is that a more gradual decoupling in which the trade cut-off occurs over a time horizon of several years leads to considerably smaller overall costs than a "cold turkey" decoupling as it avoids the most extreme short run losses. In a gradual decoupling scenario, the lowest elasticities that are relevant in the very short run (over the first few months) only apply to a partial trade cut-off (say a cut in trade flows by 5 percent) rather than to the full cut-off as they do in the abrupt cold-turkey scenario.
- The cost of a decoupling are always costlier for China and Russia than for any Western country, in the short-run, in the long-run, and for both a cold turkey decoupling or a gradual de-risking. In the long-run China's decrease in GNE with about 2 percent is about 60 percent higher than that for Germany. The EU average long-run cost is about 1 percent, for the US it stands at about 0.6 percent.
- As we are not modelling a "small yard, high fence" de-risking (Sullivan 2023), but a radical "big yard, high fence" decoupling, the economic costs of sectoral de-risking policies are likely to be considerably smaller, particularly when introduced gradually. Our findings provide a rationale for Western countries to embark on a gradual de-risking trajectory rather than waiting for a much more costly "cold turkey" hard decoupling dictated by geopolitical events. We view the relatively low economic costs of gradual de-risking as an insurance premium paid to insure against the possibility of large losses and potential political backlash associated with a hard cold-turkey decoupling.

2 TRADE BETWEEN CHINA AND GERMANY

Germany's exports to China have grown from 1.5 billion euros in 1990 to around 100 billion euros in 2022, while its imports from China have grown from little more than 1 billion in 1990 to close to 200 billion in 2022 (Destatis 2022). In 2022, China was Germany's largest trading

partner overall, and its largest import partner and one of the top-5 export markets (Destatis 2022).

2.1 IMPORTS

Table 1 shows that China's share in imports varies significantly across different groups of products (second column) and these products' overall importance for the German economy in turn also varies greatly (third column). The sector with the highest share of trade in total expenditure, as well as imports from China in this sector in terms of GNE, is "Machinery and Electrical goods" at 8.2 percent of German GNE, and an import share from China of about 14 percent, resulting in total German expenditures in this category of 1.14 percent of GNE.

Table 1:
Share of China in German imports in GNE in 2019 (in percent)

Sector	Share of China in total sector trade	Share of total sector trade in GNE	Share in GNE
Imports			
Animal & Animal Products	3.01	0.67	0.02
Vegetable Products	1.46	1.08	0.02
Foodstuffs	1.11	1.09	0.01
Mineral Products	0.11	2.46	0.00
Chemicals & Allied Industries	2.73	3.98	0.11
Plastics / Rubbers	4.90	1.62	0.08
Raw Hides, Skins, Leather, & Furs	22.65	0.15	0.03
Wood & Wood Products	3.48	0.82	0.03
Textiles	14.34	1.41	0.20
Footwear / Headgear	17.52	0.40	0.07
Stone / Glass	5.45	0.81	0.04
Metals	5.92	2.59	0.15
Machinery / Electrical	13.94	8.20	1.14
Transportation	1.56	4.30	0.07
Miscellaneous	13.46	2.18	0.29
Service	4.98	0.26	0.01
Total	7.15	32.02	2.29

Source: Data from EU Comext (2023) and World Bank (2023), own calculations.

2.2 EXPORTS

Table 2 reports the equivalent breakdown of the share of China in a sector's trade flows, the sector's importance in the overall economy, and the combination of both — China's economic importance in a given sector for the German economy as a whole. Note that we use the same denominator GNE to scale exports for direct comparability to the numbers above.[2]

The overall share of exports to China in total exports stood at roughly 6.7 percent in 2019, which translates to 2.56 percent of Germany's GNE. The sectoral composition is somewhat

[2] As noted above, in the case of Germany using the actually more applicable indicator of production, GDP, would yields very similar numbers.

different than on the import side. The most important sectors are "Machinery and Electrical goods", followed by "Transportation" — notably driven by the German car industry — as well as "Chemicals and Allied Industries." China is an important export market for products in these sectors, with up to almost 10 percent of each total sector exports. But here, too, it is important to note that the smaller shares of these sectors in the overall German economy lead to a smaller macroeconomic footprint. Even for the large automotive and chemical industries, exports to China account for less than 1 percent of GNE (or GDP), and slightly above 1 percent for the machinery and electrical goods producing sector.

Table 2:
Share of China in German Exports in GNE in 2019 (in percent)

Sector	Share of China in total sector trade	Share of total sector trade in GNE	Share in GNE
Exports			
Animal & Animal Products	7.56	0.64	0.05
Vegetable Products	0.54	0.45	0
Foodstuffs	1.63	1.17	0.02
Mineral Products	1.03	0.64	0.01
Chemicals & Allied Industries	4.51	5.27	0.24
Plastics / Rubbers	4.31	2.24	0.1
Raw Hides, Skins, Leather, & Furs	3.02	0.1	0
Wood & Wood Products	2.93	0.96	0.03
Textiles	1.46	1.06	0.02
Footwear / Headgear	0.44	0.27	0
Stone / Glass	3.64	0.91	0.03
Metals	4.53	2.88	0.13
Machinery / Electrical	9.6	11.33	1.09
Transportation	8.39	6.98	0.59
Miscellaneous	8.62	2.99	0.26
Service	2.68	0.2	0.01
Total	6.72	38.08	2.56

Source: Data from EU Comext (2023) and World Bank (2023), own calculations.

3 DESCRIPTION OF THE MODEL

The Baqaee-Farhi model is a state-of-the-art multi-sector model with rich input-output linkages. The model is designed to address questions in which supply chains or production networks play a key role, specifically how a shock to an upstream product propagates downstream along the supply chain. In our set-up the model features 43 countries in three blocks: a block of G7 countries and their allies and a Chinese block, as well as a neutral block with countries that belong to neither. Each country has 56 sectors with production interlinkages across sectors and countries. These production interdependencies are disciplined with empirical input-output matrices from the World Input-Output Database (Timmer et al. 2015).[3]

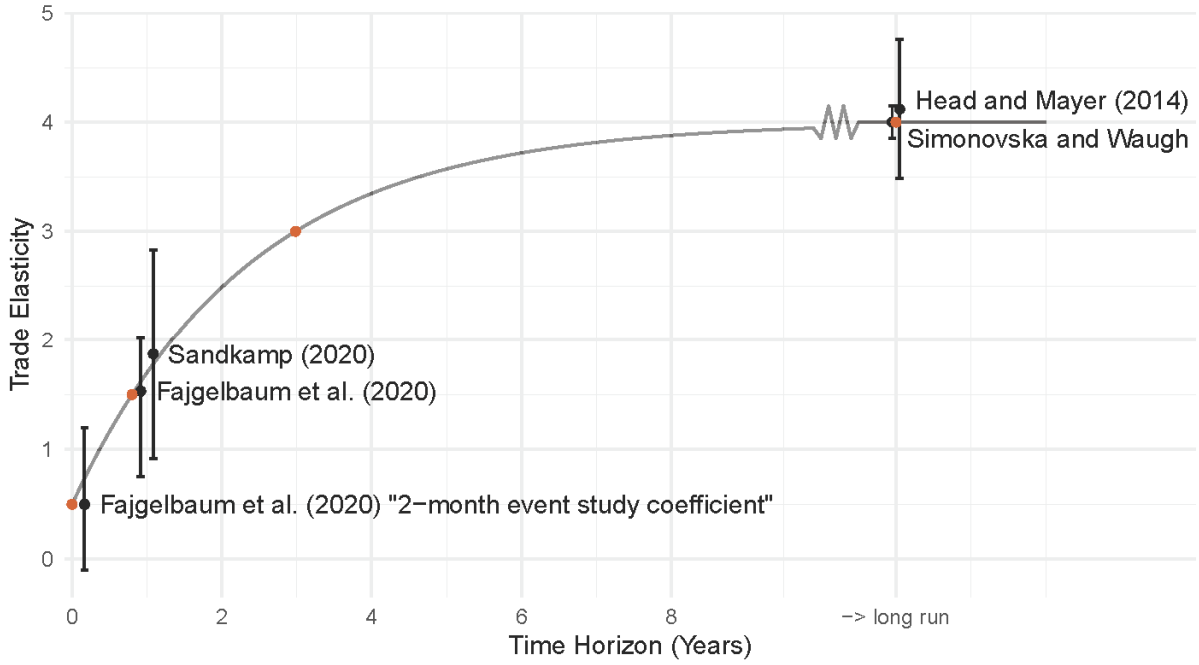
[3] Note that in 2022 the Rivals block's share in world GDP stood at about 22 percent. With roughly similar import shares in GNE between 2014 and 2022 for Western countries, this has likely a limited impact on the simulation results.

Most of our results focus on economic costs of China decoupling scenarios as measured by the fall in Gross National Expenditure (GNE). GNE, also known as "domestic absorption," is the economy's total expenditure defined as the sum of household expenditure, government expenditure and investment, that is $GNE = C + I + G$ in the GDP accounting identity $GDP = C + I + G + X - M$. GNE (rather than GDP) is the welfare-relevant quantity in many macroeconomic and trade models including the Baqaee-Farhi model. One reason for focussing on GNE rather than GDP is that GDP may not pick up the terms-of-trade effect through which German consumers become poorer when the price of imported goods rises (e.g. Obstfeld and Rogoff 1995; Mendoza 1995).

3.1 TRADE ELASTICITY

One key parameter for the magnitude of the welfare shocks of decoupling is the trade elasticity ε. It describes how strongly trade flows react to trade cost changes and is linked to the substitutability of goods from different origins.

Figure 1:
Trade elasticity estimates from literature for different time horizons



Source: Own presentation and simulation.

For the short run, we can draw from recent developments in the literature: (Fajgelbaum et al. 2020) find a trade elasticity of 1.5 using the Trump tariffs on China as well as on other trade partners.[4] This number captures the effects over a time horizon of six months to one year. The

[4] In the paper, (Fajgelbaum et al. 2020) report -2.5 for $-\sigma$ for the variety-level import response to import tariffs across different countries. Hence, the trade elasticity is $\varepsilon = \sigma - 1 = 1.5$. (Sandkamp 2020) finds estimates in a

event-study results of (Fajgelbaum et al. 2020) suggest coefficients that are half as large in the very short run. To be extra conservative we assume the trade elasticity in the first few months after the shock to be equal 0.5, rising to 1.5 over the horizon of one year, and to 3 over three years, as shown in Figure 1. For the long run, we choose a trade elasticity of 4 as suggested by (Simonovska and Waugh 2014) as the benchmark value, which is also in line with the results of the meta-analysis performed by (Head and Mayer 2014). Figure 1 summarizes the trade elasticity estimates from the literature and how these vary with the time horizon.

3.2 KEY RESULTS

In all simulations, we assume prohibitively high trade costs between members of the Friends block and members of the Rivals block, so that trade flows between the two blocks drop to zero. Other trade costs are left unaltered and trade flows within the blocks, as well as with the Neutral block will endogenously adjust.[5]

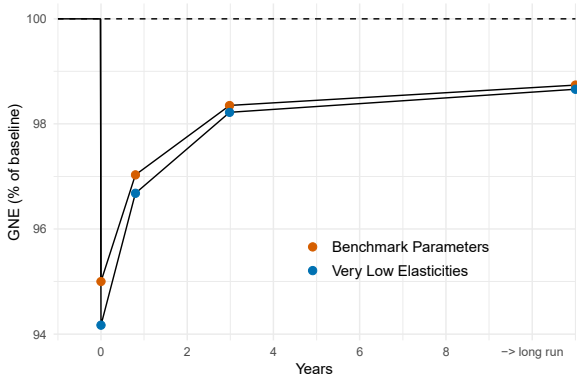
Table 3 summarizes the German welfare losses in response to the full decoupling for a range of long run to extremely short run trade elasticities which we will now in turn discuss in detail.

Table 3:
Cold turkey decoupling: GNE change for different trade elasticities

Trade Elasticity	Benchmark Parameters	Very Low Elasticities
ε = 0.5	–5.00	–5.83
ε = 1.5	–2.97	–3.32
ε = 3	–1.65	–1.78
ε = 4	–1.26	–1.34
ε = 0.1	–5.92	–6.15
ε = 0.25	–5.62	–6.38

Source: Own calculation.

Figure 2:
Cold turkey decoupling over time



Source: Own presentation and simulation.

We begin with an extremely low trade elasticity of 0.5 for the very short run that is even lower than the elasticity that empirical studies found over 2-months horizons in the case of the Trump tariffs (Fajgelbaum et al. 2020). We consider this a conservative value even in the very short run over the period of one quarter. In this case, the German welfare loss amounts to 5.0 percent, rising to 5.8 percent if we also set the other elasticities in the model to very low levels. Lowering the trade elasticity even further to 0.25 (and the time frame of our consideration

similar ballpark using plausibly exogenous variation as the analysis focuses on the effect on trade between China and the new member states that inherited the EU's anti-dumping regime when acceding the union in 2004.

[5] Note that since the Russian invasion of Ukraine Western countries have already significantly decreased their imports from Russia. The results below are thus conservative, assuming a decoupling — even partial — has not yet occurred.

hence to the extreme short run) only adds comparatively minor additional welfare losses and puts the total loss to 5.6 percent.

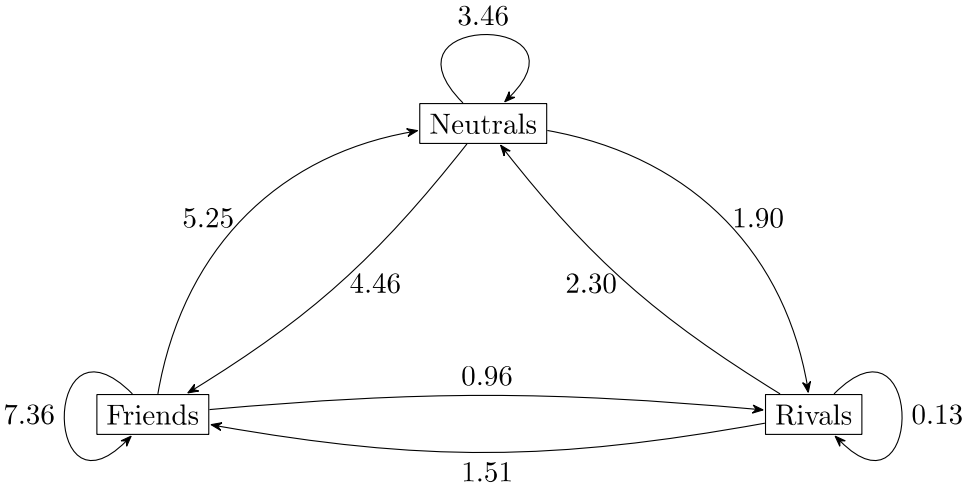
Over the important horizon of 1 year, we consider an elasticity of 1.5 as conservative. In this case, the German welfare loss of decoupling amounts to around 4 percent depending on the other parameters. Compared to other countries, this is at the high end of damages in the Friends block, but below the losses experienced by China (4.8 percent). It is important to stress that in any scenario we study, the losses are larger for China and her allies. Figure 2 summarizes these model simulations for different trade elasticities and shows the economic costs of a decoupling scenario over time. As already mentioned, a key idea in economics is that elasticities increase with the time horizon (le Chatelier principle).

For the new long run steady-state results, which characterizes a world with three blocks, we assume a trade elasticity of four. As the trade elasticity increases, the economic costs become more muted before settling at a permanent GNE loss. We estimate a permanent welfare loss for Germany of 1.26 percent in response to both losing access to an export market and the opportunity to source any products from the Rivals block. This is at the high end of the losses incurred by Friends countries, as Germany is particularly strongly integrated with the Rivals block. In Europe, only the Netherlands experiences a loss of larger magnitude, while the losses of all other European countries range between 0.47 percent and 0.69 percent. The North American Friends countries lose 0.51 percent (USA) and 0.86 percent (Canada). The only other country in the Friends block that suffers in the same magnitude with Germany in this scenario is Japan (1.24 percent loss).

While our focus lies on the effects in Germany specifically and the Friends countries more generally, it is worth noting that China and Russia are affected much more severely and face welfare losses of 2.05 and 4.94 percent in the long run, and up to 7.8 percent and 21.5 percent in the short run, respectively. The higher welfare losses for the Rivals block are intuitive, as a much larger share of their international trade relations is affected due to the large economic size of the Friends block.

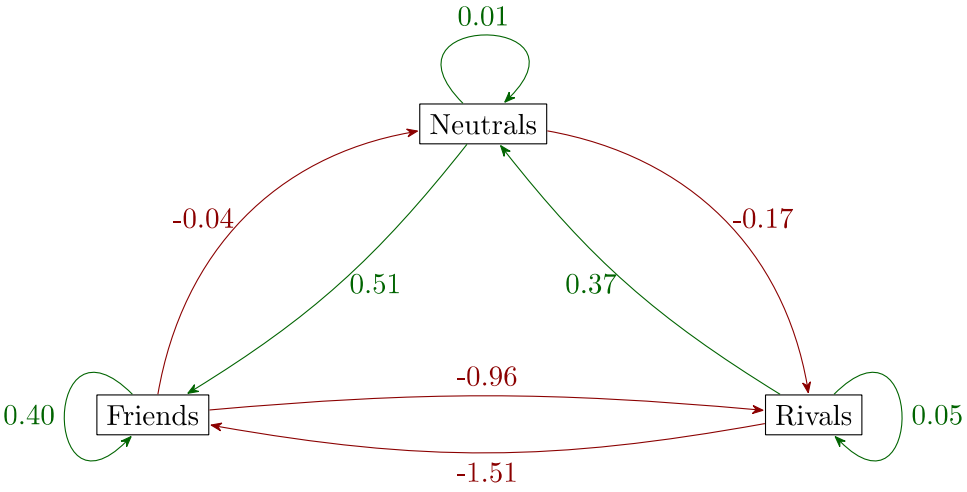
Figures 3 and 4 illustrate the global trade adjustments in the long run.

Figure 3:
Trade flows among friends, rivals, and neutrals (in percent of global GDP)



Source: Own presentation and simulation.

Figure 4:
Change in trade flows among friends, rivals, and neutrals (in percent of global GDP)



Source: Own presentation and simulation.

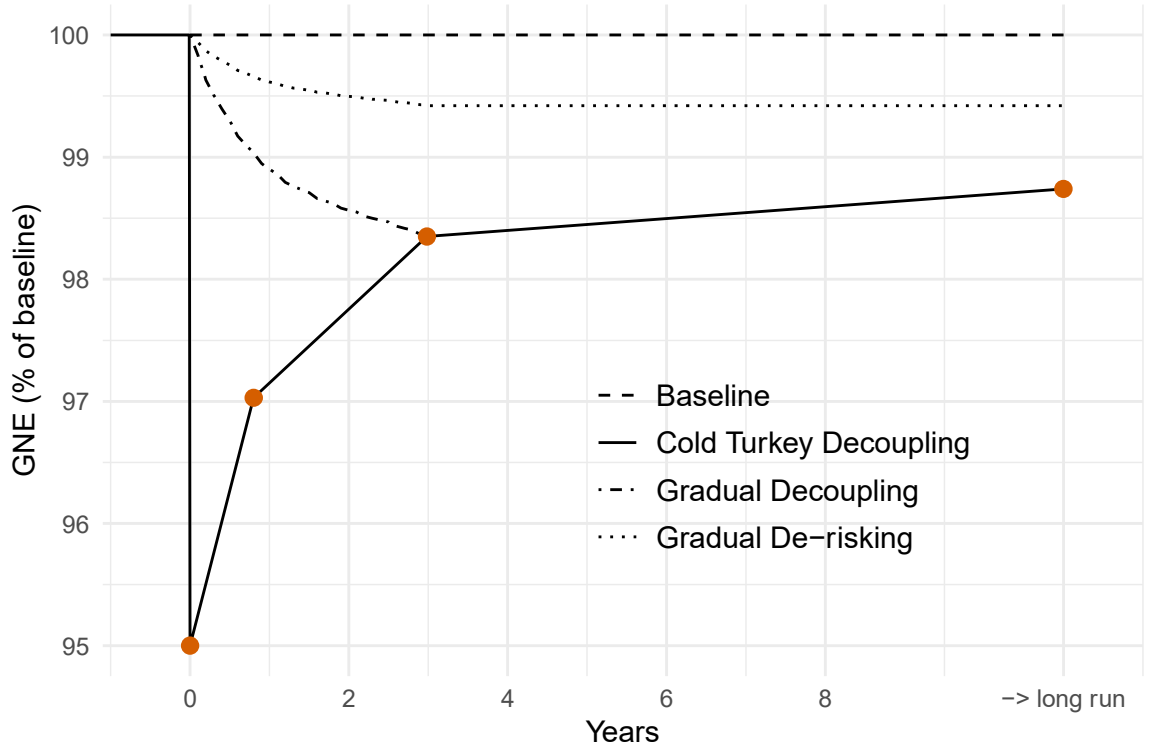
3.3 DISCUSSION OF MAGNITUDE

Our simulation results suggest that German welfare costs of decoupling fall in the range of 1.3 percent in the long run and potentially up to more than 5 percent in the very short run. The numbers beg the question: how large are these costs in comparison? Since WW II, the German economy experienced output falls in eight years (1967, 1975, 1982, 1993, 2002, 2003, 2009, 2020). Our estimated welfare loss over the horizon of one year of 3–4 percent ranges at a magnitude similar to the Covid recession of 2020 (–3.7 percent). For comparison, (Dhingra and Sampson 2022) in their survey article on Brexit conclude that in the three years from the Brexit vote till 2019, it reduced British GDP by 2–3 percent. As this is also a medium run assessment, our results suggest that the economic effects of a China decoupling in Germany may be of comparable magnitude to the economic effects of Brexit in the UK.

3.4 COLD TURKEY DECOUPLING VS. GRADUAL DECOUPLING

To illustrate the importance of the time horizon, Figure 5 shows the economic costs of a sudden decoupling over time (again linking the different levels of the trade elasticity considered to the different time horizons, as in Figure 1 above) and contrasts this cost path to two alternative scenarios of the imposition of restrictions that take place more gradually over a time horizon of three years. In one scenario, the full decoupling is conducted gradually (dot-dashed line), and in the other a gradual de-risking — where trade restrictions cover only some sectors — takes place (dotted line). The abrupt decoupling is illustrated by the solid line in the figure, with the red dots referring to the specific selected choices of trade elasticities discussed above. Matching the previous discussion, the costs of abrupt decoupling are potentially severe in the very short run, but fade considerably once the economy has had a few years time to adjust to the new situation. Importantly, however, the losses never fade completely, but stabilize at the long run value of 1.3 percent. The gradual decoupling reaches the same new steady state as the hard decoupling, but arrives there without the severe short-run impact. Intuitively, the long-run impact of the gradual de-risking is smaller than the decoupling steady-state, while simultaneously arriving there on a smooth path without an initial drastic contraction.

Figure 5:
Cold turkey decoupling vs. gradual decoupling vs. gradual de-risking



Source: Own presentation and simulation.

4 CAVEATS

While our results suggest a severe but not devastating impact of a hard decoupling on the German economy, certain points remain outside the scope of the model due to aggregation and abstraction. Here, we discuss three key caveats that could magnify the impact: strategic raw material imports from China, which are integral to numerous German industries; short run business cycle amplification; and finally the implications for German Foreign Direct Investment (FDI) in China.

4.1 STRATEGIC RAW MATERIALS

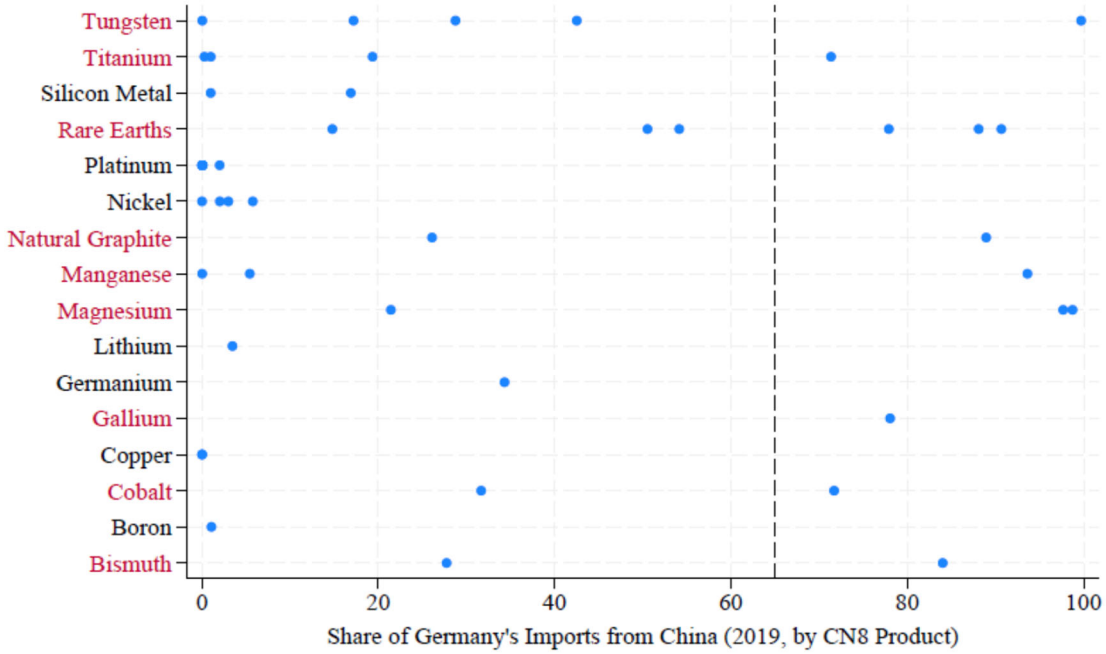
While most goods and services can be substituted in the long run, raw materials pose a unique challenge due to their inherent scarcity as natural resources. How dependent is Germany with respect to the supply of raw materials from Chinas? To understand Germany's exposure to China, we look at the share of Germany's imports from China of total imports for key raw materials. To do so, we use data on imports from Eurostat's Comext database and map the CN8 product codes to the raw materials using the concordance proposed by the factsheets provided

by SCRREEN.[6] In Figure 6, every dot corresponds to one CN8 product. We define dependency on China to be high whenever the import share is higher than 65 percent.

Several notable facts emerge: First, Germany exhibits high dependency on nine out of sixteen critical raw materials. Second, among these nine, five materials — Titanium, Natural Graphite, Manganese, Cobalt, and Bismuth — offer relatively manageable substitution options due to the availability of alternative suppliers. Third, the automotive and high-tech sectors, particularly reliant on the four critical raw materials (Gallium, Magnesium, Rare Earths, and Tungsten) with high dependency on China and little potential for short-run substitutability from other source countries.

A case studies sheds light on how an economy was able to adjust to a shortage of a strategic raw material of the type discussed in this section: the Chinese Rare Earth embargo against Japan. In 2010 China effectively implemented an export embargo on rare earths against Japan. China was virtually the sole supplier of rare earths, while these were an important input for Japanese industry. As noted by Gholz and Hughes (2021), in the short run, Japanese firms reduced demand both at the intensive and extensive margin: Firms that crucially needed rare earths in their input came up with ways to use raw material more effectively, thus pushing the technology frontier outwards. For instance, headphone manufacturers that previously bought rare earths due to its low cost — rather than to them being critical for the production process — substituted away completely. Overall, the economic costs of the Chinese rare earths embargo for the Japanese economy were relatively muted.

Figure 6:
Germany's imports of raw materials from China (in percent)



Source: Own presentation and simulation.

[6] https://scrreen.eu/crms-2023/

4.2 SHORT RUN BUSINESS CYCLE AMPLIFICATION

The Baqaee and Farhi (2021) model is a real model with no further business cycle amplification and therefore omits some of the channels through which a large trade shock may affect the economy. Such effects may be particularly relevant in the short run but relatively less so for the gradual decoupling scenario, therefore further strengthening our argument that a gradual decoupling has much lower economic costs.[7]

Given that the model omits such effects, the model-implied short-run GNE losses of around 5 percent are therefore likely an underestimate of the true effect. Analyses of such effects for the case of the energy crisis have shown that such effects can amplify the effects substantially, for example increasing GNE losses from around 2.3 percent to around 3 percent, i.e. by around 30 percent (Bayer, Kriwoluzky, and Seyrich 2022; Pieroni 2023). Applying a similar 30 percent amplification factor could increase the costs from 5 percent to 6.5 percent — a very substantial economic cost, but still not catastrophic.

4.3 FOREIGN DIRECT INVESTMENT

China and Germany are not only linked through trade, as in the past years companies from both countries have increasingly invested in the other economy. In 2019, German firms held FDI stock worth about 90 billion Euros, whereas Chinese-owned FDI stock in Germany stood at about 43 bn Euros.[8]

Table 4 breaks down these stocks by broad sectors. As in Tables 1 and 2, once taken into the bigger perspective of its share in the total economy, these seemingly large figures become quite small in terms of shares in GNE. E.g., the German car industry's share of China in its total sector FDI stock is almost a quarter. Taking into account the share of this sector's global FDI stock in total GNE (3.37 percent), German FDI from the automobile sector in China suddenly looses its overall economic significance, making up just 0.79 percent of GNE. Total FDI profits reaped by German companies in China stands at 0.44 percent (Bundesbank 2023).

[7] To be clear, our flexible-price model does include what many lay people would call "demand side effects", namely that increasing consumer prices of goods previously imported from China erode purchasing power and consumer welfare. But it omits the feedback from the drop in aggregate consumption to production and employment: rising prices of goods previously imported from China drag down consumer spending and this feeds back into production and employment which further drags down consumption, and so on.

[8] Data from (Jungbluth et al. 2023) and (Heritage Foundation & American Enterprise Institute 2022).

Table 4:
Share of China in German FDI stocks in GNE in 2019

Sector	Share of China in total sector FDI	Share of total sector FDI in GNE	Share in GNE
FDI Stock			
Chemical Products	9.44	2.88	0.27
Pharmaceutical Products	4.98	1.14	0.06
Electromedical Devices	7.94	0.99	0.08
Electrical Equipment	22.32	0.88	0.2
Mechanical Engineering	14.27	1.41	0.2
Automobile and Parts	23.5	3.37	0.79
Energy Supply	–	1.24	–
Motor Vehicles Maintenance	–	6.79	–
Information and Communication	0.6	2.62	0.02
Banking	2.12	2.21	0.05
Investment Companies	–	3.06	–
Insurance, Reinsurance, etc.	1.75	2.33	0.04
Other Financial Activities	2.83	0.43	0.01
Real Estate	1.14	1.69	0.02
Company Management	0.01	2.28	0
Other Services	1.52	0.92	0.01
Total	6.47	42.43	2.74

Source: Own calculations.

5 CONCLUSION

We examined the economic implications of a hypothetical “hard decoupling" of the German economy from China, in a scenario that entails a broader decoupling of a G7/Western bloc from China and her allies. Our findings show that the costs of such a decoupling scenario would be severe albeit not devastating. Particularly in a “cold turkey” situation where an immediate and total separation between Germany and other Western countries and China occurs suddenly, the potential economic contraction could be as severe as a reduction equivalent to 5 percent of Gross National Expenditure (GNE) in the first year alone. It is imperative, however, to recognize that these assumptions and scenarios represent the extreme end of the spectrum, likely constituting an upper bound for the potential economic fallout in less extreme scenarios. The analysis also shows that a gradual decoupling would entail the same long-run costs, without the more severe initial short-run contraction. A gradual de-risking spanning only a select number of sectors leads to lower long-run costs.

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IMPRESSUM

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Publisher:
Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges
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The Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges is an independent foundation under the public law of the German federal state of Schleswig-Holstein

Value Added Tax Id.-Number:
DE 251899169

Board of Directors:
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Responsible Supervisory Authority:
Ministry of Education, Science and Cultural Affairs of the Land Schleswig-Holstein

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