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The global competition for jobs in the economic crisis

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THE GLOBAL COMPETITION FOR JOBS IN THE ECONOMIC CRISIS

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Table of contents

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Abstract

The global economic crisis seriously affects trade integration and labour markets. The crisis is going to disclose overcapacities and inefficient production patterns worldwide, thus intensifying the global competition for jobs and production locations. In the course of the crisis, the players on the world markets will be tested for their competitive strengths and weaknesses, and will have to redefine their role in the international division of labour eventually. During the past global boom, export patterns of the Visegrad countries already underwent substantial changes: Rapidly growing Visegrad countries' exports to Western Europe went in line with a significantly higher share of technology-intensive goods, indicating a successful integration into Western European networks of production. Poland and the other Visegrad countries laid the ground for increasingly human-capital intensive production and employment. Therefore, catching-up countries might benefit from a higher offshoring intensity as a response to the competitive pressures triggered off by the economic crisis. An empirical analysis applying a detailed data set on German employment, classified by occupations, reveals a huge potential for offshorability of German jobs. On average, highly remunerated jobs requiring high skills turn out to be as easily offshorable as those of less qualified low-wage employees. Under these circumstances, high-income countries face the risk of losing ground vis-à-vis catching-up economies if they fail to invest into their knowledge and skill base continuously.

JEL Classification: F 15, F 16, F 2

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A. Introduction

From 1990 to 2006 the world's national product increased by more than 120 per cent. In the same period world exports increased by 250 per cent. Accordingly, the world's export quota climbed up to 32 per cent in 2006 compared to 19 per cent in 1990 (cf. WTO, var. iss.). Since the global economic crisis which originated in the financial markets also affects the real economy, the world encounters a phase of declining exports, temporary disintegration and stagnating if not decreasing national products world-wide. Nevertheless, globalization will continue because all the countries, which successfully reformed their economy, won competitive strengths and developed new markets, would lose their globalisation bonus if the world entered a new era of protectionism as it was the case in the 1930s. Economic reason suggests that structural changes in international trade and the global division of labour that occurred in the pre-crisis period are sustainable and will have a lasting impact on the trade patterns in the post-crisis period.

Even more, the global competition for jobs will enter the next stage: The economic crisis unveils overcapacities and inefficient production structures that have been neglected during the worldwide boom for the last years. These shortcomings now become a burden for the future since the crisis tightens the competitive pressure on most of the world markets. The market players will apply the whole set of tools provided by modern communications and process technologies to reduce costs all over the production chain. The offshoring of tasks and, inevitably, jobs will continue to rank high on the agenda—but it seems to be an open question who will finally lose and what will be the crucial competitive edge in the global race for jobs.

Accordingly, the paper is organized as follows: In section B, we show how trade patterns of Visegrad 4 (V4) countries changed in the course of European integration, with a focus on the progress V4 locations made in attracting technologically advanced productions while introducing Germany as a benchmark. In section C, empirical evidence is given on the offshorability of jobs in industrialised countries such as Germany that results from economic integration and technical progress. For Germany it is analysed what kind of jobs are threatened by locational competition, either in the course of the crisis or in the recovery process afterwards. In section D, we briefly summarize and comment on the results from an economic policy perspective.

B. Increased Competitiveness of the Visegrad Countries in the Pre-crisis Period

Globalization generally spurred locational competition: Traditional production locations in highly industrialised countries were subject to fiercer competitive pressures from emerging

markets. Even core competencies have become contestable, and long-standing comparative advantages of the most advanced countries have been challenged. This is particularly true for trade relations between Germany and the V4 countries, i.e. Czech Republic, Hungary, Poland, and Slovakia. Although in Germany structural change and specialisation have so far contributed to protecting or expanding domestic employment (cf. Klodt and Christensen 2007), the V4 countries have systematically improved their international competitiveness in the course of globalisation and ongoing European integration since the early 1990s.

To be sure, Germany is still particularly specialised on technologically sophisticated products. Moreover, it is still much more specialised in this field than any of the V4 countries. But these countries appear to catch up—the overall pattern of the division of labour in Europe is changing significantly. The V4 countries do no longer play the role of mere workbenches providing standardised and primarily labour and raw material intensive goods. This structural change can be measured by two analytical tools: (i) a factor-specific classification of exports and imports, and (ii) an analysis of intra-industrial trade.

1. Factor-specific Classification of Exports and Imports

The factor-specific classification of exports and imports is based on the product cycle hypothesis.[1] It says that highly developed countries have comparative advantages in the production of research intensive goods (so-called "Schumpeter-goods") while lower developed countries specialize on raw material intensive goods (so-called "Ricardo-goods") as well as on labour and capital intensive goods ("Heckscher-Ohlin-goods"). "Schumpeter-goods" can be further split into mobile and immobile goods—selection criterion is the feasibility of separating research and production spatially. In the case of mobile goods this separation is feasible because complementary relations between research and production are limited; spatial separation is no barrier for the knowledge transfer necessary for the production of mobile goods. The opposite is true for immobile Schumpeter-goods. Under these circumstances mobile goods are more easily to imitate than immobile goods (Klodt 1987: 29–37; Heitger et al. 1992: 43–45).

Table 1 shows that Germany's exports in 2007 primarily consist of Schumpeter-goods, i.e. human capital resp. R&D intensive products: More than 60 per cent of total exports fall into this category. Thereby, exports of immobile Schumpeter industries distinctly prevail by a share of more than 40 per cent. Moreover, the RCA-value—the "revealed comparative advantage" measure of international competitiveness following a concept dating from Balassa (1965)—is positive at a comparatively high level for both mobile and immobile

[1] See Vernon (1966) and Hirsch (1974).

Schumpeter goods, indicating competitive advantages of German trade in these categories.[2] At the same time, goods of capital, labour and raw material intensive industries exhibit high negative RCA-values, thus indicating comparative disadvantages, above all for raw material intensive products. This RCA pattern is a result typical for a highly developed industrialised country which relies on its human capital endowment instead of abundant raw material stocks or a large pool of cheap labour.

However, during the process of the EU's Eastern Enlargement Germany's as well as other EU core members' specialization on human capital intensive goods became more and more contestable. The new EU members, particularly the V4 countries, diverted their trade flows to the EU Common Market early in the 1990s. In the course integrating into the European division of labour—both by trade and foreign direct investment—, their economies passed through substantial structural changes. This lead to a growing share of export goods with a high R&D content—products that are typically supplied by highly industrialised countries—with Hungary and the Czech Republic as pioneers in this respect. To be sure, in spite of fiercer competition from Eastern Europe and Asia, V4 countries' exports of labour intensive products are still significant, but their former pre-dominance faded away. Instead, aggregate exports of mobile and immobile Schumpeter industries account for higher shares in all four countries in 2007, falling not too short of Germany's pertinent shares, with the exception of Poland (Table 1).

[2] RCA-values > 0 indicate either a more than proportional net export or a less than proportional net import in that commodity group compared to total trade and, thus, a relative strength of the reporting country. RCA-values < 0 reflect comparative disadvantages.

Table 1: Export Patterns and International Competitiveness of Germany and the Visegrad 4 Countries by Factor Intensities 2007[a,b]

	Germany	Czech Republic	Hungary	Poland	Slovakia
RIG					
Exports	10.3	10.1	13.1	17.4	14.3
RCA	–1.02	–0.62	–0.22	–0.26	–0.53
LIG					
Exports	17.4	26.5	16.8	28.7	21.1
RCA	–0.73	0.16	–0.17	0.37	0.07
CIG					
Exports	10.2	12.7	6.8	16.6	10.8
RCA	–0.86	–0.08	–0.52	0.23	0.09
MSI					
Exports	18.8	14.7	20.7	10.7	11.4
RCA	0.38	–0.22	0.06	–0.38	–0.16
ISI					
Exports	43.4	36.1	42.6	26.7	42.4
RCA	0.61	0.30	0.27	–0.08	0.25

RIG = Raw material intensive goods, LIG = Labour intensive goods, CIG = Capital intensive goods, MSI = goods of mobile Schumpeter-industries, ISI = goods of immobile Schumpeter-industries.

[a]Exports as shares in per cent of total exports (special trade). — [b]RCA-values for *i* commodity groups have been calculated by virtue of the following formula: $RCA_i = \ln[(\text{Export}_i : \text{Import}_i) : (\Sigma\ \text{Export}_i : \Sigma\ \text{Import}_i)]$; positive RCA-values indicate competitive advantages.

Source: EUROSTAT (2008); own compilation and calculations.

Accordingly, RCA values indicate that competitive disadvantages of V4 countries for technologically sophisticated products are by now much less pronounced than before. With respect to immobile Schumpeter goods, disadvantages have turned into advantages, again with the exception of Poland. But even Poland's RCA value is only slightly negative, raising hope that the threshold of competitiveness might be passed soon. Apparently, the new European division of labour has changed in favour of the new EU member states. It has put additional competitive pressure on the technological leadership of Germany and other Western European countries.

2. The Emergence of Intra-industrial Trade between Germany and Poland

The growing technology content of V4 exports also becomes visible through an analysis of intra-industrial trade ("intra-trade"). In contrast to traditional Heckscher-Ohlin inter-industrial trade which is fuelled by differences in factor endowments of trading partners, intra-industrial trade is defined as two-way trade in differentiated products of the same commodity group and is driven by economies of scale and monopolistic competition on

imperfect product markets.[3] Intra-trade primarily occurs between trading partners which both exhibit high levels of development as well as large markets. Any divergence from these prerequisites favours Heckscher-Ohlin inter-trade, i.e. intra-trade may be looked upon as a domain of highly developed countries. If catching-up countries exhibit increasing shares of intra-trade, this development may indicate a successful catching-up process.

This kind of analysis has been conducted by the authors of this paper for Poland's exports for the years 1999–2004.[4] The exports were split to (i) Heckscher-Ohlin inter-trade and two species of intra-trade, (ii) *vertical* and (iii) *horizontal* intra-trade, resulting from different forms of product differentiation:

- *Vertically* differentiated products feature distinct quality differences. The product versions are still substitutes, but due to different technical features a clear hierarchy in quality between the versions exists. Correspondingly, prices vary significantly by product qualities. Therefore, vertical intra-trade can be considered being still intra-trade but with Heckscher-Ohlin as theoretical underpinning.

- In contrast, *horizontal* product differentiation means that products only differ in attributes such as design or marketing features while the quality is roughly the same. Hence, the versions are close substitutes, demand mirrors differing consumer preferences. Given the identical quality, prices of these versions should not differ significantly.

Table 2 displays the changes that have occurred in Poland's inter- and intra-trade relations vis-à-vis its main trading partners in Europe between 1999 and 2004: It depicts the three trade types' shares in total bilateral EU-25 trade. Only three cases can be identified in which the share of the Heckscher-Ohlin inter-trade type, constituting roughly 70 to 100 per cent of bilateral total trade in 1999, has increased: Estonia, Finland and Ireland. In two other cases—the Netherlands and Portugal—roughly equal shares of Heckscher-Ohlin inter-trade are reported. In case of Poland's further EU trading partners the share of the traditional Heckscher-Ohlin inter-trade type shrank, often distinctly, whereby both forms of intra-trade gained substantial weight. Changes are most distinct for the V4 countries and Western European countries. One observation is remarkable in this context: the significant increase of horizontal intra-trade with large high income Western European partners.

Table 2: Polish Inter- and Intra-Trade with the EU-25, 1999 and 2004[a]

	1999		2004	
Country	Inter-Trade	Intra-Trade	Inter-Trade	Intra-Trade

[3] Seminal works explaining intra-industrial trade are e.g. Bergstrand (1990), Clark (1993), Greenaway and Milner (1984; 1986) and Greenaway et al. (1994).

[4] Cf. Laaser, Schrader and Heid (2008).

		vertical	horizontal		vertical	horizontal
Austria	76.7	17.9	5.3	72.9	21.0	5.9
Belgium	82.7	14.6	2.6	72.7	18.9	8.4
Cyprus	99.3	0.4	0.1	21.0	7.9	71.0
Czech Republic	61.5	26.6	11.8	41.6	38.0	20.1
Denmark	67.3	26.1	6.5	52.3	26.0	21.4
Estonia	78.9	5.8	15.2	86.2	11.8	1.5
Finland	69.5	28.2	2.2	71.0	25.7	3.1
France	74.4	21.8	3.6	57.3	28.6	13.8
Germany	60.5	33.6	5.8	44.4	38.9	16.7
Greece	94.5	4.9	0.5	88.8	8.6	2.2
Hungary	69.5	18.3	12.1	63.3	24.8	11.7
Ireland	83.1	12.5	3.9	90.9	7.8	1.0
Italy	75.2	21.8	3.0	70.2	24.8	4.9
Latvia	95.8	3.3	0.7	92.7	5.4	1.7
Lithuania	88.7	8.8	2.2	84.2	12.6	2.8
Luxembourg	89.6	9.8	0.5	86.1	5.6	8.2
Malta	99.8	0.1	0.0	11.9	42.1	45.9
Netherlands	68.5	28.4	3.1	68.1	27.1	4.7
Portugal	88.4	8.2	3.3	87.4	9.9	2.6
Slovakia	83.8	11.8	4.3	67.5	20.8	11.5
Slovenia	87.6	7.3	5.0	84.8	9.7	5.3
Spain	80.4	14.0	5.5	69.9	17.0	13.1
Sweden	74.6	22.5	2.7	64.7	31.2	3.9
United Kingdom	77.6	19.0	3.1	60.4	28.5	10.9

[a]Shares of bilateral total trade in per cent.

Source: EUROSTAT (2006); own compilation and calculations.

Poland's progress in exporting technologically more advanced products even becomes more obvious, if Polish export figures for the three groups of Heckscher-Ohlin inter-trade, vertical intra-trade and horizontal intra-trade in the period 1999 to 2004 are analysed separately by virtue of gravity analyses which display the changing focus of Poland's export flows (Table 3).[5]

[5] Cf. Laaser, Schrader and Heid (2007) for a comprehensive analysis.

Table 3: Results of Gravity Estimates of Poland's Exports 1999–2004[a]

	Heckscher-Ohlin Inter-trade	Vertical Intra-trade	Horizontal Intra-trade
Method	Generalized Negative Binomial *ML*		
Dependent Variable	X_{PL}	X_{PL}	X_{PL}
Constant	–28.19*** (–5.71)	–46.52*** (–14.67)	–74.68*** (–8.85)
Ln GDP_j	0.59*** (19.17)	0.98*** (17.67)	0.79*** (11.96)
ln GDP_{PL}	1.19*** (6.31)	1.59*** (12.02)	2.81*** (8.63)
Ln PCI_j	0.07 (1.26)	0.08 (0.76)	–0.06 (–0.50)
ln $DIST_{PL–j}$	–0.93*** (–14.66)	–1.47*** (–15.04)	–1.27*** (–6.91)
SCAND	0.30 (1.57)	1.00*** (4.06)	1.05*** (2.74)
DE	1.68*** (9.31)	1.88*** (9.92)	2.76*** (7.54)
AU	–0.25 (–1.52)	–0.01 (–0.05)	0.53 (1.35)
WEST	0.78*** (5.21)	0.90*** (5.48)	1.37*** (4.50)
MEDITERRAN	0.67*** (4.48)	0.99*** (7.49)	2.36*** (6.79)
BALT	1.39*** (7.86)	0.80*** (3.69)	0.35 (0.71)
VISEGRAD	0.87*** (6.29)	1.80*** (9.82)	2.39*** (6.17)
MEDISLE	0.34 (0.95)	2.23*** (4.30)	1.96*** (3.17)
RUS	1.18*** (8.02)	–0.04 (–0.20)	–0.69* (–1.79)
BELUKR	1.74*** (8.35)	0.84*** (3.20)	–0.62 (–1.40)
RESTCIS	0.48*** (2.74)	–1.72*** (–4.38)	–2.85*** (–4.83)
$\overline{R}^2$	–	–	–
McFadden Pseudo R^2	0.07	0.08	0.271
Wooldridge R^2	0.95	0.99	0.93
Overdispersion η	Function of all independent variables		
F	–	–	–
Wald χ^2	4 665.18***	14 097.62***	3 550.14***
n	1 094	1 094	1 094

[a]Robust standard errors, t- or z-values in brackets. — *** = significant at 1 per cent error level, ** = at 5 per cent, * = at 10 per cent.

Source: EUROSTAT (2006); Deutsche Bundesbank (2006); World Bank (2006); indo.com (2004); own compilation and calculations.

Following these estimates, Poland's exports in both intra-trade groups react more elastically to trading partners' market size than Heckscher-Ohlin inter-trade flows. At the same time, intra-trade shows a higher distance impedance than Heckscher-Ohlin, thus indicating that Poland is integrated into an intra-trade division of labour with large adjacent markets. As regards the various contiguity dummies for specific relations with different trading partners, exports to single members either of the EU-15, the new EU members, or the CIS differ significantly. Poland's exports are concentrated on specific partners within these groups, even after controlling for the partners' GDP, PCI and distance. This result holds for all three trade-types of Poland's exports:

- Among the core members of the EU-15, Germany definitely is the prime trading partner, with highly significant coefficients for all trade-types, being twice as high as the respective values of the other Western and Southern European EU-members.
- Among the new EU members, the other V4 countries qualify as prime trading partners particularly for intra-trade, whereas higher export elasticities in trade with the Baltic States have only occurred with respect to Heckscher-Ohlin inter-trade and, less distinctly, to vertical intra-trade.
- Poland's trade relations with Eastern Europe are focused on the direct neighbours Belarus and Ukraine, both for inter-trade and for vertical intra-trade. As expected, Russia is overwhelmingly a prominent inter-trade partner, while even no intra-trade with the rest of the CIS can be observed.

Moreover, the estimates reveal an apparent tendency of more intense relations with the West, above all Germany, with respect to vertical and especially to horizontal intra-trade. It is surprising that Poland exhibits higher elasticities for these types of trade than for traditional Heckscher-Ohlin inter-trade. This result is a clear indication of Poland's progress particularly in the field of commodities which are typically traded only among highly developed countries. The notion of "trade on equal eyes' height", which already shows up when looking at Poland's total trade figures, is reinforced by this trade-type analysis. As a consequence, it would be misleading to characterise Poland and the other V4 economies in general any longer as mere workbenches providing standardized products.

C. Offshorability of Jobs

The rise of V4 locations in the technological hierarchy of industrial trade qualifies these countries to benefit from further offshoring processes in Western European countries. The economic crisis generally puts the present chain of production to the test and might reshuffle the existing networks. But which jobs are at stake?

For industrialised countries globalisation brings about new chances to strengthen and expand employment at home by developing new markets and complementary production sites abroad. But at the same time, globalisation also opens up new opportunities to offshore jobs from established production locations to catching-up countries in case cost differentials become critical. In the past decade primarily industry workers had to bear the risk of offshorability due to the absolute tradability of manufactured goods. It was supposed that among these workers especially the low-skilled were affected by offshoring because their productivity edge over workers in low wage countries could not compensate for the huge wage differentials in standardised work vis-à-vis these countries. Furthermore, service jobs did not appear to be threatened by offshoring, simply due to the non-tradability of the bulk of services.

Against this background, Blinder (2007) tried to answer the question how many U.S. jobs might be offshorable. To answer this question, he classified every occupation—based on occupational descriptions and employment data by occupation—according to its off-shorability and aggregated them to four broad offshoring categories. Classification and allocation followed the rule that the degree of tradability of the goods and services produced determines the degree of offshorability of the employees involved. In contrast to conventional wisdom, Blinder took into account the fact that more and more service jobs have become offshorable: Non-personal services became tradable due to digitalisation. Schrader and Laaser (2009) applied this method to analyse the potential of offshorable jobs in Germany, using German data bases similar to the U.S. sources employed by Blinder.

Their analysis on German jobs reveals that the potentially offshorable jobs amounts to about 42 per cent of employees liable for social insurance (Table 4). These jobs are either “offshorable” or even “highly offshorable”, the latter category alone comprises 10 per cent of the employees. At the other end of the offshorability scale 38 per cent of the employees are working on jobs classified as “highly non-offshorable”. Compared with the findings of Blinder (2007) and the Credit Suisse (2007) the German offshoring potential appears to be relatively high. Both in the United States and Switzerland about 22 per cent of the jobs are classified as potentially offshorable—categories I and II summed up—, i.e. these countries show an offshorability potential 20 percentage points lower than in Germany.

Table 4: Offshorability of Jobs: An International Comparison

Employees[a]	Germany		Unite States		Switzerland	
	(Schrader/Laaser)		(Blinder)		(Credit Suisse)	
Occupational groups[b]	Thousand	p.c.	Million	p.c.	Thousand	p.c.
I	3 102	11,5	8,2	6,3	263	9,9
II	8 237	30,7	20,7	15,9	329	12,4
III	5 104	19,0	8,8	6,8	646	24,3
IV	10 289	38,3	92,6	71,1	1 416	53,4
Not classified	123	0,5	–	–	–	–
Total	26 855	100,0	130,3	100,0	2 654	100,0

[a]Germany: Employees liable for social insurance in June 2007 (Bundesagentur für Arbeit 2008a,b); United States: 2004 O*NET data; Switzerland: 2000 census data. — [b]Occupational groups classified by offshorability: I – highly offshorable, II – offshorable, III – non-offshorable, IV – highly non-offshorable.

Source: Schrader and Laaser (2009); Blinder (2007: 19); Credit Suisse (2007: 11); own compilation and calculations.

This discrepancy cannot be explained by a differing assignment of single occupations to the four offshoring categories because Schrader/Laaser`s test on consistency reveals a close correlation between Blinders`s and their own classification ranks. Hence, it is rather the sectoral structure of German employment that can explain the German offshoring potential: The German share of industrial employment roughly doubles the U.S. share and clearly exceeds the relative industrial employment in Switzerland[6]; these jobs are for the most part (highly) offshorable due to the high tradability of industrial products. While in manufacturing nearly two thirds of the German jobs are potentially offshorable, large parts of the service jobs are not affected by the threat of going to be offshored. Nevertheless, in absolute figures about 6.5 millions service jobs are potentially offshorable while at the same time no more than 4.1 million industry jobs might be endangered by offshoring. And in times of rapidly advancing communication and process technologies as well as the development of new forms of digitalisation, more and more services become tradable thus increasing the offshorabilty of service jobs (Blinder 2007: 2–4, Baldwin 2006: 36).

The analysis by Schrader and Laaser also reveals that it is not the group of low-skilled employees that is primarily affected by offshorability (Table 5 and Box). Against this widespread assumption high-skilled are potentially offshorable with a share of more than 50 per cent in contrast to the low-skilled with a share of less than 43 per cent. But at the same time, 42 per cent of the jobs performed by low-skilled staffs are classified as “highly non-

[6] Based on internationally comparable ILO (2008) statistics the German manufacturing industry share is 22 per cent while the United States and Switzerland have shares of 11.2 rsp. 16.0 per cent

offshorable". This polar offshorabilty pattern underlines the still existing importance of personal, non-tradable services provided by low-skilled labour mainly—instead of the rising offshorability of service jobs in the course of technical progress. But the latter jobs are for the most part performed by high-skilled people. Moreover, it is no longer standardised low-wage industrial work which could be easily offshored; this kind of structural change already started in the seventies of the last century and was close to being completed in the nineties.

Table 5: Offshorability of German Jobs and Qualification Profiles

		Qualification		
Occupational groups[b]	Employees[a] p.c.	University degree	Professional degree	No education / unknown
I	11,5	25,1	11,3	8,2
II	30,7	27,7	31,2	34,3
III	19,0	16,7	20,8	15,4
IV	38,3	30,6	36,7	42,1
Not classified	0,5	–	–	–
Total	100,0	100,0	100,0	100,0

[a]See table 4. — [b]Occupational groups classified by offshorability: I – highly offshorable, II – offshorable, III – non-offshorable, IV – highly non-offshorable.

Source: Schrader and Laaser (2009); own compilation and calculations.

Box: Offshorability by Occupational Groups: Some Examples

- Group I: *highly offshorable*
  Data processing personnel, technical drafters, accountants, natural scientists
- Group II: *offshorable*
  Printing machine operators, chemists, shipping and traffic clerks, engineering technicians
- Group III: *non-offshorable*
  Plumbers, certified accountants, road inspectors, repairers
- Group IV: *highly non-offshorable*
  Farmers, teachers, gas station attendants, bricklayers, gate keepers

Source: Schrader and Laaser (2009); own compilation.

However, it can not be concluded that—despite the higher offshoring potential—the jobs of the high-skilled employees are actually more endangered by offshoring than those of the low-skilled people. The worldwide scarcity of qualified manpower appears to be a serious barrier towards offshoring jobs to production sites located in catching-up economies. In many cases, in these countries the experts needed are not available or the skilled workforce does not fulfil the job requirements. Furthermore, even in developing countries wages of

skilled labour are climbing bit by bit to international levels und do not longer promise any significant cost savings. The labour markets in Central and Eastern European countries as well as in large developing countries like India and China precisely reflect these limits to offshoring jobs from Western industrialized countries such as Germany.[7]

D. Conclusions

V4 locations have enhanced their competitiveness during the pre-crisis period substantially. They have been integrated into European networks of production and have dismissed their former image as mere workbenches for standardized and labour intensive products. What may be their perspectives in the course of the current economic crisis? What are the jobs these countries have to compete for? An answer to this question might be given by the analysis summarized above on the offshorability of German jobs which names global offshoring potentials and can be easily applied to other economies.

Due to their new economic profile, V4 locations might both benefit and lose ground in the course of the current economic crisis: On the one hand, they might be able to attract additional productions from high income countries where production sites are tested for their competitiveness. On the other hand, they might lose productions themselves to other countries, either by further offshoring eastward or by backshoring to Western Europe.

It can be concluded that the offshoring potential rose significantly in the era of digitalisation. Advanced IT technologies spurred the tradability not only of goods but explicitly of services. Moreover, many jobs requiring higher skills became offshorable. Nevertheless, it would not be appropriate—neither for high income countries like Germany nor catching-up economies like Poland—to focus on non-offshorable jobs. High incomes are overwhelmingly earned with jobs in manufacturing and service industries being subject to international competition. But competitiveness depends on the availability of skills which are scarce even on the global scale. Hence, economic policy has to support human-capital formation and reform educational systems in a way that enables employees to pursue lifelong learning. The challenge for economic policy is to develop a sustainable skill base that allows individuals and firms to be successful in a highly competitive global economy.

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[7] For more details see e.g. OECD (2008a:159–160; 2008b; 2007), Manpower (2008), EIU (2008).

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