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THE FIRST EU EASTERN ENLARGEMENT. IMPACTS ON THE GERMAN ECONOMY AND PUBLIC PERCEPTIONS

SUMMARY

The first round of EU Eastern Enlargement was completed with the accession of 10 Central Eastern European countries on May 1, 2004. This economic integration will have impacts on the economies of the accession countries and the EU 15. Public perceptions of Eastern Enlargement have not been very promising in Germany, but as it has the closest economic ties with the new members and is the biggest net contributor to the EU budget, it is widely expected to face the strongest impacts of any of the EU 15. On the one hand, there will be fiscal costs to bear, and on the other, there will be effects on FDI, trade, economic growth and general welfare, and significantly, some potential East–West migration. These effects will be felt on labour markets and in the welfare system in Germany, bringing benefits to some groups and costs to others. This paper presents some estimates of these effects and their impacts on the German economy, with closer attention being paid to certain crucial regions directly bordering the Central Eastern European countries.

LIST OF ABBREVIATIONS

3 CEECs	Czech Republic, Hungary and Poland.
5 CEECs	3 CEECs plus Estonia and Slovenia.
10 CEECs	The ten countries of the first Enlargement round: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.
10a-CEECs	The Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Bulgaria and Romania.
CAP	The EU Common Agricultural Policies.
CEECs	All Central-Eastern European countries seen as potential accession countries in envisaged Enlargement rounds, plus Cyprus and Malta (not geographically in Central-Eastern Europe.
CET	Common external tariffs.
DIW	Deutsches Institut für Wirtschaftsforschung, Berlin.
EC	European Commission.
EC study	Fertig and Schmidt 2000.
EIC	European Integration Consortium.
EIC/DIW study	Boeri and Brücker 2000.
EU	European Union.
EU 13	The EU 15 minus Luxembourg and Greece.
EU 14	The EU 15 minus Germany.
EU 15	Current EU member-states: Austria, Belgium, Denmark, Finland, France, Ireland, Italy, Greece, Germany, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.
EU 25	The EU 15 plus the 10 CEECs.
EU 27	The EU 25 plus Bulgaria and Romania.
EU study	Keuschnigg *et al.* 1999.
FDI	Foreign direct investment.
FES	Friedrich-Ebert-Stiftung, Bonn.
GDP	Gross Domestic Product.
HOS model	The Heckscher–Ohlin–Samuelson model.
IFO	Institut für Wirtschaftsforschung, Munich.
IFO study	Sinn *et al.* 2000.
IfW	Institut für Weltwirtschaft, Kiel.
INTERREG	The INTERREG Community Initiative is part of EU regional policy. Funding for INTERREG III comes from the European Regional Development Fund, one of the Structural Funds.
IWH	Institut für Wirtschaftsforschung, Halle.
IZA	Forschungsinstitut zur Zukunft der Arbeit, Bonn.
IZA study	Bauer and Zimmermann 1999.
NUTS	Nomenclature of Territorial Units for Statistics
OIM	Osteuropa-Institut, Munich.
OIM report	Quaisser 2001A.
PPP	Purchasing Power Parity
R and D	Research and Development
WIFO	Österreichisches Institut für Wirtschaftsforschung, Vienna.

INTRODUCTION

In the 1990s, the German economy had to adjust to two shocks at the same time. The first was a remarkable increase in the EU trade of Eastern European countries following the breakdown of the communist regimes. This growth in trade was greater with Germany than with most other Western European countries.[1] Secondly, there were massive economic consequences from German reunification in 1990 and a huge addition to the country's public debt. Transfers to Eastern Germany rose from 40 per cent to 46 per cent of total gross transfers between 1991 and 1996, reaching 5 per cent of West Germany's GDP in 1995. Expenditures for East Germany were financed by higher taxes and on the back of public deficits. Germany's budget deficit in 1996 reached 3.4 per cent of GDP and public debt 60.4 per cent of GDP. The current-account deficit increased between 1990 and 1995 before stabilizing. Germany, like other net contributors, began to see its negative balances with the EU as too high relative to its wealth, and insisting on a change to its EU budget contributions, emphasizing that the imminent Eastern Enlargement could not go ahead without a cut in Germany's net contributions.[2]

But in return for the fiscal costs of Enlargement in higher net contributions, Germany was likely to gain notable benefits from the integration of the 10 CEECs[3] according to integration theo-

rists. By removing trade barriers, the first EU Eastern Enlargement would surely increase the volumes of trade activities and factor movements with the EU 15. Furthermore, well-known theories of international economics predict that increasing volumes of international trade and an increase in the division of labour will lead to higher incomes in real terms for all concerned. Positive welfare benefits result from static and dynamic efficiency gains, *i.e.* effects on allocation, investments and growth, not just extended opportunities in exports. However, as Eastern Enlargement is a case of regional integration, positive welfare and growth effects can only occur if the effects that create and extend trade activities outweigh those that simply redirect them, *i.e.* increase import activities within the EU and with non-EU countries. As the EU embodies a relatively large free-trade area, the effects of redirected trade activities can be expected to be low, *i.e.* the trade-creating effects will outweigh them.

Standard models of theories in international economics derive the positive welfare effects of the international division of labour either from relative differences in productivity (Ricardo's model of comparative advantages in costs) or from differences in the factor endowment in production (the Heckscher–Ohlin–Samuelson or HOS model). The Ricardo model determines the distribution of the gains in incomes from integration, by reference to a shift in world-market prices, so that the same level of incomes in the regions may eventually, although not necessarily emerge. This process is influenced primarily by development of the terms of trade in the EU and the CEECs. The theory of comparative advantages in costs is, however, not very helpful for explaining further the impacts of Eastern Enlargement, because it assumes a very extreme situation of 100 per cent specialization and neglects the potential

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[1] Keuschnigg *et al.* 1999, p. 1 (executive summary).

[2] *Ibid.*, p. 1 (executive summary) and p. 1 of main text.

[3] Central-Eastern European countries, see the List of Abbreviations for a closer definition.

differences in factor endowments. As the current EU member-states can be considered relatively capital-abundant, whereas the CEECs are relatively labour-abundant, the HOS model's assumption of differences in factor endowments in production is a better fit for East-West integration. This predicts that the CEECs will increase exports of relatively labour-intensive products to the EU 15 after trade barriers and tariffs are removed, whereas the EU 15 will concentrate on exporting relatively capital-intensive products. Thereby, a change in demand for these products shifts the price relations between them. That in turn causes a change in relative returns on the factors of production, resulting in a gain of returns on the relatively abundant factor of a region, as predicted by the Stolper–Samuelson theorem. For the EU 15, that will mean an increase in capital yields and decreasing wage levels. Furthermore, the Factor-Price Equalization theorem predicts a levelling of returns on the factors of production, which eventually brings a sharp decline in wage levels in the EU 15. The shift in the relative prices of production factors leads to a higher intensity of labour in capital and labour-intensive sectors. Since the EU 15 will specialize in capital-intensive products and reduce production of labour-intensive ones, the effects on overall employment in the EU 15 are neutral. Nonetheless, these results are less clear if some of the strict assumptions of the HOS model, such as production with equal technologies, are opted out. [4]

All in all, theories of economic integration cannot supply a final, clear conclusion on the effects of Eastern Enlargement, as they discuss partly valid phenomena at different stages of integration.[5] This paper therefore introduces other models and studies that have been fitted more precisely to the specific case of a first EU Eastern Enlargement, as well as analysing and discussing its impacts on the German economy.

Section 1 presents some implications from public perceptions of an EU Enlargement in Germany. In *Section 2*, general macroeconomic effects of the EU Eastern Enlargement on Germany are presented, and the section also points out migration as the major impact, presents a model calculation on a migration potential for Germany and discusses the effects of migration on the German labour market and social welfare system. *Section 3* evaluates the net results on Germany, defines potential winners as well as losers of an Enlargement and points out risks and chances for German companies in some certain crucial areas bordering the CEECs. *Section 4* finally sums up the results and draws a conclusion for future perspectives.

1) PUBLIC PERCEPTIONS OF ENLARGEMENT − RISKS AND CHANCES

A report by Tuschhoff (2002) presents the results of two surveys by the European Commission (2001) and by Eurobarometer (2002). Although Eastern Enlargement will probably affect Germany to the greatest extent, less than 20 per cent of the German respondents in 2002 felt they had been well informed about it. It was neither a major concern nor a high political priority for them. This observation is supported by the low level of public opposition, with only 18 per cent opposing any kind of Enlargement. However, the Germans (14 per cent) agree with the other EU 14 (18 per cent) that their country will benefit most from Enlargement but 54

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[4] Quaisser, W., 2001B, pp. 20–22.

[5] *Ibid.*, pp. 24–25.

per cent do not foresee any major personal payoffs. Only 10 per cent expect some improvement, while 20 per cent fear a deterioration in their personal position, mainly based on economic reasons; 72 per cent are afraid that Enlargement will increase unemployment, and 64 per cent expect immigrants to compete for their jobs. Furthermore, 61 per cent believe Enlargement could lead to higher taxes and 58 per cent foresee increasing inflation, while 53 per cent think the Euro will decline against other currencies, while 52 per cent fear increasing illegal immigration and drug traffic.[6]

On most of these matters, Germans exceed the EU 15 averages. Germans obviously feel less comfortable about the negative economic consequences of Enlargement. Only 20 per cent believe it will create jobs in Germany or improve living standards (23 per cent). In addition, Germans worry particularly about the consequences of immigration following an Enlargement: 67 per cent of those expecting notable immigration perceive it in negative terms, the figure reaching 81 per cent among Eastern Germans. Another 85 per cent of the latter expect unemployment to grow and 73 per cent foresee an increase in crime, while 70 per cent fear that Enlargement will fuel black labour markets and 65 per cent are afraid that the welfare system will be exploited. The concern about immigration has to be viewed against the fact that 59 per cent feel there are too many foreigners living in Germany already. These figures show that Germans are particularly concerned about immigration and cross-border commuting: 55 per cent foresee the number of commuters rising significantly, the main reason for 79 per cent being fear that unemployment among German workers will increase. Meanwhile 63 per cent expect

decreasing domestic wage levels and 73 per cent of those think this will be due to commuting workers.[7]

In a later survey conducted by Eurobarometer in autumn 2003[8], people across the EU 15 were asked if they favour any kind of EU Eastern Enlargement. Of all Germans, 57 per cent say they do so, with 62 per cent in Eastern Germany and 55 per cent in Western Germany, while the EU 15 average was 61 per cent. On the first Enlargement round, 41 per cent (54 per cent in November 2002) of the Germans prefer enlarging the EU by just a few countries, 27 per cent (21 per cent) favour no Enlargement at all, and 15 per cent think all countries willing to join should do so. As far as a second round of Enlargement goes, only 38 per cent (42 per cent) favour it generally, with an EU 15 average of 47 per cent. The authors argue that Germans may distrust a second round because of uncertainties about the first round, which was due to start soon.

In conclusion, it is obvious that the EU Enlargement is not favoured as a priority by the German public yet. The surveys suggest that people do not support it in large numbers, although they see no reason to oppose it vigorously either. Many think it will not affect them personally. Germans believe the arguments of their government and the EU that Enlargement will bring political advantages, but are less convinced about economic benefits. This is striking, as most experts argue that Germany will benefit most from Eastern Enlargement. The German public is not convinced yet. It feels particularly exposed to waves of migration affecting the labour market and welfare system. It is crucial to face this cautious public attitude and convince the Germans that the

[6] *Ibid.*, pp. 25-29.

[7] *Ibid.*

[8] European Commission 2003C.

Enlargement is in their economic and personal interest.[9]

Against that background, the following section reviews the fears Germans have, by detecting the economic impacts of a first EU Eastern Enlargement stage by stage.

2) GENERAL MACROECONOMIC EFFECTS

This account of the general macroeconomic effects of Eastern Enlargement on the German economy starts with an estimate of fiscal costs, before introducing calculations for trade, FDI, growth, and welfare effects, and finally pointing to the industries likely to be most affected.

2.1. Fiscal costs–financing Enlargement

The major costs for the EU 15 are fiscal costs in form of operational payments by the EU budget for structural funds and funds under CAP.

Although Germany managed at the Berlin Summit (Agenda 2000) to reduce its share of payments to the EU budget from 25.5 per cent in 1999 to 24.8 per cent in 2000, then to 24.4 per cent in 2001 and 22.6 per cent in 2002, it is still the biggest contributor.[10] This means it faces the largest share of the additional fiscal costs of Enlargement. Germany's net contributions rose from EUR 10.4 billion in 1998 to EUR 11.5 billion in 2000, before falling to EUR 9.5 billion in 2001 and EUR 6.1 billion in

2002, mainly due to exceptionally high operational payments to Germany after the floods of 2002. By then, net contributions had been equivalent to an average 0.6 per cent of Germany GDP a year since 1996.[11] But the question remains by how much Germany's net contributions will rise because of the Enlargement.

The volumes of additional fiscal burdens calculated in the Enlargement models differ widely. They were built on various scenarios with varying numbers of accession countries at different stages of reforms in the structural funds and CAP, some even before the Berlin Summit of 2000. They also included different assumptions about the contributions from the CEECs to the EU budget. The fiscal burdens calculated for Germany differ widely and conclude with costs far less than those in this paper. However, let us look at the findings of two: (1) a relatively optimistic one from the Deutsches Institut für Wirtschaftsforschung, Berlin (DIW) in 2002[12] and (2) a rather pessimistic one from the Institut für Weltwirtschaft, Kiel (IfW) in 2003.[13] These seem to be the two most realistic, as they assume the 10 CEECs that actually joined the EU on May 1, 2004.[14] For the European Council, at its Copenhagen Summit of December 2002, changed the Berlin conditions, extending the number of first-round countries from six to ten and postponing the accession from 2002 to 2004.[15]

The IfW assumes for the scenario it considers most probable that all the accession countries get the same additional payments per capita from the EU structural funds and CAP as Spain, Por-

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[9] Tuschhoff, C., 2002, pp. 25–29.

[10] See Table 1.

[11] European Commission 2003 B, 111–26; Table 1.

[12] Weise 2002.

[13] Dicke 2003.

[14] See the List of Abbreviations.

[15] Dicke 2003, p. 35.

tugal and Greece. This disbursement means for Germany added net contributions of some EUR 32.0 billion EUR a year for the first round of 10 CEECs, EUR 58.8 billion for the later accession of Bulgaria, Romania and Turkey, and about EUR 105.9 billion for a potential accession by Russia, Ukraine and Belarus. Assuming the contracts remain valid for 30 years, the study calculates a net present value for EU liabilities of EUR 542.6 billion for the first round, EUR 903.8 billion for the second and EUR 1,626.1 billion for a putative third round. This gives net present fiscal costs for Germany of EUR 132.4 billion, EUR 220.5 billion and EUR 396.8 billion respectively.[16] Compared with the EUR 6.1 billion in 2002, this rise in net contributions raises the national debts of the EU 15, although the authors think it more likely that tax revenues will be used, causing budgetary imbalances. For Germany, they calculate a budget-deficit rise of 0.4 per cent for the first round and rather more than 0.6 per cent for the second.[17]

The DIW works out some scenarios of potential developments in the EU budget for 2007 and 2013, assuming various numbers of accession countries and implying various stages of reforms in the structural funds and CAP. It models accession by (1) no countries (EU 15), (2) ten countries (EU 25) and (3) twelve countries (EU 27), with (a) moderate, (b) medium and (c) substantial reforms of the structural funds and CAP, or (d) an unchanged state of no reforms at all. For each of the nine scenarios, there is a breakdown of net contributions to the EU budget by member-country for the years 2007 and 2013, used in this paper to arrive at potential net contributions by Germany. In all scenarios, Germany will be by far the biggest net contributor among the

EU 15, far ahead of the UK, except if the payments are calculated per capita, when Germany comes second to Luxembourg. In the unchanged scenario (no Enlargement, no reforms), Germany ends up with net contributions of EUR 7.3 billion to the EU budget in 2007 and EUR 5.9 billion in 2013. For budget year 2007, Germany's net contributions rise remarkably if there is enlargement by ten countries (EU 25), to EUR 11.1 billion, EUR 11.6 billion with moderate reforms, EUR 9.8 billion with medium reforms, and EUR 9.5 billion with substantial reforms. If the EU is enlarged by twelve countries (EU 27), Germany's 2007 contributions rise to some EUR 12.1 billion in the otherwise unchanged case, EUR 12.4 billion with moderate, EUR 10.6 billion with medium, and EUR 10.4 billion with substantial reforms. For budget year 2013, the authors calculate net contributions of EUR 11.7 billion, 12.2 billion, 9.7 billion and 9.0 billion for EU 25 and EUR 12.8 billion, 13.7 billion, 10.9 billion and 10.4 billion for EU 27, respectively.[18]

Apart from the obvious implication that Germany has an interest in pressing for substantial reforms, it is quite probable that Germany's net contributions will increase with Enlargement, compared with some EUR 9.5 billion in 2001 and EUR 6.1 billion in 2002. To what extent they rise and how much the current net contribution rate of 0.6 per cent of GDP changes will depend on the degree to which the structural funds and CAP are reformed.

2.2. FDI and trade

This subsection concerns impacts of Eastern Enlargement on capital movements and FDI to the CEECs from the

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[16] See Table 2.

[17] Dicke 2003, pp. 40–43.

[18] Weise 2002, pp. 13–15; Tables 3 and 4.

EU 15, especially Germany. It also covers developments in trade between Germany and the CEECs and discusses regional impacts of this on the German labour market.

Capital movements and FDI

Differences in factor endowments and factor prices in production will tend to intensify FDI from the EU 15 to the CEECs if there is Eastern Enlargement.

FDI can be defined as a transfer of financial capital or capital in real terms to a foreign country intending, to influence business in the destination country. It can be subdivided into market- oriented and cost-oriented FDI. With market-oriented FDI, production capacities are augmented by foreign capacities and positive effects on employment in the home country may evolve. With cost-oriented FDI, domestic production capacities are replaced by foreign ones and negative employment effects in the home country may evolve, as the labour-intensive part of the value chain moves abroad. Rather than to calculate any FDI potentials, this passage deals with the extent to which intensified German FDI in the CEECs will have effects on the German labour market.

The CEECs took an average of 8.6 per cent of the FDI of the EU 15 in the period 1992–6, with Germany (13 per cent) among the major contributors after Austria and Italy.[19] A study by the IWH[20] concludes that about 60 per cent of German FDI is market oriented and 40 per cent cost oriented. The cost-oriented FDI comes mainly from processing industries, textiles, clothing and wood manufacturing. Of all German FDI in the 3 CEECs[21] considered in the study, cost-oriented FDI make up about 50 per cent. Empirical data in the study shows that this FDI is likely to have effects on the German labour market. Germany's competitive chemical and automotive industries are expected to be the manufacturing and processing industries most affected. On the one hand, the authors point to negative effects on employment and wages in these industries, while emphasizing the chances for affected German companies to increase international competitiveness through efficiency gains from the international intra-industrial division of labour.[22] For it is mainly labour-intensive parts of the value chain that are moved to the CEECs, to improve the overall productivity of the home company.[23]

Other studies reach similar conclusions when analysing affected industries in the EU. Almost half the FDI in the CEECs is made in non-tradable goods for public utilities and the service sectors. With highly labour-intensive tradable goods such as textiles and clothing, and to some extent electrical machinery and rubber and plastic products, motor vehicles and other transport equipment, the authors conclude that cost-oriented FDI takes a sizeable share. Low-skilled labour in these industries, in EU regions bordering the CEECs, is the only group to suffer from increasing EU FDI in the CEECs.[24]

A study by the European Integration Consortium (EIC)[25] also concludes that the rather small size of FDI projects in most industries is unlikely to apply any significant financial constraint on domestic investment. Crowding-out of investment in the EU by that in the CEECs is negligible.[26]

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[19] Boeri and Brücker 2000, p. 66 (the 'EIC/DIW study').

[20] Dey 2003, pp. 98–104.

[21] See List of Abbreviations.

[22] *Ibid.*

[23] Quaisser 2001A.

[24] Boeri and Brücker 2000, pp. 62–3.

[25] *Ibid.*

[26] *Ibid.*, p. 72.

2.3. Trade structure with CEECs and the impacts of Enlargement

The opening of the CEECs to the West and gradual removals of trade barriers since 1990, following the conclusion of the Europe Agreements, have already had remarkable effects on trade by the EU 15 with the CEECs. EU exporters with a high R and D intensity, such as aircraft and computers, or a high level of product differentiation, such as machinery, have benefited from the removal of tariff and non-tariff barriers. Meanwhile producers of labour-intensive goods such as textiles, footwear and leather products or of capital- and scale-intensive goods with a low level of technological sophistication (*e.g.* printing, chemicals, plastics and rubber products) have faced losses from increasing import competition.[27]

While intensifying trade with the CEECs has influenced EU industries very differently, according to their labour and capital intensities, these effects also vary geographically. Studies have found out that three-quarters of all EU trade with the CEECs is conducted by countries bordering them – Austria, Germany, Greece, Italy and Finland – where the share of CEEC trade in total trade is considerably higher than in other EU member-states. However, estimates based on gravity models that project 'normal' patterns of bilateral trade, based on distance, GDP and population variables, show Austria, Germany and other countries bordering the CEECs had reached or surpassed the 'normal' volume of trade with the CEECs by 1997, while trade volume between the whole EU and the CEECs averaged only to 60 per cent of the expected volume.[28]

Other studies, calculating ratios of actual to projected trade volumes of the EU 15 with the 10 CEECs find potentials being exploited in Finland, Sweden, Denmark, Austria, Greece and the Netherlands, while Germany scores about average.[29]

Nevertheless, all studies considered here mention unexploited trade potentials for the CEECs and the whole EU 15 and see these as potential sources for all sides of welfare gains from Enlargement. Let us look at the findings of some studies on Germany in particular and the various regional impacts on the German labour market.

Germany's trade with the 10 CEECs in 1998 included USD 39.6 billion of exports (about 8.0 per cent of the country's exports and 2.0 per cent of its GDP in that year), and USD 37.0 billion of its imports (8.0 per cent of total imports and 1.7 per cent of GDP).[30]

A study done for the EU in 1999 by Keuschnigg and Kohler[31] arrived at promising results for Germany in intensifying its trade with the 5 CEECs.[32] The authors argued that abolition of trade tariffs would increase imports and greatly increase exports (by 46.8 per cent) for Germany. Even exports to the EU 14 would rise by 0.677 per cent and to the rest of the world by 1.137 per cent. This remarkable export boom was due to the fact that Germany needed to cut its average tariff to a lower rate (6.9 per cent) than the CEECs did (8.9 per cent), and because of considerable sectoral variation among Germany's industries and those of the CEECs. Interestingly, the authors arrived at these results although the Europe Agreements had already removed most

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[27] *Ibid.*, pp. 23–4.

[28] *Ibid.*, pp. 33–4.

[29] *Ibid.*, p. 106 and 109.

[30] Boeri and Brücker 2000, pp. 161–2.

[31] Keuschnigg *et al.,* 1999 ('the EU study').

[32] See List of Abbreviations.

of the tariffs. They argued that the effects of complete single-market access for the CEECs, reflected in reductions of real trade costs, were much greater than those of the tariff cuts agreed in the Europe Agreements, since they were symmetrical for imports and exports. They predicted improving terms of trade for Germany (by 7.21 per cent) due to vanishing trade costs, compared to terms-of-trade shifts from tariff reductions, as direct equivalents of terms-of-trade improvement.[33]

The EIC/DIW study calculates the effects of increasing trade activities on wage levels and employment rates in different sectors and on employees with different levels of skills in Western Germany. Theoretically, an increase in domestic demand and in the foreign component of demand has a positive impact on wages, while an increase in the import share of the domestic market of an industry reduces wages in that industry. But the results for both components of foreign supply and demand turn out to be insignificant for Germany, because the trade effects are generally too small to make a nationwide impact on relative wages likely. [34] Since most German industries' shares of exports to the CEECs in domestic production and imports from the CEECs in domestic sales are rather small, the impacts of increasing trade with the CEECs will not be felt. Germany's trade with the CEECs has a considerable impact only in two industries: in textiles, the share of exports to the CEECs in domestic production increased by 9.5 per cent between 1990 and 1995 and the share of imports from the CEECs in domestic sales of clothing increased by 6.8 per cent. In all other industries, the increased were less than 3.0 per cent. The authors calculate that increasing trade activities with the CEECs pushed

up wages in textiles by 0.6 per cent and lowered them in clothing by 0.02 per cent. The same holds true for labour mobility and employment: the increase in demand from the CEECs reduced the individual probability of becoming unemployed in textiles by 0.4 per cent, while in clothing it increased by 0.4 per cent. It is interesting to note that the increase in net exports in textiles corresponds to an increase in net imports in clothing. So if there are any notable effects on the German labour market of the increasing trade due to Enlargement, they are to the detriment of low-skilled employees in labour-intensive industries, such as clothing, while highly skilled labour in high-technology industries may benefit.[35]

A report prepared by the OIM[36] also concludes that Germany's trade with the CEECs is too small for Eastern Enlargement to pose a noticeable threat to wages or employment in Germany. Only for clothing and metals is a correlation between increasing CEECs' market shares and decreasing employment feasible. The author emphasizes that Germany's trade volumes are already as high as they are expected to become, since most trade activities have already been liberalized. Even for sensitive industries like textiles, steel and chemicals, no marked increase in imports is expected, although agriculture is an exception.[37] In a report by Dicke and Foders,[38] the authors also argue that the association agreements have removed most of the trade barriers and given a boost to Germany's trade with the CEECs, so that they do not expect any further increase in German exports to result from Eastern Enlargement.

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[33] *Ibid.*, pp. 11–13.

[34] Boeri and Brücker 2000, pp. 76–7.

[35] *Ibid.*, p. 74 and pp. 78–83.

[36] Quaisser 2001A ('the OIM report').

[37] *Ibid.*

[38] Dicke and Foders 2000, p. 157.

2.4. Growth and welfare

This section looks at macroeconomic effects of Enlargement and analyses their impact on growth and welfare in Germany. Section 2.3 mentioned the export boom, with a 46.8 per cent increase in Germany's exports to the CEECs forecast in the third scenario of an EU Enlargement by 5 CEECs, presented in the EU study. With this scenario, the export boom increases domestic producer prices by 0.074 per cent on average, while intermediate prices fall by 0.135 per cent and investment prices by 0.085 per cent. As a result, Germany's terms of trade with the 5 CEECs improve by 7.210 per cent and investment mounts by 0.557 per cent of the long-term capital stock. Although Germany's terms of trade with the EU 14 ease by 0.053 per cent and with the rest of the world by 0.044 per cent, the economy experiences an investment and export-led expansion, with capital stocks increasing by 0.557 per cent. The output expansion of 0.550 per cent mainly comes through market entry and contributes to productivity gains due to increasing specialization and diversification of industrial production. Furthermore, overall consumption is up 0.741 per cent, while disposable wage incomes increase by 0.498 per cent and consumer prices fall by 0.241 per cent. Wage rates increase slightly more for the highly skilled (0.576 per cent) than for the low-skilled (0.560 per cent), although the highly skilled labour supply increases by 0.035 per cent and the low-skilled labour supply by 0.031 per cent. All in all, the study forecasts GDP growth of 0.449 per cent for Germany due to a 5 CEECs Enlargement, and an additional welfare gain of 0.375 per cent of GDP,

while net foreign debt rises by 0.101 per cent.[39]

The WIFO study[40] forecasts GDP growth rates from Eastern Enlargement by 3 CEECs.[41] But the author mentions that the 3 CEECs cover about two-thirds of the 10 CEECs' GDP, so that the macroeconomic effects of a 10 CEECs Enlargement would be about a third higher. On average, for 2005 and 2006, it foresees 0.63 per cent annual GDP growth for Germany from 3 CEECs Enlargement, followed by 0.48 per cent on average in 2008–10 of 0.48 per cent, whereas the EU 13 averages would be 0.42 per cent and 0.26 per cent, respectively. The growth results from (1) trade effects – tariff reductions – bringing 0.15 per cent of the 2005–6 GDP growth (0.01 per cent for 2008–10), (2) single-market effects – an efficiency increase[42] and a fall in consumer prices – bringing 0.50 per cent (0.37 per cent), (3) FDI flows to the CEECs bringing -0.07 per cent (-0.12 per cent), (4) and migration to the EU bringing 0.6 per cent (0.23 per cent). The fiscal costs of such an Enlargement would be -0.01 per cent (-0.01 per cent).[43] The study goes on to calculate detailed macroeconomic effects for Germany. GDP growth in real terms is accompanied by an increase in real personal disposable incomes of 0.73 per cent in 2005–6 and 0.76 per cent in 2008–10. Consumer prices fall by 0.42 per cent (0.43 per cent). Employment is up 0.09 per cent (0.47 per cent), while the unemployment rate increases in the short run by 0.11 percentage points (-0.21 percentage points). This is all accompanied by a 0.04 per cent (0.24 per cent) increase in the current-account balance and a

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[39] Keuschnigg 1999, pp. 11–13; Table 4.

[40] Breuss 2001.

[41] See List of Abbreviations.

[42] From economies of scale.

[43] *Ibid.*, p. 21; Table 5.

budget balance increment of 0.11 per cent (0.29 per cent) of GDP.[44]

Lejour *et al.*, in their study, do not expect much from the removal of tariffs either. They calculate that if the CEECs remove them and adopt common external tariffs (CET), it will change GDP, volume of consumption, and the terms of trade by negligible amounts, whereas accession to the internal market adds 0.1 per cent to GDP growth, 0.4 per cent to the volume of consumption, and 1.2 per cent to the terms of trade.[45]

2.5. Industry-specific effects – agriculture as a sensitive sector

As mentioned before, the patterns of inter-industrial trade show high, but declining revealed comparative advantages for the EU over the CEECs in industries with high R and D intensity (*e.g.* pharmaceuticals and computers) and high product differentiation (*e.g.* measuring instruments and machinery). Low and decreasing comparative advantages occur in scale and capital-intensive industries (*e.g.* chemicals, rubber and plastic, and motor vehicles) and in those with high technological levels. Comparative advantages for the EU in industries with high wage levels are considerable, but they have been declining since initial adjustment in the years of transition. Observed comparative advantages of the EU in food and agriculture depend on a high level of policy intervention (subsidies, trade protection) rather than 'true' comparative advantages. But high if decreasing levels of revealed comparative advantage for the CEECs can be seen in natural resources and re-

source-intensive industries, and in trade in commodities of a low technological standard. The CEECs have high and rising levels of revealed comparative advantage in labour-intensive goods (*e.g.* clothing, footwear and textiles), 'sensitive' industries (showing a high level of tariff and non-tariff protection from the EU), such as shipbuilding, basic iron and steel, and to a lesser extent in textiles, clothing and footwear.[46] Only in clothing, footwear and textiles, where imports from the CEECs have gained notable market shares in Germany (8.5 per cent), and for exports, in communication equipment, measuring instruments, computers and motor vehicles, is a notable effect on relative prices foreseen. Significant wage and employment effects of trade are expected to be limited to these industries as well.[47]

The EU study calculates detailed effects on supply and demand in various German industries.[48] It concludes that agriculture, textiles, clothing and chemicals are the industries affected most in Germany, and food and metal-processing industries to a lesser extent. Food industries face by far the greatest change in EU external protection – a 22.0 per cent cut in external EU tariffs plus a 5.6 per cent decline in real trade costs with the CEECs – and show an above-average trade elasticity (3.5), which generates an import boom of Eastern food products (+243.0 per cent). With noticeably falling domestic prices (-0.43 per cent), the food industries take advantage of new export opportunities to CEECs markets, which prevents contraction relative to agriculture. The export boom in textiles and clothing (+137.7 per cent), on the other hand, is due to increasing demand (+179.2 per cent) from the CEECs induced by lower producer prices (-0.63

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[44] *Ibid.*, p. 22; Table 5.

[45] Lejour *et al.* (2001), p. 10, pp. 15–17 and p. 21.

[46] Boeri and Brücker 2000, pp. 40–42.

[47] *Ibid.*, p. 47.

[48] See Table 6.

per cent). But these industries experience the biggest loss in domestic demand (-4.90 per cent), as quite a high rate of EU tariff protection is removed (-11.0 per cent) and real trade costs fall by 9.2 per cent. Yet, textiles and clothing expand output strongly by 2.18 per cent, due to a high initial share of exports to the CEECs. A similar, less pronounced development occurs in chemicals. Output is up 2.6 per cent and exports to CEECs are up 41.6 per cent. In metal processing, output is up 1.4 per cent and exports to the CEECs up 45.9 per cent. Demand for highly skilled and low-skilled labour increases most in chemicals (+1.76 per cent and +1.78 per cent), textiles and clothing (+0.96 per cent and +0.97 per cent) and metal processing (+0.86 per cent and +0.87 per cent), while it decreases in the food industries (-0.81 per cent and -0.80 per cent).[49]

The EU study expects agriculture in Germany to be the sector most affected by Eastern Enlargement, as it has the highest tariff and non-tariff protection. As soon as CAP applies to the CEECs, expansion of low-cost farm output in the CEECs is expected to depress world-market prices by about 2.0 per cent and German imports from the CEECs will in increase in the long run by 133.1 per cent. For the same reason, the increase in home prices relative to world-market prices reduces German domestic demand (-3.5 per cent) and agricultural exports (-8.1 per cent), except exports to the CEECs (+20.6 per cent), which benefit from falling real trade costs (-4.6 per cent). Moreover, as intermediate goods account for a low share of agricultural costs, the sector benefits less than others from lower import prices and is more affected by rising factor costs. Thus the demand shock in agriculture mainly turns into an output contraction of 3.1 per cent and

demand for highly skilled and for low-skilled labour falls by 3.6 per cent.[50]

The OIM report also points to a notable boost in agricultural production in the CEECs, which extend the arable land in the EU by 55 per cent. This brings additional oversupply onto the German agricultural market, which has notable surpluses already. On the one hand, it concludes that Germany's agriculture may be among the losers by Eastern Enlargement. It expects price reductions for German beef and cereals, increasing competition from the CEECs for cattle and calf breeding, and mounting competition for regions bordering the CEECs. On the other hand, agricultural prices have been rising in recent years in the CEECs due to intervention and increasing costs, so that price differentials between the EU 15 and the CEECs are shrinking, due to CAP reforms and increasing costs in the CEECs from higher quality and ecological standards.[51]

2.6. Migration as a major impact

The migration associated with economic integration has impacts on the German economy. First, results from a calculation of migration potential are presented, in which impacts on the German labour market and the welfare system are discussed. One major finding is that the degree of effect depends largely on the skill types of labour that migrate and the regions in which they settle.[52]

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[49] *Ibid.*, pp. 16–18; Table 6.

[50] Keuschnigg 1999, pp. 16–18; Table 6.

[51] Quaisser 2001A.

[52] For more detailed analysis of the first Eastern Enlargement, see this author's forthcoming paper 'Migration potentials following the first EU Eastern Enlargement – impacts on Germany's labour market and the social welfare system'.

An econometric model of migration potential for Germany

This subsection presents the results of an econometric model of the migration potential to Germany generated by Eastern Enlargement, calculated from the DIW and the EIC in 2000. The model has been chosen because its assumptions seem closest to reality and the results fall around the average of all the calculations.

This EIC/DIW study explicitly considers how propensity to migrate is distributed unevenly, so that country-specific shares of the population do so, given the presence of income differentials. Once that segment has moved, net migration declines to zero, leaving future immigration as a function of income differentials (GDP per capita at PPP), employment prospects (highly dependent on unemployment rates), individual factors (a country-specific dummy variable), the stock of earlier immigrants in the destination country, and institutional factors.[53] The study performs econometric analysis of migration potentials from the 10a CEECs, calculating long-term equilibrium for stocks of immigrants to Germany, using historical data for migration in 1967–98 to Germany, from the EU 15, Norway, Switzerland, former Yugoslavia, Turkey and the United States. The authors give several reasons why the results of past migration movements from the 18 countries considered can, to a limited extent, project migration potentials from the 10a CEECs to Germany in the 21st century. They argue that most past migration happened in times of economic growth and near-zero unemployment. Although income differentials between Germany and the CEECs are much greater than they were with the 18 countries in the study, geographical distances are much smaller. So the data input can give an indication of the migration effects of Eastern Enlargement, but not an accurate prognosis. The study takes three scenarios for the development of income differentials, but this paper keeps to the baseline scenario findings. Results are average numbers that can vary widely with business cycles.[54]

In the baseline scenario, GDP per capita in Germany grows at an annual average of 2 per cent and in the 10a-CEECs at 4 per cent, cutting income differentials by 50 per cent in the next 35 years,[55] with unemployment rates stable at the 1988 rate for Germany and the 1998 rate for the 10a CEECs. The outcome of this scenario shows an annual increase in the number of residents from the 10a CEECs in Germany of about 218,000 in 2002, declining to increases of 162,000 in 2005, 95,600 in 2010, 27,500 in 2020 and 1,500 in 2030. To sum up, there will be an increase of about 2,000,000 residents from the 10a CEECs in Germany in the period 2002–30, of whom 1,355,000 are expected to arrive by 2010. Adding the stock of past immigrants, there will be around 2,500,000 residents from the 10a-CEECs in Germany by the year of 2030, making up 3.5 per cent of Germany's population. Extrapolating these results onto the EU 15 shows that about 3,000,000 migrants to the EU 15 can be expected up to 2030, a potential migration of which Germany receives two-thirds. The authors conclude that migration to Germany will increase as a result of Eastern Enlargement, but it will be spread over a long period and fall to almost zero by 2030, when long-

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[53] Brücker 2000. *E.g.* the degree to which migration of labour is institutionally limited – this study assumes unlimited movement of labour from the year 2002 onwards in all its three scenarios.

[54] *Ibid.*; Table 8.

[55] That makes a convergence rate of 2 per cent a year for income differentials.

term equilibrium for the migration stock is reached.[56]

There remain three aspects of recent events that may change these predictions radically. (1) The unlimited movement of labour assumed in the EIC/DIW-study is not realistic, since the Copenhagen Summit of the EU Council in 2002 proposed a period of limitations on free movement of up to seven years,[57] interestingly, after strong pressure from Germany. (2) The first EU Eastern Enlargement actually took place on May 1, 2004, not 2002 as the study assumes. These two changes may have a notable impact on the calculation, or they may just postpone the migration potentials. (3) It was Malta and Cyprus, not Romania and Bulgaria, that joined the first round, which certainly reduces the migration potential, of which Romania had been expected to account for 605,000 (30 per cent).[58]

The impacts of migration on Germany's labour market

Immigration of foreign labour does not necessarily have a detrimental effect on domestic workers. Economic theories suggest that in open economies, the effects of migration on wages and employment can be neutral, but they can also affect inter-industrial wage differentials and displacement risks. The wage and employment effects of migration may not be spread evenly among workers. Those who have human-capital endowments for which immigrants may act as a substitute will lose, while those with complementary human-capital endowments may benefit. Furthermore, the results depend to a remarkable extent on the skill structure of the immigrants. This subsection considers the results of several studies on the impacts of immigration on the German labour market. They all suggest that the results depend on the qualifications of the immigrants and the flexibility of the labour market, so that they may be far less threatening than has been predicted in public discussion.

According to the results of the IFO study,[59] the inflexibility of the German labour market will mean that an additional supply of labour, at least in the short term, will increase unemployment rather than decreasing wage levels. The study also reaches six other conclusions. 1) The qualification structure of the immigrants from the CEECs will continue to lean towards workers with higher skills than those of other immigrants. 2) Increasing immigration from the CEECs will put pressure on wages in some parts of the German labour market, especially on low-skilled jobs in production industries. Impacts on the general wage level may be positive, but a wider wage structure may be detrimental to income allocation in Germany. Pressure on wage levels is expected to develop in industries where domestic workers are substitutive, rather than complementary to immigrant workers. The authors expect such crowding-out effects for low-skilled workers in Germany's manufacturing and construction industries. For low-skilled workers in services, the authors foresee minor crowding-out effects, as relations of domestic to immigrant workers are more complementary there. The results show that in general, the impacts on wage levels and employment depend strongly on immigrants' level of skills. Incomes of low-skilled workers decrease and incomes of highly skilled workers increase slightly if immigrants are mainly low-skilled workers, whereas incomes of highly skilled

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[56] Brücker 2000; Table 8.

[57] This was also the case after the Southern Enlargement in 1986.

[58] *Ibid.*; Boeri and Brücker 2000, pp. 121–4; Table 8.

[59] Sinn 2000.

workers decrease slightly and incomes of low-skilled workers increase if most immigrants are highly skilled. In the past, relatively highly skilled immigrants from the CEECs have mainly been employed in relatively low-skilled jobs. If they can manage to find employment in jobs that match their skills, they may reduce the peak levels of wages in highly skilled jobs, in IT, for instance. 3) Immigration from the CEECs intensifies expansion of the service sectors in Germany, as more and more immigrants are employed in the service sectors, which increases growth and employment rates in the long term by raising allocation efficiency and consumption. 4) In the long term, the jobs of immigrants will adjust to their skill levels, whereas in the short term, highly skilled and low-skilled immigrants compete for the same jobs. 5) Immigration of cross-border commuters implies long-term chances, but also risks for the labour markets of regions directly bordering the CEECs. 6) Commuters from the CEECs can function as a reserve and buffer for the German labour market, which may in the long term be burdened by an ageing society and therefore happy to welcome young workers from the CEECs.[60]

The OIM study[61] also emphasizes the relevance of the relation between domestic and immigrant workers, with immigration of substituting workers decreasing domestic wage levels and immigration of complementary workers rather increasing them. The study also highlights the importance of the skill levels of immigrants and draws the same conclusions as the IFO study on domestic wage levels. The authors mention a study on Germany that shows the results of a 1 per cent increase of employment by general immigrants causing domestic wages of all workers to de-

cline by 0.35 per cent, with a 0.45 per cent decline for low-skilled wages and a 0.12 per cent increase for highly skilled. They mention another study that models a 1 per cent increase of domestic labour by low-skilled immigrants, with stable unemployment rates resulting in a 3.1 per cent decline of low-skilled wages and a 0.5 per cent increase of highly skilled wages. However, if immigrants are mainly highly skilled workers, the wages of low-skilled workers are up by 0.8 per cent, whereas the wages of highly skilled workers are down 0.5 per cent. As far as unemployment is concerned, the authors emphasize that studies have not found any remarkable impacts of immigration on unemployment in the destination country, although there is a slight tendency to increase unemployment among low-skilled workers.[62]

The EIC/DIW-study also mentions substitution and the complementary aspect of highly skilled and low-skilled workers, and the relevance of rigidity of domestic wages. The authors build up two scenarios. In the first, it is presumed that immigrants are all low-skilled workers. If wages are flexible, they decrease so much that immigration equivalent to 1 per cent of the population keeps incomes and the unemployment rate of low-skilled workers stable, whereas if wages are rigid – if domestic workers are substitutive by immigrants – incomes of domestic workers decrease by 0.65 per cent. Furthermore, immigration may have a huge impact on income allocation. If immigration of highly skilled workers makes wages decline while unemployment rates remain constant, incomes of low-skilled workers decrease by 3.1 per cent and incomes of highly skilled workers increase by 0.5 per cent. In the second scenario, all immigrants are highly skilled workers. The complementary relation between

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[60] *Ibid.*, pp. 108–19.

[61] Dietz *et al.* 2000.

[62] *Ibid.*, pp. 45–6.

highly skilled and low-skilled workers, in this case, makes demand for low-skilled workers increase. The development of wage levels still depends on the degree of rigidity. Thus immigration of highly skilled workers can increase incomes of low-skilled workers, but with concurrent allocation effects. If wages are flexible, incomes of low-skilled workers will increase by 0.8 per cent, whereas those of highly skilled workers will decrease by 0.5 per cent, leaving unemployment rates stable. However, if wages are rigid, unemployment of low-skilled workers will be sharply reduced and incomes of domestic workers increase by 1.38 per cent, in the case of immigration equivalent to 1 per cent of the population.

The IZA study refers to the EIC/DIW study and concludes that immigration into Germany after Eastern Enlargement by 10 CEECs will have modest general effects on the German labour markets. Furthermore, immigration of highly skilled workers may even bring growth effects in Germany and impacts of low-skilled workers migrating to Germany will be bearable, but the exact skill structure of the potential immigrants cannot be foreseen.[63]

These results underline my conclusion that impacts of immigration are differently allocated among highly skilled and low-skilled workers. Since the precise structure of potential migrants of an EU Eastern Enlargement coming to Germany cannot be known in advance, the exact allocation of benefits and losses among domestic workers is not sure yet. But, it should be emphasized that overall impacts on the German labour market are commonly regarded as moderate. The next section analyzes if this also holds true for the social welfare system.

Impacts of migration on Germany's welfare system

This subsection discusses whether additional immigrants expected in Germany after Eastern Enlargement will negatively affect Germany's welfare system as net beneficiaries of it, which would generate additional artificial migration incentives.

The study by Krieger and Sauer (2003) exclusively considers impacts on Germany's pension system, which they expect to be more or less negligible, but positive. They emphasize that potential migrants to Germany are expected to be relatively young, so that they will contribute to the German pension system rather than benefit from it, even in the long term, provided the migration potential turns out to be around the estimated 130,000–300,000 a year for the first 15 years.[64] The study further expects Germany's public pension spending as a proportion of GDP to increase from 11.8 per cent in 2000 to 16.9 per cent in 2050, calculated on a baseline of 300,000 net immigrants a year in 2000 declining to 20,000 in 2050. The authors find out that a 50 per cent increase in the number of immigrants lowers pension spending by only 1 per cent. So the authors conclude that even massive immigration to Germany after Eastern Enlargement will only have slight effects on the pension system.[65]

The IFO study analyses impacts on the whole social welfare system in each of the social security funds. It finds that immigrants on average contribute 5 per cent less to the public health-insurance system than Germans do. To the public nursing-care insurance system, however, foreigners in 1997 contributed EUR 1 billion[66] more than they received. Even

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[63] Bauer and Zimmermann 1999, pp. 65–74.

[64] Krieger and Sauer 2003, pp. 17–18.

[65] *Ibid.*, p. 25.

[66] The figures have been converted at a rate of 2 DEM to 1 EUR.

when taking into account that they built up claims on future benefits from the funds, the study concludes that foreigners are net contributors to the public nursing care-insurance system, contributing more to it than Germans do. To the public pension system, foreigners are generally net contributors on the basis of current payments,[67] whereas Germans are not. With public unemployment insurance, immigrants receive more benefits than they contribute, with those staying less than 24 years in Germany contributing, but those staying longer than 25 years benefiting to a greater extent. The situation looks different with public payments from the social security funds. Just 1.3 per cent of all Germans receive social-security payments, while 3.1 per cent of all foreigners do. Finally, the study calculates a balance for all public funds and concludes that foreigners in 1997 were net recipients from the German social welfare system, by a so-called migration premium amounting to EUR 700 per capita. This becomes EUR 2300 for those in their first ten years and EUR 850 EUR[68] for those who have been in Germany for longer than 25 years. The authors argue that immigrants have low average skills or find employment in the short term in jobs demanding a lower level of skills than they possess, so that their wage incomes and thus their contributions to the welfare system are relatively low compared to social benefits they receive. [69]

In another IFO report,[70] the authors use the finding that immigrants into Germany are net recipients of the welfare system to argue for artificial migration incentives, especially among low-skilled workers and thereby in the short run an enlarged migration potential for Germany. The resulting fiscal burden, the authors argue, might encourage the destination country to reduce benefits from the welfare system, resulting in competitive erosion of EU welfare systems.

3) NET WINNERS AND LOSERS IN GERMANY

Without drawing conclusions yet, simply to evaluate the various impacts mentioned so far and reveal their relative weights, let me sum up some of the findings on Enlargement's net effect on Germany. It is then possible to identify the winners and losers in general and mention specific impacts of the reorganization of the EU structural policies on certain crucial regions bordering the CEECs.

3.1. Evaluation of the effects

The EIC/DIW-study analyses whether the integration effects of Enlargement with the 10 CEECs are large enough to matter in Germany. The authors point out that size is critical. Integration of the CEECs has no impact on wages and employment if external non-EU countries remain marginal suppliers in certain markets. In that case, increasing exports of labour-intensive goods from the CEECs to the EU partially redirect trade from external countries, but leave product prices unchanged. If the CEECs are large enough to redirect EU imports completely away from external countries, they become marginal suppliers to the EU and the protective effect of EU tariffs is at least partly removed. This is

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[67] *I.e.* if they do not stay longer than 25 years.

[68] See Note 66.

[69] Sinn *et al.* 2000, p. 190.

[70] Sinn and Werding 2001, pp. 44–5, and Sinn 2002, pp. 107–9.

likely to apply to labour-intensive goods with high transport costs. In most sectors, the import shares of the CEECs are too small to cause a complete redirection of trade flows. Only in clothing, footwear and textiles industries do their imports achieve notable market shares in Germany (8.5 per cent), which means that significant price shifts can be expected in some products of these industries. The shares of EU exports taken by the CEECs are notable in communication equipment, measuring instruments, computers and motor vehicles. If significant impacts on wages and employment by trade occur at all, the authors expect them to be limited to these industries. Although there are effects on low-skilled labour to be expected in regions directly bordering the CEECs, they will not be large enough to affect the marginal supply of low-skilled labour to a noticeable extent. The study concludes that the differences in factor endowments, as far as trade and FDI are concerned, are too small to affect marginal demand and supply significantly. This means that national wage levels and employment in Germany will be hardly affected by Enlargement by the 10-CEECs. But the authors stress that increasing division of labour – technological and human resource-intensive production in the EU 15 and more labour-intensive production in the CEECs – may have a strong impact on relative wage levels and employment in regions directly bordering the CEECs.[71]

The EU study[72] concludes that Eastern Enlargement, despite widespread concerns, is clearly beneficial to the German economy in overall welfare terms. The authors mention the concerns of low-skilled workers about possible increasing competition from CEECs biased towards labour-intensive production. These weigh particularly heavy in political discourse in Germany. Because of geographical location and historic developments, the authors argue, trade shares of the CEECs are more pronounced in Germany than in the EU average. So Germany is more exposed to the opportunities as well as the risks of Enlargement. Despite challenges for the agricultural sector, Enlargement offers huge potential for investment-led expansion of the German economy. These expansionary effects enlarge the tax base, generating a fiscal dividend on a scale that broadly compensates Germany for the fiscal costs of Enlargement and contributes to better fiscal balance of payments in the long term. The study calculates an increase of 0.52 per cent in public transfers to households with no change in public debt. Integration will benefit capital-intensive and labour-intensive industries. As a result, Enlargement will not significantly affect the wage gap between highly skilled and low-skilled labour. The authors conclude that Eastern Enlargement may be broadly self-financing and promises considerable welfare gains for present member-states.[73]

In another OIM report,[74] the authors foresee that Germany will be among the net winners by Eastern Enlargement. The results of several studies cited put Germany in the winning group along with Italy and Austria, if not in the top beneficiary position. But the report also mentions some facts that are uncertain today and are maybe not considered well enough by the EU member-states. The author is afraid that the long-term fiscal costs of Enlargement for net contributors to the EU budget might be underestimated. Furthermore, he expects that positive effects of migration on the EU 15 economies may not

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[71] Boeri and Brücker 2000, pp. 46–8.

[72] Keuschnigg 1999.

[73] Keuschnigg 1999, 1 (executive summary) and pp. 25–6.

[74] Quaisser and Hall 2002.

materialize, since Western European labour markets, especially the German one, are marked by restrictions and inflexibility.[75]

3.2. Winners and losers

Although Germany is expected to be the biggest winner by Eastern Enlargement, the benefits will differ widely between regions and sectors. There are even remarkable losses expected, especially for low-skilled labour in certain labour-intensive industries, in regions directly bordering the CEECs. Most of the findings shown here have been discussed in various sections before. They are merely summarized here to reveal the main winners and losers by Eastern Enlargement.

The findings of the EU study further extend findings on various groups in Germany likely to be most affected by Enlargement and thereby to benefit or lose from it to a noticeable extent. Benefits for owners of capital, generally from enhanced profits and equity values, will appear quite soon, while benefits for workers will take effect only after some time, along with capital accumulation. But windfall gains and losses to owners of capital will be distributed quite unevenly among industries. Agriculture and food processing are expected to be among the losers, as subsidies from CAP will be extended to the CEECs and thereby redistributed, while chemicals, metal processing, textiles and clothing industries may benefit, as shown in more detail in Section 2.5.[76]

The author of an FES report expects low-skilled workers in construction, restaurants and agriculture, especially in border regions, to be among the losers by Enlargement, but foresees exporters, importers and capital-owning investors benefiting from reduced risks, common regulations and standards, and reduced distortion of competition, after the adoption of EU law in the CEECs.[77]

The OIM report[78] expects the German agricultural sector especially to be among the losers by Eastern Enlargement. Cattle and calf breeding in regions bordering the CEECs might suffer increasing competition. Domestic price reductions for German beef and cereals are expected. However, positive effects on employment are expected in export-oriented industries, although they will be rather moderate. The authors emphasize that generally high positive potentials from Enlargement could compensate for negative ones, so long as Germany is well prepared for it. Problems of structural and institutional deficits on the German labour market are mentioned, these being due not to impacts of Enlargement, but requiring extensive reforms and structural adjustment processes in general.[79]

A study by the IFO for the Bavarian Ministry of the Economy[80] concludes that Enlargement will result in only moderate welfare gains for the EU 15, and that these benefits will be widely spread among regions and industries. Furthermore, gains will be higher in regions and industries that have intensified trade activities with the CEECs. So Germany, and especially Bavaria, will be the most affected by Enlargement. The authors mention studies that calculate a long-term 0.5 per cent increase in Ba-

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[75] *Ibid.*, pp. 23–4.

[76] Keuschnigg 1999, 1.

[77] Dauderstädt 2002.

[78] Quaisser 2001A.

[79] *Ibid.*

[80] Alecke *et al.* 2001, pp. 94–127.

varia's share of GDP.[81] Labour-intensive industries in Eastern Bavaria, directly bordering the CEECs,[82] such as construction and processing industries, will certainly face increasing competition from labour migrating from the CEECs and for reasons of income differentials, most probably belong to the group of losers by Eastern Enlargement. The study points out that the degree of competitiveness of Bavarian regions determines which will benefit and which lose by Enlargement.[83] Theories differentiate between sectoral and regional competitiveness. The former covers the competitiveness of a region's sectoral structure and the latter analyses the extent to which factors are responsible for economic growth in a region in the long term. With the sectoral structure, it turns out that 45 regions out of 96 have a structure superior to the German average and 51 have one inferior. The regions along the Czech border decidedly belong to the ones with an inferior, less growth-oriented sectoral structure. Regions with less growth potential in Bavaria will especially face adjustment pressure from Enlargement. However, analyzing regional competitiveness, the study shows a correlation with factors of potential growth in Bavaria's regions. Growth is positively correlated with industrial investments, foreign turnover, highly skilled workers, patent intensity and a developed infrastructure, and negatively correlated with degree of initial productivity. The authors conclude that Bavaria's border regions are poorly endowed with these factors and will therefore encounter adjustment pressure from Enlargement.[84] Similar developments are expected in federal states of

Eastern Germany, especially those directly bordering the CEECs: Mecklenburg-Hither Pomerania, Brandenburg and Saxony. For these, there may be an additional burden from redistribution of EU structural policy funds, as explained in the next subsection.

3.4. Reorganization of EU structural policies and impacts on crucial border regions

Figures from the EIC/DIW study point out that the shares of trade with the CEECs are aspects of Germany's trade volume that differ strongly between federal states. With the old federal states in Western Germany, the CEECs had an average share of 6.25 per cent of all trade in 1997, but the average among the new federal states in Eastern Germany is 14.35 per cent, with peaks in Saxony (20.2 per cent) and Mecklenburg-Hither Pomerania (16.6 per cent) and lows in Berlin (9.4 per cent) and Thuringia (11.0 per cent), giving an aggregate 9.3 per cent for the CEECs' share of Germany's trade. The study emphasizes that countries and regions in geographical proximity to the CEECs are particularly affected by trade. On the one hand, this causes pressure on wages and employment in these regions, as concluded in several sections. On the other hand, it also provides remarkable trade opportunities for companies in Eastern German regions.[85]

Besides trade and growth potentials, these border regions will be greatly affected by changes in national and EU subsidies. The authors of one report in 2002[86] presented changes in EU subsidies resulting from Enlargement and its impacts on Eastern German

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[81] *Ibid.*, p. 236.

[82] *I.e.* Oberfranken-Ost, Oberpfalz-Nord, Regensburg, Donau-Wald, Landshut and Südostbayern.

[83] *Ibid.*, pp. 94-127.

[84] *Ibid.*

[85] Boeri and Brücker 2000, pp. 36–8.

[86] Rosenfeld and Kronthaler 2002.

companies. They mention that average GDP in the enlarged EU will decrease by about 13 per cent from first-round Enlargement and by as much as 18 per cent from the second round, including Romania and Bulgaria. This in turn will have an impact on EU regional and structural policies. Since most Eastern German regions belong to the category of target-1 areas for regional subsidies, they will be affected to a remarkable extent. Criteria for subsidization in this category is a regional GDP per capita of less than 75 per cent of the EU average. Without Enlargement (the status quo scenario), the number of subsidized target-1 areas in the EU 15 for the period 2000–2006 would increase from 46 in 1999 to 60. After first-round Enlargement, though, the number will decrease to 29 and after the second round to 19. Eastern Germany is especially affected, as there are nine target-1 areas in Germany in the status quo scenario.[87] After a first Enlargement round, though, this number decreases to two[88] and after a second round only the district of Dessau remains in the target-1 area category. Altogether in the period 2000–2006, the funds for target-1 areas in Eastern Germany amount to around EUR 20 billion,[89] with an additional EUR 0.75 billion for Eastern Berlin. Assuming that seven areas will no longer be target-1 after the first Enlargement round, these amounts make up fiscal losses by the federal states.[90] Saxony will still get EUR 1.9 billion for Chemnitz and Saxony-Anhalt EUR 1.3 billion for Dessau, adding up to some EUR 0.5 billion a year over the 2000–

2006 period. This means that target-1 area subsidies for Eastern Germany will decrease from an annual EUR 2.9 billion to EUR 0.5 billion. Also expected is a reduction in national subsidies for investments by private companies in affected regions, so that they will suffer a double loss. New EU regulations limit subsidization for major investments over EUR 100 million, which was expected to apply in Eastern Germany by 2004. Concluding, the authors recommend that affected regions and companies reduce their location-specific disadvantages, especially by forcing expansion of infrastructure, to use Eastern Enlargement as an incentive to reduce their regional competitive disadvantages.[91]

In line with this advice is a recommendation in a comment on extended investment subsidies for Eastern German border regions in 2000.[92] The author concludes that subsidies requiring border regions to reduce their location-specific disadvantages would provide more effective incentives to improve competitiveness than investment subsidies would.

Apart from the subsidy cuts mentioned so far, there are some increasing subsidies for the border regions coming from Community policies. The NUTS II[93] definition of border regions covers eight areas of Germany: Lower Bavaria, Oberpfalz, Oberfranken, Brandenburg, Berlin, Mecklenburg-Hither Pomerania, Chemnitz and Dresden. There is an EU paper devoted to development of the main source of Community regional aid, *i.e.*, subsidies from structural funds at the levels of Objectives 1 and 2. Of these funds, the states of Mecklenburg-Hither Pomerania, Brandenburg and Saxony, directly bordering the CEECs,

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[87] The federal states of Brandenburg, Thuringia, Mecklenburg-Hither Pomerania, in Saxony the Chemnitz, Dresden and Leipzig districts, and in Saxony-Anhalt, the Dessau, Halle and Magdeburg districts.

[88] Chemnitz and Dessau.

[89] EUR 5.8 billion for Saxony and some EUR 3.5 billion for each of the other states.

[90] Except for Saxony and Saxony-Anhalt.

[91] *Ibid.*, pp. 266–73.

[92] Heimpold 2000, p. 466.

[93] *I.e.*, the Nomenclature of Territorial Units for Statistics.

will receive some EUR 10.4 billion in the 2000–2006 period.[94] Community support for Berlin amounts to roughly EUR 1 billion in the same period. This includes Objective 1 support of EUR 0.688 billion to Eastern Berlin in the 2000–2005 period and Objective 2 support of EUR 0.384 billion to Western Berlin in 2000–2006. Bavaria's Objective 2 programme, which covers regions along the entire border with the Czech Republic, receives some EUR 0.537 billion in 2000–2006. The EU will also pay cross-border subsidies from its INTERREG[95] funds for border regions, a total of EUR 4.875 billion in 2000–2006. For Germany, these will amount to EUR 0.627 billion for cross-border cooperation programmes in 2000–6,[96] of which 67 per cent is dedicated to border regions in Germany. Bavaria's share, about EUR 60 million, represents an increase in average annual amounts of 196 per cent over the 1994–9 period.[97]

4) CONCLUSION

Several theories on economic integration have already advanced highly abstract theoretical models of the benefits of integration to all parties. Calculations do indeed point to mutual benefits from the first EU Eastern Enlargement, for the 10 CEECs and for the EU 15, with Germany generally among the winning group, if not the main winner by the Enlargement.

This is not a priority favoured by the German public. Surveys suggest that people do not support it in high numbers, although they see no reason to oppose it vigorously either. Many think it will not affect them personally. Germans believe the arguments of their government and the EU that Enlargement brings political advantages, but they are less convinced about economic benefits. They feel exposed to waves of migration affecting their labour market and welfare system.

With the financing of Eastern Enlargement, Germany, as the largest net contributor to the EU budget, will certainly face a huge inescapable fiscal burden. Rather pessimistic studies calculate a net present value of fiscal costs at EUR 132.4 billion for the first round of 10 CEECs, rising to EUR 220 billion for a second round including Bulgaria, Romania and Turkey. These give increases in Germany's net contributions to the EU budget of 0.4 per cent and 0.6 per cent, respectively. Other studies expect Germany's net contributions after the first Enlargement to rise from EUR 6.1 billion in 2002 to EUR 9.5–11.6 billion in 2007 and EUR 10.4–13.7 billion up to 2013, after a second round. The precise course of Germany's net contributions to the EU budget will depend on the extent to which the structural policies and CAP are reformed.

Impacts of increasing FDI and capital movements from Germany to the CEECs are expected to bring negligible crowding-out effects on investment in Germany, except in manufacturing and processing industries that might be negatively affected by cost-oriented FDI to the CEECs.

Benefits for Germany from an Enlargement may, on the one hand, come from increasing trade with the CEECs. Optimistic calculations see 50

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[94] The total was EUR 8.4 billion in 1994–9.

[95] Funding for INTERREG III (the latest phase of the EU's INTERREG Community Initiative for regional policy) comes from the European Regional Development Fund, one of the Structural Funds. A total of EUR 4.875 billion is available for 2000–2006 period, split over three strands: cross-border (A), transnational (B) and interregional (C).

[96] Compared with EUR 0.419 billion for 1994–9.

[97] European Commission 2001, pp. 13–14.

per cent increases, since the effects of complete single-market access for the CEECs are expected to be much greater than those of tariff cuts agreed earlier in the Europe Agreements. More pessimistic studies note that shares of CEECs in all Germany's trade are generally too small to make a noticeable impact, with textiles, clothing and metal industries as well as agriculture being the exceptions. If the increased trade has any notable effects on the German labour market, low-skilled employees in such labour-intensive industries may lose, while highly skilled labour in high-technology industries gains.

On the other hand, benefits are expected in the form of general economic growth from export-led expansion, followed by improving terms of trade with the CEECs and increasing wages for highly skilled and low-skilled workers. GDP growth of 0.44–0.63 per cent for the years 2005–10 and an additional welfare gain of 0.375 per cent are calculated for Germany.

Industries affected most in Germany will be agriculture, textiles, clothing and chemicals, while food and metal processing will suffer less. The agricultural sector in Germany is thought to be the main loser by increasing competition and additional supply caused by price differentials.

The main impacts of Enlargement on the German economy are likely to come from East-West migration. The calculated overall migration potentials imply an annual increase in residents from the 10a CEECs in Germany of about 218,000 in 2002, declining to about 162,000 a year in 2005, 95,600 in 2010, 27,500 in 2020 and 1,500 in 2030. Thus there will be an increase of about 2,000,000 residents from the 10a CEECs in Germany over the 2002–30 period, so that Germany bears two-thirds of all the migration potential for the EU 15.

Impacts of this migration potential on the German labour market are expected, such as crowding-out effects for low-skilled workers in Germany's manufacturing and construction industries. Studies generally conclude that incomes of low-skilled workers will decrease and those of highly skilled workers slightly increase if the immigrants are mainly low-skilled workers, while incomes of highly skilled workers will slightly decrease and those of low-skilled workers increase if immigrants are mainly highly skilled workers. No noticeable impacts of immigration on unemployment in the destination country have been found, export for a slight bias towards increasing unemployment among low-skilled workers. The EIC/DIW-study, based on an immigration potential of 200,000 a year over a period of 10–15 years expects decreasing wages (0.81 per cent) and increasing unemployment (0.54 per cent). Low-skilled workers, especially in regions directly bordering the CEECs, will face sharper income cuts than highly skilled workers. However, most studies expect the impacts of immigration on the German labour markets to be modest.

A high share of the migration potential is connected with dysfunctional incentives deriving from higher social-security benefits in Germany than in the CEECs. Although the calculations differ widely, it can be assumed that immigrants to Germany are net recipients from the welfare system, which results in additional artificial migration incentives, especially among low-skilled workers and thereby in the short run in an enlarged migration potential for Germany. The resulting fiscal burden may encourage the destination country to reduce such benefits across the board, so that erosive forces of competition among EU welfare systems may evolve.

Although all studies agree that Germany is most likely to have the highest net benefits from Enlargement,

these may be rather unevenly allocated beneficiaries and there will probably be winners and losers. Agriculture and food processing are expected to be losers, while chemicals, metal processing, textiles and clothing industries will benefit. There are losses expected, especially for low-skilled labour in certain labour-intensive industries in regions directly bordering the CEECs, *i.e.* the new federal states in Eastern Germany and regions in Eastern Bavaria. In Bavaria, processing industries, construction and demand-oriented services are likely to be most affected by immigration. Underdeveloped border regions will face fiscal cuts derived from reorganization of EU structural policies.

On top of these regional losses, there are some general structural problems in Germany's labour market and welfare system likely to dominate political discussion in the coming years, as they already do as this paper is written. The German labour market, like most in Western Europe, has an overload of restrictions and inflexibility, *i.e.* inflexible and restricted working conditions, rigid wages and powerful unions. These restrictions will probably erect barriers for positive welfare effects on the German labour market by immigration of highly skilled labour, as rigid wages will prevent positive employment effects. However, the German government has probably managed to mitigate negative effects of migration on the labour market and the welfare system in the early years, by pushing for transitional periods of limited movement of labour. As migration potentials and impacts on labour markets and the welfare system will probably be postponed for the transitional periods, this success in negotiations should not be abused as a chance for the political elites in Germany to avoid implementing necessary structural reforms.

When analysing potential impacts of Eastern Enlargement on the German economy today, and maybe in a future follow-up review, it is necessary to look for causality. There has to be clear differentiation between effects of Enlargement and consequences of restrictions and inflexibility on the German labour market or wrong incentives in the welfare system. Although Germany's political elites need to give top priority to ending such dysfunctional incentives and inflexibility, there is also a need for objective evaluation by economists, to prevent misleading calculations of net results making the first EU Eastern Enlargement a scapegoat for inadequate and insufficient political reforms, instead of opening up prospects of for further Enlargement rounds covering Turkey, Russia, Ukraine and Belarus.

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Table 1
Germany's part of the EU budget

	Operating expenditures of the EU budget to Germany in EUR million and percentages of all operating expenditures	Germany's total contributions to the EU budget in mn EUR and % of all contributions	Germany's net contributions to the EU budget in mn EUR and % of the EU budget
1996	10,088.8	20,742.6	10,653.8
%	14.8	29.2	14.4
1997	10,141.1	21,217.3	11,076.2
%	14.2	28.2	14.0
1998	10,275.3	20,633.0	10,357.7
%	14.3	25.1	10.8
1999	9,852.7	21,069.0	11,216.3
%	13.9	25.5	11.6
2000	10,232.8	21,774.9	11,542.1
%	14.0	24.8	10.8
2001	10,205.1	19,727.2	9,522.1
%	14.8	24.4	9.6
2002	11,532.3	17,582.2	6,049.9
%	15.9	22.6	6.7

Source: European Commission (2003B): Allocation of 2002 EU Operating Expenditure by Member State; September 2003, and own calculations

Table 2
Net present value of fiscal costs of Enlargement for Germany
(assuming the CEECs get the same aid from structural funds as
Spain and Portugal after the Southern Enlargement)

	Germany	EU-15
First round of 10 CEECs	132.4	542.6
Second round of Bulgaria, Romania, Turkey	220.5	903.8
Third round of Belarus, Russia, Ukraine	396.8	1626.1

Source: Dicke, H. (2003): Die Beitrittsvertrüge der EU - Eine Bilanzierung; Institut für Weltwirtschaft; Kieler Arbeitspapier Nr. 1157;

Table 3
Projection of Germany's future contributions to the EU budget

Germany's contributions to the 2007 EU budget in various reform scenarios for EU 25, EUR millions

2007	Status quo EU-25			Moderate reforms EU-25			Medium reforms EU-25			Substantial reforms EU-25		
	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments
Germany	6,694.0	2,785.0	-11,127.0	4,486.0	1,895.0	-11,604.0	5,982.0	1,895.0	-9,754.0	5,982.0	1,877.0	-9,537.0
EU 15	41,809.0	22,309.0	-17,351.0	30,043.0	17,054.0	-27,042.0	37,704.0	17,054.0	-14,948.0	37,704.0	15,968.0	-15,104.0

Germany's contributions to the 2013 EU budget in various reform scenarios for EU 25, EUR millions

2013	Status quo EU-25			Moderate reforms EU-25			Medium reforms EU-25			Substantial reforms EU-25		
	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments
Germany	6,156.0	671.0	-11,655.0	4,177.0	217.0	-12,256.0	3,605.0	217.0	-9,743.0	3,605.0	96.0	-9,037.0
EU 15	38,239.0	11,787.0	-23,042.0	27,702.0	9,105.0	-31,732.0	24,333.0	9,105.0	-20,193.0	24,333.0	5,494.0	-20,539.0

Germany's contributions to the 2007 EU budget in various reform scenarios for EU 27, EUR millions

2007	Status quo EU-25			Moderate reforms EU-25			Medium reforms EU-25			Substantial reforms EU-25		
	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments
Germany	6,694.0	2,463.0	-12,140.0	4,486.0	1,754.0	-12,435.0	6,982.0	1,754.0	-12,435.0	5,982.0	1,691.0	-10,423.0
EU 15	41,809.0	19,573.0	-22,818.0	30,043.0	16,035.0	-30,788.0	37,704.0	16,035.0	-18,608.0	37,704.0	15,013.0	-18,824.0

Germany's contributions to the 2007-EU budget in various reform-scenarios for a EU-27 in mn EUR

2013	Status quo EU-25			Moderate reforms EU-25			Medium reforms EU-25			Substantial reforms EU-25		
	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments	Agriculture	Structural	Net pay-ments
Germany	6,156.0	414.0	12,813.0	4,177.0	407.0	-13,673.0	3,605.0	407.0	-10,942.0	3,605.0	93.0	-10,390.0
EU 15	38,239.0	7,224.0	-31,170.0	27,702.0	9,270.0	-37,922.0	24,333.0	9,270.0	-25,516.0	24,333.0	5,357.0	-26,009.0

Source: Weise, C. (2002): How to Finance Eastern Enlargement of the EU; Deutsches Institut für Wirtschaftsforschung (DIW) Berlin; Discussion Paper 287; Berlin, June

Table 4
Long-run macroeconomic
effects on Germany

	Changes in
Consumer prices	-0.241
Investment prices	-0.085
Intermediate prices	-0.135
Domestic producer prices	0.074
Terms of trade with CEECs	7.210
Exports to CEECs	46.798
Exports to EU 14	0.677
Exports to ROW	1.137
Highly skilled labour	0.576
Low-skilled labour wages	0.560
Disposable wage income	0.498
Overall consumption	0.741
Highly skilled labour	0.035
Low-skilled labour supply	0.031
Sum of capital stocks	0.557
Output	0.550
GDP	0.449
Welfare, as % of GDP	0.375
Net foreign debts	0.101

Source: Keuschnigg, C. *et al.* (1999): Eastern to the EU: Economic Costs and Benefits for the EU Member States? Germany; Final Report on Study September

Table 5
Integration effects of
EU Eastern Enlargement on Germany
(Cumulative derivations of baseline in % of real GDP)

		German	EU
Trade	2005	0.15	0.07
	2008	0.10	0.05
Single market	2005	0.50	0.40
	2008	0.37	0.33
FDI flows to	2005	-0.07	-0.07
	2008	-0.12	-0.16
Migration to	2005	0.06	0.05
	2008	0.23	0.06
Costs of	2005	-0.01	0.03
	2008	-0.01	-0.03
Total	2005	0.63	0.42
	2008	0.48	0.26
Personal incomes in real	2005	0.73	
	2008	0.76	
Consumer	2005	-0.42	
	2008	-0.43	
Total	2005	0.09	
	2008	0.47	
Unemployment	2005	0.11	
	2008	-0.21	
Current	2005	0.04	
	2008	0.24	
Budget	2005	0.11	
	2008	0.29	

Source: Breuss, F. (2001): Macroeconomic effects of EU Enlargement for Old and New Members; Austrian Institute of Economic Research; WIFO Working Papers No. 143; March 2001

Table 6
Sectoral effects on supply and demand in German industries
(changes in %)

	Agriculture and Forest	Food	Textiles and Cloth-ing	Chemicals	Metal processing
Domestic producer prices	-0.03	-0.43	-0.63	-0.27	-0.04
Demand of highly skilled labour	-3.61	-0.81	0.96	1.76	0.86
Demand of low-skilled labour	-3.59	-0.80	0.97	1.78	0.87
Output	-3.13	0.15	2.18	2.60	1.40
Cut in external EU-tariffs	9.77	10.20	8.64	5.59	7.27
Decline in the real trade costs with the CEECs	4.62	5.56	9.23	4.78	4.17
Trade elasticity	3.92	3.50	3.92	2.58	2.79
Change in domestic demand	-3.46	0.24	-4.90	1.19	0.33
Change in imports from CEECs	133.08	243.03	179.24	47.10	36.69
Change in exports to the CEECs	20.56	86.15	137.74	41.64	45.90

Source: Keuschnigg, C. *et al.* (1999): Eastern Enlargement to the EU: Economic Costs and Benefits for the EU Present Final Report on Study XIX/B1/9801;

Table 7
Sectoral effects of removing tariffs in Germany

Adoption of the

	Relative changes of production in
Non-metallic minerals	0.2
Energy-intensive products	0.2
Metals	0.2
Machinery and equipment	0.2
Raw materials	0.2
Transport and communication	0.2
Fabricated metal products	0.1
Electronic equipment	0.1
Food processing	-1.8
Textiles and leather	-0.4
Agriculture	0.0
General manufacturing	0.0
Transport equipment	0.0
Trade services	0.0
Financial services	0.0
Services in general	0.0

Source: Lejour, A *et al.* (2001 B): EU Enlargement: Economic for Countries and Industries; CPB Nether-lands Bureau for Policy Analysis; CPB Document No. 011; September

Table 8
DIW-calculations on migration potential for Germany

Migration potential from the 10a-CEECs - Calculation by the DIW in

	2002	2005	2010	2015	2020	2025	2030
	Baseline Projection for EU 15						
Stock of immigrants	1,159,804	1,987,718	2,907,367	3,437,146	3,721,613	3,853,542	3,892,345
in % of EU 15 population	0.31	0.53	0.78	0.93	1.01	1.06	1.08
	Baseline Projection for Germany						
increase in the number of immigrants	218,429	161,722	95,560	53,720	27,509	11,320	1,539
Stock of immigrants	754,328	1,292,798	1,890,932	2,235,498	2,420,512	2,506,321	2,531,556
	Low Projection for Germany						
Increase in the number of immigrants	175,189	126,204	68,758	33,444	12,187	-201	-7,039
Stock of immigrants	711,088	1,136,369	1,585,359	1,815,231	1,914,263	1,935,258	1,912,013
	High Projection for German						
Increase in the number of immigrants	241,443	183,537	114,117	69,565	41,062	22,912	11,437
Stock of immigrants	777,342	1,383,485	2,080,670	2,509,670	2,766,918	2,914,491	2,992,507

Source: Boeri, T. and Brücker, H. (2000): The Impact of Eastern Enlargement on Employment and Labour Markets in the European Integration Consortium; Berlin and Milano

Table 9
Long-run macroeconomic effects on Germany

	Impacts of total migration	Impacts just of low-skilled migrants	Impacts just of the skilled migrants
Unemployment rate of domestic low-skilled labour (on a basis of 10.000%)	10.402	10.544	9.879
Unemployment rate of domestic highly skilled (on a basis of 6.000%)	5.890	5.912	5.977
Average unemployment rate (on a basis of 6.668%)	6.677	6.726	6.625
Wage level of low-skilled labour	-3.389	-4.251	0.921
Wage level of highly skilled	1.353	1.174	0.171

Source: Heijdra, B. *et al.* (2002): Eastern Enlargement of the EU: Jobs, Investments and Welfare in Present CESifo Working Paper No. 718 (7); May