

International mobility of highly qualified Austrian professionals in CEE – A literature review on decision making factors

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Abstract

Knowledge and highly qualified individuals are key determinants in growth and development of regions and nations as well as organizations and firms. By means of international mobility of top-talent the embodied knowledge is transferred across borders. Cross-border movements are typically accompanied by inter-cultural exchange and interaction thereby leading to mutual understanding and trustworthy relationships (cross-border social capital!) and promoting future knowledge flows. Considering this background the special role of Austria in Central Eastern Europe (CEE) is particularly worth investigating due to its historical, cultural and geographical proximity to this region.

The goal of this paper is to evaluate the existing literature on determinants of international highly skilled labour mobility and extract the main categories of relevant factors. Besides, preliminary empirical results regarding mobility patterns of highly qualified Austrians in CEE are presented. It has been found that mobility decision factors center around monetary issues, personal motivations and attitudes, private life, environmental conditions (e.g. infrastructure, political, social), networks and information, individual characteristics (e.g. age, personality, gender), governmental and organizational policies and economic opportunities. Data from the Czech Republic and Slovakia confirms that Austrian FDI is accompanied by highly qualified professionals heading to CEE in substantial numbers.

Key words: highly qualified labour, mobility decision, knowledge spillover/transfer, social capital, CEE

1 Introduction

In the past years, there has been a growing recognition that knowledge and highly skilled individuals as “carriers” of knowledge are a key driving force for regional [1, 2, 3, 4, 5] as well as organizational [6, 7, 8, 9, 10] development, growth and innovation. Given the importance of well-educated people for regional and organizational dynamism, the geography of talent and the mobility patterns of the highly skilled class are increasingly attracting the attention of both academic scholars, business leaders and policy agents. The international circulation of people with different cultures and mentalities promotes the development of mutual understanding and trust [11]. At the same time barriers to intercultural communication and interaction are broken down [12]. In this way cross-border relationships and social capital are fostered forming the basis for knowledge exchange, economic cooperation and trade among different regions as well as at the organizational level [13, 14].

The central purpose of this paper is to get a better understanding of the nature of spatial movements of talent. Talented individuals who transfer knowledge from one place to another by means of their mobility are referred to as “knowledge spillover agents”. Although the paper deals with highly skilled mobility and migration in general, a particular attention will be paid to flows of Austrian talent within CEE countries. Austria is said to hold a unique position within CEE due to its historical, geographical and cultural proximity to this region. Understanding the precise character, spatiality, and temporality of this phenomenon is essential for the overall research questions of the dissertation project underlying this research effort. It aims at identifying the factors and their relative importance behind mobility decisions of highly qualified Austrians in CEE as well as assessing the degree of local integration, interaction and trustful relationships (social capital formation). Being part of this dissertation project the current paper will exclusively deal with the following questions/focus on the following two goals:

- What findings does current literature provide on the motivational dynamics and decision making factors relevant to the geographical mobility of highly qualified talent?
- What are the characteristics, spatial dimensions and scale/extent of highly qualified Austrian professionals’ mobility in CEE?

The remainder of this paper is organised as follows: Section 2 provides the conceptual framework partly drawing on arguments already stated in previous working papers [Tripl, Maier (2007); Tripl, Kurka, Maier (2007)]. The role of highly skilled labour for regional dynamism, the relation between labour mobility and knowledge spillovers as well as social capital is discussed. In section 3 the literature on factors attracting and mobilising talent is closely examined and reviewed. Section 4 presents the empirical analysis of the paper which focuses exclusively on movements of highly qualified Austrians within CEE. Based on OECD data as well as information from national statistical bureaus the situation in regard to the Czech Republic and Slovakia are particularly investigated. Section 5 summarizes the main findings and draws some conclusions.

2 Mobility of talent, knowledge spillovers and social capital: Theoretical background

In this section of the paper I will start out by theoretically explaining the effect of highly qualified workers on regional as well as organizational growth and development. Then the role of labour mobility as means of knowledge transfer is discussed supplemented by an international perspective on professional talent mobility. Furthermore, I will conceptualize the connection between international labour mobility and social capital development across borders.

2.1 The role of highly qualified workers for development and growth

In the past two decades a considerable body of work has enhanced our understanding of the critical role played by human capital and talent in spurring regional and organizational development, innovation and growth. Highly qualified people and human talent are acknowledged to be an essential economic asset and a source of creative power in science, technology and business [15, 16]. Well-trained, competent workers are critical to the success of any public or private entity [10]. Taking a resource-based view human capital including such things as the skills, judgement and intelligence of the firm's employees is an important organizational asset to achieve sustainable competitive advantage and profitability [6, 7, 8, 9]. The new growth theory [2] formally highlights the connection between knowledge, human capital, and regional economic growth. Drawing on the insights of this conceptual work, Lucas [1] has put forward the argument that the spatial concentration of (skilled) labour generates strong external economies (or in his words "external human capital"), and that these externalities increase productivity and growth. In the meantime there exist a large number of empirical studies providing evidence for the strong relationship between well-educated people and the performance and growth of cities and regions [17, 18]. Looking specifically on high-technology or knowledge-based sectors, it has been shown that a flexible labour market and highly-qualified personnel play a central role for the emergence and dynamics of high technology industries [19]. A survey of Californian biotechnology companies, for example, has revealed that the availability of qualified workers is a key factor determining the location of these firms [20]. Florida's recent work on the creative class [4, 5, 21] supports the above raised issues, as it also identifies human capital as the driving force behind regional development. His research indicates that the economic geography of talent exerts considerable effects on the location of high-technology industries and regional incomes. Although Florida's creative class approach has been criticised sharply for a variety of reasons [22, 23, 24, 25, 26, 27, 28], his basic ideas on the significant role played by skilled labour for regional economic dynamism continue to be highly influential.

Given the crucial role played by talent in fuelling regional and organizational dynamics, their mobility patterns and location decisions turn out to constitute essential issues which deserve closer attention.

2.2 Labour mobility as a key mechanism of knowledge spillovers

In the last years, the nature and geography of knowledge flows have become an important research topic in regional studies [29, 30, 31, 32, 33, 34]. A key argument which has been raised in the recent literature on the mechanisms of knowledge flows and knowledge

circulation is that it is not only market transactions and networking which matter for the exchange of ideas and expertise. There seems to be a widespread consensus that also spillovers constitute an important type of and specific channel for knowledge transfer and that these externalities have a positive impact on innovation and growth [35, 36, 37, 38, 39, 40, 41].

Knowledge externalities are complex in nature as they can take very different forms. There are, for example, spillovers through the reading of scientific literature and patent specifications [42, 43], through informal contacts [44], through observation and monitoring of competitors [45] or through spin-offs [19, 32]. The mobility of highly skilled personnel (or the transfer of human capital) represents another core mechanism for the spilling over of (embodied) knowledge [46, 47, 48, 49]. In the following our focus is exclusively on the mobility of highly qualified workers as a specific type and manifestation of knowledge spillovers.

2.3 Knowledge spillovers through mobile labour – An increasingly international phenomenon

The movement of highly-skilled workers between local firms, universities and other organisations is regarded to constitute a central mechanism of regional collective learning and localised knowledge transfer [50, 51], underpinning the dynamic development of high-technology clusters. Mobile highly-skilled researchers, scientists, engineers and managers are important “carriers of knowledge” [52] on the local labour market, leading to an enhanced transfer of embodied expertise and a deepening and broadening of the regional pool of knowledge.

Labour mobility, however, is not restricted to the local or regional levels. On the contrary, the international migration of labour has become an important form of globalisation in recent years [53, 54, 55, 56, 57]. Particularly interesting for the purpose of this paper is the increase of the global mobility of highly skilled managers, scientists, and engineers (*Although the focus of this paper is on the migration of highly skilled, the author agrees with Williams (2006) who argued that every migrant and not only the highly educated one is a knowledge carrier, exhibiting a potential to transfer knowledge to others.*) [58, 59]. There is a growing global competition for talent and highly qualified people [60, 61]. Over the last two decades a global “migration market for skills” [62] has emerged. The main driving forces of this trend are a growing demand in advanced countries for IT and other skills in science and technology as well as the emergence of more selective immigration policies that favour highly skilled migrants [62, 63]. Many countries have implemented policies and programmes to facilitate the international recruitment of highly qualified people [59]. Mahroum [60, p. 27] states that “immigration, particularly of the highly skilled, is becoming increasingly an inseparable segment of national technology and economic development policies.” Other reasons for the rise in international mobility of talent can be attributed to the internationalisation and expansion strategies of Multinational Companies (MNC) leading to increasing foreign direct investment (FDI) activity. Countries hosting many FDIs also function as a host to many expatriate professionals whose mobility is often internal to their companies [64]. International migration and mobility of people are powerful mechanisms for the global diffusion of cutting-edge scientific, technical and managerial knowledge [65, 66, 67], underpinning innovation in “traditional high-tech centres” [68, 69] and impelling the emergence of new dynamic agglomerations of knowledge-based industries [70, 71].

2.4 Directions of knowledge flows and spillovers through movements of highly skilled workers

Several authors have argued that knowledge spillovers through mobile talent are far from being one way flows but tend to be more multi-directional in nature [72, 73], leading to a sharing of the benefits of skilled migration between sending and receiving countries and regions [74, 75, 76, 77]. These insights stress the need to go beyond a strict dichotomy between “brain drain” and “brain gain” when assessing the consequences of international migration of highly skilled workers. Terms such as “international brain exchanges” [62] or “brain circulation” [71] can be found in the literature as denominations for this phenomenon. The trend towards circulation is strongly linked to the changing temporality of skilled labour migration, which is about a shift from longer-term to shorter term mobility [78, 79]. As Williams et al. [80, p. 28] put it: *“Longer-term migration has increasingly been replaced by more diverse, shorter-term flows, so that it is more apposite to refer to circulation and mobility than to migration.”*

The return of highly qualified people to their home countries represents an important example in this context. The cases of India, Taiwan, Israel and Eastern Europe clearly show that such return flows of talent can even constitute an economic development strategy in its own right [61, 70, 71]. Recent academic work has demonstrated that the sending countries or regions might also benefit from their “knowledge migrants” [73] even if they do not return. Highly relevant in this context is the rise of diaspora networks which connect skilled expatriates with their country of origin, alleviating the negative effects of the loss of highly qualified persons for the sending area [73, 81, 82, 83]. A study carried out by Agrawal et al. [84] identified the existence of knowledge spillovers from the receiving region to the sending one. Agrawal and his colleagues have developed a model of knowledge spillovers that rests on social relationships between inventors. In this model, geographical proximity is crucial for the emergence of social ties, but the authors allow for the possibility that social ties endure even after individuals have become separated. Based on an analysis of patent data, Agrawal et al. [84] found strong evidence in support of the enduring social capital hypothesis: social ties that promote knowledge transfer persist even after formerly co-located individuals are separated. Thus, at the regional level, there is a spillover from the region that receives the employee to the region that loses the employee. Similar findings have been presented by Corredoira and Rosenkopf [85], who analysed the mobility of technical employees among firms in the U.S. semiconductor industry between 1980 and 1995. They show that a firm experiencing a loss of an employee is more likely to cite the firm receiving the mobile employee. Interestingly, the authors found that this effect is stronger for firms that are geographically distant than for firms that are spatially proximate. In an organizational context highly qualified expatriates are typically sent abroad to foreign subsidiaries in order to disseminate corporate culture, mechanisms and standards, managerial knowledge as well as to create control, stability and trust [86]. Any intra-organizational return flows of talent do of course also constitute knowledge spillovers. Harvey et al. [87], for example, stress the importance of inpatriates (international managers are transferred to their domestic market on a temporal basis) for the diversity of the parent company’s top management team. They enrich the repertoire of strategic choices by helping to import cultural norms and local market knowledge from abroad into the decision making process [87].

To summarise, the “circulation phenomenon” manifests itself in a variety of ways and seems to be to some extent “decoupled” from the physical presence of talent. Although high-skilled international migration has gained considerably in importance, its economic and other effects

are under-researched and remain poorly understood [88]. A notable exception is, for example, the work of Ottaviano and Peri [89, 90] and Peri [91] who show empirically for the USA that the inflow of foreign-born workers is associated with economic gains.

2.5 Cross-border social capital formation through international labour mobility

According to literature the concept of social capital embraces various definitions and perspectives. Cooke [92, p. 103] describes it in this way: “*Social capital unites a field composed of many sub-elements such as trust, networks (and) embeddedness.*” Social capital could be regarded as the degree of collaboration and cooperation of communities and societies to achieve mutual benefits [93]; as the set of social relations enabling access to economic resources [94]; as skills and competencies within a social and occupational context [95]; as informal norms that promote cooperation between two or more individuals [96]; as high levels of trust within a community/society [97]; as patterns of relations between agents, social units and institutions [98]; and as relationships within or between social networks [95].

Without social capital most firms cannot function in markets; their “relational embeddedness” is an important indicator of performance [92]. Organizations with high levels of social capital have more knowledge management capabilities than the ones with lower levels [99]. Effective knowledge integration relies on an appropriate context for human interaction (appropriate type of social capital) characterised by closeness of interpersonal links (socially embedded or arm’s length) [100]. Similarly, Fabry and Zeghni [13, p. 144] argue that: “*Knowledge transfer is a social capital construction.*” Particularly in the case of countries in transition such as CEECs the transfer of knowledge requires strong involvement of managers within the affiliate, cross-cultural adaptation, organizational distance reduction as well as organizational learning [13]. Additionally, social capital, as operationalized by depth of relationship and intercultural understanding among expatriates and host country nationals, provides a basis for improving expatriate performance and facilitating adjustment [101].

In order to achieve the formation of social capital across borders and cultures and exploit its positive effects distance needs to be reduced. Hence, individuals have to be mobile [11, 14, 102]. As already argued above, the concept of enduring social capital allows for knowledge transfer to occur even after formerly co-located individuals have been separated [84]. This implies that spatial proximity achieved through mobility leads to the formation of long lasting social ties. Similar to a study carried out by Luthans and Youssef [102] suggesting that social capital at the single-firm level is formed by open communication channels and installation of cross-functional teams it is assumable that correspondingly cross-cultural social capital between various organizational entities is built through international communication opportunities and cross-cultural team building where people get in contact and interact. Knowledge transfer in an intracorporate network depends on strong network ties (component of social capital) which are encouraged through personnel transfer between network members (e.g. headquarter and subsidiary) [14]. Similarly Fink and Kraus [11, p. 685] are convinced that: “*Exchange programs of employees [...] facilitate the diffusion of cultural codes across borders, thus preparing the ground for the evolution of trust.*” People could acquire specific knowledge (language social codes) and replacing scepticism and prejudices with profound knowledge [11].

Transferring organization-specific knowledge, like the expatriation and inpatriation of key individuals are central to generating flexible strategic options in global markets, but depend

on complementary dimensions of skill and capital (social capital) to be developed [103]. A short length of duration of assignments could work against gaining commitments from people involved and thus act as a substantial barrier to social capital formation [103]. Similarly Janssens [12] found a significant relationship between intercultural interaction and time spent in the host country. The longer international managers were in the host country the more knowledgeable they were about the new culture and the more local friends they made [12]. Interestingly, European managers relocating within Europe seem to rely on their not-too-distant social network at home and do not make an effort to integrate compared to European managers in North America or Asia [12, p. 163]: “*They work in a foreign country but their life is still at home.*”

Manev and Stevenson [104] come to the conclusion that Expatriate managers in MNCs form strong expressive ties with peers with smaller cultural distance and from the same status group while forming strong instrumental ties with peers who are different cultural background and status. This implies that a certain degree of ethnocentrism and isolation between expatriates and local managers seems to remain. But this may not be much of a problem since managers bridge large cultural distances and status barriers with strong instrumental ties, even if they do not translate into comparable expressive ties [104]. Tymon and Stumpf [105, p. 18] state: “*The keywords are mutual and shared. Mutual trust, mutual respect and mutual benefit are essential.*” The relocation/transfer of employees to another country represents a serious disruption of social networks. But organizations can do a lot such as installing mentor programmes to facilitate the building of new bonds and expansion of the social network abroad (social capital) [105].

3 Factors shaping the mobility decisions of highly qualified professionals: A literature review

In this section of the paper I will give an overview on literature findings regarding factors which are shaping the mobility decisions of highly qualified workers. For this purpose I will draw on a variety of studies from a broad range of theoretic backgrounds and methodologies including macro-level models dealing with the economic condition, meso-level models analysing the role of state policies and management of movements by MNCs as well as micro-level models focusing on the characteristics of the individual. Since geographic mobility is almost naturally accompanied by occupational mobility the literature review also includes studies investigating factors associated with movements of individuals between different jobs throughout their careers.

The author is aware of the fact that the relative strength of various factors influencing the decision making process depends on the type of talent involved and whether a person moves individually or within organizational boundaries. However, these differences are not accounted for at this stage of the research project. Additionally, some of the factors discussed below may only have little or no relevance for the case of highly skilled Austrians in CEE countries.

The appendix provides a brief overview on selected relevant articles and their respective mobility factors (see table 13). In the following the various findings are briefly reviewed as well as re-framed and synthesized into broad categories. Unsurprisingly they are multi-faceted, strongly interrelated and sometimes bear/contain overlaps. The categories and respective factors are attributable to push and pull factors at micro and macro levels, individual or aggregate (collective) levels; they could be divided into endogenous or exogenous groups; some are external barriers or obstacles to migration and others are intrinsic motives, motivations and goals as well as personal reasons, attitudes and character traits. At a glance, the 21 categories are:

- Income & monetary considerations
- Quality of life & standard of living
- Functional & physical environment
- Social environment and life style
- Political Reasons & civil conflict
- Working conditions & environment
- Language & culture
- Social networks & ties
- Information & experiences
- Private life & family
- Personality profile & behaviours
- Age, gender & skills
- Temporality & time considerations
- Career & professional advancement
- Organizational characteristics & strategies
- Employment opportunity & labour market
- Organizational & institutional support
- Immigration policy and legislation
- Government policies, laws & bureaucracy
- Economic opportunities & growth potential
- Personal attitudes & individual aspirations

INCOME & MONETARY CONSIDERATIONS

The importance of earnings related factors and monetary incentives/benefits in the decision to relocate is stressed by a number of scholars [64, 86, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120]. Wages and salaries are particularly relevant for talent engaged in directly productive activities such as entrepreneurs, engineers, technical experts, medical doctors and other professionals [106]. Also in the context of brain drain from third world countries to industrialised nations income differentials, poor remuneration and wages seem to play an important role in the decision to migrate [110]. Tax rates and costs of living do have an indirect effect on relative income levels thus also determining mobility decisions [120]. In the context of expatriates other top-ranked financial considerations typically include maintaining/improving the standard of living, housing and travel costs and expenses for return visits whereas pay increases are of minor relevance [108]. Expatriate compensation packages very often include various benefits such as cost of living differential, tax equalization differential, housing, health care plans, education for children, employment assistance for spouse, home leave expenses as well as stock options and other bonuses [111].

QUALITY OF LIFE & STANDARD OF LIVING

As mentioned above the standard of living in a particular country represents an important issue in the decision to settle down [106, 112]. Especially highly qualified talent is expected to flow from countries with lower level of development to countries with higher level of development exhibiting better living standards and conditions [106]. They want to enjoy for example the availability of consumer goods and a general high liveability [121]. This points to the fuzzy concept of quality of life frequently cited as an important factor by numerous authors [110, 112, 116, 121]. It is mostly referred to soft aspects such as security and low crime rates, neighbourhood solidarity, secure and stable surroundings, safety and low health risks, clean and unpolluted living environment as well as cultural and leisure time activities [110, 112, 116, 121].

FUNCTIONAL & PHYSICAL ENVIRONMENT

In order to ensure quality of life countries or regions need to provide adequate functional and physical environments. Thus highly qualified labour is attracted by well organised health care, medical services, public transport, world-class downtown infrastructures, top universities and education facilities as well as quality housing and recreational facilities [112, 115, 120, 121]. International expatriate professionals usually need flexibility to travel and interact internationally and are therefore dependent on a well-connected international airport and leading-edge (communication) technologies [116, 120, 121].

SOCIAL ENVIRONMENT & LIFE STYLE

Also closely related to quality of life there are aspects centring on social environment and life style. Raunio [112] found that highly skilled migrants are particularly looking for an open and approachable social atmosphere. They favour an international climate and multiculturalism where non-racist attitudes towards foreigners prevail and one is able to manage with English outside work [112, 121]. Similarly, Linkova [114] stresses the importance of capacity and willingness of the destination to admit incoming talent. Migrants are searching for liberal environments to work and survive [116]. With respect to the special group of entrepreneurs a favourable climate for innovation and business start-ups should be mentioned [64, 122]. Interestingly, return migrants are sometimes willing to exchange an exalted urban lifestyle against a very frugal lifestyle in their home countries [116].

POLITICAL REASONS & CIVIL CONFLICT

Very often political issues are causing brain drain [109, 110, 116, 122]. Highly qualified as well as other migrants leave their home countries due to political instability in general, poor law and order conditions, war or civil conflict as well as political or religious prosecution [110, 116, 122]. Offering democratic regimes, individual rights and freedom of speech the industrialised “West” benefits from enormous brain gains [109].

WORKING CONDITIONS & ENVIRONMENT

A considerable amount of literature deals with the role of work-related conditions and environment for mobility decisions [64, 109, 110, 112, 113, 114, 115, 116, 117, 119, 122]. Highly qualified talent is generally attracted by non-hierarchical structures, communicative working culture and a challenging and interesting work [112]. In order to be satisfied with their work they need enough autonomy and responsibility [117]. Scientists and Academics want independence in pursuing personal research interests or a particular line of research, sufficient infrastructure and funding, availability of scientific information and related networks as well as long-term/life-long perspectives [113, 114]. Additionally scientific talent is lured to prestigious institutions where other elites and high quality staff is located [64, 109, 115]. A good working climate is also appreciated by most people [115].

LANGUAGE & CULTURE

Other authors underline the influence of language and culture on mobility patterns of highly skilled workers [86, 106, 107, 109, 111, 112, 113, 114, 120, 123, 124]. Already existing language abilities of a skilled worker can particularly encourage international mobility [107, 114]. But also the curiosity about foreign cultures and the desire to learn a foreign language can act as motivational factors [111]. The desire to improve cultural and communicative competencies [112] together with relative proximity or similarity between original and host countries’ cultures [86, 120] are helpful in the integration process. On the one hand a migrant’s linguistic compatibility with and socio-cultural affinity to the host country enormously facilitate relocation [106]. But on the other hand serious psychological stress may be caused due to different language and culture [109, 120]. The break with the social space of origin disrupts existing social integration and innate cultural habits [86]. Therefore, nearness to the context of one’s origin (home sickness!) is often cited among reasons for return migration [116].

SOCIAL NETWORKS & TIES

Social networks as well as very strong social ties play an active role in shaping mobility patterns of talent [86, 106, 107, 108, 109, 112, 113, 116, 121, 123]. Social networks such as co-ethnic communities in potential host countries are efficient channels in spurring the international exchange of people [106, 107]. Universities often provide exchange programmes and alumni networks thereby promoting and facilitating the international mobility of students and graduates [123] Very often migrants follow the previous routes of family members and relatives, friends and professional peers making the adaptation process a lot more easier [109, 113, 112, 123]. Connections of highly qualified co-workers and the global office- and expatriate-networks of MNCs provide useful assistance and information [121].

INFORMATION & EXPERIENCES

As outlined above social networks and ties are indeed effective means to provide information as well as related advice which are a crucial basis for any profound mobility decision [120]. Ferro [123] introduces the term “pre-migratory socialization” indicating that highly qualified professionals are increasingly exposed to some kind of mobility education through mass

media, university environments, peer workers' experiences and myths of successful migration pushing them abroad. The level of information upfront and familiarity with the environment is raised through preliminary visits to the new location, meeting future-colleagues, exchanging experiences with former expatriates and contacting local institutions [108, 111, 114].

PRIVATE LIFE & FAMILY

Many authors put emphasis on the prominence of private life and family considerations when it comes to mobility decisions [86, 108, 110, 111, 112, 115, 116, 117, 119, 123, 124]. The decision to relocate is very often not only an individual one but also affecting all family members. Issues typically involved include work-permit and job opportunity for spouse, age of children and respective needs such as quality schooling and child care and general bright prospects for the family [108, 111, 112, 116]. It is not uncommon that migration occurs due to poverty-stricken families in the home country [119] and social pressure placed by family and friends on the one highly skilled family member to provide for the needs of the wider family solely [110].

PERSONAL ATTITUDES & INDIVIDUAL ASPIRATIONS

But since mobility decisions are in first place highly individual in nature researchers have identified various personal reasons, motivations, interests and desires to be of importance [86, 106, 108, 111, 113, 115, 116, 117, 118, 120, 122, 123, 124]. The need for change or a new start and the desire to gain experience abroad are often driving forces behind international relocation [108, 113, 123]. Seeing new places and travelling the world helps in developing global business skills and might also be a lifetime opportunity for children [111]. Concerning return migration of top-talent a certain degree of patriotism and service to the country and its people are frequently mentioned. They see themselves on a missionary path gaining satisfaction from contributing to the technological development of the home country [106, 116].

PERSONALITY PROFILE & BEHAVIOURS

Strongly associated with individual attitudes and aspirations are personality traits determining actual behaviours in general but also with respect to mobility. There is some evidence in the literature pointing towards this category of factors [111, 118, 120, 123, 124]. Ferro [123] particularly introduces the term "migrant personality" to the discussion of highly skilled mobility. Personality traits such as being adventurous, flexible, open-minded and extraverted increase the likelihood of moving internationally [111]. A certain degree of willingness and eagerness to relocate is the prerequisite for any actual mobility behaviour [120]. Trying to become "visible" to decision makers and showing initiative are strong indicators of mobile personalities [124]. Past and actual mobility behaviour of an individual is the best indicator for possession of important character traits [118].

AGE, GENDER & SKILLS

It is widely acknowledged that individual characteristics such as age, gender and skill level are moderating variables on occupational as well as geographical mobility [117, 118, 120]. Mobility is typically associated with high educational attainment and qualification [125, 126]. Although the situation is changing continuously the typical migrant is still male [127]. Furthermore it is no secret that occupational (upward) mobility is still more common for males [128] resulting in the so-called "glass ceiling". Frequent job changes as well as geographical relocation are more common at a relatively young age [125, 129].

TEMPORALITY & TIME CONSIDERATIONS

Job mobility decreases as people mature biologically as well as professionally [115]. Tenure of employment and stage of career have strong negative influence on job mobility [117, 118, 124] and it is very likely that this relationship also holds true regarding geographical mobility (considering the age-mobility relationship described above). Unless highly skilled people are not intending to emigrate on a permanent basis temporality of the stay does also have an influence on the decision to move. Haines [108] found out that it was important for expatriates to accept an assignment abroad to be less than two years in duration.

CAREER OPPORTUNITY & PROFESSIONAL ADVANCEMENT

A lot of highly qualified workers move abroad seeking career opportunities and professional advancement [64, 86, 108, 110, 112, 113, 114, 115, 116, 117, 124]. Many expatriates of MNCs view their (short-term temporal) assignments as training and part of a career plan expecting a promotion upon return [108, 115]. Medical doctors from the African continent complain about lack of opportunities, further education and career development thus leaving their countries [110]. Talent is lured to places where they find capacity to grow and develop professionally and personally [114, 116]. Mobility related career prospects may occur either directly through the attainment of an important functional position abroad or indirectly through envisaging future professional improvement upon return [86].

ORGANIZATIONAL CHARACTERISTICS & CORPORATE STRATEGIES

But not only people-oriented characteristics have to be taken into account. There is also some evidence that organizational characteristics as well as corporate strategies and policies are mediating mobility decisions and patterns. Where and if expatriates are sent abroad might depend on company size and complexity, structure and life stage of the firm as well as bureaucratic controls and the field of technology or type of industry a company is operating in [86, 118, 122, 124]. Movements of highly skilled workers are also determined by corporate internationalisation and expansion strategies [64]. The location of intra-company transferees correlates with the growth and spread of MNCs [122]. In this context particularly foreign recruitment policies and strategies govern the situation [123]. An international firm might want to transfer knowledge and disseminate corporate culture and mechanics or might shy the costs of expatriate personnel relying on local staff for local expertise which is always needed to some extent [86].

EMPLOYMENT OPPORTUNITY & LABOUR MARKET

Brain drain from less developed countries to industrialised countries frequently occurs due to better employment opportunities and employment growth rates [107]. Besides, this process is often fuelled by shortages of skilled labour in destination countries [109] and general supply and demand mechanisms of labour markets [64]. The exogenous factor of labour market conditions is highly relevant to geographical and occupational mobility decisions of talent [122, 124] also in regard to an accompanying spouse [115]. The chance to work for a particular employer [112] or the availability of alternative opportunities [117] shapes the mobility of highly qualified professionals.

ORGANIZATIONAL & INSTITUTIONAL SUPPORT

A person's decision to migrate is also influenced by the degree and sort of active assistance and support one receives from organizations and institutions [64, 86, 108, 111]. Special mobility grants and relocation management services from governmental institutions help academics and scientists to overcome migrational obstacles [64]. Intra-company transferees usually receive extensive mobility support such as return and reintegration planning, pre-

departure (cultural) training (also for family members), guidance and counselling and assistance in the search for housing as well as employment for a spouse [108].

IMMIGRATION POLICY & LEGISLATION

Various authors emphasize the importance of national immigration policies and legislation in attracting highly qualified labour from abroad [64, 106, 107, 109, 123, 121, 122, 124]. Ferro [123] argues that immigration policies, if not well thought through, often represent a potential barrier for workers and firms. In order to attract highly skilled migrants it is necessary for industrialised countries to establish immigration incentive policies such as more generous issuing of visas [109] and special visa programmes tailored to specific target groups of talent [106].

GOVERNMENT POLICIES, LAWS & BUREAUCRACY

The literature evaluated does also indicate that general government policies, legislation and bureaucracy not necessarily related to immigration effect the relocation of migrants to some extent [64, 114, 115, 116, 124]. Sometimes only some minor legal constraints inhibit an individual from being employed [124]. According to Mahroum [64] especially engineers and technicians are influenced by industrial and labour policies of governments. The bureaucracy of government agencies and public administration can seriously hamper the mobility of highly qualified people [114, 115, 116]. Entrepreneurs, for instance, are particularly responsive to bureaucratic efficiency and flexible human resource management (HRM) policies (hiring, firing, working hours, etc.) [64].

ECONOMIC OPPORTUNITIES & GROWTH POTENTIAL

Apart from economic factors at the individual level such as salary, tax rates and benefits there are factors at the aggregate level relevant to mobility patterns of talent [107, 112, 122]. Very often economic development gaps are causing brain drain [106]. Particularly engineers and technicians are responsive to the state of the national economy of the destination country [64]. But highly qualified workers such as entrepreneurs and top-managers are also looking for growth and business opportunities in large (emerging) markets and special activity clusters [121]. The mobility of highly skilled labour is strongly linked to world trade patterns, economic output and foreign direct investment (FDI) [120]. High-tech innovations and a leading-edge technology environment attract related scientists and engineers [106].

4 Highly qualified Austrian professionals in CEE – Some preliminary empirical insights

In this section of the paper some preliminary empirical results of an investigation regarding highly qualified Austrians in CEE are presented. First, the region of CEE is defined identifying which countries are reasonable to be considered for the purpose of this research. It is followed by a case study of highly qualified Austrian mobility regarding two neighbouring countries of Austria (Czech Republic and Slovakia).

4.1 Defining the region of CEE – Which countries are considered?

Taking a geographic perspective, CEE is typically referred to as the European countries east of Germany until south to the Balkan states. Though this usage is not precisely defined, in most cases it includes: the Baltic states of Estonia, Latvia and Lithuania; the central states of Poland, Czech Republic, Slovakia, Hungary as well as Romania and Bulgaria in the south. Sometimes it also includes Belarus, Ukraine, Moldova, and even Russia or Austria [130].

The term “Central and Eastern Europe” (CEE) has come into wide spread use replacing the “Eastern bloc” to describe former Communist countries in Europe after the collapse of the Iron Curtain in 1989/90. From a political standpoint nowadays CEE is commonly regarded as comprising EU member states of the latest enlargement rounds (with the exceptions of Cyprus and Malta). In 2004 the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia joined. Since January 2007 also Bulgaria and Romania belong to the European Union. Though still non-member states other European countries in the CEE region are Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Moldova, Montenegro, Russia, Serbia, Ukraine. The map in figure 1 helps to visualize the geography of the CEE region [131].

Due to reasons of maintaining research focus and efficiency as well as for the specific purpose of this research effort (mobility of highly qualified Austrians in CEE countries) an economic/business perspective is taken in order to define CEE as the region under investigation.

Past research has proved that highly skilled mobility often occurs within organizational boundaries. Thus the location of multinational/transnational companies (MNC/TNC) and international institutions has a direct impact on the regional distribution of highly qualified workers. Depending on global growth opportunities and importance of markets organizations make FDI decisions (greenfield or brownfield). Accordingly expatriates are sent to subsidiaries, branches and offices abroad [64, 86, 121, 132].

Indeed, as one of today’s emerging markets CEE is offering significant growth opportunities and has therefore attracted a considerable amount/proportion of worldwide FDI in recent years. It is debateable whether it is due to common history or geographical and cultural proximity but Austria has played a prominent role investing in CEE ever since.

Figure 1: CEE at a glance



For this reason Austrian FDI is taken to assess the level of relational intensity (economic/business) between Austria and every singly CEE country. Table 1 illustrates a CEE country ranking based on Austrian FDI and number of employees of Austrian FDI-companies abroad as by end of 2005. As a reference the same kinds of figures are also presented for the whole of Europe.

Table 1: Austrian FDI and respective number of employees abroad by location

<i>Austrian FDI capital abroad broken down by region/country (in EUR millions)</i>		<i>Employees of Austrian FDI-companies abroad broken down by region/country (weighted by share of equity/capital)</i>	
<i>Total FDI capital by host region</i>	<i>By end of 2005</i>	<i>Employment by host region</i>	<i>By end of 2005</i>
Europe	49,542	Europe	397,164
EU-25	35,138	EU-25	264,744
EU-15	18,761	EU-15	82,823
Euro area	14,450	Euro area	70,306
CEEC	24,203	CEEC	304,554
<i>Ranking of CEE countries by total Austrian FDI capital hosted</i>	<i>By end of 2005</i>	<i>Ranking of CEE countries by number of employees of Austrian FDI-companies hosted</i>	<i>By end of 2005</i>
1. Czech Republic	4,928	1. Czech Republic	61,868
2. Hungary	3,866	2. Hungary	55,661
3. Poland	2,931	3. Romania	49,158
4. Romania	2,843	4. Slovakia	30,354
5. Croatia	2,345	5. Poland	25,247
6. Slovakia	2,008	6. Ukraine	20,770
7. Bulgaria	1,482	7. Croatia	15,990
8. Slovenia	1,244	8. Bulgaria	12,548
9. Russia	811	9. Russia	8,448
10. Serbia	525	10. Serbia	7,958
11. Ukraine	509	11. Slovenia	7,706
12. Bosnia	451	12. Bosnia	4,186
13. Belarus	90	13. Belarus	1,939
14. Macedonia	50	14. Latvia	565
15. Latvia	21	15. Macedonia	484
16. Estonia	20	16. Estonia	358
17. Lithuania	6	17. Lithuania	86
18. Albania	X	18. Albania	X
19. Moldavia	X	19. Moldavia	X
20. Montenegro	X	20. Montenegro	X

X – Not available due to reasons of data protection/security (no more than 3 FDI positions)

Source: Oesterreichische Nationalbank (Central Bank of the Republic of Austria - 2005)

In total Austrian FDI in CEE amounted to EUR 24,000 million in 2005, about 50% of all investments made by Austrians throughout Europe. Remarkable is that 76.7% of all employees attributable to Austrian FDI in Europe are hosted by CEE countries. Since people-management (HRM) is a quite sensitive task requiring substantial management capacity it is assumable that CEE countries are also subject to the most significant inflows of highly qualified Austrian professionals across Europe. Unsurprisingly, Austria's neighbouring countries (Czech Republic, Hungary, Slovakia, and Slovenia) are among the CEE countries attracting a great proportion of Austrian FDI. As (the two) globally most important national markets in this region Poland and Russia also play a significant role as targets of Austrian FDI. Bulgaria and Romania joined the EU in 2007 but Austrian companies have invested in these countries since years before. Finally Croatia, Serbia and the Ukraine should be mentioned in the context of Austrian FDI in CEE.

4.2 A case study of two Austrian neighbours: CZECH REPUBLIC and SLOVAKIA

First of all it is important to note that data availability and collection regarding the migration of labour in CEE – especially of the highly skilled – are poorly developed. This is also confirmed by the majority of researchers and scholars working on related issues [e.g. 75]. Some data can be obtained from the OECD (International Migration Outlook, web-based statistical data). Eurostat offers only very limited statistical resources for purposes of researching skill migration. Relying on information from the various national statistical offices is risky and difficult due to enormous differences in data gathering and processing as well as in dissemination policies. In most countries migrational data on highly qualified people is obtained through microcensus sample surveys thus bearing the risk of a relative high sampling error. However, the following elaborations primarily rely on these sources. They do not claim to be an extensive analysis and are only intended to give first insights and an overview on scale and dimension of Austrian skilled mobility within CEE.

Although the focus of this paper lies on the mobility of Austrian highly qualified professionals to other CEE countries (outward mobility) it is also worth throwing a brief look on inward mobility of highly skilled workers from CEE countries. Table 2 shows the stocks of highly qualified (educated!) people from CEE in Austria (inward mobility) as well as highly qualified Austrians whose current residence is in one of the selected CEE countries (outward mobility). It does only include persons who are at the age of 15 or more and who are foreign born as well as holding a foreign citizenship. Their degree of qualification (high) is proxied by their educational attainments (ISCED – International Standard Classification of Education): ISCED 5A: "Academic" tertiary, ISCED 5B: "Vocational" tertiary, ISCED 6: Advanced research. The figures were issued in 2006 but were mainly surveyed in 2000. Data concerning stocks of highly educated Austrians in CEE is very limited.

Table 2: Stocks of highly educated people in Austria from abroad (CEE) and vice versa

CEE country	Highly educated people born in CEE with current residence in Austria	CEE country	Highly educated Austrians with current residence in the respective CEE country
Bosnia	2,570	Hungary	159
Poland	2,508	Czech Republic	129
Hungary	1,775	Poland	24
Croatia	1,442	Slovakia	16
Russia	1,238	X	X
Romania	1,223	X	X
Slovakia	1,100	X	X
Czech Republic	973	X	X
Bulgaria	945	X	X
Ukraine	483	X	X
Macedonia	234	X	X
Lithuania	56	X	X
Latvia	53	X	X
Moldova	35	X	X
Estonia	27	X	X

X – data not available

Source: OECD International Migration Statistics (online)

The data shows that the CEE is also subject to the so-called brain-drain phenomenon. As a receiving country Austria benefits from this out-migration of highly skilled individuals from CEE. Substantial numbers of talent come from Bosnia (2,570) and Poland (2,508). Considering the poor up-to-dateness of the information, it is very likely that brain drain from CEE has decreased and numbers of highly qualified Austrians working in CEE countries have increased during the past six years.

Czech Republic

Table 3 shows the number of Austrians working in the Czech Republic from 2002 to 2006 irrespective of their level of qualification. Except for 2004 which saw a substantial decrease (~110) the number of Austrian employees working in the Czech Republic has gradually risen (in total by 30.6%). The majority of workers (67.8% in 2006) are employees of domestic or foreign employers/companies. The rest (32.2%) are entrepreneurs and self-employed holding a valid trade license. Women only account for a small proportion of expatriate employees (approximately 15.9% in 2006 and 2007).

Table 3: Austrians working in the Czech Republic

<i>Austrian citizens/nationals working in the Czech Republic</i>	2002	2003	2004	2005	2006	2007 (mid-term)
Registered at labour offices	432 (X females)	502 (X females)	390 (X females)	474 (X females)	604 (95 females)	669 (97 females)
Holding valid trade licenses	250	258	268	282	287	X
Total	682	760	658	756	891	X

X – data not available

Source: Czech Statistical Office

For the year 2006 there is more detailed data available. Table 4 provides a breakdown of Austrian employees according to their type of occupation (ISCO – International Standard Classification of Occupation). Assuming that the first three occupational clusters are strongly associated with high levels of education/qualification the numbers indicate that the vast majority of Austrian workers in the Czech Republic belong to the group of the highly qualified (495 out of 604: ~82%). Legislators, senior officials and managers make up the biggest proportion of highly qualified labour from Austria (206). It is very likely that most of them are expatriate managers and executives working for Austrian companies.

Table 4: Austrians with status of employees in the Czech Republic broken down by classification of occupation

<i>Classification of occupation (ISCO)</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
Legislators, senior officials and managers	20	186	206
Professionals, scientists and researchers	34	113	147
Technicians and associate professionals	22	120	142
Clerks, employees	13	21	34
Service workers, shop and market sales workers	3	5	8
Skilled agricultural and fishery workers	0	0	0
Craft and related trades workers	2	55	57
Plant and machine operators and assemblers	0	9	9
Elementary occupations	1	0	1
Military staff	0	0	0
<i>Total</i>	<i>95</i>	<i>509</i>	<i>604</i>

Source: Czech Statistical Office (2006)

Finally, we can look at the main industries Austrians are working in (see table 5) according to NACE (Nomenclature générale des Activités économiques dans les Communautés Européennes). Most Austrians currently living in the Czech Republic are working in Manufacturing (209) and real estate, renting and related business activities (115). Of minor importance though still worth mentioning are the sectors wholesale and retail trade (66), financial intermediation (61) and construction (49). Regarding gender differences it is remarkable that women are highest represented among workers in real estate, renting and related business activities (33) whereas males are primarily found in manufacturing (199).

Table 5: Austrians with status of employees in the Czech Republic broken down by classification of economic activity

<i>Classification of all economic activity (NACE)</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
Agriculture, hunting, forestry & related service activities	1	10	11
Fishing, operation of fish hatcheries and fish farms & related service activities	0	0	0
Mining and quarrying	0	1	1
Manufacturing	10	199	209
Electricity, gas and water supply	0	0	0
Construction	5	44	49
Wholesale & retail trade; repairs of mot. vehicles, personal & household goods	10	56	66
Hotels and restaurants	3	15	18
Transport, storage & communication	2	12	14
Financial intermediation	11	50	61
Real estate, renting & related/other business activities	33	82	115
Public administration and defence; compulsory social security	0	0	0
Education	14	18	32
Health & social work	0	1	1
Other community, social & personal service activities	6	21	27
Private households with employed persons	0	0	0
Extra-territorial organizations and bodies	0	0	0
<i>Total</i>	<i>95</i>	<i>509</i>	<i>604</i>

Source: Czech Statistical Office (2006)

Slovakia

Drawing the attention to Slovakia, a similar/comparable situation is observable. Unfortunately, there is no time series information available in order to identify a supposable increase of Austrian workers in Slovakia over time. Furthermore, data is limited to people holding status of employees. Detailed numbers on independent workers such as entrepreneurs and self-employed are not available (except for 2005: 57 independent workers with Austrian citizenships in Slovakia, 17 of them are females).

Table 6: Austrians with status of employees in Slovakia broken down by classification of occupation

<i>Level of Education</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
Primary	0	3	3
Secondary (certificate of apprenticeship)	1	15	16
Secondary (school leaving certificate)	8	44	52
Academic	12	86	98
<i>Total</i>	<i>21</i>	<i>148</i>	<i>169</i>

Source: Statistical Office Slovak Republic (2005)

Table 7: Austrians with status of employees in Slovakia broken down by classification of occupation

<i>Classification of occupation (ISCO)</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
Legislators, senior officials and managers	13	82	95
Legislators & senior officials	0	1	1
Corporate managers	13	69	82
General managers	0	12	12
Professionals, scientists and researchers	5	22	27
Physical, mathematical & engineering science professionals	0	8	8
Life science & health professionals	0	0	0
Teaching professionals	4	10	14
Other professionals	1	4	5
Technicians and associate professionals	3	34	37
Physical & engineering science associate professionals	2	28	30
Life science & health associate professionals	0	1	1
Teaching associate professionals	0	0	0
Other associate professionals	1	5	6
Clerks, employees	0	0	0
Service workers, shop and market sales workers	0	0	0
Skilled agricultural and fishery workers	0	0	0
Craft and related trades workers	0	4	4
Plant and machine operators and assemblers	0	6	6
Elementary occupations	0	0	0
Military staff	0	0	0
<i>Total</i>	<i>21</i>	<i>148</i>	<i>169</i>

Source: Statistical Office Slovak Republic (2005)

Looking at table 6 and 7 it gets quite clear that mainly highly educated Austrians (98 out of 169: ~58% academics) are coming to Slovakia in order to carry out high profile professions (159 out of 169: ~94%). The Slovak data reveals more detailed information on the exact distribution of Austrian legislators, senior officials and managers. As hypothesised above, almost all people in this group are expatriates in middle- and top-management positions (94 corporate and general managers). The group of professionals and associate professionals mainly consists of engineers and related technical personnel. Some demand for Austrian teachers and scholars is also indicated by the figures. The gender ratio of Austrian workers in Slovakia again reflects the low level of female geographical mobility as well as a general low percentage of women in high profile occupational positions (21 out of 169: ~12.4%).

From table 8 it becomes evident that more or less the same industries as in the Czech Republic attract most of the Austrian FDI in Slovakia. Thus Austrian expatriates are predominantly working in manufacturing (50), real estate and renting (14), construction (10) as well as wholesale and retail trade (10). In addition, the education industry also plays a strong role for Austrians working in Slovakia (18), whereas in the Czech Republic this sector is of lesser importance. The data also allows for a closer insight into the manufacturing industry. Austrians are strongly represented in manufacturing of textiles, apparel and leather products (17) as well as in the car and automotive industry (12).

Table 8: Austrians with status of employees in Slovakia broken down by classification of economic activity

<i>Classification of all economic activity (NACE)</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
Agriculture, hunting, forestry & related service activities	0	0	0
Fishing, operation of fish hatcheries and fish farms & related service activities	0	0	0
Mining and quarrying	0	2	2
Manufacturing	3	47	50
Manufacture of food products and beverages	0	1	1
Manufacture of textiles	1	0	1
Manufacture of wearing apparel, dressing and dyeing of fur	0	3	3
Tanning and dressing of leather, manufacture of luggage & footwear	2	11	13
Manufacture of rubber and plastic products	0	5	5
Manufacture of other non-metallic mineral products	0	3	3
Manufacture of fabricated metal products	0	3	3
Manufacture of machinery and equipment	0	2	2
Manufacture of electrical machinery and apparatus	0	6	6
Manufacture of medical, precision and optical instruments	0	1	1
Manufacture of motor vehicles, trailers and semi-trailers	0	12	12
Electricity, gas and water supply	0	0	0
Construction	0	10	10
Wholesale & retail trade; repairs of mot. vehicles, personal & household goods	2	8	10
Hotels and restaurants	2	3	5
Transport, storage & communication	0	8	8
Financial intermediation	0	4	4
Real estate, renting & related/other business activities	3	11	14
Computer and related activities	1	7	8
Public administration and defence; compulsory social security	0	0	0
Education	4	14	18
Health & social work	0	1	1
Other community, social & personal service activities	0	4	4
Private households with employed persons	0	0	0
Extra-territorial organizations and bodies	0	3	3
<i>Total^X</i>	<i>21</i>	<i>148</i>	<i>169</i>

X – actual sums do not correspond to sample size due to missing information

Source: Statistical Office Slovak Republic (2005)

The Slovak data provides two additional interesting aspects – age structure of Austrian mobile workers and temporality of their stays (see table 9). Most Austrian expatriates in Slovakia are relatively young (42.6% at the age of 25-39) or at least at middle age (40.8% at age of 40-54). Although the segment “middle age” is stronger represented than one might expect the data indicates that – consistent with current literature – geographical mobility tends to occur rather at the beginning of one’s professional career. More than half of all Austrian workers (94 out of 169: 55.6%) tend to stay at least 12 months in Slovakia while another 31.4% plan to stay 6 months up to one year. Thus, it is safe to argue that the overwhelming majority of Austrian workers in Slovakia are long-term expatriates (as opposed to short-term expatriates), resulting in good/enough opportunities to interact professionally, socially and culturally. Substantial communication, interaction and integration of foreigners with locals are prerequisites for the development of social capital [12, 100, 102].

Table 9: Age structure and temporality of stays of Austrian workers in Slovakia

<i>Age segments (years)</i>	<i>Female</i>	<i>Male</i>	<i>Total</i>	<i>Expected duration of employment</i>	<i>Female</i>	<i>Male</i>	<i>Total</i>
0-19	0	0	0	Short term (< 3 months)	3	7	10
20-24	1	1	2	Short term (< 6 months)	1	11	12
25-39	11	61	72	Long term (6-12 months)	6	47	53
40-54	9	60	69	Long term (12 months)	11	83	94
55-59	0	12	12	<i>Total</i>	21	148	169
60-64	0	9	9				
65+	0	5	5				
<i>Total</i>	21	148	169				

Source: Statistical Office Slovak Republic (2005)

Slovakia is divided into 4 regions at the NUTS 2 level (Nomenclature of Territorial Units for Statistics): Bratislava region, Western Slovakia, Central Slovakia and Eastern Slovakia. Table 10 shows the regional distribution of Austrian workers across Slovakia. Evidently the Bratislava region is attracting most of Austrian expatriates (141 out of 228: 61.8%) followed by its surrounding area of Western Slovakia (69 out of 228: 30.3%). Central and Eastern Slovakia are only hosting a tiny minority of workers from Austria suggesting a possible weakness in economic structure and potential. As Slovakia’s biggest urban agglomeration Bratislava represents the nucleus for corporate, business and social activity.

Table 10: Austrian workers in Slovakia by region (NUTS 2 level)

<i>Austrian workers</i>	<i>Bratislava region (Bratislavský kraj SK 01)</i>	<i>Western Slovakia (Západné Slovensko SK 02 = Trnavský kraj + Trenčiansky kraj + Nitriansky kraj)</i>	<i>Central Slovakia (Stredné Slovensko SK 03 = Žilinský kraj + Banskobystrický kraj)</i>	<i>Eastern Slovakia (Východné Slovensko SK 04 = Prešovský kraj + Košický kraj)</i>	<i>Total</i>
Employees	106	54	8	1	169
Independent workers	35	15	7	2	59
<i>Total</i>	<i>141</i>	<i>69</i>	<i>15</i>	<i>3</i>	<i>228</i>

Source: Statistical Office Slovak Republic (2005)

In light of the extremely small distance between Vienna and Bratislava (only 55kms or 60-autominutes between two national capitals is unique in Europe) the identified general long term employment of Austrians in Slovakia must not necessarily coincide with an actual residence in Slovakia. The possibility of commuting between Vienna and Bratislava represents a real option for Austrian workers as indicated by Williams et al. [133].

Some more data

Finally, a few more numbers from two additional neighbouring countries to Austria are briefly reviewed: Hungary and Slovenia. In table 11 it is shown that the number of Austrian citizens residing in Hungary has steadily increased from 1995 to 2000 (except for 1999) and is probably still increasing. Although it reports data based on all Austrians in Hungary (irrespective of their level of qualification or whether they work at all) it is very likely that most of them hold some kind of working status. The great difference between male and female Austrians also observed in the Czech Republic and Slovakia indicates the plausibility of this assumption. Unfortunately, there is no data available regarding the more recent years since 2000 when corporate Austria has substantially expanded, probably leading to Austrian labour increases at higher rates.

Table 11: Austrian citizens residing in Hungary from 1995 to 2000

<i>Austrian citizens</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>
Female	177	197	245	304	329	356
Male	439	497	627	727	661	697
<i>Total</i>	<i>616</i>	<i>694</i>	<i>872</i>	<i>1,031</i>	<i>990</i>	<i>1,053</i>

Source: Hungarian Central Statistical Office

Table 12 provides the distribution of Austrian employees in Slovenia among different kinds of occupational clusters by end of 2004. The various occupational categories are typically associated with different levels of educational attainments. Highly qualified workers are usually found in the first three categories (legislators, senior officials & managers; professionals; technicians and associate professionals). The situation is different to the one in the Czech Republic and Slovakia. Though still quite remarkable the share of Austrian highly skilled workers in Slovenia makes up relatively low 27.7% (369). The most dominant groups of Austrian labour in Slovenia are plant and machine operators and assemblers (260) as well as craft and related trades workers (195). Slovenia is attracting predominantly semi-skilled/lower-skilled Austrian workers and seems to be better able to provide highly qualified professionals than other CEE countries. This difference in occupational structure of Austrian workers in Slovenia as compared to the Czech Republic and Slovakia might be rooted in Slovenia's superior stage of economic development and performance.

Slovenia has a high-income developed economy which enjoys the highest GDP per capita (USD 25,266 in 2007) of the newly joined EU countries, or around 89% of the EU average. The country's relatively high rate of inflation declined to 2.3% by 2006 and is now comparable to the average in the European Union. Slovenia's economy has started to grow more strongly in the last few years (7.2% in first quarter of 2007, 5.7% in 2006, 4.1% in 2005). Overall, the country is on a sound economic footing. Slovenia is the economic front-runner of the countries that joined the European Union in 2004 and was the first new member to adopt the euro as the country's only currency on 1 January 2007. Moreover, Slovenia will also be the first new member state to hold the Presidency of the Council of the European Union in the first half of 2008 [134].

Table 12: Austrians with status of employees in Slovenia broken down by classification of occupation

<i>Classification of occupation (ISCO)</i>	<i>Females & Males</i>
Legislators, senior officials and managers	50
Professionals, scientists and researchers	141
Technicians and associate professionals	178
Clerks, employees	122
Service workers, shop and market sales workers	185
Skilled agricultural and fishery workers	26
Craft and related trades workers	195
Plant and machine operators and assemblers	260
Elementary occupations	156
Military staff	8
Unknown	12
<i>Total</i>	<i>1,333</i>

Source: Statistical Office of the Republic of Slovenia (2004)

5 Summary and Conclusions

In summary the extensive literature review on factors relevant to the mobility of highly qualified individuals has found that mobility decisions center on issues related to income, quality of life, physical and social environment, political reasons, working conditions, language and culture, networks and ties, information upfront, family, individual attitudes and personality, age, temporality of stay, career opportunity, organizational characteristics and support, labour market, immigration and other governmental policies as well as economic opportunities.

Although the empirical investigation is very preliminary in nature it does provide some useful insights into the scale and patterns of Austrian highly qualified labour mobility within CEE and also allows drawing a few conclusions. First, results suggest that people follow capital investments from a spatial point of view. The numerous expansions, acquisitions and take-overs of corporate Austria in CEE lead to a steady increase in Austrians working abroad. With increasing FDI of Austrian companies in CEE more and more highly qualified Austrian expatriates are needed in order to exert control and influence on activities abroad, implement corporate strategies and standards, spread corporate cultures as well as build relationships and trust with local staff. The execution of these tasks particularly calls for well-trained and experienced people. Indeed, approximately 75% (own estimation) of Austrians heading to CEE are highly qualified professionals equipped with superior vocational education for filling mainly management positions. Mobility to CEE countries is more likely to take place at early career stages when people are young and more flexible. They are primarily found in urban agglomerations where national headquarters are typically located. Unsurprisingly the most important industries in terms of Austrian FDI and skilled labour seem to be manufacturing, financial services, real estate as well as retail and wholesaling as proved by prominent examples (to name just a few from the Austrian bank and insurance sector: Erste Bank, Raiffeisen, Wiener Städtische).

In conclusion, it is worth noting that an individual's decision to move geographically is dependent on a wide variety of factors which are multi-faceted and far from being homogeneous and straightforward. In fact the motivational dynamics behind decisions to relocate are highly complex in nature. Factors are ranging from personal attitudes and motivations as well as private life issues to environmental conditions related to infrastructure, work and social aspects as well as all kinds of policies and characteristics of governments and organizations. The preliminary empirical results lead to the conclusion that mobility of highly qualified Austrian workers within CEE countries is linked to FDI activity. It is a contemporary phenomenon very likely to continue increasing in scale thus considerably impacting regions and organizations. With regard to overall data records concerning skilled migration across European countries the impression is that indeed there are serious limitations in terms of extensiveness, reliability and cohesiveness. As a result comparisons across countries are only feasible up to a certain degree and must be seriously questioned. Data gathering and dissemination policies need to be standardized as well as centralized Europe-wide (Eurostat).

Of course more desk research and further investigation are needed in order to capture the full dimensions and scale of highly qualified labour mobility from Austria to CEE and to find answers to the higher ranking research questions: What drives highly qualified Austrian professionals moving to CEE; what are the prime factors influencing the mobility decision? In

how far do they communicate, interact and integrate abroad thereby facilitating knowledge spillovers as well as enabling cross-border/-cultural social capital to be mutually developed.

The methodology of the continuing empirical research will be as follows. Using OECD data and information from government authorities I will continue to analyse the spatial distribution (balance) and mobility patterns (flows) of highly qualified professionals in CEE (desk research). The field research will be twofold: Explorative interviews with professionals will give a first impression of the factors and issues relevant to mobility (qualitative field research). Relative importance of factors as well as trade-offs and relationships between various factors influencing mobility decisions will be identified by way of a questionnaire (quantitative field research). It will also assess the degree of social capital formation (communication, interaction and integration; trust-based ties and relationships between locals and foreigners).

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Appendix

Table 13: Various mobility factors of highly qualified labour at a glance (chronological/alphabetical order)

Author(s)	Title	Mobility Factors
Solimano (2008 pre-released)	The International Mobility of Talent: Types, Causes and Consequences	<ul style="list-style-type: none"> - international differences in earnings and development gaps - non-pecuniary motivations (family, friends, personal reasons, working conditions, etc.) - demand for capital, location and talent - technology and the demand for talent - agglomeration and concentration effects - linguistic compatibility, networks and socio-cultural affinity - policy regimes and immigration policies
Xu, Liaw (2006)	Initial destination choices of skilled-worker immigrants from South-Asia to Canada: Assessment of the relative importance of explanatory factors	<ul style="list-style-type: none"> - co-ethnic communities - high income level, promising long-term income prospects, economic opportunities - employment growth rates - language abilities - little importance of immigration policy
Ferro (2006)	Desired mobility or satisfied immobility? Migratory aspirations among knowledge workers	<ul style="list-style-type: none"> - pre-migratory socialization (through mass media and information, university environments, students' and peer workers' experiences and connections, etc.) - myths of successful migration (pushing individual/family/community) - immigration policies (also potential barrier for workers and firms!) - familiarity with environment and previous exchange (cultural, economic and business) - personal attitudes and individual aspirations (interests, desire to gain experience abroad) - migrant personality - external conditions (immigration regulations, skills shortages, market trends, companies' foreign recruitment strategies, etc.) - family - social and cultural dimensions
Haines, Saba (1999)	International mobility policies and practices: are there gender differences in importance ratings?	<ul style="list-style-type: none"> - Financial concerns (maintaining/ improving standard of living, travel expenses, housing and travel costs, expenses for return visit, education costs for children, bonus for annual vacations, performance bonus, compensate spouse, salary increase, three paid visits to home country) - family issues (access to quality schools, spouse involved in planning, access to quality child care) - career considerations (assignment part of a career plan, competencies used upon return, assignment is a promotion, promotion upon return, assignment of less than 2 years, assignment as training) - organizational support and training (return and reintegration planning, spouse employment assistance, pre-departure training, training for family, guidance and counseling, cultural training, support groups in host country) - level of information upfront/exchange (preliminary visit, in contact with head office, meet colleagues, mentor in home country, exchange with former expats) - other/miscellaneous (additional in different countries, additional in same country, share international experience)
Solimano,	International Mobility of the	<ul style="list-style-type: none"> - expected income differences (real wages)

Pollack (2004)	Highly Skilled: The case between Europe and Latin America	<ul style="list-style-type: none"> - costs of migration (travelling, job search, psychological stress due to different language and culture, etc.) - social networks (relatives, friends, professional peers, migrant networks help in the adaptation process, etc.) - political issues (democratic regimes, individual rights, freedom of speech, etc.) - shortage of skill labour (immigration incentive policies of industrialized countries)
Oberoi, Lin (2006)	Brain drain of doctors from southern Africa: brain gain for Australia	<p>Endogenous factors</p> <ul style="list-style-type: none"> - poor remuneration and wages - lack of job satisfaction (poor information sharing, poor management between senior managers and workers, large numbers of patients, poor working conditions and resource availability) - lack of further education and career development (no availability of opportunities) - HIV/AIDS (health risks) <p>Exogenous factors</p> <ul style="list-style-type: none"> - lack of quality of life - high levels of crime (protecting the family) - civil conflict and political instability - social pressure (placed by family and friends, sole provision for the needs of the wider family)
Richardson, Rullo (1992)	Going Global: Are You Ready for an Overseas Assignment?	<ul style="list-style-type: none"> - personality profile (character traits such as adventurous, flexible, open-minded, extraverted, etc.) - information and advice (talk to former/other expats in this area, contact local institutions, visit the host country) - family considerations (age of children and respective needs, job for spouse, etc.) - personal motivations (curious about foreign cultures, desire to learn foreign language, see new places, lifetime opportunity for children, develop global business skills) - financial package (all costs associated with moving to, living in and returning from overseas: housing, training, health care, home leave expenses, children education, job search assistance for spouse, etc.)
Mahroum (2000)	Highly skilled globetrotters: mapping the international migration of human capital	<p>Managers & executives</p> <ul style="list-style-type: none"> - business-oriented/corporate policies (internationalization & expansion, M&A, happens more accidentally, usually not a planned decision, supervise projects, provide firm-specific expertise, enhance the control system of parent company, etc.) - benefits & remuneration (salary, stock options, etc.) <p>Engineers & technicians</p> <ul style="list-style-type: none"> - policies & regulations (immigration legislation, industrial and labour policies of governments) - economic factors (best offers, income tax, supply and demand mechanisms of the labour market, most responsive to the state of the national economy) <p>Academics & scientists</p> <ul style="list-style-type: none"> - Inter-institutional and inter-governmental policies (mobility grants) - Bottom-up developments in academia and science (attraction of a country in a particular discipline) - Institutional prestige (scientists put their trust in organizations that are highly reputed for excellence, quality and originality) - Nature and conditions of work (salary, quality of research staff, publication support and scientific openness – also in industry)

		<p>Entrepreneurs</p> <ul style="list-style-type: none"> - governmental policies (visa, taxation, protection, legislation, tax incentives, etc.) - credits/financial facilities (venture capital, public funds, etc.) - bureaucratic efficiency - entrepreneurial climate - flexible human resource management (hiring, firing, working hours, etc.)
Raunio, Sotarauta (2005)	Highly Skilled Labor Force in the Global Field of Choices: Case Finland	<ul style="list-style-type: none"> - creative problem-solving (work) environment (communicative working culture, challenging and interesting work, chance for spouse to work/study, good career prospects, non-hierarchical working environment, chance to work for a particular employer) - work and career opportunities - improving cultural and communicative competencies - economic environment (high level of economic wellbeing: wage relative to taxes and living costs, salaries and financial incentives, tax rate, pension benefits) - functional environment and welfare state's services (well organised public services: health care and public transport, leisure time activities and recreational facilities, international flight connections, study opportunities, cultural activities, night life) - physical environment (safety, clean unpolluted living environment, high quality of housing) - social environments (non-racist image of public offices and civil servants, international atmosphere: attitudes towards foreigners and multiculturalism, open and approachable social atmosphere, able to manage in English outside work, friends and social network at the destination, sophisticated high-tech culture)
Hall (2005)	Brain drains and brain gains: causes, consequences, policy	<ul style="list-style-type: none"> - income differentials (wage, salary, returns on assets: equity, property/real estate, intellectual property and patents) - ties of family, friends and culture in the home country - personal attractions of new experiences and a new start - working environment (opportunity to pursue personal research interests/particular line of research, long-term/life-long perspective, access to supporting infrastructure and related networks, research opportunities and institutional structures)
Linkova (year not specified)	ENWISE countries: brain drain or brain circulation	<ul style="list-style-type: none"> - economic conditions (salary, remuneration, money, profit sharing, standard of living) - working conditions (scientific independence, availability of scientific information, professional curiosity and satisfaction, work-life balance, research infrastructure and funding) - opportunities for professional and personal development - information levels - language skills - research programmes in foreign languages - capacity and willingness of the destination to admit incoming researchers - bureaucracy related to travel and mobility
McKenna, Sikula, (1981)	On the Move Through the Groves of Academe: Mobility Among Business Professors	<ul style="list-style-type: none"> - promotion - better job opportunity for spouse - more money - unhappy with current administration - need for a change - more prestigious institution - closer to family

		<ul style="list-style-type: none"> - better climate - additional emphasis on research - additional emphasis on teaching - more urban living - more rural living - better recreational facilities - local economic factors: availability of housing, mortgage rates, labour market conditions for a spouse - age (job mobility decreases as people mature biologically and professionally)
Vardi (1980)	Organizational Career Mobility: An Integrative Model	<p>Organizational level factors</p> <ul style="list-style-type: none"> - exogenous/environment (labour market, product market, location, ownership, legal constraints, etc.) - independent characteristics (size, technology, structure, unionization) - process mediators (mobility policy: hiring from within or outside / locus of mobility decisions: close to the individual by superiors or remote by personnel department) <p>Individual level factors</p> <ul style="list-style-type: none"> - exogenous/environment (socioeconomic background, skill demands, culture, family, etc.) - independent characteristics (age, sex, education, tenure, ability, skill) - process mediators (mobility attitudes: expectations, interests, effort, opportunities / mobility perceptions: requirements, satisfaction / locus of control: internals vs. externals / mobility behaviour: visibility or initiative)
Kaukab (2005)	Situation of Migration and Potential to Reverse the Brain Drain – Case From Pakistan	<ul style="list-style-type: none"> - liberal environment to work and survive - access to developed and sophisticated types of infrastructure for carrying out research and professional work - better earning prospects and tax-free incomes - flexibility to travel and interact - long term benefits for the phase of retired life - secure and stable surroundings - bright prospects for family (health care, education) - capacity to grow and develop in own professional domain - service to the country and its people (patriotism) - become a pioneer in the respective field (missionary path) - nearness to the context of one's origin - frugal lifestyle - political instability and poor law and order conditions - bureaucratic red tape in every domain of working
Rhodes, Doering, (1983)	An Integrated Model of Career Change	<p>Job satisfaction/dissatisfaction influenced by:</p> <ul style="list-style-type: none"> - organizational factors (pay, integration, routinization, upward mobility) - person / organization – correspondence - person / work environment – correspondence (autonomy, responsibility, working conditions, co-workers) - career growth opportunities / desire for growth – correspondence - actual performance / desired performance – correspondence - personal factors (age, tenure, gender, education, career/family role conflict) - job performance - evaluation of current job outcomes vs. alternative opportunity outcomes - availability of alternative opportunities - personal and environmental factors (age, present

		<p>performance, financial status, labour market conditions)</p> <ul style="list-style-type: none"> - performance-reward relationship - career satisfaction/dissatisfaction
Anderson, Milkovich, Tsui (1981)	A Model of Intra-Organizational Mobility	<ul style="list-style-type: none"> - environmental characteristics (economic, legal, social) - organizational characteristics (size, complexity, bureaucratic controls, technology) - workforce characteristics (skills, career stage, turnover, age, sex, education) - individual characteristics (age, sex, education, tenure of employment) - mobility perceptions (desires, expectations, satisfaction) - other attitudes (job satisfaction, commitment, motivation) - behaviours (performance, turnover, absenteeism) - opportunities and vacancies - actual mobility (rate, direction, pattern) - criteria for mobility (standard, type, universality or particularism: e.g. policy of promotion)
Ewers (2007)	Migrants, markets and multinationals: competition among world cities for the highly skilled	<ul style="list-style-type: none"> - physical and infrastructural factors (sites and resources for the location of firms, fixed public and capital goods, most skyscrapers, total office floor count, world-class downtown infrastructures, well-connected international airport) - knowledge and technology (R&D resources, research facilities and universities, students and scholars, research output, quality of universities, high capacity internet hubs, proximity to universities) - quality of life (non-marketable public goods including the natural and built environment, public amenities, cost of living, security, neighbourhood solidarity, high liveability, medical services, education, public service and transport, recreation, consumer goods, housing, political, social, cultural and economic environment) - advanced producer service (APS) presence (firms and organisations, MNC headquarters, largest numbers of offices and expatriate employees, large markets and activity clusters) - structural factors and immigration policy (recruitment policies of destination countries and recruitment agencies in sending countries, immigrant population, large numbers of foreign-born implies a degree of openness)
Krassinets, Tiuriukanova (2001)	Potentials of labour out-migration from Russia: Two surveys	<ul style="list-style-type: none"> - low salary - decline in prestige and social respect towards the profession - feeling of uselessness regarding work - unbearable situation in sciences and education - too hard work for only normal salaries - poverty-stricken families
Iqbal (2000)	Brain Drain: Empirical Evidence of Emigration of Canadian Professionals to the United States	<ul style="list-style-type: none"> - better economic opportunities (tax rates, salary range, cost of living) - monetary costs of relocation - psychological costs of relocation (alien traditions, language and culture) - country similarity - environment and infrastructure (education facilities, housing, quality of life, warmer climate, leading-edge technology, job opportunities) - information level (supplied by relatives and friends) - age (emigrants tend to be young) - family responsibilities - willingness/eagerness to relocate/move - growth opportunities (world trade/output, FDI, emerging markets)

<p>OECD (2002)</p>	<p>International Mobility of the Highly Skilled</p>	<ul style="list-style-type: none"> - economic opportunities - migration policies in destination countries - intellectual pursuits (education, research, language training, etc.) - research conditions and support - demand for R&D staff and academics - climate for innovation and business start-ups - growth and spread of MNCs (intra-company transferees) - access to national labour markets (international agreements) - involuntary migration (war, economic collapse, political/religious prosecution)
<p>Peixoto (2001)</p>	<p>The International Mobility of Highly Skilled Workers in Transnational Corporations: The Macro and Micro Factors of the Organizational Migration of Cadres</p>	<p>Macro factors (technical & social criteria)</p> <ul style="list-style-type: none"> - shortages of specific skills or know how - company's life stage (start-up, introduction of new technologies or processes) - transfer of knowledge and train local workforce - dissemination of the company's mechanics and the pursuance of it's culture (company know-how) - personnel policies (well structured individual career plans, career development) - gaining international experience (promote an international perspective and give high-potential employees a broader knowledge of market and business) - inability or unwillingness to make use of local resources - direct link between headquarter and subsidiary (trustworthy personnel, diffusion of organizational culture, depending on control and trust) - need for local expertise / staff - financial burden of movement and provisions made for expatriates - other difficulties regarding moving (dual career households, perceived "colonization" causes negative reactions) <p>Micro factors (careers, incentives & social integration)</p> <ul style="list-style-type: none"> - career prospects, opportunity of promotion, attainment of important functional position, envisage future professional improvement - incentives (generous relocation packages, financially and other support for: family, housing, children's education, home leave, spouse employment) - attitudes and motivation of international personnel towards migration - break with the social space of origin (existing social integration and innate cultural habits) - relative cultural proximity between original and host countries