

Klagge, Britta; Klein-Hitpaß, Katrin

Working Paper

High-skilled return migration and knowledge-based economic development in regional perspective: Conceptual considerations and the example of Poland

CMR Working Papers, No. 19/77

Provided in Cooperation with:

Centre of Migration Research (CMR), University of Warsaw

Suggested Citation: Klagge, Britta; Klein-Hitpaß, Katrin (2007) : High-skilled return migration and knowledge-based economic development in regional perspective: Conceptual considerations and the example of Poland, CMR Working Papers, No. 19/77, University of Warsaw, Centre of Migration Research (CMR), Warsaw

This Version is available at:

<https://hdl.handle.net/10419/140803>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

**High-skilled return migration and
knowledge-based economic
development in regional perspective.
Conceptual considerations and the
example of Poland**

Britta Klagge

Katrin Klein-Hitpaß

June 2007

Centre of Migration Research
Faculty of Economic Sciences
Warsaw University
Banacha Street 2B
02-097 Warsaw
Poland
Tel.: +48 22 659 74 11
Fax: +48 22 822 74 05
www.migracje.uw.edu.pl
migration.cmr@uw.edu.pl

Contents

Abstract	I
Streszczenie	I
1. Introduction	1
2. Conceptualizing regional development and high-skilled return migration	2
2.1 The role of knowledge, networks and institutions in regional development	3
2.2 Return migration and the transfer of resources.	4
2.3. High-skilled return migration and knowledge-based development in regional	6
perspective: towards a model and some hypotheses	
3. Return migration to Poland: an overview focussing on the highly skilled	8
3.1. General migration trends in Poland: From brain drain to brain gain?.	8
3.2 Statistical evidence on high-skilled return migration to Poland	9
3.3 Qualitative findings on return migrants: Different reasons and backgrounds,	13
mixed feelings and prospects	
4. High-skilled return migration and economic development in Poland in regional	15
perspective.....	
4.1 Labour market and regional development in Poland.	15
4.2 Spatial distribution of high-skilled return migrants in Poland	17
4.3 Case study of a return migrant to Warsaw: Stefan, 33 years old, geoinformatics..	19
specialist.....	
5. Conclusion.....	22
6. References	24

High-skilled return migration and knowledge-based economic development in regional perspective. Conceptual considerations and the example of Poland

Abstract

It is by now well known that return migration of the highly skilled can have a significant impact on knowledge-based development in the regions to which they return. Whereas previous research has mainly focussed on developing and newly industrializing countries this paper looks at high-skilled return migration in an East European transition economy, namely Poland. The Polish example illustrates that institutional context and the regional dimension are crucial in understanding how high-skilled return migrants do or do not make use of and transform their knowledge and other resources (incl. financial and social capital) and stimulate knowledge-based development. In previous studies, however, these aspects have not been systematically explored or integrated into conceptual thinking. We address this deficit by proposing a micro-level model of high-skilled return migration and economic development. Our model integrates regional economic development and migration theory perspectives into a coherent interdisciplinary framework. We argue that institutional aspects have to be linked to return migrants' individual motivations and other characteristics, and that there are different types of both return migrants and institutional, and regional, contexts. An important feature of our model is the key role assigned to the idea of return migrants' social capital performing a "bridging function" between actors in the same, but especially in different regions. We claim that our model can serve as basis to empirically analyse and explain whether and how different regional contexts are providing opportunities or posing barriers for migration-induced knowledge-based development. We illustrate and substantiate this proposition by analyzing return migration to Poland.

Migracje powrotne osób z wysokimi kwalifikacjami a rozwój gospodarczy w perspektywie regionalnej. Rozważania teoretyczne i empiryczne na przykładzie Polski

Streszczenie

Przyjmuje się, że migracje powrotne osób z wysokimi kwalifikacjami mogą mieć istotny wpływ na rozwój (zwłaszcza w kontekście gospodarki opartej na wiedzy) w krajach / regionach, do których wracają migranci. Podczas gdy większość badań analizuje ten problem w odniesieniu do krajów rozwijających się, prezentowany tekst koncentruje się na migracjach powrotnych w przypadku jednego z krajów Europy Środkowo-Wschodniej przechodzących transformację – Polski. Przypadek Polski wskazuje, że kontekst instytucjonalny oraz regionalny wymiar zjawiska to kluczowe aspekty pozwalające zrozumieć, dlaczego migranci powrotni są lub nie są w stanie wykorzystać swojej wiedzy (albo innego kapitału o finansowym bądź społecznym charakterze) i przyczynić się do rozwoju opartego na wiedzy. Co ważne, we wcześniejszych próbach badawczych, te właśnie aspekty nie były przedmiotem systematycznej analizy i konceptualizacji. W niniejszym tekście odpowiedzią na tego typu niedostatki teoretyczne jest mikroekonomiczny model wiążący zjawisko migracji powrotnych osób z wysokimi kwalifikacjami z procesami rozwoju ekonomicznego. Model ten pozwala zintegrować kwestie regionalnego wymiaru procesów rozwoju oraz teorie migracyjne w spójny interdyscyplinarny schemat teoretyczny. Proponujemy, by powiązać problematykę instytucjonalną z indywidualnymi motywacjami oraz innymi cechami migrantów powrotnych. W konsekwencji, zabieg ten prowadzi do wyodrębnienia różnych typów zarówno migrantów powrotnych, jak i instytucjonalnych oraz regionalnych kontekstów. Istotną cechą modelu jest kluczowa rola, jaką przypisuje się kapitałowi społecznemu migrantów powrotnych, który pozwala „łączyć” aktorów społeczno-ekonomicznych przebywających w tych samych, ale w szczególności w innych regionach. Wydaje się, że proponowany model może służyć jako teoretyczna baza do empirycznych analiz, które pozwoliłyby odpowiedzieć na pytanie, dlaczego i w jaki sposób poszczególne lokalizacje (regiony) kreują zachęty bądź bariery wobec migrantów powrotnych. Propozycja jest ilustrowana analizą odnoszącą się do współczesnych migracji powrotnych Polaków.

1. Introduction

In our globalizing world there is a growing significance and number of high-skilled international migrants from and to many different places (Salt 1997, Glebe/White 2001, OECD 2002). People migrate in search of a better life, new job or education opportunities and/or as a result of political and economic changes, crises and wars. For various reasons some of them return to their country of origin and especially the highly skilled can stimulate or support knowledge-based economic development. The return migration of highly skilled can thus contribute to reverse the negative effects of what has been discussed as brain drain, especially in developing and newly industrializing countries (Iredale/Guo 2001, Hunger 2004).

So far, research on high-skilled return migration and economic development has indeed mainly focussed on countries like China, India, Taiwan and some African countries (e.g. Hunger 2000, IOM 2001, Iredale/Guo 2001, Fromhold-Eisebith 2002a, Black/King 2004, Müller 2005, 2007). Recently, however, return migration has gained importance also for European countries such as Poland which have undergone profound political and economic changes or have suffered from various types of crises or even wars. The Polish experience can be seen as exemplary for East European transition economies and their increasing integration into the European and world economy. The political relevance of high-skilled return migration lies in the declared need for highly skilled labour in the Polish and other transition economies' labour markets (for Poland Koryś/Weinar 2005).

It is against this background that the paper seeks new insights and conceptualizations of how international return migration plays a role for knowledge-based regional development in an East European transition economy context. Specifically, it aims at exploring high-skilled return migration to Poland and its impact on economic development in a regional perspective. Since 1989 Poland has experienced a significant inflow of high-skilled return migrants most of which are in working age and economically active and have settled in different parts of the country (Fihel et al. 2006). They bring with them various forms of capital such as financial resources, new experiences and skills – or more generally: human capital or knowledge – as well as business and other social relations and networks, i.e. social capital.

The conceptual aim of this paper is to analyse how and to what extent high-skilled return migrants make use of and transform these various forms of capital and how the local economy benefits or fails to benefit from them. We especially focus on how the mobility of and possibility to use certain forms of knowledge is dependent on social interaction and context conditions. The role of institutional, and specifically regional context as providing opportunities or posing problems and barriers for migration-induced knowledge-based development has repeatedly been acknowledged in previous research, but not been explored systematically (Cerese 1974, Fromhold-Eisebith 2002a, Black/King 2004, Müller/Sternberg 2006, Müller 2007). In order to provide a more comprehensive view and understanding of the ways which link high-skilled return migration with institutional context and regional development, chapter 2 integrates regional economic development and migration theory perspectives into a coherent interdisciplinary framework.

In chapters 3 and 4 we illustrate our conceptual thinking by empirically analyzing return migration to Poland. Using Census data and results of previous qualitative research we show in chapter 3 that high-skilled return migration has become an important migration trend in

Poland and provides opportunities for knowledge-based development. Chapter 4 looks at high-skilled return migration and economic development in regional perspective. In addition to quantitative data analysis we explore the role of knowledge, social relations and institutions at the micro level in a case study. Here we especially follow up the idea of migrants' personal networks – or more generally: social capital – fulfilling a transnational “bridging function” (cp. Faist 2000: 201) and explore the ways in which return migration links actors in different regions. By way of conclusion chapter 5 summarizes our results and discusses their theoretical implications as well as avenues of further, especially comparative, research on high-skilled return migration and its impact on knowledge-based development.

2. Conceptualizing regional development and high-skilled return migration

Empirical research has shown that the mobility of human capital, i.e. highly skilled individuals, can be an important factor for economic development and that “brain migration” stimulates economic growth in the receiving countries. Much of this research, however, has been conducted at the macro level using aggregate data and employing rather vague terms such as brain drain and brain gain as well as – with respect to return migration – brain regain, brain circulation or brain exchange (e.g. Salt 1997, Straubhaar 2000). While macro-level research is useful in proving a general trend, it does not help to understand which resources migrants bring with them and how they are combined and utilized in the receiving region, i.e. how exactly economies benefit from high-skilled immigration.

These issues have been dealt with in greater detail and at the micro level in various studies on the role of highly skilled (return) migrants for economic development in developing and newly industrializing countries. While this research in the so-called migration-development nexus (Nyberg-Sørensen et al. 2002) at first mainly focussed on remittances, it now increasingly acknowledges and analyses the role of return migration for economic development (e.g. Hunger 2000, Fromhold-Eisebith 2002a, IOM 2001, Iredale/Guo 2001, Black et al. 2003, Müller/Sternberg 2006, Müller 2007) – and has been called migration-return-development nexus (Ammassari 2003). This research provides important insights for conceptualizing return migrants' resources and also on return migrants' economic activities, especially productive financial investment, innovative practice and self-employment.

Both macro- and micro-level conceptualizations frequently mention the role of institutions and regional context conditions as having a positive or negative influence on return migrants' impact on economic development, but do not analyse them systematically. Macro-level research on the mobility of human capital and regional development, for example, has recently acknowledged the existence of locally limited knowledge spillovers and positive externalities (Straubhaar 2000). In contrast, empirical studies at the micro level rather point to potential problems and barriers which stand in the way of a beneficial impact of high-skilled return migration (e.g. Cerase 1974, King et al. 1986, Ammassari 2003, Müller 2005, Müller/Sternberg 2006).¹ The existing literature on knowledge-based regional development

¹ In his literature review King et al. (1986) point out that return migrants do not use their resources to their full potential due to a lack of an supportive institutional framework. Cerase (1974) stresses the role of local power structures that block innovative return migrants in their activities. This line of reasoning is supported by more recent studies: Ammassari (2003) concludes that the return migrants' capacity to apply resources gained abroad in their new workplace is dependent on the openness of non-migrants colleagues and supervisors to change as well as on other local/regional characteristics such as bureaucracy, work culture, infrastructure and alike. In her study on return migrants' entrepreneurship in Shanghai Müller (2005) stresses the overall importance of the institutional context for entrepreneurial activities and concludes that especially in transformation economies like

(2.1) and on return migration (2.2) provides important insights for a better understanding and systematic exploration of these issues. They will serve as a basis for developing an integrated conceptual framework of high-skilled return migration and economic development in regional perspective (2.3).

2.1 The role of knowledge, networks and institutions in regional development

It is well known, and has been emphasized in recent research on knowledge-based development, that it is far from sufficient to explain regional development only in terms of the regional supply and combination of the *three traditional production factors* land, labour and capital (both financial and invested). Rather, various other less tangible factors and resources have to be considered (Bathelt/Glückler 2003, 2005, Haas/Lindemann 2003, Schätzl 2003). Recent research on regional development has highlighted

(1) the increasing importance of various forms of *knowledge* as a factor of production and as the basis for regional competitiveness in the evolving “knowledge economy” (knowledge-based regional development; see e.g. Malecki 2000, Strambach 2004, Sternberg/Revilla Diez 2002; with respect to Poland also see Gorzelak 2000, 2003, Strykiewicz 2002). The most common distinction is between codified or explicit knowledge on the one hand and implicit knowledge or knowledge that is bound to a certain context on the other hand.² While explicit knowledge is seen as easily transferable e.g. by IT, the mobility of implicit knowledge is much more complex as it is incorporated in individuals or structures such as organisations (e.g. a firm), social groups (cultural, religious or other) and also regions. In order to be able to acquire, use and develop further such knowledge one has to meaningfully interact with others. This requires an understanding and the acceptance of the institutions on which the respective structure is based. This leads to

(2) the significance of the ways in which actors in a region interact with each other and with actors in other places – i.e. develop and sustain intra- and interregional *networks* – in order to make use of and share existing as well as create and develop new resources, esp. knowledge (*institutional dimension* of the economy; see e.g. Schamp 2000, 2003). An institutional conceptualization of regional development is based on the broad and ever-expanding body of literature on localised production systems and which has been built upon the *network perspective*.³ The network perspective stresses the significance of cooperative as opposed to market and hierarchical relationships in the economy and the importance of formal and informal institutions.⁴ Economic geographers have shown how cooperative relationships and networks can benefit from geographical proximity as it provides opportunities and better conditions for face-to-face contacts and thus for building trustful

China policies should focus on fostering institutional change (see also Müller/Sternberg 2006). This corresponds with the results of Black et al. (2003). They argue that the business climate of a region and a functioning banking sector is crucial for entrepreneurial activities of return migrants.

² This distinction is far from being clear-cut and knowledge usually has both an explicit and an implicit element. For details see Polanyi 1967, Malecki 2000, Meusburger 2000, Lo 2003, Strambach 2004.

³ The literature on localised production systems and networks includes concepts such as industrial districts, creative/innovative milieus, (regional) innovation systems and clusters (see, among others, Fromhold-Eisebith 1995, Cooke et al. 1997, Sternberg 1998, Schamp 2000, 2001, Thomi/Werner 2001, Bathelt/Glückler 2003, Haas/Lindemann 2003).

⁴ Following Schamp (2000, 2003), Bathelt/Glückler (2003) and others we conceptualize formal institutions as both organizations and formalized regulations, while informal institutions refer to non-formalized, but common codes and interpretations, conventions, norms and values.

relationships than long-distance communication (Bathelt/Glückler 2003, Gössling 2004). Accordingly, research on regional networks and localised productions systems has at first mainly focused on internal relations and institutions regulating (intra)regional (network) dynamics. This perspective, however, does not sufficiently explain the innovative capacity of regions. More recent research has therefore stressed the significance of external relationships. These “pipelines” (Bathelt et al. 2004) have been recognized as important to avoid various types of lock-ins (Grabher 1993) and to be able to tap external pools of knowledge and other resources and integrate them into regional economic activities (Coe/Bunnell 2003).

Evidently, there are close interrelationships between knowledge, networks and institutions. A region’s institutional setting and networks are of utmost importance for the integration, development and new creation of knowledge and thus for knowledge-based regional development (Meusburger 2000, Sternberg/Revilla Diez 2002, Strambach 2004). Specifically, different institutional settings and actor constellations are more or less open and capable of integrating new actors, knowledge and other resources in a way conducive to regional economic development. The immigration of high-skilled individuals who have various types of knowledge as well as other resources at their disposal thus can be, but is not automatically beneficial for regional development (Fromhold-Eisebith 2002a). The benefit depends on the ways in which the immigrants are able and allowed to feed their knowledge into existing knowledge networks and how their knowledge (and other resources) can productively be related to knowledge and other resources already in the region. In addition to their own skills, experiences and knowledge immigrants can also provide linkages (“pipelines”) to firms, institutions and key actors abroad and thus expand the scope for beneficial external relationships in the receiving, here Polish, regions.

Highly skilled return migrants are a special group of immigrants with a particularly high potential for a positive impact on regional development. They are more likely to stay long-term. Furthermore, many of them already have some knowledge of or even experience with the institutional setting(s) in Poland and maybe even contacts in the receiving regions. Therefore they should have less difficulty to integrate into regional economies and thus can be seen as potentially important agents for knowledge-based regional development. The key to such a development is the transfer of various types of resources by (return) migrants which has been dealt with in previous research on return migration and migration theory.

2.2 Return migration and the transfer of resources

Traditionally there are two strands of debate on return migration and its impact on economic development (see King 1986): The first focuses on return migrants’ accumulated **financial capital** and to whether it is used for consumption or for investment, e.g. when starting a business. The second explores returnees as innovators, i.e. as “bearers of newly acquired skills and of innovative and entrepreneurial attitudes” which can benefit the receiving region as an innovative force (King 1986: 18). This strand of debate deals with the use of skills, qualifications and experiences relevant to the labour market and thus refers to return migrants’ knowledge or **human capital**.

King’s early review of empirical studies on return migration and economic development comes to rather sobering results with regard to both types of impact (King 1986). It is important to note, however, that these studies concentrate on guest workers returning to rural

areas in Southern Europe and that the majority of migrants is not highly skilled. Financial capital by these return migrants is often spent for consumer and housing needs whereas productive investment is relatively rare, though some money finds its way into small, but mostly not innovative businesses. Likewise, Cerase (1974) finds that “return of innovation” occurs less often than return of failure, return of conservatism or return of retirement (for details of this typology see Cerase 1974). Furthermore, “innovative migrants” often do not accomplish their goals. Reasons include a mismatch of skills and qualifications in the regional, mostly remote rural economies to which migrants return, as well as “the lack of an effective institutional framework” (King et al. 1986: 65; also see footnote 1).

The importance of institutions and especially social relations has also been acknowledged in more recent research on return migration and economic development. Contrary to the studies reviewed by King (1986), high-skilled return migrants play a prominent role in this research which has mainly been conducted in developing and newly industrializing countries. Interestingly, and also in contrast to King (1986), this research describes several examples of return migration fostering economic development in various ways. These include, for example, positive impacts on small enterprise development in Ghana and Côte d’Ivoire (Ammassari 2003, Black et al. 2003), high-tech business formation in China and Taiwan (Iredale/Guo 2001, Saxenian 2002, Müller/Sternberg 2006, Müller 2007) and the developments of IT clusters in India (Hunger 2000, Fromhold-Eisebith 2002a). The most important common finding is that if and how return migrants make use of their financial and human capital is dependent on their social relations to actors in- and outside the receiving region, i.e. their **social capital**.⁵

How migration processes and integration into labour markets, economies and societies are influenced, shaped or even determined by social relations and social capital has been at the heart of research on migration systems, transnational mobility and transnational social spaces (see Faist 2000, Fassmann 2000, Glick Schiller 1997, Kritz/Zlotnik 1992, Pries 1996, Vertovec 1999). In taking a process-oriented, or historical, perspective these approaches emphasize that rather durable social relations are constitutive for the migration and integration process and reject the conceptualization of migration as a unidirectional, definite event. Instead they focus on the links and flows that tie sending and receiving regions together in so-called transnational social spaces. Faist stresses that these links and flows go far beyond the mobility of migrants, but also include “multiple transactions of ideas, monetary resources, goods, symbols, and cultural practices” (2000: 196). A particular focus is on the social dimension of these transactions, especially the “bridging function of social capital” (Faist 2000: 201).

In the case of Polish return migrants, social relations both in Poland and abroad are important to understand their regional development impact. Social relations to actors in the receiving region, on one hand, can be crucial for access to the labour market and integration into local social networks which are relevant to regional development (see e.g. Fromhold-Eisebith 1995, Massey et al. 1997). Social relations and group memberships external to the region, on the other hand, can also perform this same function (e.g. in the case of

⁵ Social capital here refers to social relations, group memberships and to the extent to which they can be mobilized to gain access to other resources (such as financial means, jobs, knowledge; see Bourdieu 1983). Social capital is dependent on the extension of an individual's social network, the strength of ties and relationships (e.g. weak versus strong; Granovetter 1973) and on the resources that the respective persons and groups have at their disposal.

multinational firms). In addition, and as discussed in 2.1.1, they might be used to steer or draw external resources (e.g. finance, knowledge) or more highly skilled migrants into the receiving region. The intertwined role of both social relations and institutional context for knowledge-based regional development has been recognized in recent research on high-skilled return migration to developing countries which will be discussed in the following.

2.3 High-skilled return migration and knowledge-based development in regional perspective: towards a model and some hypotheses

Recent research on high-skilled return migration and economic development has focussed on specific regions. These are mostly large cities, which, in the case of Africa, are primate cities or, in the Asian countries, cities with a very dynamic and (potential for) high-tech development, some of them even employing specific policies and incentives to attract high-skilled return migrants.⁶ The regional selectivity of these studies seems to reflect return migrants' locational decisions, but this issue has not been explored systematically. A useful attempt to capture and conceptualize the regional dimension of return migration and its impact on economic, specifically on technology-oriented development is presented by Fromhold-Eisebith (see here and following Fromhold-Eisebith 2002a, 2002b).

Based on empirical evidence from India and other Asian countries Fromhold-Eisebith developed a two-phase model of migration-induced regional development which takes up and links the ideas discussed in 2.1 and 2.2. After emigration from Asia to high-tech regions in the US and Canada in the first phase of the model, the same emigrants in the second phase return as highly skilled experts to the more dynamic and technology-oriented cities in their country of origin. Here they use their financial and human capital as well as their social contacts to experts, potential clients and investors in both regions – i.e. all three forms of capital discussed in 2.2 – to start and sustain business activities. By taking advantage of the “bridging function” of their social capital in the Faist notion these efforts successfully support or even induce knowledge-based regional development in certain Asian regions. In this rather optimistic model the original brain drain turns into a brain (re-)gain and eventually benefits both the sending and receiving region. In the course of this process the regions are increasingly tied together in a systemic and evolutionary manner by mutually re-enforcing flows of migrants, capital and knowledge in the Faist notion of transnational social spaces (cp. 2.2).

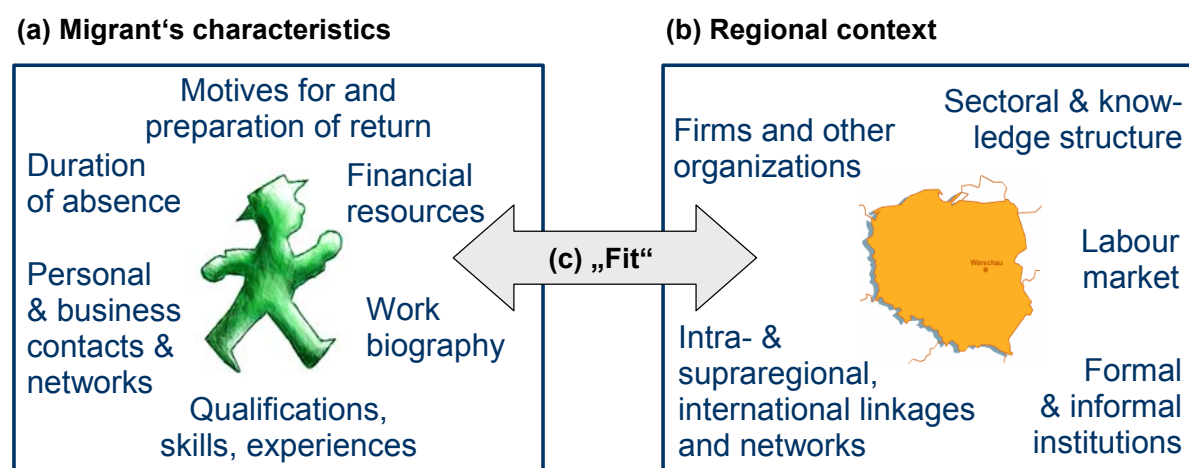
By focussing on mutually beneficial links between regions, not nation states (also see Pries 1996), Fromhold-Eisebith does explicitly acknowledge the regional dimension of return migration and economic development. While this is an important new aspect, there are also some problems of which two are especially relevant from a regional perspective. First, the model is rather – and maybe too – optimistic with respect to return migrants' beneficial impact on regional development. Other studies have shown that not all high-skilled return migrants are successful “innovators” (in the Cerase typology, cp. 2.2). Rather and sometimes even despite specific support infrastructure and policies, some of them encounter barriers and problems which are rooted in institutional, often regional conditions. These can countervail a beneficial impact of high-skilled return migration and might even lead to re-emigration or deter potential future migrants. Second, focussing on dynamic and (potential) high-tech

⁶ These include policies to attract and support start-ups by high-skilled return migrants, e.g. in Shanghai (Müller 2005, 2007). For an overview of such policies see Ghosh (2000).

regions with intense networking both internally and externally entails the risk of losing sight of high-skilled return migrants settling in other types of regions. In such regions they can be confronted with very different institutional conditions, providing opportunities and posing problems and barriers of many different kinds.

These points demonstrate that there are limits to generalizing Fromhold-Eisebith's rather optimistic model. A more comprehensive conceptualization has to acknowledge (1) that institutional, and specifically regional contexts play an important role for understanding return migration's impact on knowledge-based development, (2) that institutional aspects have to be linked to return migrants' motivations and other characteristics, and (3) that there are different types of both return migrants and institutional and regional contexts. The model in Figure 1 depicts the various factors necessary to understand and explain high-skilled return migrants' impact on regional economic development. The assumed mechanisms and interrelationships can be formulated as hypotheses which are based on the preceding discussion of regional development and migration research literature.

Figure 1: Conceptual model of high-skilled return migration and its impact on regional development



Own illustration

In our *first hypothesis* we claim that the characteristics and resources of return migrants (see Fig. 1a) are important in explaining and assessing return migrants' potential role in regional economic development. To what extent this potential can be realized is dependent on the institutional and regional context to which returnees migrate. Our *second hypothesis* states that regions differ with regard to their openness for the transfer and successful integration of external, specifically return migrants' resources and provide different types of "opportunity structures" and/or barriers for different types of return migrants and – more generally – for knowledge-based development. More specifically, we state that to what extent a regional context supports, enables or is an obstacle to beneficial impacts of return migration is dependent on the combination of the features and characteristics of a region (see Fig. 1b).

In our *third hypothesis* we assume that whether and how return migrants have an impact on regional development is dependent on the way migrants' characteristics and regional context are correlated and can be linked, i.e. to what extent a region can "absorb" the resources a

return migrant has to offer.⁷ We also assume that this, or rather the anticipated, “fit” is an important aspect in return migrants’ locational decision. This leads to our *fourth hypothesis* which states that highly skilled return migrants actively seek environments in which they hope to be able to make use of their resources or in which they already have relatives, friends or acquaintances (regional selectivity). In the following chapters we will explore these hypotheses by looking at high-skilled return migration to Poland.

3. Return migration to Poland: an overview focussing on the highly skilled

In the 20th century Poland was an emigration country with a small incidence of return migration and immigration more generally, and hence the phenomenon of return migration was only a marginal research problem until very recently.⁸ During the communist period (1945-1989) the borders were closed; entry and exit were restricted. However, emigration, both for political and economic reasons, took place illegally or under the pretext of tourist trips, summing up to at least 3 million emigrants with especially high figures in the 1980s (see here and following Okólski 1994, Sakson 2002, Alscher 2005).

After the fall of the communist regime in 1989, freedom of international movement was restored and the Polish migration system changed significantly. While until 1989 Poland was almost purely dominated by emigration, mainly to western countries (Germany, U.S. and Canada; Korcelli 1997: 237), it now has to be characterized as an emigration-immigration country (Koryś/Weinar 2005). The opening of borders allowed Poles living abroad to return, and indeed, from the beginning of the 1990s tens of thousands former emigrants or their foreign-born children returned to Poland. In addition to these return migrants there are various other immigrants both from western and eastern countries. While immigration at a larger scale is in itself a rather recent phenomenon in Poland, the immigration of highly skilled is particularly remarkable.

3.1 General migration trends in Poland: From brain drain to brain gain?

For a long time Poland suffered from what researchers call a brain drain, i.e. a negative migration balance of highly skilled persons. The situation is much less clear since the 1990s in which a “shift from more to less educated emigrants” occurred and constitutes one of the most spectacular changes in Polish migration (Korcelli 1997: 238, Okólski 1999: 28). A rather recent turning point for Poland’s migration system is Poland’s accession to the EU. After 2004, interest in restoring Polish citizenship by Poles living in non-EU countries has increased. At the same time, however, many especially young and well-educated Poles left Poland to live and work e.g. in England or Ireland.

While from a labour market perspective some authors still see a need “to reduce the problem

⁷ Some authors also speak of the “absorptive capacity” of a region (“potential of the host economy to absorb new money and ideas” Black/King 2004: 81). This concept, however, neglects that different regional contexts might provide a favourable opportunity structure for some high-skilled return migrants, but not for others.

⁸ Researchers studying return migration to Poland discern three phases of return migration (Slany/Malek 2002). The first phase lasted till 1938, and involves traditional return migration, which were the result of mass economic emigration of Poles to the United States in 1919-1938 (Chalasiński 1936, Niemyska 1936, Walaszek, 1983). In the communist period (1945-1989) the migration system was dominated by emigration. Statistical data show that out of more than 3 million emigrants only 55,000 returned in the years 1961-1989, which is the second phase. Political and other emigrants that left Poland before 1990 and came back since then constitute the third and current phase of return migration.

of emigration and brain-drain” (Koryś/Weinar 2005: 2), Okólski (1999: 28) diagnosed for the 1990s already an “inverse brain drain”. By this he refers to a decreasing number of highly educated emigrants and an increasing number of highly-skilled immigrants and a net inward migration of people with a university diploma (Okólski 1999: 28). Among the group of high-skilled immigrants, return migrants form a special group.⁹ These include those emigrants who left Poland before 1989 as well as their children born in foreign countries, the second-generation emigrants.

Statistical evidence and qualitative research results suggest that their stay in Poland is more likely to be permanent than for other immigrants and that for many of them the motivation to come to Poland goes beyond pure economical reasons – indicating that high-skilled return migrants’ impact on regional economic development could be quite significant. Empirical evidence also shows, however, that successful integration into the Polish economy and labour market is a complex issue and not without problems.

3.2 Statistical evidence on high-skilled return migration to Poland

The Polish Population Census, conducted in 2002, provides detailed information on return migrants. According to these data more than 69,700 Polish nationals, half of them female, have returned to Poland in the period 1989-2002. In comparison to the Polish population as well as to Polish emigrants, adult return migrants are relatively well educated. 27 % of them hold the highest educational degree (university degree; Table 1), while this percentage is as low as 14 % in the adult Polish population and 10 % among adult Polish emigrants (Central Statistical Office).

Table 1: Education level of Polish return migrants, 2002.

Education level	N	%
University degree	15,512	26.9%
Secondary	19,002	33.0%
Vocational training	11,674	20.3%
Elementary	9,775	17.0%
Uneducated*	1,636	2.8%
Total	57,599	100.0%
Aged 12 and under	12,105	
Total	69,704	

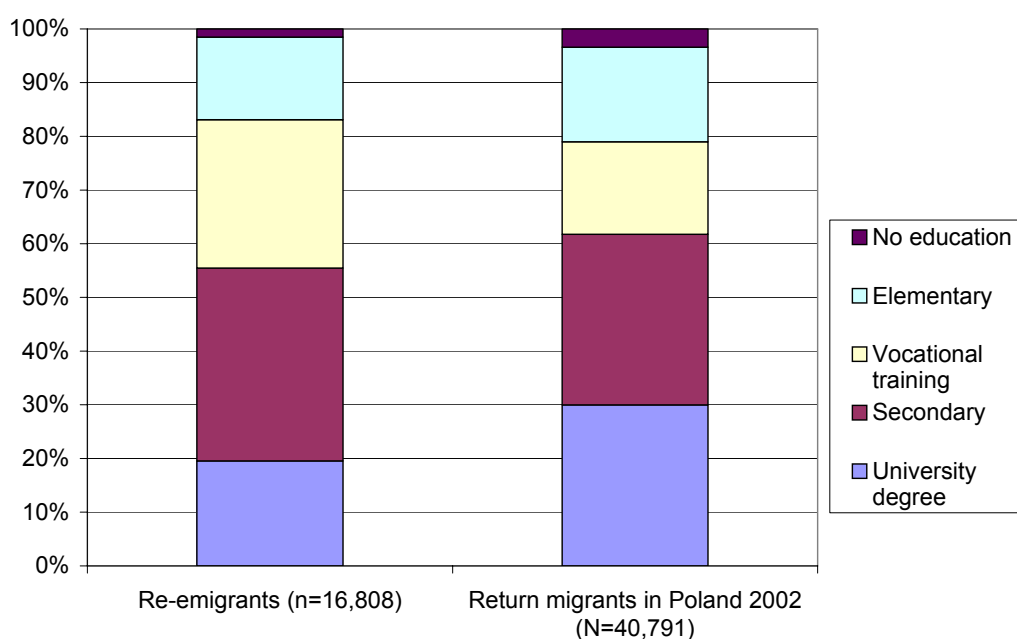
* Unfinished elementary.

Source: Own calculations on the basis of the Population Census 2002.

Out of 69,700 return migrants 19,630, i.e. approximately 28 %, left Poland again before 2002. These re-emigrants were, on average, less educated than those return migrants (still) living in Poland in 2002 (Fig. 2). In the following analyses we will concentrate on (high-skilled) return migrants still living in Poland in 2002 and not include re-emigrants.

⁹ Other high-skilled migrants are from the former USSR and other non-western countries who mostly work for rather low salaries, e.g. as teachers or in the health care system, as well as migrants from western countries who mainly come to Poland mostly temporarily to work as well-paid managers, experts and consultants (Iglicka 2002a).

Figure 2: Education level of return migrants (≥ 13 years)

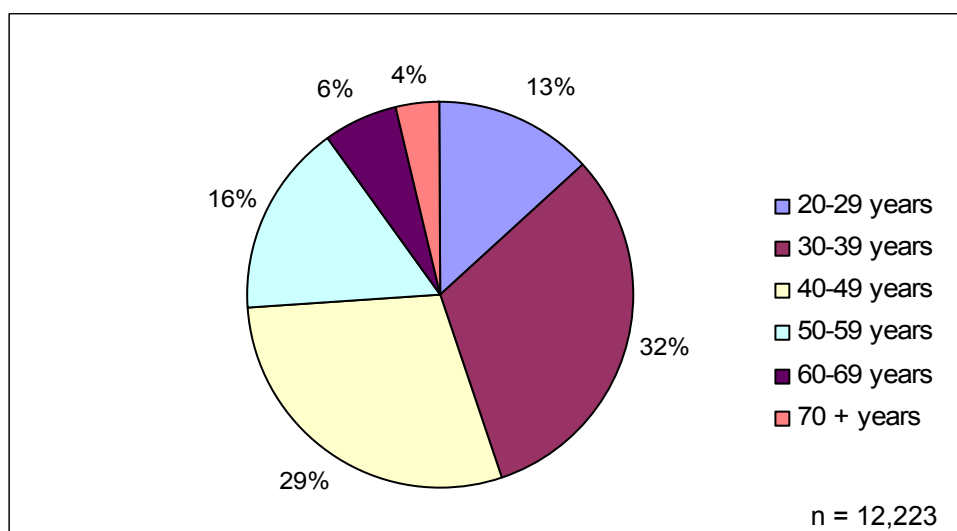


* Missing data not included

Source: Own calculations on the basis of the Population Census 2002.

Among 50.000 return migrants living in Poland in 2002 30 % of those 13 years and older hold a university degree. The vast majority of these high-skilled persons (90 %) is aged 20-59, while less than 10 % is at retirement age (Fig. 3).

Figure 3: Age structure of high-skilled return migrants in Poland 2002*



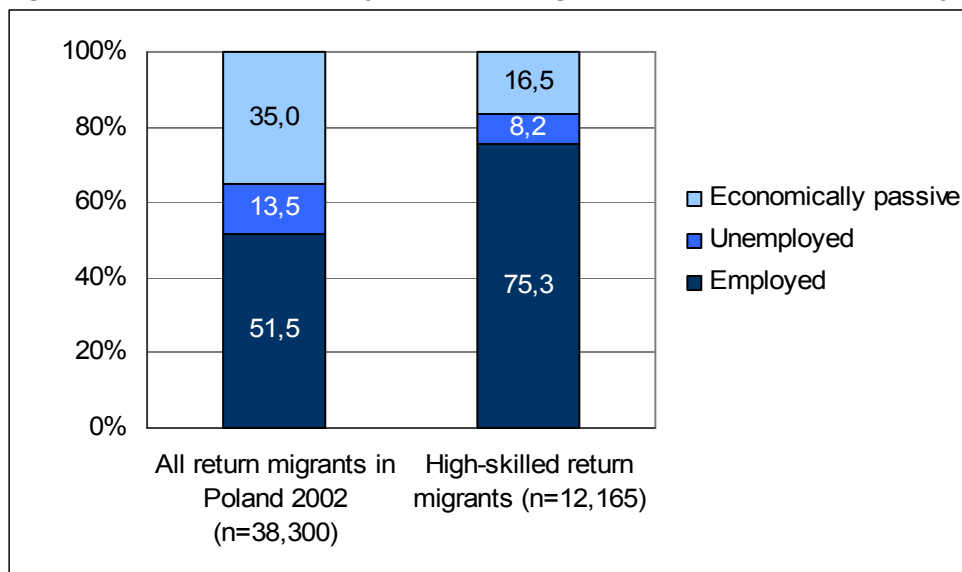
* Missing data not included

Source: Own calculations on the basis of the Population Census 2002.

Due to the age structure, the degree of economic activity of high-skilled return migrants is relatively high and much higher than for all return migrants still in Poland in 2002 (Fig. 4). More than 80 % of the highly skilled are economically active (75 % employed and 8 %

unemployed) and only 17 % are economically inactive, i.e. neither work nor look for a job.

Figure 4: Economic activity of return migrants in Poland 2002 (> 15 years)*

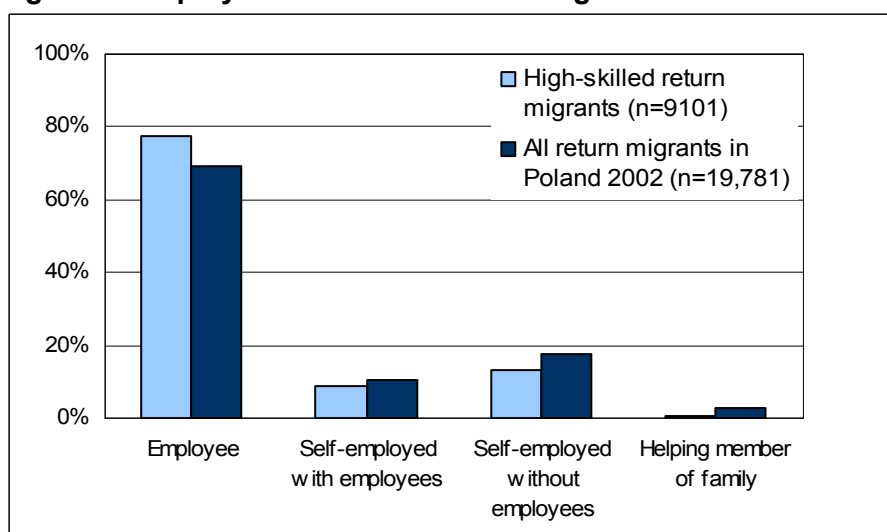


* Missing data not included

Source: Own calculations on the basis of the Population Census 2002.

Among the economically active return migrants with a university diploma more than three quarters are employees, while only 13 % are self-employed without employees and an additional 9 % employ other persons (Fig. 5). Almost 90 % of them work in the service sector and the vast majority represent professions such as high-ranking officials, managers and specialists (Fig. 6). In comparison with other return migrants those with a university degree are strongly overrepresented in these positions, but have a lower level of self employment.

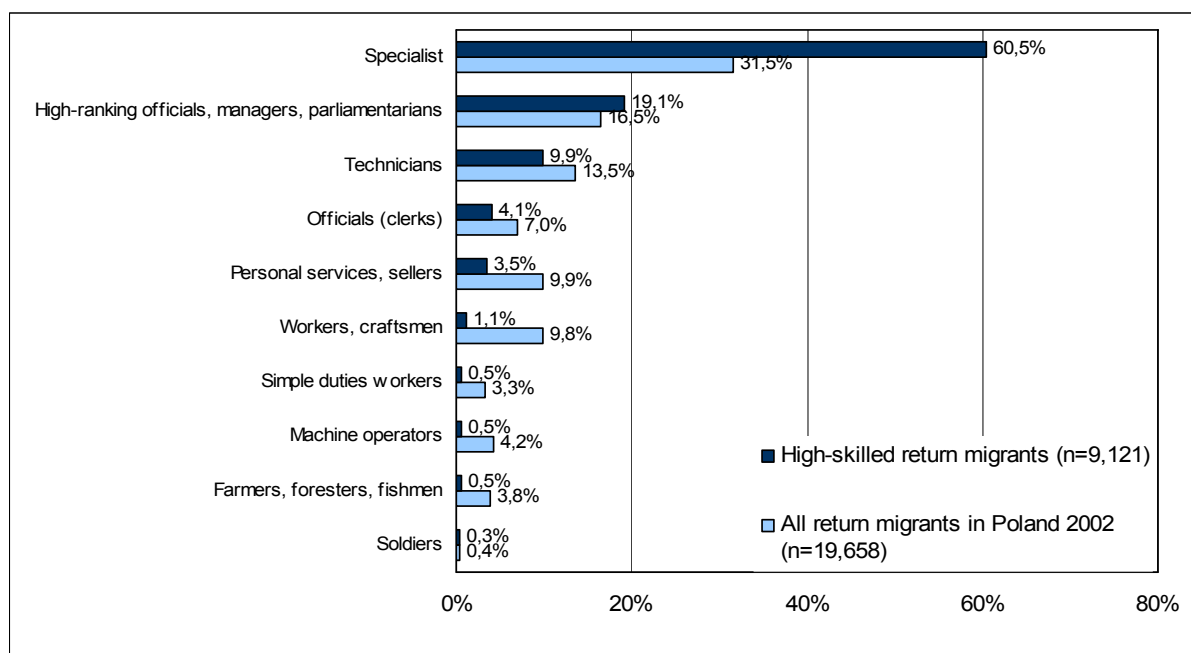
Figure 5: Employment status of return migrants in Poland 2002 (> 15 years)*



* Missing data not included

Source: Own calculations on the basis of the Population Census 2002.

Figure 6: Profession of return migrants in Poland 2002 (> 15 years)*

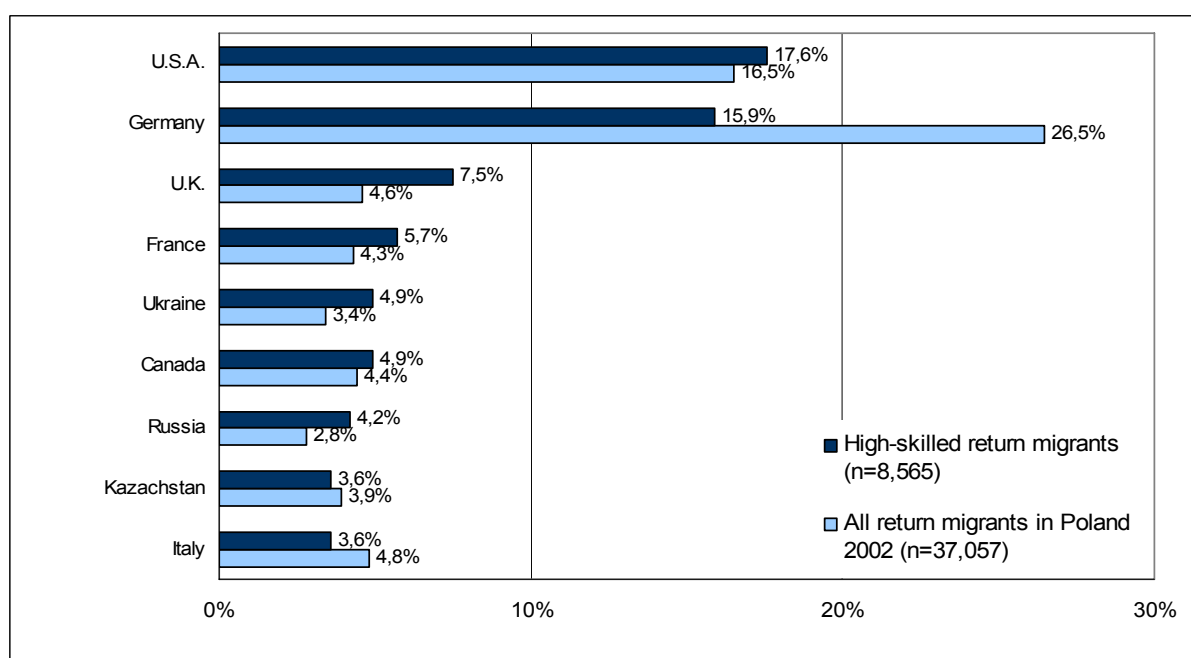


* Missing data not included

Source: Own calculations on the basis of the Population Census 2002.

Most high-skilled return migrants still in Poland 2002 (80 %) were born in Poland. About 9,500 of them (78 %) have only Polish citizenship, while one fifth (22 %) has acquired dual citizenship (Polish and other, mostly U.S., German or Canadian). The main countries of previous residence for highly-skilled return migrants are: U.S. (17.6 %), Germany (15.9 %), Great Britain (7.5 %), France (5.7 %) and Canada (4.9 %). More than two thirds had their previous residence in one of only nine countries (Fig. 7).

Figure 7: Main countries of previous residence of return migrants in Poland 2002*



* Missing data not included

Source: Own calculations on the basis of the Population Census 2002.

In sum, this statistical analysis of high-skilled return migrants shows that they are to a great extent homogenous. The majority of 12,200 persons still living in Poland 2002 returned from the high-developed countries, are at age of economic activity and, indeed, are economically active, mostly as employees. Census data, however, does not provide information on return migrants' reasons to migrate, their hopes and strategies.

3.3 Qualitative findings on return migrants: Different reasons and backgrounds, mixed feelings and prospects

Polish social scientists, mainly from the Warsaw University Centre of Migration Research (CMR), have conducted several qualitative studies on return flows to Poland. They focus on return migrants' experience abroad, their motives of and preparation for return and on their strategies and activities in Poland.¹⁰ The most important findings are that for many return migrants the motivation to come to Poland goes beyond pure economical reasons and that many of them actively want to contribute to the economic, social and political development in Poland (e.g. Górny/Kolankiewicz 2002, Weinar 2002, Górny/Osipovič, 2006).

A number of studies show that most emigrants had higher education before leaving Poland and increased their level of education and qualifications during their stay abroad (Iglicka 2002b). At the beginning of the 1990s, the economic situation in Poland was favourable for return migrants. There was a great demand for experts with experience on Western labour markets and knowledge of Western languages on the Polish labour market. Many Western firms opened branches in Poland. This entailed great professional opportunities for return migrants. Most return migrants work in Poland as high level management staff in international corporations, financial institutions, banking and the educational sector; others established their own businesses. These results correspond with the results of Census data analysis (cp. Fig. 5 and 6).

In-depth qualitative studies also show that Poles return due to various reasons. Weinar (2002)¹¹ presents a typology of motives of migration: rational motives, sentimental and mixed motives. Rational or economic motives are related to an economic strategy, when people return to increase their economic capital, i.e. their income measured by its purchasing power. Sentimental motives appear mainly in the case of political emigrants. They include reasons such as the "dream to return to the fatherland", the will to support Poland's development, but also family ties and the wish to raise children in Poland, and are closely intertwined with emotions and values. Mixed motives, resulting from the coexistence of the rational and sentimental factor, appear in the case of the majority of returnees. The importance of mixed motives has been confirmed in the qualitative study on return migration from the UK carried out by Górny and Kolankiewicz (2002).

Interestingly, German return migrants with dual Polish-German citizenship are somewhat

¹⁰ In these studies, however, there was no specific focus on return migration of the highly skilled.

¹¹ Agnieszka Weinar's study is part of a qualitative CMR study conducted in 2002 by a team headed by Krystyna Iglicka (Iglicka 2002b). The team carried out a study on 100 return migrants from the following countries: Great Britain (20 persons), Germany (20) and the United States of America (60). The study analyses the strategies and motives of returning Poles in the 1990s.

different from the general picture (here and following Heffner/Soldra-Gwiżdż 1997).¹² They were, on average, less educated (cp. Fig. 7) and did not have special qualifications before or after returning to Poland. Despite this fact, upon return many of them would start their own businesses. The main reason for their return is their failure in the receiving country related to economical and integration problems. They mostly return to places from which they left, what shows that they maintain strong ties with the sending region. Because of the specific German-Polish migration regime – with a large role for “Aussiedler” migration¹³ and the fact that the highly skilled are underrepresented in return migration from Germany (see Fig. 7) – these results do not seem to reflect the general situation of high-skilled return migration to Poland.

The motives of return are to some extent associated with the preparation for return (see here and following Weiner 2002). Whereas for sentimental return migrants, preparing for return was not an important issue, the non-sentimental return migrants carefully prepared for their return to Poland. Weiner also found that the better the return migrant had been prepared before leaving his/her country of emigration, the more important economic and social role s/he plays in Poland – thus corroborating our conceptual consideration of the role of motives of and preparation for return (as part of our first hypothesis, also cp. Fig. 1a).

In the light of qualitative studies on return migration to Poland, it can be stated that the majority of return migrants wish to stay in Poland (Iglicka 2002b). Some return migrants, however, were disappointed with the political and economic situation and went back to where they came from (see Fig. 2 for statistical evidence on re-emigration). In a study on return migration of second-generation British Poles Górný and Osipovič (2006)¹⁴ showed that many of them are highly skilled and at the beginning of the 1990s took part in recreating the country's economy, thus realizing their ideological reason of return. After 1993, when a post-communist government began to rule and the situation on the labour market had started to deteriorate (increasing unemployment), they lost their faith in the possibility to support Poland's development. According to the respondents in Górný's and Osipovič study (2006) this is why after 1995 a number of second-generation British Poles had gone back to Britain.

The occurrence of re-emigration shows that successful integration into the Polish economy and labour market depends on institutional context and is rather complex. The following chapter will explore this issue and look at the regional dimension of return migration and economic development in Poland – thus taking up the “opportunity structure” argument in our model (second hypothesis, also cp. Fig. 1b).

¹² In this first CMR study on return migration the authors prepared an analysis of 10 interviews with return migrants from West Germany to Upper Silesia with dual Polish-German citizenship, with a special focus on the reasons for return migration (also see Heffner/Solga 1999).

¹³ Polish citizens with some official proof of German heritage (ethnic Germans) were, upon request, granted (West) German citizenship while being allowed to keep their Polish citizenship. These so-called “Aussiedler” constitute a significant share of Polish emigrants to (West) Germany in the last decades and have also been an important group among return migrants from Germany.

¹⁴ This research by Agata Górný and Dorota Osipovič focused on return migration of the second-generation British Poles. The authors carried out a study on 36 return migrants, out of whom 25 were in Poland at the time of the study and the other 11 persons were in Great Britain.

4. High-skilled return migration and economic development in Poland in regional perspective

Return migrants' integration into the Polish labour market has to be situated in the general economic context in Poland. Two points are of special importance in this respect. The first refers to labour market shortages and mismatches, and the second to the regional differentiation of the Polish economy. Their discussion will provide the background for the analysis of where exactly high-skilled return migrants settle in Poland and to what extent there is a potential to stimulate and support knowledge-based regional development outside the Warsaw region.

4.1 Labour market and regional development in Poland

In the Polish labour market there are – despite a national unemployment rate of around 11 %¹⁵ – “clear signs of labour shortages”, especially a “need for highly skilled labour” (Koryś/Weinar 2005: 17). Although tertiary institutions in Poland have developed quickly, Koryś and Weinar put forward the view that their structure “does not [yet] meet the needs of the market completely” and therefore “it would be wise to prepare a strategy to increase the number of skilled workers in Poland” through educational policies and by encouraging selective immigration (2005: 17).

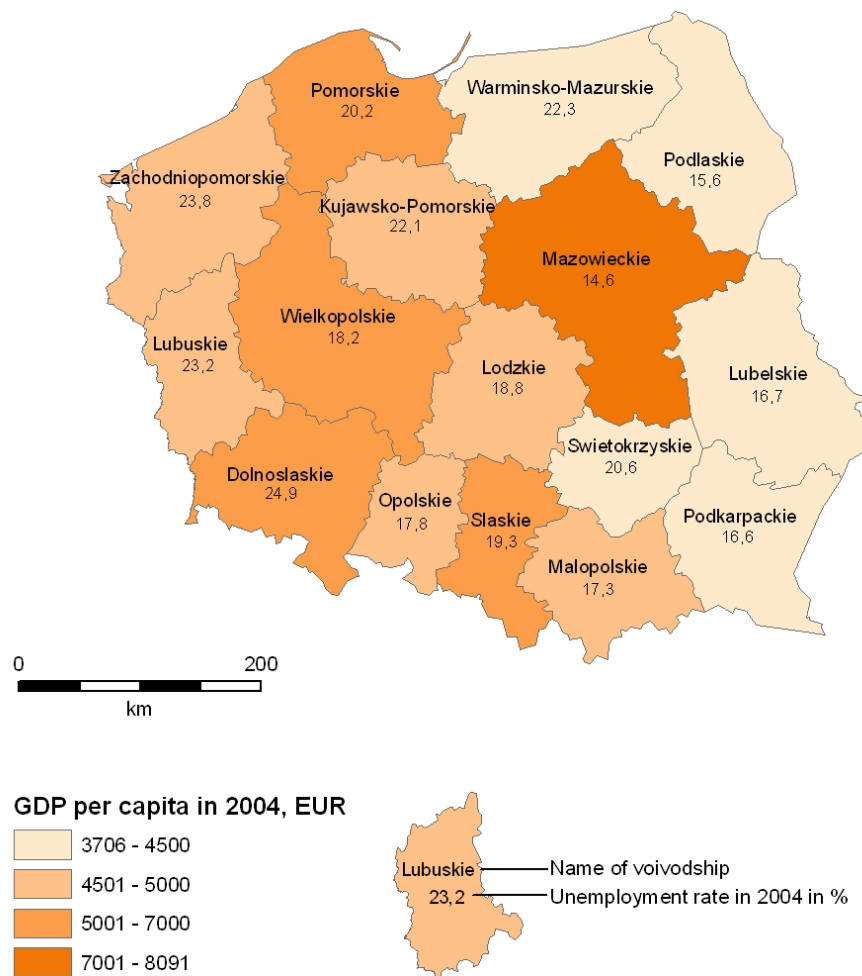
Polish return migrants are only one potential target group of immigration policies, but they are more likely to stay long-term and their integration into Polish society seems less difficult than for other immigrant groups. In addition, qualitative research has also shown (cp. 3.3) that many of them actively want to contribute to the economic, social and political development in Poland and thus pursue aims beyond their own economic well-being – making them potentially important actors with respect to local and regional development. This touches on the second point of special importance in Polish economic development, its regional structure and development.

Regional economic structures in Poland vary considerably and regional disparities have been exacerbated by the shift from planned to market economy (Korcelli 1997, Pütz 1998, Gorzelak 2000, 2001, Kühne 2000). The Warsaw region as well as some other large conurbations (e.g. Kraków, Poznań) are doing comparatively well with relatively low unemployment rates and comparatively high wages, a strong service sector and a large degree of internationalisation through FDI. They can be described as “growth islands” in an altogether rather complex and mosaic-like pattern (Korcelli 1997: 230). Other, mainly rural, but also some old-industrialised regions struggle with deep structural problems such as large job losses in agriculture or industry, low levels of investment (both national and international), lack of employment opportunities in advanced industries and services and/or high (open or hidden) unemployment. Problem regions include the Western and Northern voivodships (except the Gdansk region) and the Eastern border regions.¹⁶

¹⁵ 11.3% in 1st quarter 2007 (Główny Urząd Statystyczny 2007)

¹⁶ While the former were previously dominated by the now shut-down state-owned mega-farms, small-scale private farming survived the communist period in the latter. It still plays a central role with respect to employment – though not for income generation – a structure which is mainly due to a lack of other employment opportunities (hidden unemployment).

Figure 8: Gross Domestic Product per capita and unemployment rate in 2004



Source: Eurostat 2007a, 2007b

Various studies have analysed the increasing regional disparities in Poland, their patterns, causes and characteristics (see here and following Korcelli 1997, Pütz 1998, Abraham/Eser 1999, Czyż 1999, Czyż et al. 2000, Gorzelak 2000, Kühne 2000). Important factors to explain bad as opposed to good economic performance in the Polish regions are the lack of critical mass of competitive firms and of agglomeration economies especially in the peripheral regions, the low quality of infrastructure (e.g. transport, IT), sectoral structures and institutional settings which are not conducive to private-sector development and, closely related, the lack of human capital or – more generally – of structures that support knowledge-based regional development. They are interrelated, have their roots in historical developments (both pre-war and socialist period) and have to be interpreted as contingent results of path-dependent development (see e.g. Gorzelak 2003). In line with our conceptual thinking the different regional settings provide very different opportunity structures for return migrants resulting in a rather uneven spatial distribution of high-skilled return migrants. The underlying locational decisions of return migrants can be interpreted as reflecting the anticipated “fit” of return migrants’ resources on the one hand and regional context conditions on the other hand (cp. 2.3, third hypothesis)

4.2 Spatial distribution of high-skilled return migrants in Poland

Given the large and increasing regional disparities it is interesting to analyse where exactly high-skilled return migrants settle in Poland and thus come to first conclusions regarding the regional selectivity of return migration (cp. 2.3, fourth hypothesis). One could, on one hand, expect that high-skilled return migrants concentrate in economically dynamic regions. This would lead to a spatial pattern with high-skilled return migrants concentrating in few big cities with large shares of services and modern industries and especially in Warsaw. On the other hand, assuming that high-skilled return migrants mainly have mixed or even sentimental motives for return (cp. 3.3) one would expect that they settle in regions in which they have family or other social ties including those to other return migrants. This could lead to a more dispersed pattern with concentrations of return migrants in various types of places.

While the data available does not allow for a detailed analysis including previous residences, Census data does include the place of residence of return migrants at voivodship (region) and powiat (county) level in 2002. At both levels the spatial distribution of return migrants does not show a simple pattern (Tab. 2, Fig. 9), so that both of the above propositions seem to apply to some extent – thus corroborating the qualitative findings on the role of mixed motives (cp. 3.3). High-skilled return migrants concentrate in the more populous and/or economically successful voivodships of Poland: Mazowieckie (31 %), Małopolskie (10 %), Śląskie (9 %), Dolnośląskie (8 %) as well as in Pomorskie (7 %) (Tab. 2). In comparison with all return migrants and also with the total population they are strongly overrepresented only in Mazowieckie, the voivodship which includes Warsaw.

Figure 9 shows that Warsaw indeed is the most important destination of high-skilled return migrants within this voivodship as well as Kraków in Małopolskie, Wrocław in Dolnośląskie, Gdansk in Pomorskie and Poznań in Wielkopolskie. Overall, the overwhelming majority of high-skilled return migrants (89 %) lives in cities (in 2002 the share of total Polish population living in cities was 62%); only one person in ten has settled down in the countryside.

Table 2: Spatial distribution of well-educated Polish return migrants by voivodships, 2002

Voivodship	High-skilled return migrants in Poland 2002*		All return migrants in Poland 2002*		Population in 1000 (in 2002)		GDP per capita in EUR (in 2004)
	N	%	N	%	N	%	N
Dolnośląskie	953	7,8	3,859	9.5	2,907.3	7.6	5,442
Kujawsko-pomorskie	353	2,9	1,517	3.7	2,069.6	5.4	4,778
Lubelskie	369	3,0	1,347	3.3	2,199.0	5.8	3,706
Lubuskie	216	1,8	1,050	2.6	1,009.1	2.6	4,782
Łódzkie	635	5,2	2,014	4.9	2,612.2	6.8	4,921
Małopolskie	1,213	9,9	4,207	10.3	3,233.5	8.46	4,566
Mazowieckie	4,161	34,0	8,634	21.2	5,124.9	13.4	8,091
Opolskie	181	1,5	957	2.3	1,047.4	2.7	4,592
Podkarpackie	484	4,0	2,645	6.5	2,104.3	5.5	3,730

Podlaskie	366	3,0	1,544	3.8	1,208.6	3.2	3,990
Pomorskie	785	6,4	2,782	6.8	2,180.8	5.7	5,219
Śląskie	975	8,0	4,240	10.4	4,741.5	12.4	6,004
Świętokrzyskie	217	1,8	895	2.2	1,297.4	3.4	4,135
Warmińsko-mazurskie	280	2,3	1,203	2.9	1,428.6	3.7	4,147
Wielkopolskie	595	4,9	2091	5.1	3,352.6	8.8	5,743
Zachodniopomorskie	440	3,6	1806	4.4	1,698.4	4.4	4,970
Total	12,223	100.0	40,791	100.0	38,157.1	100.0	5,342

* Missing data not included

Source: Own calculations on the basis of the Population Census 2002, Eurostat 2007a, 2007b

W powyższej tabeli dane dotyczą tych migrantów, którzy pozostali w Polsce i już więcej nigdy nie wyjechali. Nie wiem, czemu autorki mają ciągle wątpliwości, o kogo chodzi, więc piszę dla wyjaśnienia...

Figure 9: Spatial distribution of high-skilled return migrants in 2002 by powiat (N = 12,223)



Source: Own calculations on the basis of the Population Census 2002

These findings on the spatial distribution of return migrants show that return migration to Poland, and probably to transition economies more generally, cannot be narrowed down to the national capital and few other dynamic cities. Rather, the regional selectivity and the spatial pattern of high-skilled return migration to Poland are complex and reflect the (mostly mixed) motives of return – thus highlighting the relevance of a regional perspective on return migration and economic development. In the following case study we will analyse in greater detail the role of institutional and regional context as well as of social relations for a return migrant's impact on knowledge-based development exemplarily.

4.3 Case study of a return migrant to Warsaw: Stefan, 33 years old, geoinformatics specialist

In statistical terms Stefan¹⁷ is a typical return migrant to Poland (cp. 3.2): He is between 30 and 39 years old, economically active as an employed specialist and returned to Warsaw from Germany. Stefan came to Poland in 2006 without friends or family. He works for a German geoinformatics firm and was hired to organize the firm's first steps to expand to East Europe. He has done so very successfully and there are concrete plans to formally establish a subsidiary for these activities. In line with our conceptual thinking, this success is to a large extent a result of his proactive management of social relations within and beyond Warsaw and Poland. More generally, Stefan offers a good example of how social relations are important when trying to understand return migrants' motives of and preparation for return as well as their economically relevant activities and success back in Poland. In the case of Stefan Warsaw provides a specific regional context in which he can make best use of his knowledge and other resources both for himself, but also with respect to economic development in Poland.

To better understand the resources Stefan utilized in Poland it is necessary to know more about his biographical, educational and occupational background as well as about the motives and circumstances of his return. Stefan was born in Poland and migrated to Germany with his parents in the late 1980s as a child. Stefan studied geography in Germany and Sweden, got degrees in both countries. He then stayed at his German university to get a Ph.D. and worked as a research assistant in the geoinformatics department. His responsibilities included not only academic and geoinformatics-related technical things, but he was also responsible for contacts to the EU and for funding issues.

Stefan had always planned to live in Poland for some time in his life and he also wanted to go abroad after his Ph.D., but not necessarily directly to Poland. The actual decision to move to Poland was taken rather quickly and mainly for private reasons to be able to live together with his (new) girl friend in Warsaw. Nonetheless Stefan prepared carefully for this move and applied to a number of German geoinformatics firms with ambitions or even activities in East Europe. He eventually took a job with a firm he already knew. They agreed that he could live and work in Warsaw in a home office fashion, which, in combination with a good salary, was the most important condition for him. He left his university job without having finished his Ph.D (which he then did when already in Poland) and moved to Warsaw. His new employer had just decided to go international and Stefan was the person to put that decision into action. In Stefan's view he had been chosen for his technical and business skills, which he had acquired as part of his academic job and in specific off-the-job trainings, as well as because of his language skills which include German, Polish and, also very important, English.

When Stefan decided to go to Warsaw he had hardly any contacts in the Polish business world or in Warsaw. The following details illustrate how, in addition to Stefan's specific knowledge base, the management of existing social relations was very important for Stefan's success. He used them to build new social relations in Poland and East Europe and, subsequently, was able to link his international and local contacts and thus function as a

¹⁷ Stefan was interviewed in May 2007 in Warsaw. While the main features and views presented here are real, his name, the dates as well as some facts not relevant to our argument have been changed.

“bridge” between actors in different regions and countries. Interestingly, private, firm and IT industry contacts were much more important than those institutions intended to support business activities and contacts.

After signing his work contract Stefan started approaching companies which have relations to his new employer and also got in contact with institutions such as the local and the German-Polish chambers of commerce (COCs); in Warsaw he also went to a German Business Club once. He had hoped that via these institutions he could get to know people who speak German or who are in similar situations for an exchange of experiences. This was not very successful, though, partly because Stefan was too busy getting settled in Warsaw to further continue these efforts. Instead Stefan got to know people through his girl friend, through his employer’s partners in Poland and their networks as well as through people he had already met (snowball system). As Stefan is responsible for all of East Europe he has especially used the international network of one multinational partner firm to start activities not only in Poland, but also in a number of other East European countries.

In addition to his private and firm contacts Stefan found it easy to get in contact with Polish IT associations because “we speak the same language, geoinformatics”. He also has good contacts with ministries and public agencies dealing with geoinformatics. They are important for him because (1) they organize public tenders (for which his firm applies) and (2) he works for them as an advisor, both for money (as a representative of his firm) and free of charge as a geoinformatics expert. In addition to advising public agencies Stefan also occasionally works free of charge as an instructor at a university. Although he does not work voluntarily on a regular basis, these activities are important to him, “close to my heart”. Nonetheless he makes very clear that he would not have come to Poland had he not earned a good salary. “I am not a benefactor. I do not come to Poland and put up with earning less. That doesn’t make sense to me. I have to earn at least as much as I would in Germany. Otherwise I would not go to Poland.”

It is interesting that Stefan, despite his strong economic orientation, also has sentimental feelings and wishes to support Poland’s development. Having been socialized in Germany makes him feel different, but he still is attached to Poland. His specific experiences and knowledge allow him to contribute in specific ways, but also confront him with difficulties, not only of a formal nature, but also with respect to mentality. Asked about barriers and problems upon his return Stefan is especially explicit about red tape. Because he had no valid Polish papers any more there was a big and long-lasting hassle about getting registered. This problem was eventually solved by using his girl friend’s private networks and getting in contact with a high ranking person working in a ministry. In addition to these formalities Stefan had difficulties adjusting to what he calls the attitude of people in Warsaw. Many of them only come to Warsaw to work, “sometimes 10, 11, 12 hours per day, but not very efficient”, and then leave for the weekend. Stefan finds that people in Warsaw are extremely work-oriented and not very open to newcomers: “To get to know people in Warsaw is not easy”.

This specific context in Warsaw raises the question how Stefan thinks about alternative locations i.e. the issue of regional selectivity (fourth hypothesis, cp. 2.3). Concerning his employer’s business plans, Stefan said that any other East European country could have been chosen. Poland, however, has an advantage with respect to its travel connections, especially to Germany. This is important because Stefan is in close and regular contact with

his employer. Within Poland he sees Warsaw as the by far best location for a good market access because this is where most of the clients are, many of them part of or related to the government. Personally for him, no other location in Poland would have been thinkable, not only because of his girl friend, but also because of the city's size, its cultural attractions and because Warsaw is relatively international compared to other places in Poland. And, from a career perspective, Stefan sees Warsaw as a very good place to work with a huge labour market potential, especially in IT, and very good opportunities to advance one's career and earn money. In the long term, however, Stefan does not see himself in Warsaw. "I don't want to live here for the next 50 years." Warsaw for him is not "a city to live", life quality is lower than e.g. in Berlin and it is not very international and rather small compared to other European cities, though bigger than his previous city of residence.

Stefan's thinking makes clear that for him Warsaw was the best choice, both from a private and a business perspective. His success, however, is not in the first place related to this choice of location, but rather to other factors related such as his knowledge and contacts. When asked about what makes him successful in his job Stefan first of all points to his advanced knowledge base which is superior to what one can learn in Poland. There are no specific study programmes at universities or other institutions, and also Polish geoinformatics companies are "not yet there". Because Stefan has been educated in Germany he has a good professional reputation and is often asked for his opinion and advice, both formally and informally. For his clients he acts as a "bridge" between Poland, or any other East European country, and his employer in Germany. He says, though, that he could theoretically perform this function from Germany, but this would increase his travel activities, and the direct contact to (potential) Polish clients is also advantageous. Stefan's language skills are a second important factor for his success in Poland. "Clearly, one has to speak the language here in Poland, that is important". Stefan's contacts to former colleagues and mentors in Germany are a third important point for him. They function as discussion partners for new ideas and also provide support and advice when difficult and strategic decisions have to be taken, such as e.g. the decision to set up a subsidiary in Poland.

The decision to start a new company and become self-employed would, from an economic development perspective, be even more significant than Stefan's activities up to now. So far Stefan already does contribute to the transfer of geoinformatics knowledge to private and public actors including educational institutions. A new company, however, would very likely create new jobs and be a more direct investment into human capital in Poland, in addition to the financial investment necessary for this step. Even more importantly, it would probably keep Stefan or at least his employer engaged in Poland more permanently thus stabilizing the bridges that have been built. In the envisaged subsidiary Stefan would be a minority partner and take up a loan using his new Warsaw apartment as collateral. Stefan feels very comfortable about setting up this new firm after he has established himself in Warsaw successfully and got used to the way things are being done there. "I am slowly ticking again like people here". This includes that one gets used to "applying different methods to get things done" than in Germany, especially when dealing with public agencies, i.e. to adapt to the more informal institutions governing economic relations in Poland and Warsaw.

The significance of informal institutions is also reflected in Stefan repeated assertion that to be successful in Poland is mainly an issue of one's own initiative. "Unless you take the initiative you are not successful in Poland, even as a return migrant". In certain situations one can buy services from specialists (which he will do when starting the new firm), but one

cannot count on help from others or on institutional support. Because of the complex legal situation when moving to Poland or starting a business, however, he does see a need for more and better information for return migrants. Nonetheless, the general sentiment towards return migrants is, according to Stefan, very positive, especially because of the large emigration wave since 2004.

Stefan knows of many other return migrants in Poland, from the US, Germany and other countries, but they are not part of his personal network. Many of them work as CEOs in Polish or foreign companies. Due to these positions they have, according to Stefan, an impact on the economic development in Poland. Because of their experience abroad, their language skills and general knowledge as well as on account of being Polish high-skilled return migrants can earn very high salaries, at least in the private sector. Stefan does not know of any return migrants working in public agencies and does not really see that such relatively low-paid positions are desirable for them, except for maybe very high or political positions. Regionally he sees Warsaw as the by far most attractive destination for return migrants, especially for service sector positions, followed by some of the other larger cities. The spatial distribution of high-skilled return migrant (cp. Fig. 9) confirms his assessment.

5. Conclusion

The results of quantitative and qualitative research presented in this paper are by no means enough to confirm our hypotheses and assumptions regarding the significance of social relations, institutions and especially the regional dimension of high-skilled return migration and economic development. However, the analyses provide sufficient evidence that it is worth to analyze the role of institutional and regional contexts as providing opportunities or posing barriers for migration-induced knowledge-based development in greater detail and more systematically than it has been done in previous studies. The case study of one high-skilled return migrant highlights that social relations should be at the centre of further research as they are important for the migrant's preparation for return and his/her (economic) success back in Poland. In particular, the case study shows that these relations were crucial for getting access to and linking resources in- and outside Poland. Another important finding is that informal relations and institutions play a prominent role in the integration of high-skilled return migrants and their resources as well as for their willingness to stay and adapt to the new environment.

Our results strengthen our overall assumption that high-skilled return migration can possibly stimulate and support knowledge-based regional development, but they also show that this is dependent on institutional, and regional, context conditions. In Figure 1 we have suggested a model which depicts the various factors and interrelationships to better understand and explain high-skilled return migrants' impact on regional development. Together with the idea of social capital performing a "bridging function" between actors in the same, but especially in different regions this model can serve as basis to analyse empirically whether and how return migrants are able to and have the opportunity to make use of their resources in ways which benefit the regional economy.

The theoretical framework underlying our model consists of two main building blocks which conceptualize return migration and regional economic development at the micro scale. The first building block of our theoretical framework is based on regional development theories and looks at how knowledge, institutions and networks are important in linking return

migrants' resources with local resources and what are potential barriers and problems (2.1). The second is a conceptualization of (return) migrants' resources as well as the chances and problems of transferring them to the other regions (2.2). The integration of these two blocks allows focussing on the regional dimension – thus taking a perspective which has hitherto been neglected in research on high-skilled return migration and economic development (2.3).

The Polish experience illustrates that a regional perspective can greatly enhance our understanding of return migrants' impact on knowledge-based development. Not only do regional conditions play an important role for return migrants' ability to contribute to knowledge-based development. Additionally, high-skilled return migration in Poland is not limited to the capital region or economically dynamic regions, as existing research in developing and newly industrializing countries might suggest. Although the majority of high-skilled Polish return migrants do settle in the economically more successful Polish cities and regions, especially in Warsaw, there are significant numbers that return to and take up employment in less prosperous cities and regions (cp. Fig. 9). Here they are confronted with context conditions, opportunity structures and most likely also barriers which are very different from the Warsaw environment. To analyze return migration and its impact on knowledge-based development in these cities and regions in a comparative framework will provide new insights and help to advance our theoretical thinking.

In addition to comparing regions within a country, the existing research shows that there is a scope also for more systematic international comparison. The Polish experience demonstrates that (high-skilled) return migration is not limited to developing and newly industrialized countries, but that it is also relevant for East European transformation economies. Their shift from planned to market economy and integration into the European and world economy comes along with changes in their migratory systems. Poland is just one country that has experienced a marked inflow of return migrants in the 1990s. Understanding the Polish experience will help to analyze similar processes in other East European countries and come to more general findings concerning the impact of high-skilled return migrants on knowledge-based regional development.

Lastly, regionally and internationally comparative research will deliver important insights for (regional) policy making. There are already examples of policies to attract high-skilled return migrants and to create institutional frameworks and support structures that help them to realize their potential, but not in Poland. The past has shown that to initiate change and stimulate economic development in the less advantaged Polish regions and environments is a difficult and complex task. Whether and how high-skilled return migrants can contribute to performing this task is an open question and needs to be explored, especially when thinking about strategies to increase the number of the highly skilled in Poland by encouraging selective immigration as suggested, e.g. by Koryś and Weiner (2005). The proposed model provides a framework which integrates both regional context conditions and migrants' characteristics and thus allows for solid analysis and policy development in different types of regions and institutional contexts.

6. References

- Abraham, T. and Eser, T.W. (1999) 'Regionalentwicklung in Mittel- und Osteuropa im Spannungsfeld von Transformation und Integration am Beispiel Polens', *Raumforschung und Raumordnung*, 57(2/3): 83-95.
- Alscher, S. (2005) 'Polen', in *focus MIGRATION*, Länderprofil Polen, Nr. 3. (http://www.migration-info.de/migration_und_bevoelkerung/laenderprofile/index.htm) (21.06.2007).
- Ammassari, S. (2003) 'From nation-building to entrepreneurship: the impact of elite return migrants in Côte d'Ivoire and Ghana', paper presented on the International Workshop on Migration and Poverty in West Africa, 13-14 March 2003, University of Sussex.
- Bathelt, H. and Glückler, J. (2003) *Wirtschaftsgeographie. Ökonomische Beziehungen in räumlicher Perspektive*. Stuttgart: Ulmer.
- Bathelt, H. and Glückler, J. (2005) 'Resources in Economic Geography: from substantive concepts towards a relational perspective', *Environment and Planning A*, 2005(37): 1545-1563.
- Bathelt, H., Malmberg, A. and Maskell, P. (2004) 'Clusters and knowledge. Local Buzz, global pipelines and the process of knowledge creation', *Progress in Human Geography*, 28(1): 31-56.
- Black, R. and King, R. (2004) 'Editorial Introduction: Migration, Return and Development in West Africa', *Population, Space and Place*, 10(2004): 75-83.
- Black, R., King, R. and Tiemoko, R. (2003) 'Migration, return and small enterprise development in Ghana: a route out of poverty?', Sussex Migration Working Paper No. 9, Sussex Centre for Migration Research.
- Bourdieu, P. (1983) 'Ökonomisches Kapital, kulturelles Kapital, soziales Kapital', in Kreckel, R. (ed) *Soziale Ungleichheiten*. Göttingen: Schwartz, 183-198.
- Cerase, F.P. (1974) 'Expectations and Reality. A Study of Return Migration from the United State to Southern Italy', *Journal of International Migration Review*, 28(1): 245-62.
- Chałasiński, J. (1936) 'Emigracja jako zjawisko społeczne' (Emigration as a social phenomenon), *Przegląd Polonijny*, 4: 495-501.
- Coe, N.M. and Bunnell, T.G. (2003) "Spatializing' knowledge communities: towards a conceptualization of transnational innovation networks', *Global Networks*, 3(4): 437-456.
- Cooke, P., Uranga, M.G. and Etxebarria, G. (1997) 'Regional innovation systems: Institutional and organizational dimensions', *Research Policy*, 26(4-5): 475-491.
- Czyż, T. (1999) 'Die neue territoriale Struktur der Verwaltung und die regionale sozioökonomische Struktur in Polen', *Europa Regional*, 7(1): 33-44.
- Czyż, T., Churski, P. and Hauke, J. (2000) 'Unemployment Dynamics in the Process of System Transformation in Poland', *Geographica Polonica*, 73(1): 25-46.
- Eurostat (2007a) 'Regionales BIP je Einwohner in der EU 27. Pressemitteilung 23/2', (http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP_PRD_CAT_PREREL/PGE_CAT_PREREL_YEAR_2007/PGE_CAT_PREREL_YEAR_2007_MONTH_02/1-19022007-DE-

[AP.PDF](#)) (07.06.2007).

Eurostat (2007b) 'Allgemeine und Regionalstatistiken', (http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136162,0_45572076&_dad=portal&_schema=PORTAL) (21.06.2007).

Faist, T. (2000) *The Volume and Dynamics of International Migration and Transnational Social Spaces*. Oxford: Clarendon Press.

Fassmann, H. (2000) 'Transnationale Mobilität: Empirische Befunde und theoretische Überlegungen', *Leviathan: Berliner Zeitschrift für Sozialwissenschaft*, 30(3): 345-359.

Fihel, A., Górny, A. and Matejko, E. (2006) 'Remigracja a transfer kapitału ludzkiego do Polski w okresie transformacji', in Jaźwińskiej, E. (ed) *Imigracja do Polski w świetle wyników Narodowego Spisu Powszechnego 2002*. CMR Working Papers No. 13/71, Warsaw, 29-41. (http://www.migracje.uw.edu.pl/obm/pix/013_71.pdf) (20.02. 07)

Fromhold-Eisebith, M. (1995) 'Das "kreative Milieu" als Motor regionalwirtschaftlicher Entwicklung. Forschungstrends und Erfassungsmöglichkeiten', *Geographische Zeitschrift*, 83(1): 30-47.

Fromhold-Eisebith, M. (2002a) 'Internationale Migration Hochqualifizierter und technologieorientierte Regionalentwicklung. Fördereffekte interregionaler Migrationssysteme auf Industrie- und Entwicklungsländer aus wirtschaftsgeographischer Perspektive', *IMIS-Beiträge*, 19: 21- 41.

Fromhold-Eisebith, M. (2002b) 'Qualified Labour Migration and Regional Knowledge Economies', in Haytor, R. and Le Heron, R. (ed) *Knowledge, Industry and Environment. Institutions and Innovation in Territorial Perspective*. Ashgate: Aldershot, 125-143.

Glebe, G. and White, P. (2001) 'Hoch qualifizierte Migranten im Prozess der Globalisierung', *Geographische Rundschau*, 53(2): 38-44.

Glick Schiller, N., Basch, L. and Szabton Blanc, C. (1997) 'From Immigrant to Transmigrant: Theorizing Transnational Migration', in Pries, L. (ed) *Transnationale Migration*. Baden-Baden: Nomos, 121-140.

Główny Urząd Statystyczny (2007) 'Quarterly information on the labour market. 1st quarter 2007', (www.stat.gov.pl/gus/45_1790_ENG_HTML.htm) (07.06.2007).

Górny A. and Kolankiewicz, G. (2002) 'Reemigracja z Wielkiej Brytanii – poszukiwanie 'nowego' czy kontynuacja 'starego'?', in Iglicka, K. (ed): *Migracje powrotne Polaków. Powroty sukcesu czy rozczarowania?* (Poles' return migrations. Return of success or disappointment?), Warsaw: Institute of Public Affairs, 122-160.

Górny, A. and Osipovič, D. (2006) *Return migration of second-generation British Poles*. CMR Working Papers No 6/64, Warsaw: UW, (http://www.migracje.uw.edu.pl/obm/pix/006_64.pdf) (16.06.2006)

Gorzela, G. (2000) 'Decentralization, regional development and regional policies', *Informationen zur Raumentwicklung*, 2000(7-8): 349-360.

Gorzela, G. (2001) 'Regional Development in Central Europe and European Integration', *Informationen zur Raumentwicklung*, 2001(11-12): 743-749.

Ghosh, B. (2000) 'Return Migration: reshaping policy approaches', in Ghosh, B. (ed) *Return*

Migration, Journey of Hope or Despair? Geneva: IOM/UN.

Gorzela, G. (2003) 'Regional Innovation in Poland', in *Research Bulletin*, 12(3/4): 51-76.

Gössling, T. (2004) 'Proximity, Trust and Morality in Networks', *European Planning Studies*, 12(5): 675-689.

Grabher, G. (1993) *The embedded firm. On the socioeconomics of interfirm relations*. London: Routledge.

Granovetter, M. (1973) 'The strength of weak ties', *American Journal of Sociology*, 78(6): 1360-1380.

Haas, H. and Lindemann, S. (2003) 'Wissensintensive unternehmensorientierte Dienstleistungen als regionale Innovationssysteme', *Zeitschrift für Wirtschaftsgeographie*, 47(1): 1-14.

Heffner, K. and Sołdra-Gwiżdż, T. (1997) *Migracje powrotne na Górny Śląsk z socjologicznej perspektywy* (Return migration to Upper Silesia from a sociological perspective). CMR Working Papers Nr 9, Warsaw: UW (<http://www.migracje.uw.edu.pl/obm/pix/009.pdf>) (16.06.06).

Heffner, K. and Solga, B. (1999) *Praca w RFN I migracje polsko-niemieckie a rozwój regionalny Śląska Opolskiego*. Opole: Stowarzyszenie Instytut Śląski, Instytut Śląski.

Hunger, U. (2000) 'Vom >Brain Drain< zum >Brain Gain<. Migration, Netzwerkbildung und sozio-ökonomische Entwicklung: das Beispiel der indischen >Software-Migranten<', *IMIS-Beiträge*, 16: 7-21.

Hunger, U. (2004) '>Brain Gain< Theoretical Considerations and Empirical Data on a New Research Perspective in Development and Migration Theory', *IMIS-Beiträge*, 24: 213-221.

Iglicka, K. (2002a) *Ethnic division on emerging foreign labor markets in Poland during transition period*. CMR Working Papers Nr 35, Warsaw: UW (<http://www.migracje.uw.edu.pl/obm/pix/035.pdf>) (16.06.06).

Iglicka, K. (ed) (2002b): *Migracje powrotne Polaków. Powroty sukcesu czy rozczarowania?* (Poles' return migrations. Return of success or disappointment?). Warsaw: Institute of Public Affairs.

IOM (= International Organization for Migration) (2001) *Harnessing the Potential of Migration and Return to Promote Development. Applying Concepts to West Africa*. Geneva: IOM (= IOM Migration Research Series No. 5.)

Iredale, R. and Guo, F. (2001) *The Transforming Role of Skilled and Business Returnees: Taiwan, China and Bangladesh*. Centre for Asia Pacific Social Transformation Studies, Wollongong. (http://www.iussp.org/Brazil2001/s30/S39_04_Iredale.pdf) (19.06.2007)

King, R. (1986) 'Return Migration and Regional Economic Development: An Overview', in King, R. (ed) *Return Migration and Regional Economic Problems*. London et al: Croom Helm, 1-37.

King, R., Strachan, A. and Mortimer, J. (1986) 'Gastarbeiter Go Home: Return Migration and Economic Change in the Italian Mezzogiorno', in: King, R. (ed) *Return Migration and Regional Economic Problems*. London et al: Croom Helm, 38-68.

- Korcelli, P. (1997) 'Regionale Muster der Transition: Polen'. in Fassmann, H. (ed.) *Die Rückkehr der Regionen. Beiträge zur regionalen Transformation Ostmitteleuropas*. Wien: Verlag der österreichischen Akademie der Wissenschaften (= Beiträge zur Stadt- und Regionalforschung 15), 187-243.
- Koryś, P. and Weinar, A. (2005) 'Immigration as a Labour Market Strategy: Poland', in Niessen, J. and Schibel, Y. (ed) *Immigration as a Labour market strategy – European and North American Perspectives*. Migration Policy Group, Brussels, 1-31.
- Kritz, M.M. and Zlotnik, H. (1992) 'Global Interactions: Migration Systems, Processes and Policies', in Kritz, M.M., Lim, L.L. and Zlotnik, H. (eds) *International Migration Systems. A Global Approach*. Oxford: Clarendon Press, 437-456.
- Kühne, O. (2000) 'Die regionale Entwicklung des Arbeitsmarktes im Transformationsprozess Polens', *Europa Regional*, 8(1): 33-42.
- Lo, V. (2003) *Wissensbasierte Netzwerke im Finanzsektor*. Wiesbaden: DUV/Gabler.
- Malecki, E.J. (2000) 'Knowledge and Regional Competitiveness', *Erdkunde*, 45(4): 334-351.
- Massey, D.S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., and Taylor, J.E. (eds) (1998) *Worlds in Motion. Understanding International Migration at the End of the Millennium*. Oxford: Clarendon Press.
- Meusburger, P. (2000) 'The spatial concentration of knowledge. Some theoretical considerations', *Erdkunde*, 45(4): 352-364.
- Müller, C. (2005) 'Gründungspolitik und Transformation. Zur Rolle von Gründungen chinesischer Remigranten für die Entwicklung von Unternehmertum in Shanghai', *Zeitschrift für Wirtschaftsgeographie*, 49(3/4): 237-254.
- Müller, C. (2007) *Zur Bedeutung von Remigranten für Innovationsprozesse in China. Eine theoretische und empirische Analyse*. Frankfurt/Main et al: Peter Lang (= Europäische Hochschulschriften 3235).
- Müller, C. and Sternberg, R. (2006) 'Why Entrepreneurship by Return Migrants is Crucial for Technology-based Regional Development', in Johansson, I. (ed) *Innovations and Entrepreneurship in Functional Regions*. Uddevalla Symposium, Uddevalla, 599-627.
- Niemyska, M. (1936) *Wychodźcy po powrocie do kraju* (Re-emigrants after return to the country), Warszawa: Instytut Gospodarstwa Społecznego.
- Nyberg-Sørensen, N., Van Haer, N. and Engberg-Pedersen, P. (2002) 'The Migration-Development Nexus. Evidences and Policy Options. State-of-the-Art Overview', *International Migration Review*, 40(5): 3-71.
- OECD (= Organisation for Economic Cooperation and Development) (2002) *International Mobility of the Highly Skilled*. Paris: OECD.
- Okólski, M. (1994) *Migracje zagraniczne Polsce w latach 1980-1989. Zarys problematyki badawczej* (International migrations in Poland In 1980-1989. Outline of research problem). Warsaw: PWN (=Studia Demograficzne No 3).
- Okólski, M. (1999) 'Recent Migration in Poland', in Iglicka K. and Sword, K. (eds) *The Challenge of East-West Migration for Poland*. London: Macmillan, 15-44.

- Polanyi, M. (1967) *The tacit dimension*. London: Routledge, Keagan Paul.
- Pries, L. (1996) 'Transnationale Soziale Räume. Theoretisch-empirische Skizze am Beispiel der Arbeitswanderungen Mexico-USA', *Zeitschrift für Soziologie*, 25(6): 456-472.
- Pütz, R. (1998) 'Polen im Transformationsprozess', *Geographische Rundschau*, 50(1), 4-11.
- Sakson, B. (2002) *Wpływ „niewidzialnych” migracji zagranicznych lat osiemdziesiątych na struktury demograficzne Polski* (The impact of 'Invisible' International Migration of the 80s on the Demographic Structure of Poland). Warsaw: Szkoła Główna Handlowa (=Monografie i Opracowania nr 481).
- Salt, J. (1997) *International Movements of the highly skilled*. Paris: OECD.
- Saxenian, A.L. (2002) *Local and Global Networks of Immigrant Professionals in Silicon Valley*. Public Policy Institute of California, San Francisco.
- Schamp, E. (2000) *Vernetzte Produktion. Industriegeographie aus institutioneller Perspektive*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Schamp, E. (2001) 'Reorganisation metropolitaner Wissenssysteme im Spannungsfeld zwischen lokalen und nichtlokalen Anstrengungen. Das Beispiel Frankfurt / Rhein-Main', *Zeitschrift für Wirtschaftsgeographie*, 45(3/4): 231-245.
- Schamp, E. (2003) 'Raum, Interaktion und Institution. Anmerkungen zu drei Grundperspektiven der deutschen Wirtschaftsgeographie', *Zeitschrift für Wirtschaftsgeographie*, 47(3/4): 145-158.
- Schätzl, L. (2003) *Wirtschaftsgeographie. Band 1: Theorie*. Paderborn et al: Schöningh.
- Slany, K. and Małek, A. (2002) 'Reemigracje z USA do Polski w okresie transformacji ustrojowej' (Re-emigrations from the USA to Poland in the period of the political system transition), in Iglicka, K. (ed) *Migracje powrotne Polaków. Powroty sukcesów czy porażki?*, Warsaw: Institute of Public Affairs, 78-120.
- Sternberg, R. (1998) 'Innovierende Industrieunternehmen und ihre Einbindung in intraregionale versus interregionale Netzwerke', *Raumforschung und Raumordnung*, 56(1): 288-298.
- Sternberg, R. and Revilla Diez, J. (2002) 'Globalisierung und Regionalisierung. Neues Wissen entscheidet über die ökonomische Zukunft von Ländern und Regionen', in Ehlers, E. and Leser, H. (eds) *Geographie heute – für die Welt von morgen*. Stuttgart. Klett-Perthes, 128-138.
- Strambach, S. (2004) 'Wissensökonomie, organisatorischer Wandel und wissensbasierte Regionalentwicklung', *Zeitschrift für Wirtschaftsgeographie*, 48(1): 1-18.
- Straubhaar, T. (2000) *International Mobility of the highly skilled: Brain Drain, Brain Gain or Brain Exchange*. HWWA Discussion Paper 88, Hamburg.
- Strykiewicz, T. (2002) 'Paths of Industrial Transformation in Poland and the Role of Knowledge-based Industries', in Haytor, R. and Le Heron, R. (eds) *Knowledge, Industry and Environment. Institutions and innovation in territorial perspective*. Ashgate: Aldershot, 289-311.
- Thomi, W. and Werner, R. (2001) 'Regionale Innovationssysteme. Zur territorialen Dimension

von Wissen und Innovation', *Zeitschrift für Wirtschaftsgeographie*, 45(3/4): 202-218.

Vertovec, S. (1999) 'Conceiving and researching transnationalism', *Ethnic and Racial Studies*, 22(2): 448-462.

Walaszek, A. (1983) *Reemigracja ze Stanów Zjednoczonych do Polski po I wojnie światowej*. (Return migration from USA to Poland after first world war). Zeszyty Naukowe Uniwersytetu Jagiellońskiego DCLV. Prace Polonijne, Zeszyt 7. Warszawa-Kraków: PWN.

Weinar, A. (2002) *Reemigranci jako aktorzy zmiany społecznej* (Re-emigrants as actors of social change), Warsaw: Institute of Public Affairs, 39-76.