EFIGE country report: Germany

How did exporting firms cope with the crisis?

Katja Neugebauer and Julia Spies

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COUNTRY REPORT GERMANY

How did exporting firms cope with the crisis?

By Katja Neugebauer and Julia Spies (IAW Tübingen)[1]

Main policy questions and policy implications

The export industry has traditionally been the growth engine of the German economy. Relative to GDP, Germany is the largest exporter in the world. In absolute terms, it is second only to China. Shortly after the outbreak of the financial crisis in 2007, exports plummeted worldwide. Due to its high export share, Germany was severely affected by the turmoil on world markets. One group that plays a special role among German exporters is the *Mittelstand*, the small- and medium-sized firms that make up 40 percent of all manufactured exports. On 19 February, 2009, *The Economist* published an article titled 'A thousand cries of pain', which claimed that the *Mittelstand* was being hit the hardest by the decline in exports.

Some two years later, it seems that the German economy is back to normal. Exports are soaring, and unemployment has declined to levels not known since the beginning of the 1990s. On 3 February, 2011, *The Economist* talked of 'Vorsprung durch exports' and 'a machine running smoothly' when referring to the German economy. But how did this turnaround happen? Was the effect of the crisis on German exporters not so big after all? Or did Germany apply the right remedies for coping with the effects of the crisis?

This report aims to give some answers to these questions. Using a unique dataset for 3,000 German firms, it analyses the effects of the crisis, especially on German exporters. It goes on to identify the factors that most hampered German exporters. Finally, it looks at the means employed by firms to cope with the effects of the crisis.

The main policy implication of this report is that the implemented measures of the German government to dampen the effects of the crisis worked well overall, but have failed to reach some types of firms. Exporters that were strongly affected by the crisis, for example, faced severe problems in obtaining credit. Politicians need to think about how to design policy instruments in order to make them accessible to a wide range of firms in the event of a crisis.

[1] Special thanks go to Simone Schotte and Christoph Schröder, who provided most valuable research assistance.

Executive summary

Relative to GDP, Germany is the world's largest exporter and is second only to China in absolute terms. As a consequence, the German economy was particularly affected by the turmoil on world markets in the aftermath of the global financial crisis and the associated downturn in world demand. The *Mittelstand*, small- and medium-sized firms that form the backbone of Germany's manufacturing export sector, was hardest hit by the downturn in exports. But just two years later, the German economy is back on track with exports on the rise and low unemployment, but the reasons for this astonishing turnaround are still to be explored. Drawing upon a unique dataset covering 3,000 German firms, this study seeks to analyse the differential effects of the crisis on different classes of firms to identify the factors that hampered German exports most, and to explore the means employed by firms in order to cope with the crisis.

The analysis shows that there were significant performance differences among firms. While discrimination with respect to export destinations yields only rather small differences in terms of the probability and magnitude of drops in exports, there is evidence indicating contagion effects in the sense that firms active in several export markets were likely to experience more severe drops in exports. Foreign-owned firms were almost as likely to face declines in exports as their domestically-owned counterparts, yet the magnitude of the effects tended to be more moderate. In general, exporters were more likely to face drops in turnover. These drops tended to be larger in magnitude, and the effects are shown to increase with the share of exports in total sales. The analysis furthermore confirms the notion that the *Mittelstand* was hit particularly hard as the shares of firms confronted with turnover declines was largest among small- and medium-sized firms. In addition to the drop in turnover, firms also faced declining profit margins, especially so in the case of exporters.

Among the factors that impaired German exports were financial constraints and a lack of demand. Financial constraints are shown to have been most severe for medium-sized firms in general and for exporters, in particular, which were less successful in their quest for credit and had to incur higher debt cost than non-exporters.

In response to these challenges, German firms in general and exporters in particular reacted primarily by cutting costs in the form of postponed investments and a net reduction in personnel. The percentage reduction in personnel tended to increase with firm size, with exporters leading the way across the board and the differences between exporters and non-exporters becoming more accentuated for smaller firms. Moreover, the prominent short-term work scheme of *Kurzarbeit* has been employed more commonly by exporting firms. A second, widely-used type of adjustment has been a reform of the organisational structure. In the subgroups of very small and very large firms, the share of exporters opting for a change in the decision management scheme was significantly larger than for non-exporters with an overall tendency towards more centralisation. Furthermore, exporters belonging to a group or being foreign-owned have been affected more often by organisational changes and have shown a stronger tendency towards centralisation.

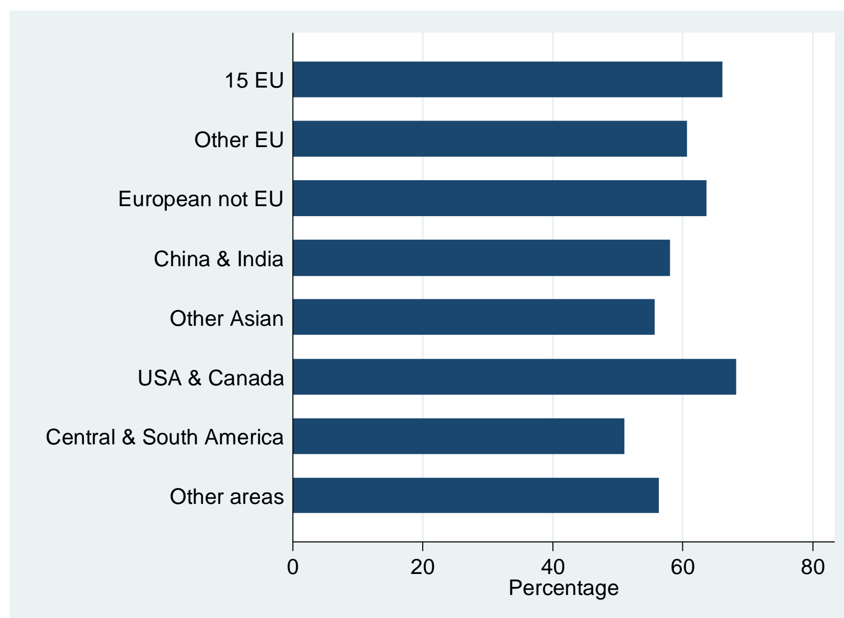
Overall, the analysis shows that exporters in general and the *Mittelstand* in particular have been hit disproportionately hard by the crisis. German government measures seem to have worked well overall but have failed to reach small' and medium-sized exporting firms, which have reacted by above-average cost cutting and reorganisation relative to their non-exporting counterparts.

1. Which German firms were affected by the crisis?

With an average export reduction of 28 percent[2] in 2009, there is no doubt that German exporters were severely hit by the crisis. Furthermore, there were substantial differences in the performance of firms during the crisis. A closer look at the data is necessary to shed light onto the question of which firms were most affected by the recent crisis. Were there differences across firms serving different export markets? How vulnerable were exporting firms compared with non-exporting ones? Was it indeed the *Mittelstand* that took the largest hit?

Let us start by first looking at the differences in export drops according to export destinations. Figure 1 presents the share of firms that experienced a reduction in exports in 2009, sorted by export markets. As can be seen, the share of firms experiencing a drop shows only moderate differences across different export destinations. The export market with the largest share of firms experiencing a drop is that of the US and Canada. Given that the US was among the countries that were hit the hardest during the crisis, experiencing a substantial decline in wealth and consumption, this finding is not surprising. However, EU 15 countries and other European countries that do not belong to the EU follow closely. The smallest share of firms that experienced a decline in their exports was the group exporting to Central and South America.[3]

Figure 1: Share of firms experiencing a drop in exports according to export region (2008-2009)



Taking a closer look at the differences in the extent of export decline across different export destinations, we can see that these are relatively muted (see Table 1). Across all export markets, most firms experienced an export drop in the range of 10 percent to 30 percent. Looking at the largest drop category, indicating a fall in exports of more than 30 percent, we see that almost 30 percent of firms reported a drop and markets in China and India were affected. By contrast, firms serving EU 15 markets were more likely to experience a moderate drop below 10 percent than firms serving any other world market.

[2] This figure is taken from the EFIGE survey. The German federal statistical office reports for the same time period (2008-2009) a reduction of German exports of 18.4 percent (Statistisches Bundesamt 2010: Ausfuhr im Jahr 2009 insgesamt um 18,4% niedriger als 2008. Press release no. 045). A closer look at the data used in this report reveals that small export reductions may have been considered by small firms to be negligible and have therefore not been reported in the EFIGE survey. This might have caused an upward bias in the average export loss reported. For example, out of 568 firms reporting an export drop to EU 15 markets, only 52 firms state that this drop was below 10 percent.

[3] Compare also IW (2010): Tausche Tortillas gegen Technik.

Table 1: Share of firms experiencing a drop in exports according to export region (2008-2009)

	Share of firms with drop		Drop in exports		
			Less than 10 percent	10 percent-30 percent	More than 30 percent
15 EU	66.01%	*out of*	8.71%	67.78%	23.51%
Other EU	60.63%	*which*	6.05%	71.02%	22.94%
European not EU	63.63%	…	7.09%	68.60%	24.31%
China & India	58.02%		6.70%	64.12%	29.17%
Other Asian	55.75%		7.58%	66.62%	25.80%
USA & Canada	68.14%		7.83%	68.22%	23.95%
Central & South America	51.02%		8.32%	64.51%	27.18%
Other areas	56.30%		6.05%	71.55%	22.40%

Out of all firms exporting to the EU 15, 66.01 percent experienced an export drop.

As Table 1 indicates, the degree to which exporters were hit by the global economic downturn differs across export markets. Since demand collapsed to different extents and at different times across world markets, firms serving multiple markets may have been able to temporarily outweigh losses and therefore report a lower export reduction on average. Alternatively, contagion effects may have led to accelerating losses for firms that are present in several export markets. Figure 2 supports the second hypothesis and shows that a larger share of exporters serving multiple markets was hit by a sharp export reduction of more than 30 percent.

Figure 2: Share of firms experiencing a drop in exports according to number of export markets (2008-2009)

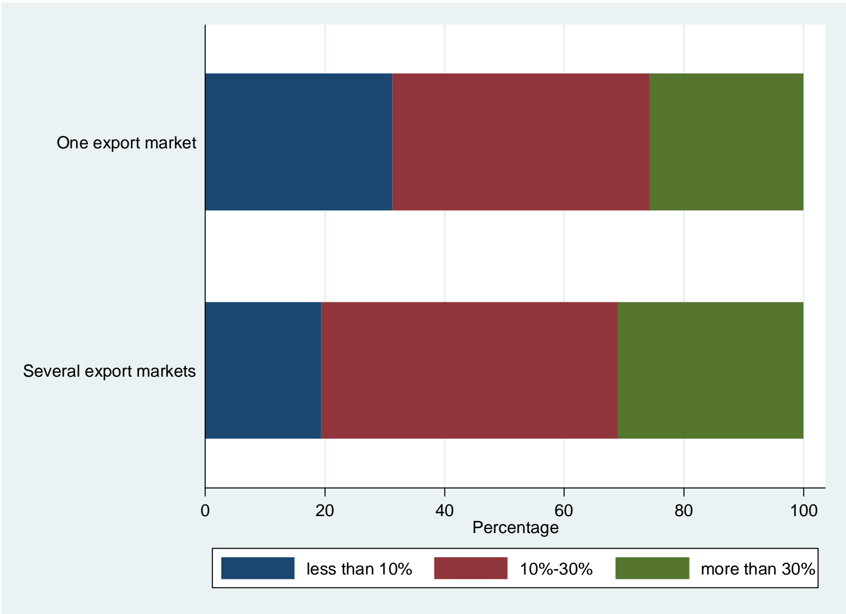


Table 2: Share of firms experiencing a drop in exports according to ownership status (2008-2009)

	Share of firms with drop		Drop in exports		
			Less than 10 percent	10 percent-30 percent	More than 30 percent
foreign capital	41.61%	*out of*	7.94%	72.93%	19.13%
no foreign capital	43.27%	*which...*	8.48%	64.83%	26.69%

Out of all foreign-owned exporters, 41.61 percent reported a reduction in export value.

Another interesting question is whether foreign-owned exporters[4] in Germany were affected differently by the crisis. Foreign-owned firms may benefit from a higher international recognition of their brand and, hence, be less vulnerable to demand shocks. Table 2 shows, however, that the share of firms that experienced a reduction in export values is similar among foreign-owned and non-foreign-owned firms. When looking at the extent of the export drop, there are some slight differences. Whereas out of all firms that faced falling exports (more than 90 percent of firms experienced a reduction in their export value of more than 10 percent in both categories), a large decrease of more than 30 percent was experienced by over a quarter of domestically-owned firms and less than 20 percent of foreign-owned firms. Hence, while being foreign-owned did not generally shield firms from the effects of the crisis, it might have dampened the degree of its impact.

The above-described loss in exports may be reflected in a general fall in turnover. To analyse whether the crisis particularly affected exporters, we now compare them to firms that operate only domestically .

Table 3: Share of firms experiencing a turnover reduction according to export status (2008-2009)

	Share of firms with drop		Drop in turnover		
			Less than 10 percent	10 percent-30 percent	More than 30 percent
exporter	67.70%	*out of*	31.98%	44.39%	23.64%
non-exporter	50.76%	*which...*	48.91%	34.68%	16.41%

Out of all exporters, 67.70 percent reported a turnover drop.

Table 3 confirms this presumption. It shows that in 2009 more exporting firms (68 percent) were affected by a reduction in turnover than non-exporting firms (51 percent). Furthermore, while the reduction in turnover was less than 10 percent for about half of the non-exporting firms that reported a reduction, this is only true for 32 percent of the exporting firms. Almost a quarter of exporting firms that experienced a drop in turnover did experience a sharp drop of more than 30 percent. This is consistent with the notion that exporting firms were hit the hardest in Germany.

If exporters were hit by the crisis, does it follow that the largest exporters were hit hardest? The size of an exporter can be measured along several dimensions. First, an exporter can be considered as being 'large' if exports make up a big part of its total sales. Second, an exporter can be considered large if it exports to many different world markets.

[4] The threshold for being classified as foreign-owned is a foreign capital share of more than 10 percent.

Table 4: Share of exporters experiencing a turnover reduction according to export share (2008-2009)

	Share of firms with drop		Drop in turnover		
			less than 10 percent	10 percent-30 percent	more than 30 percent
1% - 9%	60.42%	*out of*	38.12%	38.26%	23.62%
10% - 49%	69.62%	*which*	33.98%	43.54%	22.49%
more than 50%	71.46%	...	26.21%	51.42%	22.37%

Read like this: Out of all exporters with an export share in total sales of less than 10 percent, 60.42 percent reported a turnover drop.

With respect to the first definition, Table 4 compares the extent of the reduction in turnover for different shares of exports in total sales. It can be seen that the larger the export share of the firms, the more likely it was to experience a reduction in turnover. While about 60 percent of exporting firms with an export share of less than 10 percent experienced a turnover reduction, 71 percent of firms with export shares of more than 50 percent were affected (see also Figure 3). Furthermore, the extent of the reduction was more pronounced the larger the export share. As overall exports declined sharply during the crisis, this result is not surprising.

Figure 3: Share of exporters experiencing a turnover reduction according to export share (2008-2009)

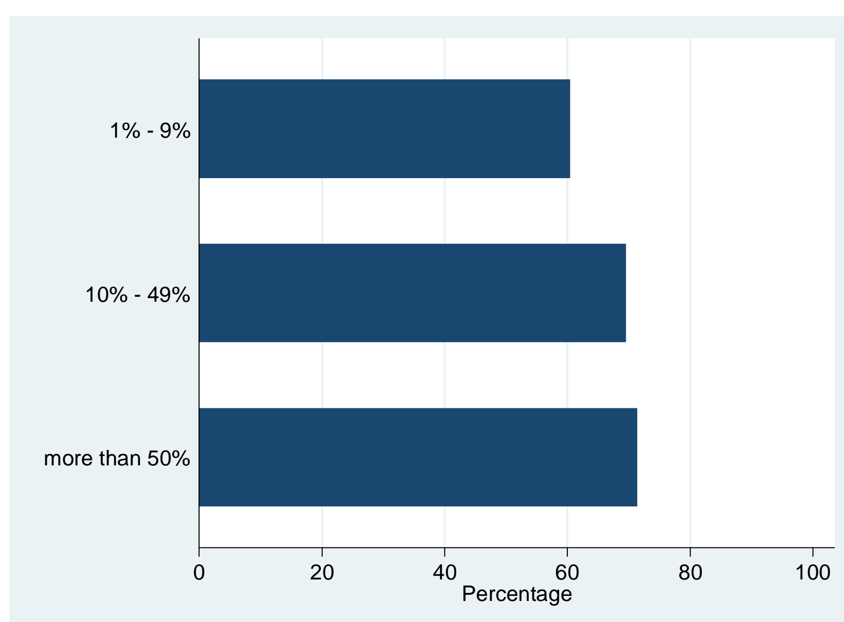


Table 5: Share of exporters experiencing a turnover reduction according to number of export markets (2008-2009)

	Share of firms with drop		Drop in turnover		
			Less than 10 percent	10 percent-30 percent	More than 30 percent
1 - 9	64.25%	*out of*	37.41%	37.88%	24.71%
10 - 49	72.20%	*which*	26.90%	51.28%	21.82%
more than 50	70.25%	...	35.36%	53.89%	10.75%

Read like this: Out of all exporters with less than ten export markets, 64.25 percent reported a turnover drop.

With respect to the second definition, ie the number of export markets served by each firm, the picture is not that clear cut. While the share of firms serving less than 10 export markets and reporting a turnover reduction is slightly lower than the share of firms with more export markets, the scope of the drop is distributed unevenly. Internationally diversified firms (with more than nine export markets) experienced a drop of less

than 10 percent and more than 30 percent less often than firms with few export markets. At the same time, these internationally diversified firms were confronted with an intermediate drop in turnover in more than half of all cases, whereas this share is much lower for exporters serving one to nine export markets (37 percent). This result partly confirms our presumption of contagious effects across export markets. There is, however, also some evidence that very high diversification (with more than 50 export markets) allowed the true global players to cushion the shocks.

Table 6: Share of firms experiencing a turnover reduction according to exporter and ownership status (2008-2009)

	Exporter	Non-Exporter
Foreign capital	62.92%	59.41%
No foreign capital	68.04%	50.08%
On average	67.70%	50.76%

Read like this: Out of all foreign-owned exporters, 62.92 percent reported a turnover drop.

As before, we can look at the effect that foreign ownership has had on the results obtained so far. As mentioned, exporting firms were more affected by the crisis than non-exporting firms. In line with our previous observation that foreign-owned exporters suffered only rather moderate drops in their export sales, Table 6 reports that fewer foreign-owned than domestically-owned exporters experienced a drop in turnover. Interestingly, the reverse is true for non-exporters, indicating that the international reputation of a firm matters only for firms serving international markets.

Now, was it indeed the *Mittelstand* that were hit the hardest? Table 7 answers this question in the affirmative. The share of firms that experienced a drop in turnover is highest for small- and medium-sized firms. This result is true for exporting as well as non-exporting firms, though it is more pronounced for the non-exporting ones.

Table 7: Share of firms experiencing a turnover reduction according to exporter status and size class (2008-2009)

	Exporter	Non-Exporter
10 - 19 employees	68.07%	48.39%
20 - 49 employees	67.24%	51.48%
50 - 249 employees	70.17%	58.52%
250 employees and more	59.84%	39.32%
On average	67.70%	50.76%

Out of all exporters with fewer than 20 employees, 68.07 percent reported turnover drop.

What made the crisis particularly harmful to firms was not only the reduction in turnover, but a decline in profit margins. Competing for lower demand, firms had to waive high margins and thus reduced their profits. About 43 percent of the firms in the EFIGE survey reported that their margins decreased during the crisis, whereas 11.5 percent reported an increase. Again, results differ when comparing exporters to non-exporters. While 46 percent of exporting firms reported a slump in the margin they could charge, the same is true for only 38 percent of non-exporting firms. However, there is also a larger share of exporters that reported increased margins. Overall, Table 8 shows that exporters operate in a much more uncertain environment, as only about 40 percent of them stated that their margins remained constant (compared with 53 percent of non-exporters).

Table 8: Share of firms experiencing a change in profit margin according to exporter status (2008-2009)

	Profit margin has:	
	Increased	Decreased
Exporter	13.55%	45.72%
Non-exporter	8.53%	38.06%
On average	11.48%	42.57%

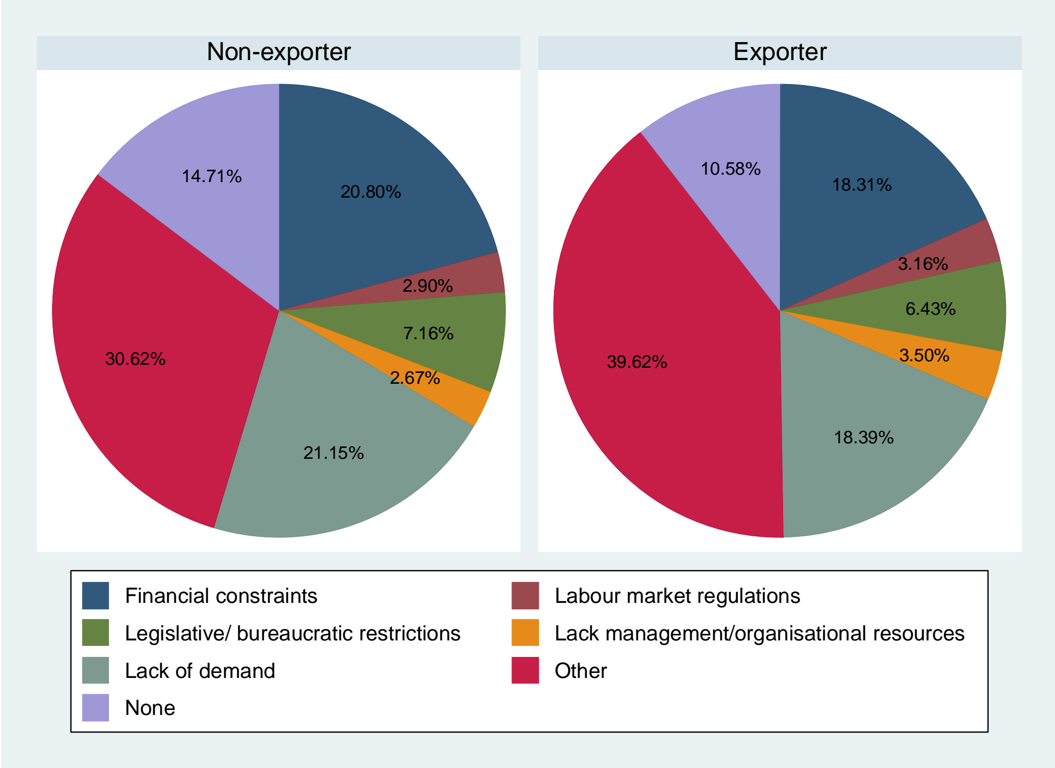
Read like this: Out of all exporters, 13.55 percent reported an increase in their profit margin.

2. What were the main factors impairing German exports?

We now take a closer look at the factors that hampered German firms during the crisis. In the EFIGE survey, firms were asked what factors impacted the most on their growth. Figure 4 gives the results. Among the factors explicitly named, financial constraints and lack of demand were the main reasons for reduced growth. Interestingly, a lack of demand was more important for non-exporters than for exporters. However, this might be because German consumers tend to save a larger share of their income than most other European consumers do. Furthermore, the increase in value added tax in Germany in 2007 might have aggravated this problem still further. In addition, firms named legislative and bureaucratic restrictions as another factor that hampered their growth. However, this factor is probably not restricted to the crisis years, but a general problem of the German economy. In a survey among providers of services, conducted by the IAW in 2010[5], legislative and bureaucratic restrictions were among the factors most often named when asked what should be changed in the German economy. Finally, labour market regulations and a lack of management were only minor factors preventing growth, according to the firms asked. Whereas labour markets in Germany were still very rigid about 10 years ago, this has changed considerably over the intervening years. In part, this is attributable to the so-called *Hartz IV* reforms, which were effected during the Schröder administration. Furthermore, the German government put in force some special short-term work programmes, the *Kurzarbeitergeld*, that helped to keep workers in their firms, while reducing their number of working hours. Firms were then partly compensated by the government.

[5] Krumm *et al* (2010) 'Der Dienstleistungssektor in der Region Stuttgart – Bedeutung und Perspektiven wissensintensiver Servicebranchen', IHK Region Stuttgart.

Figure 4: Main factors preventing growth of firms according to exporter status



Financing constraints were among the most important factors named by the participants of the EFIGE survey, and it is therefore worth examining them in more detail. Indeed, taking a closer look at financing constraints, some interesting results emerge. Table 9 shows whether firms had problems getting credit in 2009. First, we can see that on average, a larger share of exporters applied for credit. Whereas only about half of all non-exporters applied for credit, this figure rises to almost 70 percent for exporters. However, the rate of successful applications is about 6.5 percent lower for exporters. This is in line with the observation that the share of exporters which experienced an increase in debt costs was also larger than the respective share of non-exporters. As exporters had more problems in gaining access to credit than non-exporters, they probably had to resort to more expensive alternatives in order to finance their export activities.

Table 9: Share of firms experiencing changes in credit conditions according to exporter status (2008-2009)

	Exporter	Non-exporter	On average
Share of firms that applied for credit	68.26%	52.76%	63.59%
...out of which successfully	*80.17%*	*86.68%*	*81.79%*
Share of firms that experienced an increase in debt cost	41.76%	32.66%	38.84%

Out of all exporters, 68.26 percent applied for a credit.

A closer look at the data reveals that firms with intermediate shares of export sales were hit the hardest. While only about 20 percent of firms whose exports made up less than 10 percent of their sales and 25 percent of firms with export shares of more than 50 percent experienced an increase in debt costs in 2009, this figure was much larger for firms with an export share of 10 percent to 49 percent (55 percent).

Table 10 confirms the notion that medium-sized firms were more credit-constrained than small or large firms. Even though they did not necessarily apply for more credit, they were less successful when they did so. Non-

exporting medium-sized firms also accepted less favourable credit conditions more often than their small or large counterparts (Table 11).

Table 10: Share of firms applying for a credit according to exporter status and size class (2008-2009)

	Exporter	Non-Exporter
Size class: 10-19	68.11%	51.00%
Size class: 20-49	68.08%	49.20%
Size class: 50-249	69.06%	67.56%
Size class: >249	65.79%	72.46%
... out of which successfully		
Size class: 10-19	89.71%	94.82%
Size class: 20-49	76.41%	80.73%
Size class: 50-249	78.42%	85.72%
Size class: >249	87.35%	100.00%[6]

Out of all exporters with fewer than 20 employees, 68.11 percent applied for credit.

Table 11: Share of firms experiencing an increase in debt costs according to exporter status and size class (2008-2009)

	Exporter	Non-Exporter
Size class: 10-19	40.06%	28.49%
Size class: 20-49	39.11%	35.71%
Size class: 50-249	44.67%	33.15%
Size class: >249	52.52%	32.07%

Out of all exporters with fewer than 20 employees, 40.06 percent experienced an increase in debt costs.

3. How did German firms adjust to the crisis?

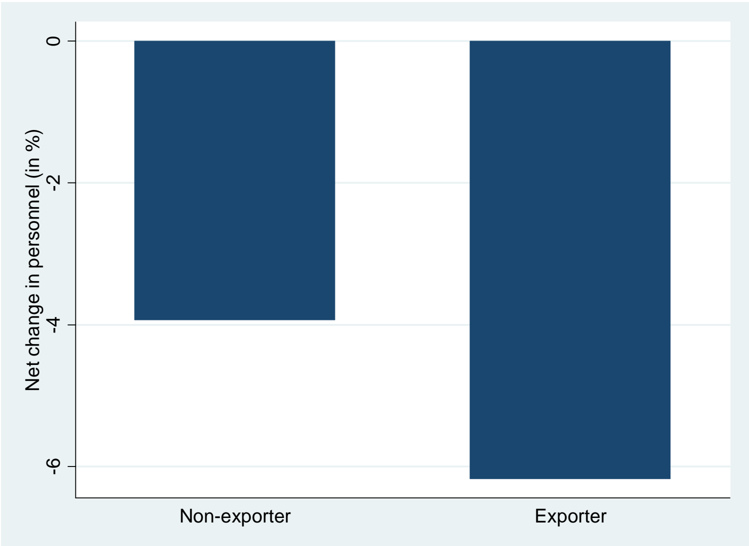
It is well known that German firms came out of the crisis exceptionally well. The question of why this was the case now arises. Being confronted with substantial decreases in their profit margins (see Table 8), firms responded to decreasing demand and tightened credit conditions primarily by cutting costs. Efforts to reduce costs were carried out along several lines:

First, firms cancelled or postponed already planned investments. While 28 percent of all interviewed firms stated that they reduced investments, the share of exporters is double that of domestic firms. Second, personnel costs were reduced.

Looking at the net change in personnel, Figure 5 shows that all firms undertook a substantial net reduction in personnel, ie they fired more people than they hired. This was more pronounced for exporting than for non-exporting firms.

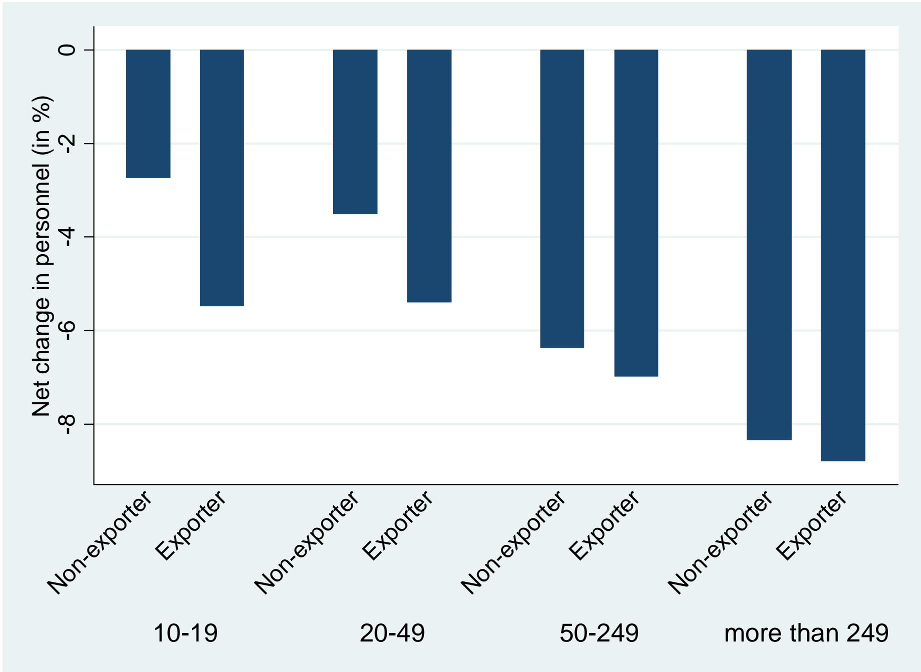
[6] Note that the share of 100 percent refers to only three observations.

Figure 5: Average percentage change in personnel according to exporter status (2008-2009)



This finding is consistent across all size classes. However, differences are more pronounced for small firms. When looking at firms with 10 to 19 employees, the net change in personnel was about twice as large for exporting firms than for non-exporting ones.

Figure 6: Average percentage change in personnel according to size class and exporter status (2008-2009)



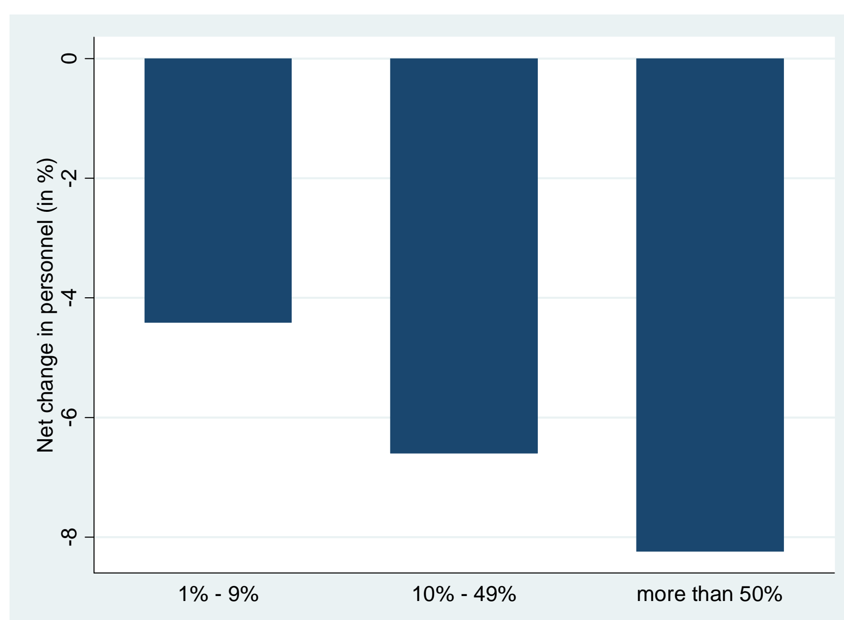
Special short-term work schemes, *Kurzarbeit* in Germany, presented important tools for governments to dampen the effects of the crisis on the labour market. Whereas the overall share of reduction per firm was comparable for exporters and non-exporters, the extent to which firms relied on these special schemes varied considerably between exporting and non-exporting firms. While about 24 percent of the reduction was only temporary for exporting firms, this percentage is much lower (17 percent) for non-exporting firms. The overall expansion in personnel was also comparable for exporting and non-exporting firms. The same holds true when breaking down the figures into temporary and permanent expansion.

Table 12: Average percentage change in personnel according to exporter status (2008-2009)

	Exporters	Non-Exporters
% of reduction	14.55%	14.67%
...out of which: temporary	*24.36%*	*17.27%*
% of expansion	11.02%	11.46%
...out of which: temporary	*8.03%*	*8.94%*

Exporters experienced on average a personnel reduction of 14.55 percent.

Figure 7: Average percentage change in personnel according to export share (2008-2009)



The restructuring that firms underwent in response to the crisis went beyond adjustments to personnel. Many firms switched to a more centralised or decentralised organisation scheme in order to be able to monitor recent developments more closely or to increase efficiency. What was the preferred organisational structure of exporters during the crisis? Were there systematic differences between exporting and non-exporting firms in terms of changes to decision management?

Tabl shows some slight differences between exporters and non-exporters. Overall, a larger share of exporters changed their decision management during the crisis compared with non-exporters. While 13 percent of exporters opted for an increase in centralisation, this was only the case for 10 percent of non-exporting firms. However, there was also a significant share of exporters opting for a more decentralised scheme (8 percent), while this share was smaller for non-exporting firms (5 percent).

Table 13: Share of firms experiencing a change in decision management according to exporter status (2008-2009)

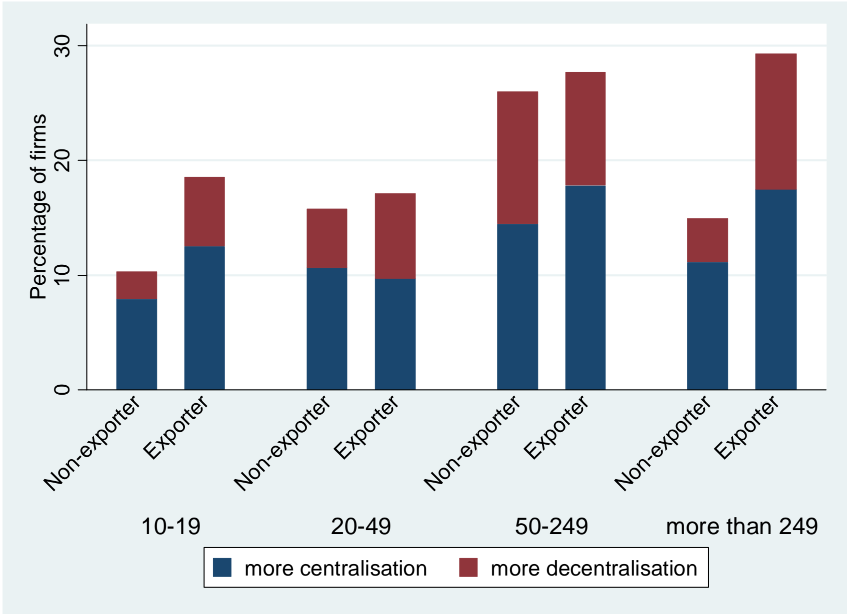
	Exporter	Non-Exporter
More centralisation	13.08%	10.02%
More decentralisation	8.11%	4.83%
No change	78.80%	85.16%

Out of all exporters, 13.08 percent experienced more centralisation.

The observation that exporters are more likely to change their decision management may be driven by the fact that exporting firms are usually larger than non-exporting firms.[7] Indeed, comparing the organisational restructuring among size classes of firms, two results are striking: Not only did a higher percentage of large firms implement changes, they were also more likely to switch to a more centralised system than small firms.[8] Such a move makes intuitive sense when looking at organisational challenges that large firms faced. The larger the firm, the more difficult it is to monitor. The same could be true for exporters.

In order to disentangle exporter status from firm size or ownership effects, we have to take a closer look at the data. When comparing exporting and non-exporting firms of different size classes, several insights can be gained.

Figure 8: Share of firms experiencing a change in decision management according to size class and exporter status (2008-2009)



Looking at the largest size class of firms, results for exporters and non-exporters differ markedly. While almost half of the exporting firms in this size class opted for more decentralisation, this was only the case for about 25 percent of non-exporting firms. This result is interesting as one might expect the necessity to coordinate more closely to be larger for exporting firms. Another interesting result is that the share of exporters opting for a change in decision management is markedly larger for very small and very large firms when compared to non-exporters.

Next, we turn to the differences in decision management when comparing firms that belong to a group to firms that do not belong to a group. Comparing the results for exporters and non-exporters, we see that there are some interesting differences. First, we observe that exporting firms belonging to a group were slightly more affected by changes in decision management than non-exporting firms belonging to a group. However, whereas the share of exporters opting for centralisation was relatively large (25 percent), only 6.5 percent of exporters that belong to a group opted for more decentralisation. Comparing this to non-exporting firms that belong to a group, we can see that the share of firms opting for more centralisation was smaller compared to the exporters' share. However, the share of non-exporters opting for more decentralisation was larger than the respective share for exporters.

[7] Compare, eg Bernard *et al* (2007) 'Firms in International Trade', *Journal of Economic Perspectives*, 21(3): 105-130.
[8] The respective table can be provided upon request.

Table 13: Share of firms experiencing a change in decision management according to ownership and exporter status (2008-2009)

	Group		Foreign Capital	
	Exporter	Non-Exporter	Exporter	Non-Exporter
More centralisation	25.10%	16.79%	24.06%	11.22%
More decentralisation	6.57%	11.06%	5.51%	11.32%
No change	68.33%	72.16%	70.43%	77.47%

Out of all exporters belonging to a group, 25.10 percent experienced more centralisation.

The picture is comparable when looking at exporters versus non-exporters in foreign-owned firms. The share of exporters having moved towards more centralisation is much higher than the respective share of non-exporters. The reverse is true for more decentralisation. To sum up, cost-saving and a concern to increase efficiency seem to have mattered a lot for crisis-hit exporters when restructuring their decision management in response to the crisis. This observation fits also decreased profit margins, which exporters in particular had to face during the economic downturn.

4. Conclusions

Its high export share made Germany and, in particular, its exporters, highly exposed to the recent global economic crisis. Using newly collected data from the EFIGE-UniCredit survey, this study sheds light upon the type of firms that were affected and identifies external bottlenecks to growth as well as internal adjustment processes. Even though the study reports mere correlations without disentangling causal links, some policy-relevant conclusions emerge.

Our results reflect the global nature of the crisis and support the need for concerted actions: not only did the share of exporters experiencing a turnover fall further than the share of purely domestically operating firms, but these exporters were also more likely to face a sharper drop in turnover than non-exporters.

For both exporters and non-exporters, the lack of demand and financial constraints were the major factors harming growth. Taking a closer look at the role of financial restrictions during the recent crisis, it becomes evident that more exporters than non-exporters applied less successfully for credits and were, as a consequence, confronted with a higher cost of debt.

In response to the degree by which they were hit by the crisis and the shortage of export financing, exporters cut down costs disproportionately. On the one hand, they postponed investments and reduced personnel. On the other hand, they were more likely to rely upon temporary lay-off schemes. The increased flexibility of the German labour market might be one reason behind the successful performance during the crisis.

The *Mittelstand*, ie the small and medium-sized companies, played a particular role during the crisis. They were more likely to face a fall in turnover and, at the same time, faced the greatest difficulties in obtaining credit. Small exporting firms responded to these shortcomings by reducing personnel to more than twice the extent of small non-exporting firms.

To summarise, while the implemented government measures to dampen the effects of the crisis worked well overall, they have failed to reach all types of firms. Small- and medium-sized exporters, in particular, reacted to liquidity problems by laying off workers. This insight gives rise to the question of how to design policy instruments in a way that makes them accessible to a wide range of companies in the future.

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The EFIGE Project

European Firms in a Global Economy (EFIGE) is a research project, funded by the European Community's Seventh Framework Programme/Socioeconomic Sciences and Humanities (FP7/2007-2013). The project aims to analyse the competitive performance of European firms in a comparative perspective.

The **EU-EFIGE/Bruegel-UniCredit Survey** is the backbone of the whole project: it is the first harmonised cross-country dataset containing quantitative as well as qualitative information on around 150 items for a representative sample of some 15,000 manufacturing firms in the following countries: Austria, France, Germany, Hungary, Italy, Spain and the United Kingdom. These items cover international strategies, R&D, innovation, employment, financing and the organisational activities of firms, before and after the financial crisis.

This Country Report presents preliminary evidence on how German firms were affected by the crisis.