

IfM Background Paper

The impact of the war in Ukraine on Mittelstand companies

Friederike Welter, Hans-Jürgen Wolter, Christian Dienes

Current status: 5 May 2022

Imprint

Publisher

Institut für Mittelstandsforschung Bonn
Maximilianstr. 20, 53111 Bonn

Phone +49/(0)228 / 72997 - 0

Fax +49/(0)228 / 72997 - 34

www.ifm-bonn.org

Contact

Friederike Welter
Hans-Jürgen Wolter

Bonn, May 2022

The IfM Bonn is a foundation under private law

Supported by:



Federal Ministry
for Economic Affairs
and Climate Action

on the basis of a decision
by the German Bundestag

Ministerium für Wirtschaft, Innovation,
Digitalisierung und Energie
des Landes Nordrhein-Westfalen



Content

1	Introduction	1
2	Effects on Mittelstand companies	2
2.1	Direct effects	2
2.2	Indirect effects	3
3	Effects of an expanded scenario on Mittelstand companies	4
3.1	Direct effects	4
3.2	Indirect effects	5
4	Mittelstand policy amid the Russian-Ukrainian war	6
4.1	Entrepreneurial versus existential risk	6
4.2	Implications for Mittelstand policy	8
	Bibliography	10

1 Introduction

The Ukraine war, which has been ongoing since 24 February 2022, has not left Germany unscathed. The events affect its economic and social development on different levels. A direct economic consequence is the loss of goods delivered from Ukraine. This affects, for example, essential supply parts for the German automotive industry, iron, and steel. Socially, the distortions caused by the resulting flows of refugees within Europe should be mentioned.

Simultaneously with the beginning of the war, the West – especially the US and the EU – imposed many economic sanctions in response to the Russian attack. In particular, the (partial) exclusion of Russian banks from the international banking system SWIFT makes foreign trade between the EU and Russia, except for trade in natural gas and currently still oil, virtually impossible. This has led to sharply rising prices for energy resources and certain raw materials and, consequently, to sharply rising producer prices and disruptions in value chains. However, more severe effects are expected in the case of a – currently not present – loss of Russian gas supplies.

These developments also strongly affect Mittelstand companies. Around 3.2 million of all companies listed in the business register in 2019 were classified as Mittelstand companies, i.e., owner or family-run. This corresponds to a share of 90.3% (Fels/Wolter, 2022). This background paper attempts to contextualise the consequences of the Ukraine war on the Mittelstand economy. To derive the direct or indirect impact on Mittelstand companies, we differentiate between the effects of the current situation (basic scenario) and those of a possible escalation due to the complete loss of Russian energy supplies (extended scenario). The background paper concludes with a discussion of Mittelstand policy options.

2 Effects on Mittelstand companies

2.1 Direct effects

In the basic scenario, the **direct consequences for Mittelstand companies** are likely to **be manageable** owing to the comparatively low economic activity of Russia and Ukraine. Overall, there are only low interdependencies between the two countries; together, they account for only 2% of global GDP (OECD, 2022). According to foreign trade statistics (Destatis 2022c), German exports to Russia and Ukraine are low compared to trade with the US and China. For example, the value of exports to Russia in 2021 was just €26.6 billion and €5.4 billion to Ukraine, while Germany exported goods and services worth €122 billion to the US and €103 billion to China. Assuming that the export share attributable to Mittelstand enterprises corresponds approximately to the total export share of small and medium-sized enterprises of 21.6% (Destatis, 2019), their export turnover would be reduced by almost €7 billion if Ukraine and Russia were eliminated as sales markets.

Accordingly, most companies do not expect any significant setbacks due to the loss of Russia and Ukraine as markets (Bardt et al., 2022). However, there are sector-specific differences. For example, in the Mittelstand-oriented mechanical engineering sector, every fifth company has a substantial customer base in the countries involved in the war and Belarus (Gesamtmetall, 2022). Accordingly, a more significant loss of turnover ought to be expected there.

The direct links with the states involved in the conflict are low on the import side. The most likely affected sectors are the food industry, certain industrial suppliers – especially the metal and, to a comparatively lesser extent, the electrical industry (Gesamtmetall, 2022) – and energy suppliers (Sachverständigenrat, 2022). Except for the energy suppliers, Mittelstand enterprises are strongly represented in these sectors. 96.6% of all companies can be classified as Mittelstand in the electrical industry. The number is 97.1% in the food industry, and in metal processing, even 98.2% (Destatis 2022a). Above all, the search for alternative sources of supply often proves difficult (Ifo-Institute 2022). Only a tiny proportion of industrial companies (13.8%) can completely replace the shortfall. This is only partially possible for almost every second company, and it is not economically viable or not feasible for every third.

2.2 Indirect effects

There are also indirect effects on Mittelstand companies, which are likely to be much more severe. In the run-up to the war, there were already considerable energy price increases, which mainly affected energy-intensive companies in the manufacturing sector, such as the chemical industry, the metal-processing industry, and the glass and ceramics manufacturers. These sectors are often characterised by Mittelstand enterprises, except for the chemical industry. 98.2% (metal) and 98.0% (glass and ceramics) of the companies can be considered Mittelstand (Destatis 2022a). In addition, companies in other sectors of the economy are also affected by higher prices, which would have a massive impact on the Mittelstand economy.

Some of the companies directly affected by the lack of intermediate products, either as manufacturers or as consumers, are also important for many other Mittelstand economic sectors because they manufacture intermediate products. For example, the chemical industry produces numerous basic materials relevant to large parts of the Mittelstand economy. If these products are no longer available or are only available at significantly higher prices, many Mittelstand industries, such as the pharmaceutical industry, the rubber and plastics industry, the textile and clothing industry, or even the production of building materials, will be affected (Gehrke/Weilage, 2018). This, in turn, impacts numerous Mittelstand enterprises, for example, in the electrical industry and construction.

Reverse effects along the value chains are also possible. For example, Ukraine is essential to the production of cable harnesses for the German automotive industry. The war in Ukraine is currently slowing down vehicle production (BMWK, 2022). This reduces the demand for products from upstream Mittelstand suppliers from the vehicle manufacturing industry and, for example, the electrical industry, metal processing, or mechanical engineering.

All of these impacts primarily affect companies in the manufacturing and production sectors.

Further indirect effects are likely to occur due to a decline in demand from private households. These are under stress due to increased living costs; in particular, the sharp rise in energy prices. The price elasticity of household demand for fossil fuels will be low in short to medium term. This means that households will have to allocate a larger share of their budgets to cover their energy costs.

Accordingly, they can consume less in other areas. This, in turn, will affect Mittelstand companies in the trade, gastronomy and tourism sectors.

In addition, the sharp rise in living costs can lead to further burdens for Mittelstand companies. Although in the current collective bargaining round, the IG BCE trade union agreed to a transitional collective agreement (to be able to manage further developments - negotiations on a permanent agreement are only to be held in the autumn), if inflation continues to be high, they will have to agree on collective agreements above the inflation rate for their members. This could set in motion a wage-price spiral, which experience has shown is then difficult to stop again. Such a spiral would then lead to additional costs, especially for Mittelstand companies with labour-intensive production.

3 Effects of an expanded scenario on Mittelstand companies

The consequences would be much more severe if there is a complete loss of the Russian raw materials that are needed for energy production (especially natural gas). Germany would be severely affected, especially in the case of a loss of natural gas supplies. Substituting Russian natural gas from other sources is impossible in the short to medium term, if only for technical reasons (Sachverständigenrat, 2022). Due to the relatively low price elasticity of demand for gas – at least in the short term, rationing via a higher price is also only possible to a limited extent (Sachverständigenrat, 2022). Therefore, the physical shortage of gas is to be expected. In this case, the "Gas Emergency Plan" drawn up in 2019 prioritises households and critical infrastructures (e.g., medical facilities). The delivery quantities to the companies would be adjusted depending on their importance in providing critical goods.

3.1 Direct effects

If an official decision dictates that companies are only supplied with natural gas to a limited extent or not at all, it would amount to an – at least partial – production shutdown for the rationed companies. Companies in energy-intensive sectors such as the chemical industry, which needs natural gas as a raw material, would be directly affected. While large companies are characteristic for the chemical industry, there are also several Mittelstand companies in this sector. Even in the chemical industry, only one in ten companies is a large enterprise (Destatis, 2022a). Other energy-intensive sectors such as metal processing or glass and ceramics manufacturing are characterised by a Mittelstand oriented structure anyway.

Policy makers are currently discussing a natural gas auction as an alternative to rationing (cf. Wambach et al. 2022). From an economic point of view, this would have the advantage that a central authority would not decide. Instead, the companies' willingness to pay would express how urgent the allocation of the available natural gas quantities is. However, due to their mostly limited resources, there is a risk that Mittelstand enterprises would have lower chances than large companies and corporations.

3.2 Indirect effects

If fossil fuels from Russia are no longer accessible, this will lead to a further significant energy price increase. The indirect consequences already described in chapter 2.2 – significantly higher production costs, initially in the energy-intensive sectors, and subsequently also in other sectors via higher intermediate product prices and declining consumer demand – would become even more relevant and put considerable pressure on Mittelstand companies.

In addition, if energy-intensive companies must limit or even stop their production because natural gas is no longer available, this will have a massive impact on companies that are not directly affected but that produce upstream or downstream products and services. In particular, production shutdowns in the chemical industry would have severe consequences for Mittelstand enterprises in many sectors because of their overriding importance in producing primary products.

A further increase in inflation due to the loss of Russian energy will affect all sectors. In particular, if the sharp rise in (energy) prices becomes entrenched, it should be expected that employees will demand higher wages. This, in turn, will lead to rising production costs for companies. Since Mittelstand enterprises tend to produce their services and products more labour-intensively than large enterprises, they would be more affected.

A diverse and complex set of mechanisms must be considered in the event of the complete elimination of Russian energy sources. It is difficult to conclude with certainty whether Mittelstand enterprises would be particularly affected. An estimate of the consequences at the regional level created by IW Halle (Holtemöller et al. 2022) provides some insights. According to IW Halle, the cities of Ingolstadt, Wolfsburg, Ludwigshafen, and Salzgitter are particularly affected as large companies shape their economies. This indicates that large companies would be more affected by such a development than Mittelstand

companies. However, many regions where numerous family businesses in the manufacturing sector are located are less affected. Irrespective of this, it is reasonable to suggest that the indirect effects of a complete halt to Russian energy imports would be serious for Mittelstand companies.

4 Mittelstand policy amid the Russian-Ukrainian war

In the course of the Ukraine war and the question how the (Western) community of states should react to Russian aggression, several support programmes have already been set up for (particularly) affected companies. On 8 April, the German government decided on protective measures for companies particularly affected by the consequences of the Ukraine war and the high energy prices (BMWK 2022). In addition to a temporary cost subsidy programme with a volume of five billion euros to dampen the rise in energy prices, the programme provides a KfW loan to secure the short-term liquidity of affected companies. A maximum amount of seven billion euros is available. Furthermore, it is intended to grant companies KfW credit lines guaranteed by the Federal Government totalling up to €100 billion.

4.1 Entrepreneurial versus existential risk

The IfM Bonn views the appropriateness of state support programmes in a differentiated manner. It considers the decisive factor whether the consequences of the adverse development are a **business risk** or an exceptional situation – caused externally – that **threatens the business's existence** (Welter et al., 2021).

The risk associated with entrepreneurial activity is generally compensated for by the associated opportunities and does not require any additional state intervention. In this specific case, it was already apparent with the war in Georgia in 2008. Even more, since the Crimea annexation in 2014, an entrepreneurial engagement in Russia has been associated with an increased risk. Entrepreneurs who have taken up this risk, for example because of particularly profitable orders, are also responsible for the negative consequences of their activity. There is thus no need for action for Mittelstand policy.

In principle, fluctuating energy prices are also the original responsibility of companies. In addition, companies must be prepared for the fact that the increased political focus on climate protection has and will affect energy prices, just as they are under a strict obligation to find more climate-friendly energy sources. Prices

for natural gas, have been significantly lower in recent years than immediately before the economic and financial crisis of 2008/09 (Destatis, 2022b), even though energy prices were already under pressure last year (BDI, 2022).

However, it may be questioned whether the current price development can still be classified as average entrepreneurial risk. As an exogenous shock, the war has led to a very strong short-term increase in energy prices. For example, import prices for natural gas roughly quadrupled from the beginning of 2021 to March 2022 (Destatis, 2022b). During this time, no company could build up significant alternatives in the short term (Sachverständigenrat, 2022). This is in clear contrast to ecologically driven energy price increases, which should take place over the long term and be communicated at an early stage to give companies incentives to develop and implement substitution options. Therefore, one can at least speak of a crisis-related and thus significantly increased entrepreneurial risk.

The loss of primary products and the associated effects on supply chains must also be considered in an equally differentiated manner. Therefore, every company should be aware of this problem since the Covid19 pandemic and the blockage of the Suez Canal in 2021 by the *Ever Given* container ship. Consequently, the original strategic task of the companies is to anticipate the aspects mentioned above and take precautions to cushion possible effects. Therefore, the problems arising from the extensive outsourcing of the production of cable harnesses to the US would be regarded as a business risk. However, this is not necessarily the case anymore if primary products such as certain metals, even globally, come primarily from the current crisis areas. In this case, the entrepreneurial risk is significantly increased due to the crisis and can threaten the company's existence.

The threshold to the existence-threatening risk is exceeded at the latest when there are physical shortages because of acts of war or political decisions and Mittelstand companies are excluded from the supply of energy or raw materials due to necessary rationing. For example, if they no longer receive natural gas, even if they were willing and able to pay scarcity prices, and they have to significantly reduce or even stop their production due to a short-term lack of substitution options

4.2 Implications for Mittelstand policy

We derive the following implications for Mittelstand policy. In general, government support programmes should be initiated with a sense of proportion. Losses in the course of normal entrepreneurial risk do not justify any acute support programmes, even if the Covid-19 pandemic has already put an excessive burden on some companies or economic sectors.

The situation is somewhat more difficult in the case of sharply increased corporate risks due to the crisis. Mittelstand companies can usually help themselves by implementing appropriate strategic measures (Welter/Schlepphorst 2020). Consequently, there is generally no need for government assistance. In the present case, however, many fundamentally healthy companies, despite the pandemic, are affected by the rapid, short-term rise in energy prices, and the lack of alternatives to cover the shortfalls. Here government measures could be justified since otherwise the diversity and the economic and social relevance Mittelstand companies could be impaired. In this case, holistic regulatory measures are preferable. Selective measures always risk distorting the market and possibly forcing unsupported enterprises out of the market. In this context, identifying the target group of a selective measure is challenging and ultimately inevitably afflicted by a certain arbitrariness (Welter et al., 2021). From this point of view, it is critical to grant a cost subsidy to companies particularly affected by the rise in energy prices.

In principle, a temporary reduction in government price surcharges on energy could be worth considering. This way, all companies would be relieved according to how much they are affected. Ecologically negative consequences are not to be expected, since energy prices would still be well above the level of previous years even after a relief. For the ecological steering effect, it is irrelevant whether high energy prices come due to additional taxes, increased costs (due to emission certificates to be acquired) or rising import prices. There would be massive incentives for companies (and private households) to reduce their energy consumption, especially fossil fuels. However, such a general relief of energy consumption would burden the state budget much more than the selective support of certain companies. Therefore, such relief would have to be time-limited and immediately withdrawn, especially in the case of falling import prices for fossil fuels.

State support measures are justified in the case of risks that threaten the very existence of a company. If, for example, companies can no longer access

natural gas that they urgently need for production because of a politically imposed import embargo and therefore have to stop their production, this increases the probability of an existential threat to the company. In addition, Mittelstand entrepreneurs in particular are emotionally burdened beyond the purely economic damage in such a case (cf. Welter/Wolter 2021): they not only see their life's work at risk, they also feel it obliged to keep jobs, as has been shown in the course of the Covid-19 pandemic.

Especially if this conflict lasts for an extended period, a permanent averting of this risk may exceed the possibilities of a Mittelstand enterprise. Political intervention can be useful and necessary here. Compared to the Covid-19 pandemic, manufacturing companies are currently more likely to be affected. This is advantageous because these tend to have a more stable capital base¹ than for example restaurateurs or cultural worker, who were particularly affected by the consequences of the pandemic. Another advantage of a direct comparison is that currently, at least in the medium to long term, substitution options can be developed. Ideally, the sharp rise in prices for energies from fossil fuels could lead to a forced switch to renewable energies (cf. Jungbluth/Petersen 2022) and thus ultimately support the conversion of our economic system towards a social-ecological market economy.

¹ The Deutsche Bundesbank (2021) already shows an above-average equity ratio of 32.3% for companies in the manufacturing sector for 2019 – i.e. even before the Covid-19 pandemic.

Bibliography

Bardt H.; Grömling M.; Schmitz E. (2022): Russlands Krieg in der Ukraine belastet deutsche Unternehmen. IW-Kurzbericht Nr. 19, Köln.

BDI (2022): Energiekosten im industriellen Mittelstand – BDI-Umfrage im Februar 2022. Berlin.

BMWK (2022): Lieferketten unter Druck in: Schlaglichter der Wirtschaftspolitik Mai 2022.

Deutsche Bundesbank (2021): Jahresabschlussstatistik (Hochgerechnete Angaben) Dezember 2021, Statistische Fachreihe, Frankfurt/Main.

Destatis (2019): Sonderauswertung der Umsatzsteuerstatistik (Vorankündigungen) 2019 im Auftrag des IfM Bonn, Wiesbaden.

Destatis (2022a): Produzierendes Gewerbe – Beschäftigte, Umsatz, Investitionen des Verarbeitenden Gewerbes sowie des Bergbaus und der Gewinnung von Steinen und Erden, Fachserie 4, Reihe 4.2.1, Wiesbaden.

Destatis (2022b): Preise – Daten zur Energiepreisentwicklung. Lange Reihen von Januar 2005 bis März 2022, Wiesbaden.

Fels, M.; Wolter, H.-J. (2022): Die volkswirtschaftliche Bedeutung von Familien- und Frauenunternehmen; IfM Bonn Daten und Fakten Nr. 28; Bonn.

Gesamtmetall (2022): Umfrage zu Auswirkungen von Krieg und Sanktionen: M+E-Industrie befürchtet dauerhafte Belastungen, Berlin.

Gehrke, B.; Weilage, I. (2018): Branchenanalyse Chemieindustrie – Der Chemiestandort Deutschland im Spannungsfeld globaler Verschiebungen von Nachfragestrukturen und Wertschöpfungsketten, Hans-Böckler-Stiftung Study Nr. 395, Düsseldorf.

Wambach, A.; Ockenfels, A.I.; Cramton, P. (2022): Versteigern statt zuweisen – Wenn Gas in Deutschland rationiert werden muss, sollte der Staat Auktionsmechanismen nutzen, in: Handelsblatt 3. Mai 2022, Nr. 85, S. 48.

Holtemöller, O.; Lindner, A.; Schult, C. (2022): Regionale Effekte einer durch einen Lieferstopp für russisches Gas ausgelösten Rezession in Deutschland, in: IWH Policy Notes, 1/2022, Halle/Saale.

Ifo-Institut (2022): Deutsche Industrie und Großhandel können Bezugsquellen für Güter aus Russland und der Ukraine nur schwer ersetzen, Pressemitteilung vom 3. Mai 2022, München.

Jungbluth C.; Petersen T. (2022): Fünf Thesen, wie der Ukrainekrieg die Weltwirtschaft dauerhaft verändern kann, in: Ökonomenstimme, 12. April 2022.

OECD (2022): Economic and Social Impacts and Policy Implications of the War in Ukraine, OECD Economic Outlook, Interim Report, OECD Publishing, Paris.

Sachverständigenrat (2022): Auswirkungen eines möglichen Wegfalls russischer Rohstofflieferungen auf Energiesicherheit und Wirtschaftsleistung, Auszug aus der aktualisierten Konjunkturprognose 2022 und 2023, Wiesbaden.

Welter, F.; Schlepphorst, S. (2020): Der gesellschaftliche Beitrag des Mittelstands: Konzeptionelle Überlegungen, IfM Bonn: IfM-Materialien Nr. 283, Bonn.

Welter, F.; Wolter, H.-J. (2021): Perspektiven für den Mittelstand in der Covid 19-Pandemie. Teil 2: Herausforderungen für den Mittelstand, IfM Bonn: IfM-Hintergrundpapier, Bonn.

Welter, F.; Wolter, H.-J.; Holz, M. (2021): Mittelstandspolitik während und nach der Covid 19-Pandemie, IfM Bonn: IfM-Hintergrundpapier, Bonn.