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MIREM Project

MIGRATION DE RETOUR AU MAGHREB

Analytical Report, MIREM-AR 2008/05

*A Comparative Study of Return Migration
Policies Targeting the Highly Skilled
in Four Major Sending Countries*

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MIREM
COLLECTIVE ACTION TO SUPPORT THE REINTEGRATION OF RETURN MIGRANTS IN
THEIR COUNTRY OF ORIGIN

ANALYTICAL REPORT, MIREM-AR 2008/05
BADIA FIESOLANA, SAN DOMENICO DI FIESOLE (FI)

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MIREM

Le projet MIREM, ou «Action collective de soutien à la réintégration des migrants de retour dans leur pays d'origine», a été lancé en décembre 2005, grâce au concours financier de l'Union Européenne et de l'Institut Universitaire Européen. Il est hébergé au sein du Robert Schuman Centre for Advanced Studies (Florence, Italie). L'objectif majeur du projet MIREM vise à assurer une meilleure prise en compte des enjeux propres à la migration de retour et à mieux en valoriser l'impact à des fins de développement. Il s'agit, en premier lieu, de produire des outils d'analyse et de compréhension du phénomène de la migration de retour vers les pays du Maghreb (Algérie, Maroc, Tunisie) et, en second lieu, de rendre librement accessibles l'ensemble des informations produites.

* * *

The 'Collective Action to Support the Reintegration of Return Migrants in their Country of Origin', henceforth the MIREM project, was created in December 2005, thanks to the financial support of the European Union and the European University Institute. It is hosted at the Robert Schuman Centre for Advanced Studies (Florence, Italy). The main objective of the MIREM project lies in better taking into consideration the challenges linked to return migration as well as its impact on development. Analytical tools will be provided to better understand the impact of return migration on the Maghreb countries (Algeria, Morocco, and Tunisia). All the data produced will be made freely accessible to stimulate a constructive debate on this issue.

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Abstract

This report is an attempt to provide a provisional comparative analysis of policies implemented in China, India, Argentina, and Mexico to facilitate the return of highly skilled expatriates and their professional reintegration. These countries differ in terms of the outbound and return flows of highly skilled professionals, as well as in the timing and intensity of the programs they have implemented. In general, career or business opportunities, and hence the offer of a conducive professional and socio-economic environment are central to attracting returnees. Migrant networks, temporary and permanent return migration programs exist in various forms and, apart from having their own merits, can complement each other in facilitating the return migration process. A long term, pluralistic and systemic approach, which in parallel to offering incentives involves the removal of administrative barriers, is considered to be important in bringing back and successfully reintegrating large numbers of highly skilled expatriates.

Introduction

This brief report presents a brief review of scholarly and grey literature on programs to foster the return of highly skilled immigrants. It is a comparison of the policies implemented by four major source countries for (highly) skilled immigrants to North America and Western Europe: China, India, Mexico and Argentina.

While differing in terms of the size of the population, in terms of culture, societal set up, their political system and historical ties, there are also some features which these four systems, two in Asia and two in Latin America, share. First of all they are all relatively large systems with large potential stocks of manpower that can be tapped and trained. Second, they all share a history of central planning of the research system and the economy, though this tendency was stronger in India and especially China than for the two Latin American case studies. Third the systems have all experienced large outbound flows of migrants in the past two decades and a half. Fourth they all aim to draw to various extents, in various ways and with varying degrees of success on members of their overseas migrant communities to aid in the development of their research and innovation system.

These cases were selected, in order to provide an oversight of a broad range of potential policy options which have been used in these countries and provide an insight in their relative (lack of) success in attracting migrants to return to their home country in order to utilize their material, human and social capital. Before providing a description of the various case studies the next section will first define the concepts used in this report on the basis of existing scientific literature.

The different sections of the report are primarily based on pre-existing literature and analytical reports and available statistical information on return migration and circulation to the four countries under study. Data from these studies are complemented by material derived from “grey literature”: newspaper articles, government websites, government reports and websites as well as commentaries by analysts outside the peer reviewed literature. The aim of the report is to provide a brief comparative analysis of policies implemented to manage a very complex phenomenon in four large and complex systems. Though an attempt has been made to collect and analyse relevant material, the report, which was written in a limited time-span, does not claim to present a complete picture of all the policies and measures implemented in the different countries, but rather to provide a first insight in the strategies the different countries followed and provide an introduction into the type of measures that can be considered by sending countries to promote return migration as well as some practical examples.

1. Theory, demarcation & definition of concepts

The field of migration studies is both broad and diverse. Different strands of the literature and some of the insights they provide are not necessarily compatible. Before discussing the concepts used it is important to define the group of migrants which is considered in this project: highly skilled migrants.

The highly skilled are among the most internationally mobile groups of people and over the past two decades their mobility has increased considerably. Mobility refers to any type of cross-border movement of in this case highly skilled individuals, either in the form of a single outbound and return movement, in recurrent, or in permanent patterns (Lowell & Findlay, 2001). Technically, it differs in nature from other forms of migration because, while it can turn out to become a permanent form of relocation to a different country, it is often not intended to be so from the outset. Return migration in this project refers both to the return of those who went abroad for shorter periods of several years and to those who spent a large part of their career abroad before returning to their home country.

Since the 1960s, when the flows of students and highly skilled individuals from developing countries became increasingly large, analysts, policy-makers and popular media began to raise concerns about the possible negative side effects of the loss of human capital to the source country. In

the “human capital literature” which has long dominated migration studies, this loss of human capital was coined a “brain drain”. Receiving countries were considered to experience a “brain gain”, i.e. a gain in human capital. The outbound flow of students and researchers does not necessarily have to be a solely negative phenomenon for the sending country. First of all, migrants may aid in the development of the home country by sending remittances and facilitating trade, commercial ties, etc. Secondly, the opportunity to go abroad and work for higher wages can provide an incentive for individuals in developing countries to invest in education and in doing so lead to a rise in the general level of education of the population as long as outbound flows remain at a relatively modest level (Stark et al, 1998). At a time when the home labour market is not sufficiently developed to fully absorb native-born highly skilled workers one could speak of a brain overflow or even brain waste (Lowell & Findlay, 2001, Madl, 2002). If this is the case it can be a good strategy to “store brainpower overseas”, either for the positive feedbacks they may provide in terms of among others monetary remittances and knowledge flows or to attempt to make better use of these individuals after they have also gained higher levels of skills and capital in the future, at a time when the socio-economic situation in the home country has improved. This report focuses on measures implemented by major sending countries to offset some of the costs of the outbound flows of highly skilled individuals as well as to reverse part of the flows of highly skilled individuals, who upon return can bring in much needed material, social, and human capital.

In recent years analysts and policy-makers have begun to put more emphasis on positive feedbacks of overseas communities of (former) nationals in terms of remittances, technology transfer, investments, and trade. Such a perspective departs to some extent from the human capital approach which was long dominant in the literature on highly skilled migration as it stresses the importance of social as well as human capital. The trans-national networks formed between individuals and organisations in the home system and individuals and organisations in host systems can facilitate the exchange of valued resources.

An increasingly prominent group of returnees returns with the intention to use the material, human, and social capital, which they accumulated during the time they spend abroad to bring positive (socio-economic) change to their home countries. These returnees tend to be relatively young, highly educated, able to move back and forth between their former host and home country and thus to be able to capitalize on the social capital they build up during their time abroad (Lowell & Findlay, 2001).¹ Hence the increasing interest among analysts and policy-makers to use return migration as a development tool (see e.g. Lowell & Findlay, 2001 and Agunias, 2006). If successful, returnees who acquired desirable skill sets abroad may have a higher positive impact on their home system than the recruitment of foreign consultants/employees, as they tend to have an advantage in terms of cultural and linguistic knowledge as well as domestic social capital. Short term as well as permanent return of entrepreneurs and scientists can lead to more sustainable growth in socio-economic development.

Some analysts of the return migration process, however, have argued that, existing power relations, institutional inertia, and the pre-existing or lacking socio-economic and/or research infrastructure in the home country, tends to limit the possibilities of such innovative returnees (entrepreneurial researchers or businessmen) to bring about positive change.² A successful return tends to require a socio-economic environment which is conducive for the re-integration of returnees in their former home system and which allows them to make optimal use of the material, human, and social capital they bring back with them. The attempts of governments to create such an environment through the

¹ The return of highly skilled individuals can be temporary, recurrent, or permanent. Lively return migration, in recent years often referred to as brain circulation, re-supplies the stocks of highly educated population in the sending countries and, to the extent that the material/human/social capital which migrants accumulated during the time they have spent abroad makes them more productive, stimulates the home countries socio-economic development

² See for example Cerase, 1974 and Meyer, 2001 for analyses of this problem from different theoretical perspectives.

implementation of favourable return migration policies, not just to lure back overseas (former) co-nationals, but also to harness the potential of those who do return, is the focus of this report.

Type of policies

Three types of policies and programs are discussed in this project: “migrant network policies, temporary return programs and permanent return programs”. Each type groups a wide number of potential measures which have been implemented to various degrees in the four case studies – concrete examples of which are discussed in the next section. In the comparative case study analysis a demarcation will be made between policies aimed to foster the (temporary) return of highly skilled migrants in general and of scientists in particular. While the main focus will be on researchers in public sector research organisations some discussion will be devoted as well to (highly skilled) entrepreneurs from the migrant community who invest in their (ancestral) home country or set up a new (high tech) company there.

In addition to the type of policies implemented, section 4 also provides a brief discussion of the (number of) governmental agencies involved in the set up of these programs and whether attempts have been made to increase the degree of coordination between them. All four case studies are large nations with very complex bureaucracies. The complexity of facilitating return migration tends to span the fields of competence of different governmental agencies, such as those responsible for the management of entry and exit, taxes, education, research, economy, etc. Furthermore in some of the cases regional governments may play an important role in the set up of programs to promote return as well.

The implementation of the “right” return migration policies is far from being the only factor which influences their relative success. At least as important for the rate and success of return are improving socio-economic, research, and/or political conditions in the home country. While it is beyond the scope of this project to provide a detailed comparative analysis of the differences in socio-economic development in the four countries over the past twenty years, each case study will start by discussing some of the main socio-economic developments in so far as they are relevant to the respective rate of outbound mobility and return as well as the success of the return migration process.

Migrant network policies

The first of the types of policies discussed does not solely aim at promoting return, but is rather aimed at stimulating contacts between the home system and members of overseas communities of scientists and businessmen. In part of the academic literature, media and policy-documents, the networks which these policies aim to promote are referred to as “diaspora networks”. Considering the contested nature of the concept “diaspora” and the fact that not all governments make use of this term this report uses the more general term “migrant networks”. The membership of such networks does not have to be restricted to first generation migrants, but may also include 2nd, 3rd, or nth generation migrants. Apart from potentially facilitating return, migrant networks may facilitate trade, the transfer of knowledge, technology, and investments, as well as the creation of goodwill and political influence in the host systems. Migrant networks have grown organically among many migrant communities in North America and Western Europe. Realising their potential, the governments of several sending countries have begun to actively support the further development of such networks since the early 1990s. The nature of migrant networks varies in scope. Some target the migrant population as a whole, while others target a specific group of migrants: such as entrepreneurs, engineers, students, scientists, or even researchers from a specific scientific discipline. Some of these networks focus on a specific host country, while others have a global reach. The most visible representation of migrant networks may be the internet portals which provide information on a wide range of activities, jobs, and other opportunities to members of the migrant community. Initiatives can, for example, include the

organization of events for members of overseas communities of professionals, scientists and businessmen either in the host or former home country.

Programs/policies to stimulate temporary return

In addition to the activities to foster the development of ties to members of overseas communities, governments of sending countries have in the past two decades also implemented policies, which aim to promote return to their home country. One group of these policies/measures aims at the promotion of temporary return by members of the overseas migrant community. There is a strong overlap between some of these policies and those aimed at the promotion of ties with the overseas migrant communities. Such policy measures include the set up of favourable tax regimes which facilitate members of overseas communities to remit financial resources, to invest or set up enterprises in the home system while continuing to spend most of their time abroad. Some countries have begun to allow for dual citizenship or a special status for members of migrant communities (including 2nd generation migrants) which allows for easy travel to the home system etc. Examples of more direct policies to foster temporary return include those in which overseas scientists are sponsored to teach or do research for a limited period of time in the (former) home country. Apart from assisting in the development of the home system, these forms of temporary return also allow overseas scientists to maintain or build a professional network in their former home system which may eventually facilitate permanent return.

Programs/policies/measures to stimulate permanent return

Central to this brief report are policies with the aim to stimulate permanent return of highly skilled migrants to their home system. These programs come in many different forms and shapes. Some sending countries have implemented a whole range of them, others have not. Broadly speaking two groups of programs can be identified, those targeting business entrepreneurs and those targeting public sector researchers.

For business entrepreneurs and highly skilled employees in the private sector these programs/measures may, for example, include various forms of administrative assistance for those considering re-migration, favourable tax regimes, green card policies which allow naturalized returnees to keep their foreign nationality, etc, the set up of high tech parks in which returnees can settle and start businesses under very favourable conditions such as a few years of free office space, tax exemptions for their business, or for example for the import of a foreign car, schooling for children, etc.

For scientists who return to work in public sector research organizations and universities such incentive programs may include supplements to salaries to make them more competitive to those offered in the west, a budget for investment in good research infrastructure, career opportunities, as well as assistance with housing, schooling for their children, employment for spouses, and many other forms of administrative support.

Policies aimed to promote (highly skilled) migrant entrepreneurs to return or become active in the home country are different in nature from those attracting highly skilled professionals to work in public sector organisations - be it research organisations or, for example, hospitals. Even though the degree of state-involvement in business - and private sector involvement in public sector research or the public health sector - differs from country to country, in general government programs promoting the return of entrepreneurs will aim to provide a good business environment rather than offering a salary, while the latter is one of the central elements of the programs to promote return of highly skilled professionals to public sector organisations.

This report is focused on macro-level policies and programs. Naturally, each individual's preferences, ambitions, and needs differ. The same holds for their relative potential contribution to the

further development of their home country; skill levels and potential varies from person to person. Apart from implementing policies and programs targeting different types of potential returnees, tailor-made solutions may in some cases yield the best results in attempts to attract specific individuals. Incentives offered to specific individuals, for example by the research organisation in which they will work, are not captured in this analysis.³

2. Introduction of the cases in relation to highly skilled migration

This report compares four national cases, which though similar in some ways are different in many others. Section three is the central part of the project as it compares the various return migration and migrant network policies set up by the different governments. This section provides a (very) brief discussion of the differences in the evolution, size, nature and geographical spread of the countries' respective migrant communities. The assessment of the size of the Indian, Chinese, Argentinean, and Mexican born population (in total and highly skilled) in the major OECD host countries/regions shown in figures 1 to 4 is based on 2000/2001 census data collected by the OECD (2005).

In the assessment of the size of the various diasporas it can be important to distinguish, as some of the respective governments such as the Chinese do, between members that may belong to this group because of their ethnicity - but are themselves descendants of migrants or migrated a long time ago - and recent migrants which were part of the outflow of students and researchers of the past two decades and a half. The latter group is central to the programs discussed for all four cases, though large communities of "overseas Indians" and "overseas Chinese" have long been present in many developed, as well as less developed, countries. The latter groups may still have a special affinity for their ancestral/home countries and even if more recent migrants are the most likely targets, individuals from these groups may therefore also be the subject of migration network policies and even return migration policies.

Before comparing the differences in the size of the overseas community of "highly skilled individuals" in figures 1 to 4, it is important to realise that the population of the four countries vary in size as well. Following the approach of Cohen and Soto (2001), table 1 therefore shows the emigration rate of highly educated persons from the four countries which was calculated by dividing the highly educated expatriate population from each country of origin by the total highly educated native-born population of the same country (OECD, 2005). Highly educated persons in this table and in figures 1 to 4, correspond to those with a tertiary level of education. Mind that this table and the figures are based on data from around the turn of the century and both the output of the higher education systems - most dramatically in the Chinese case - and the outbound flows of students and other highly skilled individuals may have changed. In Argentina and Mexico, the number of people going abroad may have increased considerably in the wake of their respective financial crises.

³ Potential returnees are not just, or at least not always just, utility maximizing actors in terms of career perspectives – depending on the individual in question other factors such as the interests of spouses and children may play a very important role as well. A desire to return, to a family, country, culture and language in which migrants have their roots may be powerful incentives for individuals even if opportunities from a career perspective are less appealing than in their host system. Other social or political factors may also be important. The perception of the degree of socio-economic and political stability, political freedom, poverty, crime, the quality of the education system, etc., may all have a strong influence on the decision to return or not. These issues, however, tend to lie outside the remit of return migration policies. Such matters tend to lie outside the remit of return migration policies, though in the case of for example employment for spouses, education for children or a migrant's fear for persecution over past political activities accommodating arrangements are made in some countries.

Table 1 emigration rate of highly skilled individuals (% of total)

	ARG	MEX	CHN	IND
Highly skilled expatriate rate:	1.94	6.35	2.61	3.43

India

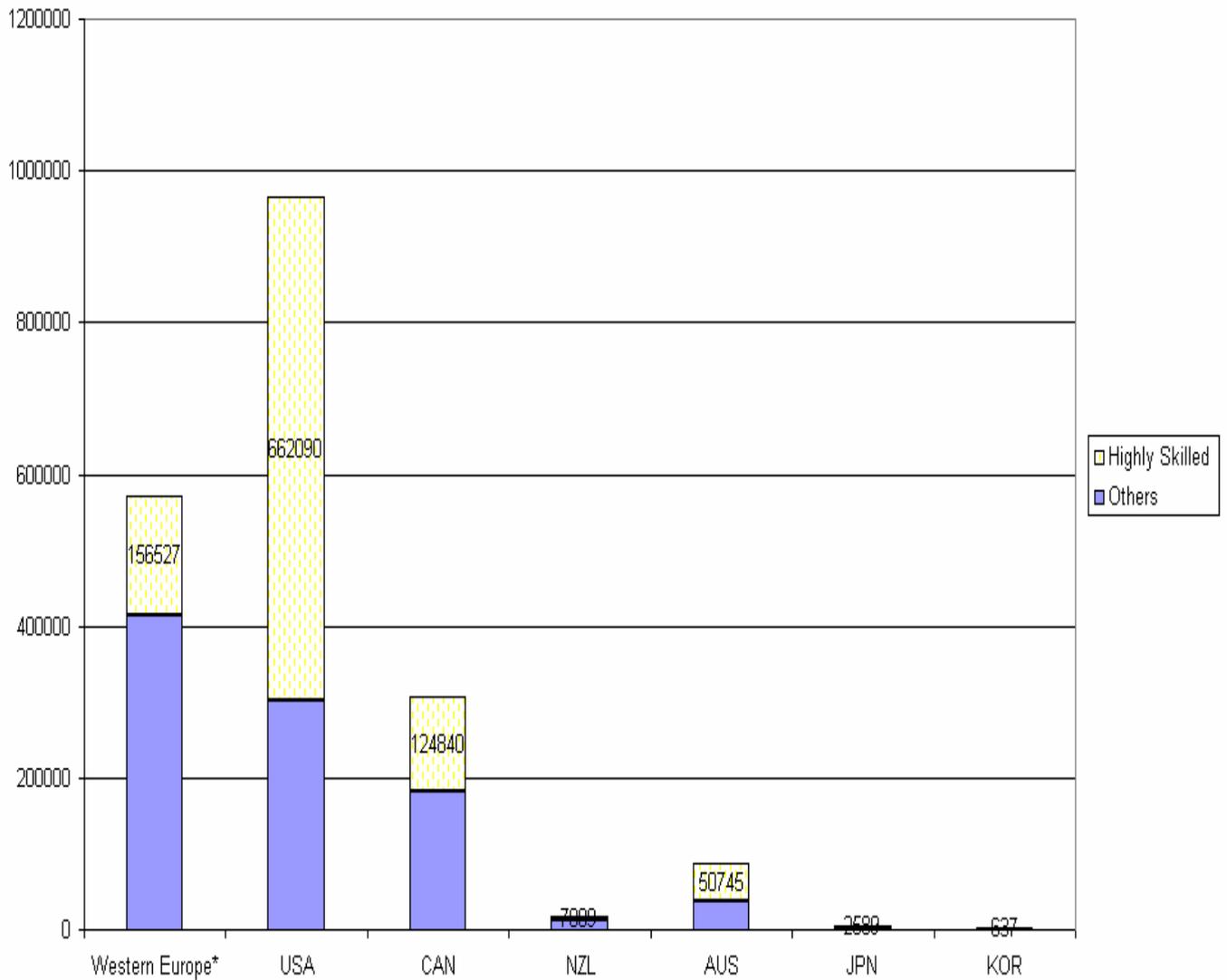
India is the world's largest democracy in terms of the size of its population, which already exceeds one billion and is set to grow further in the coming decade. It became independent of its British colonizer in 1948. A positive legacy of the colonial period is a high degree of English literacy. In terms of GDP per head India is the poorest of the countries under study. This however does not mean that it does not have a large number of (very) rich citizens among its population as well. In its socio-economic planning in the post WWII period it was long influenced by the centrally planned Soviet model. Most research takes place in national high tech research institutes. Research in universities is heavily underfunded and stifled by bureaucracy. In the past decade economic growth has increased considerably and among others the Indian software has become increasingly competitive.

In the course of the past century and especially in the last 2-3 decades large numbers of Indians have gone to work and live abroad. This includes among others a vast number of lowly skilled workers who work on a temporary basis in among others construction and the service sector in the Gulf States. Most highly skilled migrants have gone to OECD countries in Western Europe and North America. As shown in figure 1, by far the largest share has settled in North America. This figure also shows that the number of Indian born individuals in the USA exceeds the combined number of those with a medium or low educational background. A high number of Indian born individuals are also based in Western Europe.⁴ Not shown in this figure is that over 85% of these individuals are based in Great Britain. In comparison to the Indian born population in North America the average educational attainment of the population of Indian origin in Western Europe is relatively low.

Changing economic conditions in the US has had considerable effects on the number of Indian highly skilled workers. Following the burst of the dotcom bubble for example a large number of Indian software engineers were either forced to return to India because they could not extend their work visas or chose to return voluntarily because they perceived better opportunities in their home system.

⁴ In this figure as well as the other figures in this section Western Europe includes Switzerland, Norway and the EU-15 member-states except for Germany. The reason for not including Germany is pragmatic - this country does not select census data on the country in which respondents were born and the required data is therefore not available.. The exclusion of this (largest) EU member-state leads to a considerably lower assessment of the number of foreign born individuals in Western Europe shown in the various figures of this section. In the end any demarcation would be arbitrary, the motivation to include

Indian Born Individuals in major OECD countries/regions (2000/2001)



(Source OECD, 2005)

*As in the previous figure the category “Western Europe” includes Switzerland, Norway, and all EU-15 member-states except Germany. All four figures include individuals who have taken up the nationality of their host country.

China

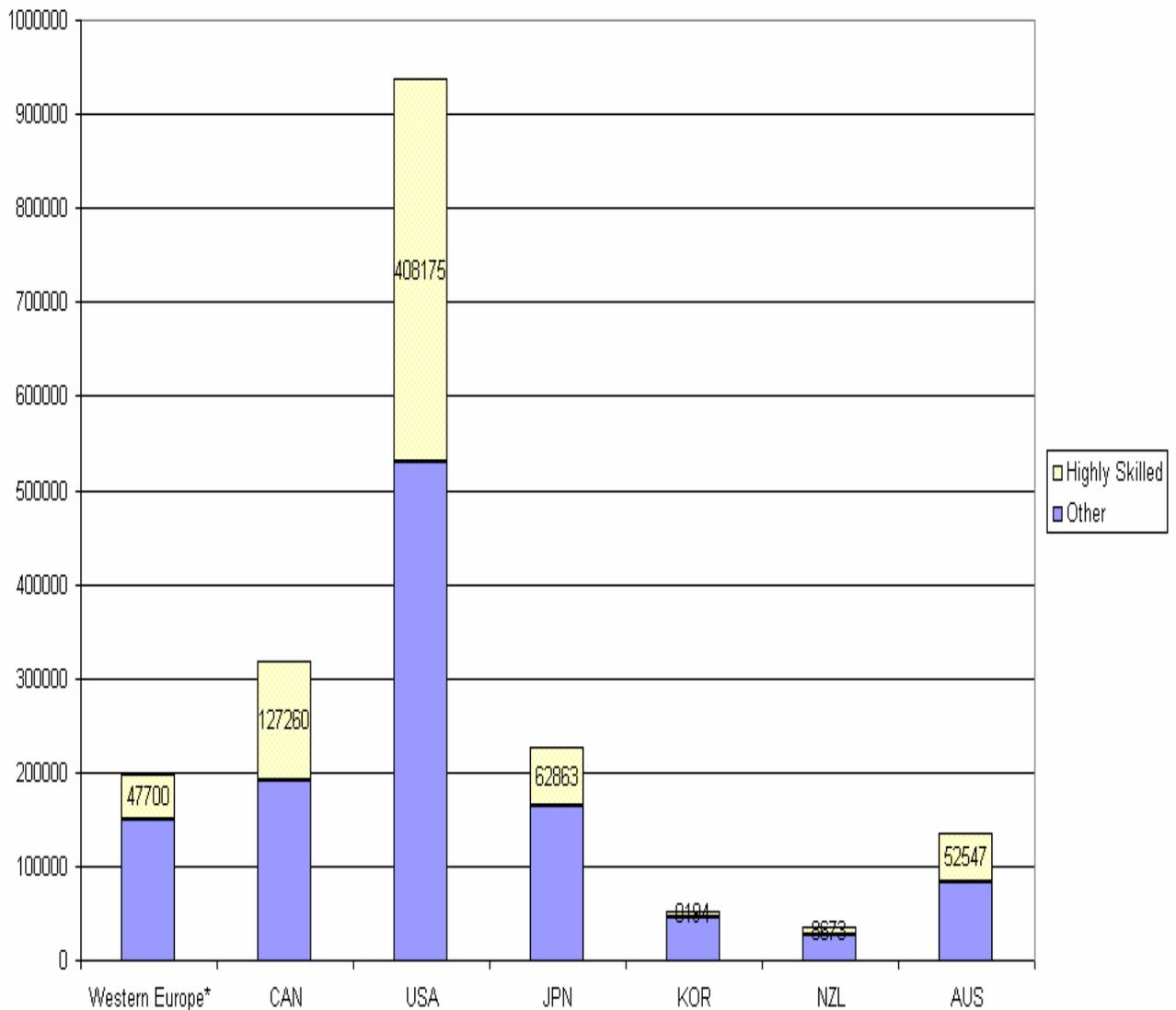
The set up of the Chinese research system in the first half of the 20th century has been strongly influenced (made possible) by scientists who had received training abroad. The outflow of students and scientists was restricted to the USSR in the 1950s, though a considerable number of overseas scientists which had left before or during WWII also returned to mainland China and students and scientists were sent to other communist countries. During the later 60s and early 70s, Chinese students and scientists were hardly ever allowed to interact with foreigners let alone leave China to study or work abroad.

Among the four cases, China appears special as its government has had a preconceived strategy in promoting/allowing its highly skilled nationals to go overseas since 1978. Its plans to modernize its agricultural, industrial, and military system required a large increase in the number and quality of its S&T manpower which its own higher education system was not able to deliver within the desired time frame. The training of its students and scientists in foreign research systems was considered an important strategy to overcome this problem - as it had been previously, in the first half of the 20th century, as well.

Over the years the number of students leaving China increased exponentially from a low starting level in the 1980s to over 120,000 a year in the past decade. Meanwhile the Chinese economy has expanded rapidly over the past two decades. Central to the government's effort to make economic growth sustainable was to invest large amounts of resources in the improvement and expansion of its higher education and research system. Both developments allowed for the increase in the outbound flow of students as the number of families which could afford sending their children abroad increased while the number of university graduates increased four fold between 1998 and 2005 as well.

The return rate of Chinese scientists who went abroad with support of the Chinese government and/or their research organisations is high - especially in comparison to the low return rate of self-sponsored students. In the first decade their return was enforced, e.g. by not allowing spouse and children to leave at the same time but these restrictions were abandoned in the course of time. Still, even if some participants in these programs may have stayed longer than initially planned, the eventual return rate was between 60 and 90 percent. This is not the case for self-sponsored students for whom the return rate was far lower (<10% according to some data around 30% according to other). These self-sponsored students were attracted by the opportunities offered by North American and Western European research centres and supported themselves either through grants of the host country, through the support of their families, and/or by part time work or borrowing. Greater career and earning opportunities are often a strong motivation for this group to remain in the host country for a longer period of time – partially to off-set the investments made. Other factors, such as better career opportunities, the gradual integration in the host system or family circumstances may also influence decisions to stay abroad. Since the size of this latter group increased very rapidly over time – around 90% of overseas students belong to this group nowadays – governmental and intermediary agencies have put considerable effort in promoting the return of these individuals, since the early 1990s. The general approach taken will be discussed, as for the other cases, in the next section.

Chinese Born Individuals in OECD host countries/regions



(Source OECD, 2005)

*As in the previous figure the category “Western Europe” includes Switzerland, Norway, and all EU-15 member-states except Germany

The absolute number of Chinese born individuals in the US and Canada is similar to that of Indians. Especially in the US the average educational attainment of the Chinese born population is lower than the average for Indians, though the population of highly skilled Chinese born individuals is still very considerable in absolute terms. Japan and Australia also host relatively large numbers of overseas Chinese born individuals. The number of overseas Chinese (both highly skilled and medium or unskilled) individuals in Western Europe⁵ is considerably lower than was the case for Indians. This difference can be attributed to a considerable extent to the high number of Indians in Great Britain.

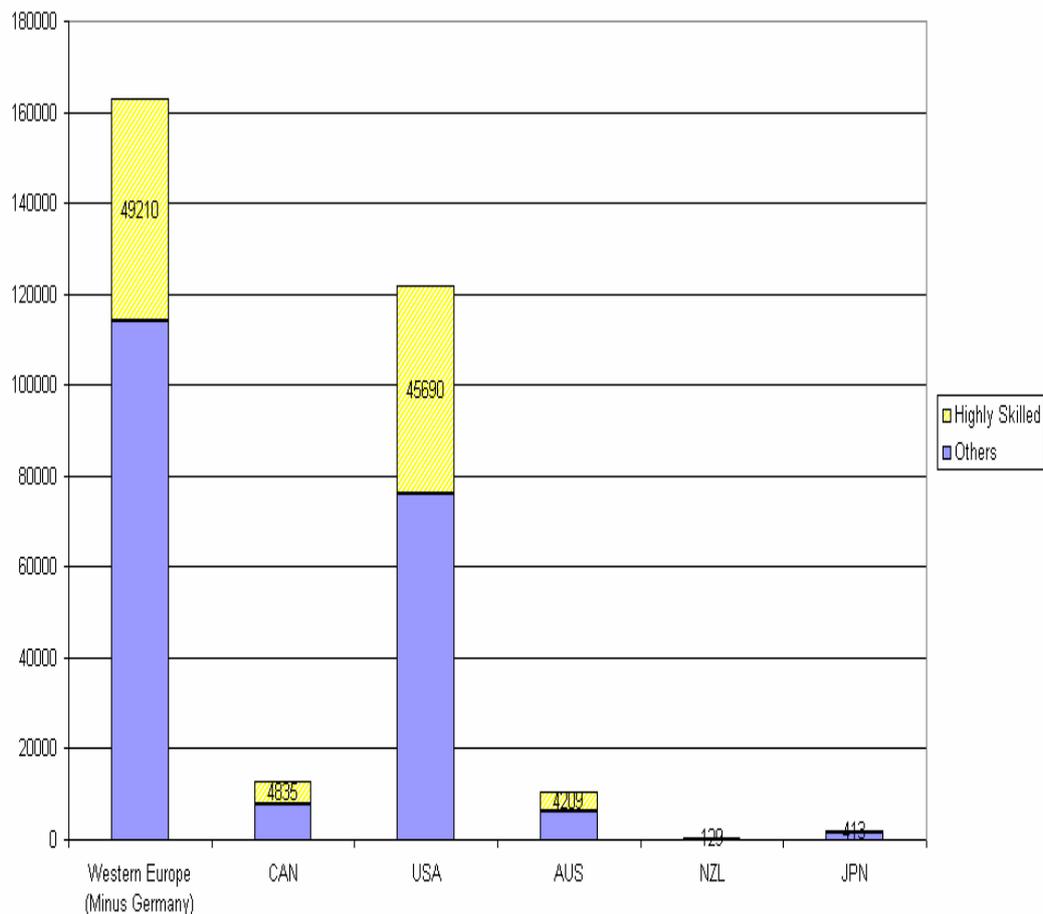
⁵ Western Europe refers here and in other parts of the text to the EU-15 member-states. Germany is excluded because of the structure of its national census data but Switzerland and Norway are included.

Argentina

Argentina's economy and research system experienced a period of blossoming during the 1950s and 1960s. The dictatorship, including its persecution of many intellectuals led to a strong decline and the first wave of scientists leaving Argentina. The outflow of highly skilled professionals continued during the past two decades, for socio-economic reasons and in the case of students and scientists because of better career opportunities abroad.

The economic crisis of 2001 exacerbated the situation further even if the economy and the research system are slowly rebounding in recent years. As shown in figure 3, the largest number of Argentinian born individuals based abroad (both highly skilled and in total) can be found in Western Europe rather than the US as is the case for the other three countries. Over 80 % of these individuals living in Europe are based in Spain and Italy (This share is 76% in the case of highly skilled migrants). While the commonality of language and culture may form part of the explanation for this strong difference between Argentina and the other main sending countries, the main reason is probably that both Italy and Spain which in the past were major source countries for immigrants to Argentina have very relaxed immigration procedures for the descendants of their former nationals.

Argentinian born individuals in major OECD countries/regions 2000/2001

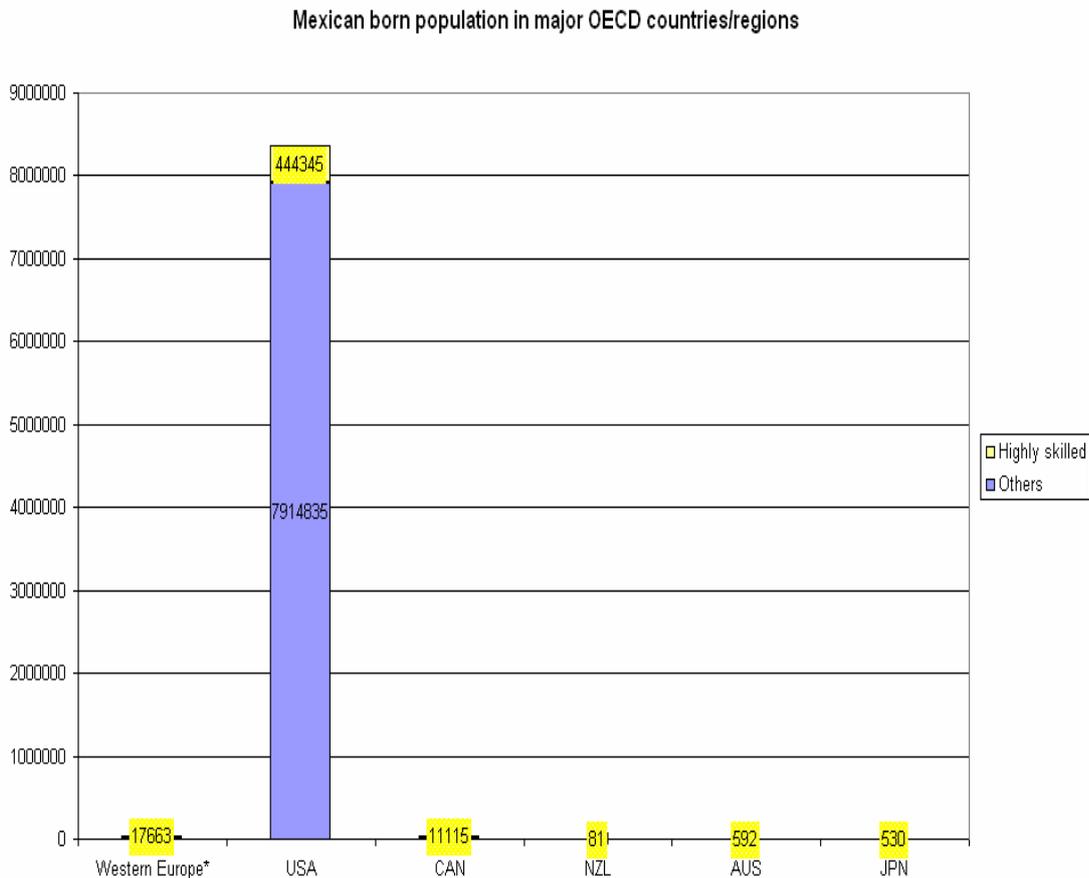


(Source OECD, 2005) *As in the previous figures the Western Europe category includes Switzerland, Norway, and all EU-15 member-states except Germany

Mexico

Of the 32 OECD member countries Mexico has the lowest level of public S&T investment and trains the lowest number of doctorates annually (+/- 1000) (Barba, 2004). In spite of ambitious plans laid out for the period 2001-2006, in 2007 Mexico had the lowest public S&T budget as share of GDP in 20 years at 0.46 % (Macedo, 2007).

A very large number of low skilled Mexicans have crossed the border to work (legally or illegally) in the US. Mexico is also among the largest exporters of skilled migrants worldwide. In 1990, ten percent of Mexico's skilled population and 30 % of its scientific and engineering graduates were living abroad (again primarily in the US). As shown in figure four in 2000/2001 over 400,000 highly skilled workers born in Mexico were based in the USA. In comparison to the US, the size of the Mexican born population in other major host countries is negligible (Lowell & Findlay, 2001, Leighton, 2007).



(Source OECD, 2005) *As in the previous figure the category “Western Europe” includes Switzerland, Norway, and all EU-15 member-states except Germany.

3. Case studies; policies implemented and relative success

India

Of the three types of policy-mechanisms discussed in the first section, the Indian government currently makes most use of migrant network policies. During the 1980s and 1990s, contacts between India and its large migrant communities were organic in nature; Indians living abroad sent home remittances, but received little in terms of governmental support or official recognition of their importance. This situation changed since 2001, after the Indian government commissioned a high level commission on the Indian Diaspora (HLCID, 2001). Following the recommendations of this commission, the Indian

government set up a special ministry for Overseas Indian Affairs in 2004, to coordinate and step up its activities to remain in contact with its (former) overseas nationals. This ministry (and its predecessors) attempt to actively engage members of migrant communities to further enhance the flows of remittances, investments and other valued resources. The ministry brings together information from different official sources relevant to overseas Indians who wish to set up a business or invest otherwise in India. It also provides information on the foreign exchange management act implemented in 2000 which aims in part to facilitate remittances.⁶ The government implemented considerable changes in the tax regulation which made it easier for members of migrant communities to invest in India and/or to spend part of their time as professionals/entrepreneurs in India, some of these measures are discussed in the next section on Special Economic Zones. The Ministry of Overseas Indian Affairs has brought together a great degree of information relevant for members of migrant communities to remit funding, invest, return temporarily, or permanently to India in a large report which it has made available online so that interested parties do not have to collect the relevant information from all the different ministries and agencies involved (MoIA, 2006). This report explains among others the changes in residency status: prolonging the period in which someone can be considered non-resident in India and the rules on whether or not taxes need to be paid in India on income generated abroad as well as on the interest of deposits on his/her foreign accounts. The report also details the specific rules on the taxation of remittances and the 100% tax reduction of exports from Special Economic Zones discussed in the next section. Over the years, India, like the other countries studied in this report, has signed agreements with other countries to avoid double taxation of individuals operating enterprises or moving between India and the other countries involved.

Overseas Indians and the considerable number of returnees from the US following the bursting of the dotcom bubble played a very important role in the emergence of the successful Indian software and IT service clusters. Entrepreneurs from the overseas Indian communities continue to return to India to set up enterprises as they consider the system to offer interesting commercial opportunities (apart from a high quality of life, family ties, etc). These software companies, R&D outsourcing firms, call centers etc, are often located in high tech parks in which the state or the region provides favorable conditions; the software industry having been a priority area for industrial development for a considerable period of time. Eyeing the success of China's Special Economic Zones⁷, India set up a policy in 2000 which allowed for the establishment of "Special Economic Zones". These SEZs aim to provide an internationally competitive environment with reduced administrative and tax burdens for export oriented companies. Benefits for companies include among others up to 100 % exemption of income tax for a period of five years, fuel subsidies, exemption from some industrial licensing requirements, facilities to retain foreign exchange receipts and, apart from some sectors 100 % foreign direct investment (FDI) is allowed and facilitated through a special mechanism. Though not exclusively targeting this group, the SEZ have been set up in part to offer favorable investment opportunities for overseas Indians who wish to set up a business in India.⁸ In 2005, there were (8) SEZs in eight regions containing over 800 organizations (MOIA, 2006).

⁶ In 2000, the Indian government changed the Foreign Exchange Regulation Act, the aim of which was to control the flows of scarce foreign currency. The new, Foreign Exchange Management Act is far less stringent and is part of civil rather than criminal law. It concerns among others the set up of businesses in India as well as the set up of enterprises by Indian residents abroad. The change from FERA to FEMA also has an effect on students going overseas who are under the new provision no longer considered resident in India and are allowed to receive a sum of 1 million USD from relatives in India and withdraw up to 1 million from their Indian bank account of from the proceeds of sales. The new act aims to solve some of the problems involved for individuals with a legal status in both India and a host country (MOIA, 2006).

⁷ In the process of China's transition to a market economy it first experimented in Special Economic Zones. Export oriented companies were given permission to operate there under favourable conditions. India and Mexico's have both established Export Processing Zones which share of the features of the SEZs, though in India's case the new SEZ provide companies with an even more favourable environment.

⁸ Also relevant in this context is Special Economic Zones Act implemented in 2005.

India's constitution does not allow for dual citizenship. The law makes a distinction between Indian residents, Non Resident Indians (NRI) (with Indian citizenship) and Persons of Indian Origin (without citizenship). NRIs who engage in business activities and spend only part of the year in India are offered a range of tax incentives. Following the recommendations of the high level Commission on Indian Diaspora the government decided to offer the possibility of Overseas Citizenship of India (OCI). Individuals of Indian origin who migrated from India and acquired the nationality of the host country⁹ may apply for this OCI. In effect OCI status comes close to dual citizenship except for the right to vote and eligibility for certain constitutional posts (president, high council judge, etc). OCI holders are entitled to multi-entry, multi-purpose, life long visas to India, exemption from reporting to police stations while in India and the same rights as non resident Indians in financial (such as acquisition, holding and transfer of immovable properties in India), educational (entrance of OCI children in Indian schools/universities) and economic sectors except the acquisition of agricultural/plantation properties. OCIs can apply for citizenship after five years if they have spent at least one year in India (MOIA, 2006).

In addition to the central government, several regions, such as Kerala, have set up their own policies and administrative agencies to promote economic and cultural ties with the members of migrants from their specific region – these network policies aim at least in part to promote and facilitate remittances, investments, and other valued resources.

In contrast to China which is discussed in the next section, the Indian government has not been very active in the implementation of programs to actively promote the return of scientists to its public sector research institutes and universities. In 1984, the then Congress government set up an incentive scheme which aimed to introduce foreign based Indian scientists in research universities. In doing so it aimed both to reduce the brain drain and boost research in universities which at that time was concentrated in public sector research institutes. Not offering tenured positions the program did promise to supplement the pay to that of full faculty members. The next (BJP) government, however, did not continue recruitment in the scheme after 1992 in part because it did not share the previous Congress government's commitment to the development of research universities. In 1999, the University Grant Commission which executed the scheme dismissed several scientists leaving them in a dire position; without supplemented income and the promised career prospects. Even in the face of lawsuits, the program was not continued until 2004 when the Ministry of Human Resource Development ordered the University Grants Commission (UGC) to reactivate this Research Scientists Scheme (Jayaraman, 2004).

In 2005, the Indian Ministry of Science and Technology (DST) set up a program called the Ramanujan Fellowship to attract high caliber scientists and engineers of Indian origin to take up research positions in India. The fellowship opportunities are advertised by Indian universities and research institutes who commit themselves to providing adequate R&D facilities, infrastructure, and administrative support – potential applicants can also solicit research organizations of their choice to submit their application. The research organizations are thus involved in the first phase of the selection process which is then completed by a special committee of the DST. Fellows receive a grant of 50,000 Rs per month for a period of five years (without conversion for differences in living costs this amounts to around 800 euro using April 2008 exchange rates, as will be done from here on). In addition fellows can receive 500,000 Rs annually for contingency costs, travel expenditures, conference visits, etc. Fellows have to give up existing fellowships/positions but can apply for extramural research funding from Indian funding agencies. The prerequisite to forego on other (foreign) employment ensures that the fellows actually work in India. The Ministry of Biotechnology (DoB)¹⁰ has set up a parallel

⁹ This excludes citizens of Pakistan and Bangladesh. As these neighboring countries were once part of India, including these groups in the arrangement would lead to problems as too large groups could benefit.

¹⁰ India is (probably) unique in the world in having a ministry level organization devoted to the development of biotechnology alongside its Ministry of Science and Technology (DST).

scheme: the Ramalingaswamy Fellowship (DST, 2005). So far, the number of participants in these schemes has been very limited; around nine participants in the more inclusive Ramanujan Fellowship program. In addition to the fellowship, the DST has set up a program through which it supports collaborative research projects with Scientists and Technologists of Indian Origin Abroad program CP-STIO. So far it has funded around 30 projects through this program. Other governmental departments such as the Department of Atomic Energy, through its Krishnan fellowships and the Defence Research and Development Organization (DRDO), through its Talent Search Scheme for Non-Resident Indians offer career opportunities in their research centres to people of Indian origin based abroad. Also in these cases, participation has so far been modest: in the case of the DRDO scheme around 30 scientists have been recruited (DST, 2007).

The DST has set up a website for S&T Professionals of Indian Diaspora, which aims to offer a platform to facilitate networking, offering information and projects and promote interaction between the Indian S&T system and the members of S&T migrant communities abroad. Its aim is to involve the many members of overseas Indian S&T communities in harnessing human capital development in India, enhancing Indian high tech entrepreneurship, promoting Indian participation in mega-science projects, and promoting India as the location for R&D outsourcing (MOIA, 2006).

China ¹¹

The Chinese government has addressed the issue of how to deal with ethnic Chinese living abroad ever since the establishment of the PRC. Of greatest interest for this project, however, are the so-called new migrants which have left China since 1980. Members of this group are frequently highly skilled and/or entrepreneurs. Their return or continued engagement with mainland China was considered to have the potential to yield considerable benefits. As discussed in the previous section the Chinese government expected to be able to use overseas study as part of a development strategy since 1978. Faced with return rates which were far lower than expected, the government began to reach out to highly skilled overseas Chinese and implemented several programs which aimed to promote return. Already in 1983, guidelines were set up to provide beneficial treatment in terms of housing for returned overseas Chinese and in the education and employment of their children. This type of support, often provided through the work unit (danwei) system, has changed in nature over time in the face of changes in China's socio-economic conditions.

The national governmental agencies and regional governments actively aim to attract returnees to set up (high tech) enterprises in mainland China. Attempts to facilitate and promote permanent and temporary return of (high skilled) overseas Chinese include the provision of a conducive regulatory environment. In 1990, the state council (China's highest executive government body) issued rules to promote investments of overseas Chinese in mainland China. In the same year a law was issued which was to ensure the protection of the rights and interests of returned overseas Chinese and their families. Measures related to such a law were implemented in 1993. An example relevant for high tech returnees was the protection of their intellectual property rights.¹²

In its transition to a market economy China first experimented in specific geographic areas (such as Shenzeng) in which entrepreneurs were given greater freedom to run (export oriented) private companies. These zones became highly successful and they, as well as other parts of China in which private entrepreneurship was gradually allowed became magnets for FDI and entrepreneurs from - among others - members of Chinese migrant communities abroad.¹³ Chinese governmental agencies

¹¹ For a more detailed discussion of the various programs introduced in this section see: Cao, 2003a, MoE, 2006, Jonkers, 2008).

¹² This also required improvements in China's laws on IPR protection and their implementation, which were implemented during the 1990s and early years of this century.

¹³ See among others Huang (2001) who argues that investors from Chinese migrant communities have been very important in the first decade(s) of China's market reform. These investors and entrepreneurs possessed the cultural know how required

aim to foster the development of a high tech sector through the set up of (a large number of) special high tech zones or high tech parks. Some of these special zones are designated for returnees. These special zones should not be considered to be fully comparable to the incubators or high tech parks that one may be familiar with from Israel and Western European countries. They may, for example, still lack the degree of designated legal, commercial, (venture capital) and other business support for the commercialization of new technologies offered in these Western models. What they do offer can include cheap office space, tax exemption, interest free loans, and a range of other facilities (Cao, 2004, Wang, 2005). The presence of a concentration of other returnees can also allow for externalities such as international schools. Other support offered to returnees can include schooling for their children, a waiver of potential problems/fines ensuing from the one child policy, assistance with finding work for their spouses, assistance and support with finding suitable housing, tax exemption on the import of a foreign car etc. Since the late 1980s over 110 S&T parks for returnees have been established, which are the location for over 6000 enterprises and employ over 15,000 *returnees* (Liu, 2002, Anonymous, 2006c, in Jonkers, 2008). The businesses established in these high tech parks for return migrants (or high tech parks in general) would not all be considered as high tech enterprises in other systems. Chinese regions¹⁴ are in active competition with each other over the attraction of highly skilled entrepreneurs and thus attempt to outdo each other in offering attractive conditions to returnees. By far the most popular destinations are Shanghai and Beijing, being the main commercial and high tech centers. The large concentration of returnees further increases the attractiveness of these cities because of the externalities this gives rise to.

Public sector scientists

Apart from attracting business (high tech) entrepreneurs, the Chinese government has been very active in attempting to lure back Chinese scientists based abroad. To do so several governmental agencies implemented specific programs which aim to foster return. The first example is the Two Bases program set up by the Chinese research council (the NSFC) in the early 1990s. This program allowed foreign based researchers to spend part of their year in a Chinese lab. The Spring-bud program set up by the Ministry of Education in 1996, promotes temporary return for teaching or research for large numbers of foreign based Chinese scientists - over 8000 people have been sponsored through this program. Apart from their direct positive impact on the development of the Chinese research system in terms of among others knowledge transfer, both programs also aimed to foster the sustenance of ties with the mainland which would eventually facilitate return (Cao, 2003, Jonkers, 2008).

The other type of programs fosters the sustained improvement of the scientific manpower situation in China directly. While they may not be exclusively targeting returnees, most of the awardees are overseas scientists. The MoE set up the Cross Century Talent program in 1990. In 1996, this MoE program was complemented by the Yangtze River professorship program, sponsored by a Hong Kong based philanthropist, which provides a top up to the salary of talented university professors. Meanwhile, in 1994, the Chinese Academy of Sciences had launched its own manpower development scheme titled the “one hundred talent program”. Scientists selected in this program receive generous funding for a period of three years (currently +/- 2-3 million RMB)¹⁵ to set up and furnish their lab and establish a research group. In the same year, the NSFC set up the “excellent young scholar award” which gives young researchers in universities and CAS institutes the resources to develop their own research lines and establish a research group. The budget of both programs was increased considerably

(Contd.) _____

to do business in a situation in which the insufficient establishment of the rule of law and other forms of in-transparencies tended to scare of more risk averse large foreign investors.

¹⁴ In contrast to what is often thought Chinese regions actually have considerably (spending) power and an increasing share of public R&D investment comes out of the coffers from regional agencies. These investments tends to be made on applied research, development and support for innovation rather than on more basic scientific research.

¹⁵ For a long period of time the Chinese RMB was fixed to the dollar, so this amount would correspond to between 240 and 370 thousand USD. At present currency exchange rates it corresponds to between 180 and 275 thousand Euro and 290 to 400 thousand USD.

several years later in apparent recognition of their success. Over the years, over a thousand young Chinese (associate) professors were beneficiaries of each program – most of whom had returned from abroad. Another (broader) manpower development program is the New Century Talent project which aims to train several hundreds of world-class scientists, engineers, several thousands of leading experts in various disciplines in China, and tens of thousands of backbone experts and scholars before 2010 (CAS 2004a).¹⁶ The scientists in this project are selected in priority disciplines and on the basis of the need for scientists in sub-organisations which have been set up in priority areas in universities and research institutes. Participants are to have some priority in receiving funding from China's scientific and research foundations. The Ministry of Personnel has the lead in this program, but other agencies such as the NSFC, the Ministry of Science and Technology, the Ministry of Education, the Ministry of Finance, the State Development and Reform Commission, the National Natural Science Foundation of China, and the China Association for Science and Technology are also involved (CAS, 2004a). In 2005, the NSFC set up a funding program which directly targets ethnic Chinese scientists with foreign citizenship. The program funds research projects of up to 120,000 USD for a period of up to five years (Jia, 2005).

The various programs implemented by the Chinese government to attract overseas Chinese scientists to return and work in China have succeeded in recruiting large numbers of returnees, though many of them did not give up particularly successful careers in their host country. Few scientists would, for example, be willing to give up a full professorship positions in elite US universities to return to China. One strategy, to attract also these leading scientists, allows for senior overseas Chinese scientists to have a second lab in China were they spent part of their time. In a similar vain there are several examples of leading US based Chinese scientists who are the directors of complete research institutes while retaining their position abroad and spending part of their time in both countries.

The retention of foreign positions by some of the participants in the programs aimed at the promotion of permanent return is one of the points of criticism mustered against these programs. Some overseas Chinese scientists are said to exploit these opportunities while contributing little to the development of the Chinese research system and spending most of their time abroad. While these may be incidents it adds to (some) existing disgruntlement over the positive discrimination of returnees among those who remained in China throughout their career in addition to potentially not leading to the expected positive outcome of the promotion of return. Hence the implementation in recent years of stricter rules in, for example, the CAS one hundred talent program which aim to address the problem of abuse.¹⁷

Migrant network policies

For most of the 20th century the formation of migrant network policies appears to have been an organic process of ethnic Chinese individuals grouping together and/or providing each other with information, aid, services, and advice. Since the turn of the century Chinese governmental agencies have realized the potential such networks could bring. In 2002, the bureau of overseas Chinese affairs set up a program which aimed to foster the interaction between the older communities of ethnic Chinese and the new immigrants who arrived in the host countries in the past two decades. In addition the program aimed to promote the ties between Chinese communities in various countries/regions around the world (Xiang Biao, 2003).

¹⁶ In 1995, the Ministry of Personnel established the “one hundred, one thousand and ten thousand programs” to foster talents in academia and high tech enterprises. This project appears to have been followed up by the “New Century Talents Project” which mainly focuses on the recruitment for public sector organisations. Again, recruits in either of the program do not require to have had foreign training, but the programs aim at least in part to offer attractive opportunities for returnees.

¹⁷ Among others by making research institutes responsible/accountable for the actual return of the recruits in this program.

In several European and North American countries, associations of ethnically Chinese professionals have formed over the past decades. An example of such a network of Chinese scientists in the US is the Chinese American Biochemical Association. In the past few years, associations of Chinese scientists have formed in several Western European countries (e.g. the UK and the Netherlands) as well as in specific US states or in universities. The bureau of overseas Chinese affairs as well as (S&T or) educational sections in embassies and consulates promote the websites of such associations and events such as business, science and technology fairs for overseas Chinese in the host country or in mainland China. In doing so, they aim to foster the connection between the members of (highly skilled) migrant communities and mainland China (Xiang Biao, 2003, Cao, 2004). (Senior) Chinese politicians actively engage with the leaders of networks of students, scientists, and entrepreneurs and these meetings are given considerable press coverage in China (see e.g.:Xinhua, 2005)

Apart from migrant networks in receiving countries it is also interesting to note the networks of returnees in China. The Western Returned Scholars Association (WRSA) is the oldest (it was established in 1903), largest and probably the most influential of these. It has chapters of returnees from different regions/countries and among others lobbies the Chinese government for issues that concern returned scientists. Its president is vice-chairman of the standing committee of the National People's Congress. It has its own "chamber of commerce" and engages in many other activities. In 2003, it was renamed into the Chinese Overseas-Educated Scholars' Association. In addition to the WRSA/COESA, other networks have formed. Some of these associations span national borders with a membership which consists of overseas scientists and returnees from a host country in mainland China. Other examples include alumni networks such as that formed by the former recipients of scholarships from the Alexander von Humboldt association or scientists who have all worked or studied in the same organization and reunite occasionally upon return to China. These types of alumni networks are often supported through their former (foreign) employer but at a smaller scale – alumni of single research organizations - they also develop organically. In cities with large communities of returnees local networks have formed such as the Shanghai Returnee Business Club which is part of the Shanghai Overseas Returned Scholars Association.

Coordination between administrative agencies

As will be clear from the previous sections a plethora of national and regional agencies and ministries is involved in fostering connections with and promoting the return of highly skilled Chinese living abroad. While this indicates that the commitment to facilitate return is shared across the board of government it may also raise concerns over bureaucratic infighting and a lack of coordination between these different organisations. Some of the initiatives mentioned in the previous sections involve several organisations. For example the New Century Talent Project involves apart from the Ministry of Personnel which has the lead, the Ministry of Science and Technology, Ministry of Education, Ministry of Finance, State Development and Reform Commission, National Natural Science Foundation of China, and China Association for Science and Technology. A realisation of the need to coordinate between ministries and agencies was also apparent in a joint guideline published in 2001, by the various ministries involved in attracting returnees and the Ministry of Public Security – whose bureau of entry and exit management is an important actor in the granting of visa, emigration, immigration, and re- migration issues (Anonymous, 2001).

Citizenship and Residency

A large number of enterprises set up by foreign based ethnic Chinese in China were established by people who travel back and forth between their home and host country. Many of these "circulating migrants" have foreign citizenship - as the Chinese law formally does not allow for dual citizenship, even if occasionally a blind eye is turned (Xiang Biao, 2003, Omelaniuk, 2005). To facilitate the mobility of these people, the government set up multi-entry visa schemes. An interesting recent initiative in this respect is the green card system introduced by the Municipal government of Shanghai.

According to a newspaper report (highly skilled) foreigners can apply for the cards to enjoy the same privileges as locals when they work and live in Shanghai and they do not need to change their residency or nationality. Though this scheme is said to be open to all foreigners and residents from Hong Kong, it is mainly (>90%) former overseas Chinese students who acquired foreign nationality who make use of it (China-Daily, 2002). This brings one to another feature of the Chinese system in which it differs from the other national cases. Inter-regional mobility within China was for a long time under strict control. Nowadays vast numbers of illegal workers move to the cities on the east coast in search for work, but these often do not have access to a range of public services (such as easy access to schooling for their children). Legal relocation to a city like Beijing or Shanghai can be a very time-consuming and costly process. Lifting these barriers for highly skilled returnees who can return to their region of choice is another incentive offered.

Argentina

Argentina has the largest communities of highly skilled emigrants of all Latin American countries with among others over 7000 scientists working abroad. Since the economic crisis of 2001, the number of students and highly skilled Argentines abroad has increased even further. In the past few years the government has began increasing its S&T budget and has improved the infrastructure, number of positions, and employment conditions in its main research institutes in an attempt to stop the brain drain, attract returnees and recover its science base (Román, 2004). These improvements included the creation of new positions (De Ambrosio, 2004), a pay rise of over 20% (Leighton, 2005), the removal of administrative obstacles (De Ambrosio, 2004), and the purchase of new research equipment (Román, 2004). In themselves these measures and the opportunities they create provided a motivation for Argentinean scientists to return. Between 2003 and 2005, over 300 overseas scientists returned to work to Argentina, most of whom to working in these government research institutes.

The Argentinean ministry of Science and Technology set up the network of Argentine researchers and scientists abroad (RAICES).¹⁸ This program's initial task was to set up a database of Argentinean researchers who lived abroad and their activities. Since 2003, it also manages a repatriation fund through which it can pay for return tickets for returnees. The RAICES offers information about opportunities in the Argentinean system. It offers services such as the translation and accreditation of qualifications and two other subprograms to facilitate return. One of these support short term returns to Argentina. In comparison to the various Chinese programs, the scope of the main RAICES program and the facilities it offers to returnees is limited: the annual budget of the repatriation fund totals around 300,000 USD (Recursos Humanos, 2007, Programas Raices, 2007).¹⁹ The "Argentinean Student and Graduates in the United States Center", a website with chapters in Miami, Dallas, and New York, has started the Argentinean Diaspora Project with a similar purpose of promoting the return of students and scholars (Sametband, 2005, CEGA, 2003-2006). Apart from public sector organisations at least one multinational company (IBM) has set up a program to promote the return of qualified Argentines abroad (Recursos Humanos, 2007).

Citizenship and Residency

In contrast to China and India, the nationality issue does not play a role for members of the Argentinean migrant communities since Argentinean nationals are not allowed to give up their nationality even when applying for foreign citizenship and as a consequence virtually all Argentinean migrants have either only Argentinean or dual citizenship. Argentina is also an interesting case

¹⁸ As an acronym RAICES stands for Red de Argentinos Investigadores Científicos en el Exterior. As a word raices means "roots" in Spanish.

¹⁹ In order to give the reader some insight in the differences in the intensity with which China and Argentina invest in programs to promote the return of overseas scientists it may be useful to point out that the total annual budget of this program is similar to the sum which a single participant in the one hundred talent program of the Chinese Academy of Sciences receives for a period of three years.

because like Australia and New Zealand it was one of the classical immigration countries to which large numbers of Europeans migrated in the course of the 19th and 20th century. In recent decades it faced large scale emigration of highly skilled individuals as was discussed in section 2. Apart from attempts to foster ties with Argentinean migrants there also appears to be ample scope for fostering ties between its own population -who are migrants themselves or the descendants of migrants- and their former home countries. In the past (among others in the late 19th century), the Argentine government has made use of existing ethnic/family ties to promote chain migration of Basque, Spanish, Italian migrants by sending recruiters to advertise investment and commercial opportunities. Strong commercial, political, cultural, and scientific ties exist already with Spain (as is the case for most Latin American countries) and to a lesser extent Italy. The high intensity of these ties may be partially due to a shared language and culture, but their original formation is expected to be strongly related as well to the personal and family ties between migrants and their former home countries. Whether or not these ties developed organically or were promoted/supported by respective governments they may offer policy lessons to Argentinean (and foreign) policy makers in how to make the best of ties with their own migrant communities.

Mexico

Of all four countries Mexico's geographic proximity to the world's largest receiving system, the US, makes it a special case in itself. Mexico appears to have started earlier than Argentina in the set up of initiatives to remain in contact with its migrants. In 1990 the Mexican ministry of foreign affairs established the Institute for Mexicans Abroad (IME) to provide support and information for Mexican migrants and to strengthen ties with its migrant communities – its main areas of activity are health, sport, education, culture, and societal organisations. Since 2006, this organisation is also responsible for setting up a network of overseas Mexican scientists (Barba, 2006).

The Mexican government has set up a number of programmes that capitalize on remittances including federal, state, and local “matching fund programmes” for development projects. The Mexican government also has a program which forgives student loans for Mexicans who return to work in Mexico after studying abroad (Verhaal, 2001 in Lowell & Findlay, 2001). As discussed in section 2, Mexico's public expenditure on S&T as a share of GDP is low in comparison to most OECD countries, India, and China. Plans made to increase this expenditure and upgrade the research infrastructure in the past ten years do not appear to have led to major improvements in this situation.²⁰ Faced with an exodus of scientists, a population of scientists which is both ageing and whose average education level is relatively low, the Mexican government realises the need to increase the number of young doctorates. In 2006, the government was set to spend around 2.5 million USD in a program aimed at the “retention and repatriation of Mexican scientists. Its aim for that year was to attract 250 young scientists in this program. The CONACYT, Mexico's S&T funding agency, guarantees researchers selected in this program an annual income of 200,000 pesos ((+/- 12,000 €) or 150,000 pesos (9000 €) for those without a doctorate) (Universal, 2006). In 2007, the Autonomous University of Mexico (UNAM), managed to attract more than 12 researchers back to Mexico in collaboration with the CONACYT (Leighton, 2007).

It is as yet unclear whether Mexico has set up programs to promote the return/circulation of immigrant entrepreneurs and if so which. Mexico has been among the most active countries in setting up Export Processing Zones (Maquiladoras).²¹ EPZs defined by the ILO as "industrial zones with special incentives to attract foreign investment in which imported materials undergo some degree of

²⁰ In 2007, the (share of) public expenditure on S&T was said to be the lowest in 20 years (Macedo, 2007)

²¹ China has also established a large number of Export Processing Zones (according to the ILO: 124 in 1998). While these Chinese and Mexican zones may be important in attracting FDI, including that of entrepreneurs from the migrant communities, their mission is not focused specifically on the attraction of highly skilled returnees. A similar caveat may be required for the Indian SEZs which also do not exclusively target entrepreneurs from the migrant community.

processing before being exported again” (1998).²² In contrast to India’s Special Economic Zones (only partially) and China’s High tech parks for returnees, these EPZs are not thought to specifically target overseas Mexicans considering to return and set up a business in their homeland even if they may do so and benefit from the facilities offered. What is more the type of companies in EPZ would normally not be classified as high tech and mainly employ low skilled domestic workers.

Comparison across cases

Table 2 schematic summary of return programs

		Argentina	China	India	Mexico
Remittances in 2006 (IFAD, 2007)	% of GDP	0.8%	0.8 %	2.7%	2.9%
Temp return programs (public sector research)	Start year	2003	1996	?	?
	Nº until 2005 ²³	?	> 8100	?	?
	Nº planned	?	?	?	?
Permanent return programs (public sector research)	Start year	2003	1995	2003-2005	2006
	Nº until 2005	300 ²⁴	2,500 (up to 20,000) ²⁵	+/-50	-
	Nº planned	?	Tens of thousands	?	250 (in 2006)
Special Economic Zones (SEZ) and High tech parks designated for returnees	Start year	-	Late 1980s	2000	-
	Nº until 2005	-	>100 S&T parks for returnees, 6,000 new enterprises, employing > 15,000 returnees	800 enterprises in 8 SEZ in 2005, employing unknown number of returnees. ²⁶	-
	Nº planned	-	> tens of thousands	Plans to establish 300 ‘SEZs’ have been downsized	-

(Sources Cao, 2004, MoE, 2006, and others in Jonkers, 2008, IFAD, 2007, Universal, 2006, Recursos Humanos, 2008, Programas Raices, 2007, MOIA, 2006, Thakurta, 2007)

²² Import/export tariffs no longer play an important role following the signing of the NAFTA agreement but the firms located in these Export Processing Zones may benefit from other forms of tax exemption and alleviation of administrative burdens.

²³ Nº in table 2 refers to the number of participants which have taken part in the program in the period up until 2005, and the numbers targetted in programs started after this year.

²⁴ The approximately 300 scientists who returned to work in Argentinean public sector research organisations are thought to have returned primarily because of the opportunities offered by the investments made in research infrastructure, salaries etc in general between 2003 and 2005. Since the pecuniary support offered through the main return program is limited to travel costs it will not have been a strong incentive to make this decision.

²⁵ Since 1990 China’s ministry of education has had designated funds for returnees to do research, and is said to have funded over 11,000 such projects. Another project from the Ministry of Personnel aimed to attract around 10,000 returnees but it is unclear whether they are working in public sector research organisations or in enterprises. For this reason the estimate of 2500 is limited to participants engaged in the main CAS program for the recruitment of returnees, an NSFC program which targets primarily returnees and the Yangtze river program from the MoE and a philanthropist (Cao, 2003, MoE, 2006 in Jonkers, 2008).

²⁶ This data is restricted to the SEZ which on the basis of the MOIA report appear to target especially returnees – other reports indicate that the SEZ may not be exclusively targetted at investors from the migrant community and plans to set up 300 such zones have met resistance from farmers as well as factions within the government (MoIA, 2006, Thakurta, 2007). Many more enterprises set up by returnees may be found in other high tech parks or outside such special zones. These are not included in the figures presented in the table or the body of the text. The same holds for China, as well as Mexico and Argentina.

In interpreting table 2, which gives a schematic representation of the effect of the various programs to promote return, the reader should consider several (serious) caveats. First, the author of this report is more familiar with the situation in China than with the situation in the other countries. As a result existing programs in the other three national cases may have been overlooked and the number of participants in the programs may have been underestimated. Nonetheless, he considers the general picture emerging from the rough estimates presented in this table to approach reality.

Secondly, the four cases are not equal in the size of their population, their economy or the size of their migrant communities. If one would consider, for example, the size of monetary remittances in absolute terms China which receives 21 billion USD annually in the form of remittances is less different from India and Mexico which both receive close to 24 billion USD from this source than is suggested in the table. Likewise in interpreting the (potential impact on the research system of the) return of 300 scientists to Argentina in a two year time span in relation to the number of returnees to China and India one should not forget that the size of Argentina's population and GDP is lower than that of the other two cases.

Thirdly, measuring success in terms of the number of returnees does not say much about the type of returnees (it may be true that the best highly skilled workers decide to stay abroad), it also doesn't shed light on their professional reintegration and on their contribution to the development of their home countries research and innovation systems.

The first row in table 2 indicates that monetary remittances are most important to India and Mexico and this appears to be reflected in the way these countries have structured their migrant network policies. The flow of monetary remittances as collected by the IFAD (2007) does not provide an insight in other flows of valued resources from migrant communities such as knowledge flows, commercial ties, or FDI. Considering some of the (specialised professional and student) networks of Chinese migrants the promotion of this type of flows may be more central in the Chinese strategy underlying migrant network policies.

In comparison to the other three cases, China has started almost a decade earlier with the active promotion of temporary and permanent return than the other three countries. The current scope and budget of its incentive programs is considerably larger and in part as a consequence the relative number of returned scientists in its (elite) public sector research organisations and elite universities is thought to be much higher than in the other countries. It has also started two decades before India with the set up of special parks/zones targeting returning entrepreneurs. In part as a result the number of enterprises in these zones is still close to a factor ten higher than in India. Neither of the other two countries is known to have engaged in the set up of such designated zones offering special opportunities/conditions for entrepreneurs from their migrant communities. As explained in the footnote the data on these companies and the number of returnees working in them is restricted to those firms established in zones designated for returnees. A large number of returnees are working in the private and public sector outside these special regions in both India and China.

4. Lessons learnt

This section aims to explore what can be learnt from the discussion of the four national cases compared in the previous section. In an attempt to understand the differences in the level of activity in the implementation of the three types of policy-mechanisms between the four cases as well as the relative success they have had in attracting highly skilled returnees through the measures implemented it is essential not to view these initiatives in isolation, but in a systemic perspective taking into account however fleetingly the differences in socio-economic change of which the return of highly skilled professionals is both an effect as well as a cause.

Both Argentina and Mexico suffered major economic shocks around the turn of the century and it is only in recent years that they again had the means to improve their research and innovation systems

and in doing so provide a more favourable condition for returnees. The relative success of China's return programs should neither be seen in isolation from the other measures that were taken by the respective governments to improve the conditions in their research system (or not). The relative success of China and India to attract (high tech) entrepreneurs from its migrant communities is likewise closely related to the improvement of broader socio-economic conditions in addition to the measures implemented to facilitate return and investment discussed in the previous section - including the favourable conditions offered to returnee entrepreneurs in the SEZ and high tech parks, but also the general improvement of infrastructure, the development of the domestic market, the output of the domestic higher education sector etc.²⁷ Without a home situation which offers returnees business/career/scientific opportunities, return programs are not likely to have a large and sustainable effect. This, however, does not mean they do not have a positive effect on the return flows in a situation where socio-economic conditions are improving.

The set up of return migration programs for highly skilled Mexicans has been limited in comparison to the two Asian cases. This relatively low level of activity in the set up of such programs -and their success- is thought to be related in part to the lower level of R&D investments and industrial policies aimed at promoting the development of high tech industries. Still, governments of countries with a relatively low level of R&D investment might be able to learn from past and current initiatives implemented by the Mexican government. In case a development track as taken by China (and Taiwan and Korea before it)²⁸ is aspired to, the plethora of programs and measures implemented by this government in the past two decades may be of greatest interest even if the reader should be aware that these programs in themselves would probably have remained relatively unsuccessful if they had not been part of a wider process of socio-economic reform and subsequent socio-economic (and political) development. Also in the Indian case, industrial policies, the output of the higher education system, and developments in the main receiving country, are likely to have been as, if not more, important than incentive programs which directly targeted returning or circulating entrepreneurs and highly skilled employees in its emerging software system.

The three types of policies implemented in the four countries should be seen as complementary rather than substitutive. The policies aimed at the stimulation of (professional) migrant networks are to an important extent a way to facilitate migrants to gain access to information on opportunities in their home country and facilitate the formation of ties and the flow of valued resources. These networks can for example increase awareness of the temporary and permanent return policies and opportunities offered in the commercial sphere. Likewise the measures implemented to promote temporary return can provide a first step towards circulation or permanent return. Rather than implementing any of these measures in isolation it may therefore be important to implement the whole set of measures, or start with temporary return programs and complement this at a later stage with permanent return programs. Investing in the promotion of (professional) migration networks which also serves other purposes than the promotion of return such as facilitating the remittance of valued resources is considered to form a valuable investment at the short and longer term either alongside or preceding the implementation of other types of programs.

²⁷ To varying extent all four countries studied have a history of (in some cases overwhelming) state involvement in enterprises even though the extent of state involvement has reduced radically over the past decades. The attraction of business/entrepreneurial returnees appears to focus on entrepreneurs who set up new private enterprises. (Possibly existing State Owned Enterprises but especially) multinational corporations which have set up activities in the home country in the past decade also play an important role in attracting and employing highly skilled returnees - which is not necessarily related to direct governmental incentive programs. Increasing professional opportunities in the home country are thought to play a very important role in attracting highly skilled returnees. This holds especially for China as well as India, in relation to differences in economic developments in recent years this dynamic is still considered less important in Argentina and Mexico.

²⁸ The Chinese development track has been characterised by high economic growth, an emerging research and high tech innovation system, coupled and partially driven by an increasing flow of highly skilled returnees. China is of course a very special case which other countries may not be able to emulate and not just because of its vast pool of people.

Synoptic Tables 3A and 3B

The synoptic tables 3A and 3B provide a schematic representation of the type of policies implemented in the four countries and the way they are thought to relate to the role of migrant communities in facilitating the flows of valued resources between host and home country, temporary return, circulation, and permanent return.

The arrows presented in the second row of table 3A aim to indicate that there seems to be a (positive) relationship between the four types of effects that may be expected to accrue from the policies. That is, members of migrant communities who remain in active contact with their home country and have, for example, already established commercial ties or have invested there are more likely to engage in temporary return, circulation and even permanent return. Likewise, those who have returned for a short period after a long time abroad have first hand knowledge of the (potentially) changed situation in their home country and potential opportunities in their home country. Short term return, whether or not supported through a government program, may be a first step towards permanent return. The colour of the arrows in table 3A and 3B aim to give some indication of the expected impact of the type of policy on the effect represented in this column. For example, the existence of migration networks, may promote temporary return and circulation but (as indicated by the empty arrow) in isolation the measure is not expected to have a very strong effect.

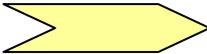
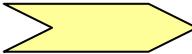
The left column shows a colour representing the (increasing) degree of institutionalisation of the network and the extent to which it is related to actual policies originating from the home country or whether they have grown organically. The network ties (whether spontaneous ties between individuals, organically grown (professional) migrant networks or state sponsored migrant networks) are expected to have a clear positive impact in facilitating the flows of information and other valued resources between migrants and the home country. Such contacts between (members of) migrant communities and organisations/professionals in the (former) home country are considered important pre-requisites for successful return, but in themselves they may not be sufficient. Hence the set up of incentive programs for scientists/engineers working in public sector research and the favourable conditions provided to entrepreneurs from migrant communities in various forms of Special Economic Zones (including high tech parks).

Synoptic table 3A Network policies

MIGRANT NETWORKS	Remittances, Investments, commercial, business ties, knowledge flows	Temporary return	Circulation	Permanent return
<p>Organic/spontaneous ties between migrants and home county</p>	<p>► Remittances to kin and extended families – especially important for (recent) first generation migrants. ► May also facilitate chain migration. ► May include Professional/commercial ties</p>	<p>► May motivate and/or facilitate temporary return.</p>	<p>► idem</p>	<p>► idem ► remaining family/social/professional ties can be crucial both as a motivation for and the success of permanent return.</p>
<p>Organic migrant network formation Migrant professionals, support each other in host country and are increasingly oriented as well to interactions with (ancestral) home country</p>	<p>► The formation of ties and flows of valued resources beyond remittances to kin. May thus stimulate the flows of knowledge, commercial/trade ties between home and host country. ► Supports the identification with the (ancestral) home country</p>	<p>► Supports the identification with the (ancestral) home country ► Can help to expand social capital and access to information of migrants about changing conditions and opportunities in their host as well as home country.</p>	<p>► ▲ idem</p>	<p>► ▲ idem</p>
<p>Migrant network policies Recent efforts by governments of sending countries to strengthen/institutionalise existing migrant networks and stimulate the formation of new ones. Offering services and information to migrants through these networks</p>	<p>► Constitutes a political acknowledgement of value of migrants to home country ► Measures implemented may reduce barriers to flows of valued resources ► Can provide stimulus to support/facilitation of flows of valued resources to home country</p>	<p>► ▲ idem ► increases access to information on situation and opportunities in home country</p>	<p>► ▲ idem</p>	<p>► ▲ idem</p>

► **idem** indicates that the same factors discussed in the box to the left are relevant to this box as well. Likewise ▲ **idem** indicates that the same factors discussed in the box above are relevant to this box as well.
► ▲ **idem** is a combination of both.

Synoptic table 3B Return Migration Policies

	Remittances, Investments, commercial, business ties, knowledge flows	Temporary return	Circulation	Permanent return
<p>TEMPORARY RETURN PROGRAMS These programs target primarily scientists/engineers to work in public sector research organisations and/or higher education.²⁹</p>	 <p>► temporary return can have a positive effect on the flows of valued resources (such as information, knowledge, and skills) between home and host country</p>	 <p>► If successful the programs stimulate/facilitate temporary return. ► given the right incentives/support it can be relatively easy to get highly skilled migrant to return for a short period of time.</p>	 <p>► temporary return can help to increase a migrant's knowledge of changing home situation and opportunities increase his/her professional ties and thus increase possibility of further periods of return and/or commitments in terms of investments/part time employment in home country</p>	 <p>► idem; ► first hand knowledge of opportunities in changing home situation and professional ties build up during periods of short term return can facilitate permanent return</p>
<p>PERMANENT RETURN PROGRAMS The same applies for the target group of permanent return program as it did for temporary return programs.</p>	 <p>► If successful permanent returnees may remain in contact with migrant and professional communities in former host countries and thus facilitate interaction between home and (former) host country.</p>	 <p>If participants in the programs would end up circulating between home and (former) host country this tends not to be the aim of these programs (even if it does sometimes happen in e.g. the Chinese case in which it is considered a problem).</p>	 <p>► Incentive programs for permanent return (mainly public sector research), can attract permanent returnees depending on the nature of the incentives offered as well as the conditions in the home country.</p>	
<p>SPECIAL ECONOMIC ZONES/HIGH TECH PARKS ETC³⁰ Target group: (high tech) entrepreneurs from migrant communities, and potential highly skilled employees working in the companies they set up.</p>	 <p>► opportunities offered in these zones can increase commercial and business ties as well as facilitating investments from migrants remaining overseas</p>	 <p>► opportunities offered in these zones can facilitate investments from entrepreneurs who move back and forth between home and host countries. The companies they set up – potentially as part of their businesses overseas – may also lead to the circulation of highly skilled professionals who are employed by them.</p>	 <p>► opportunities offered in these zones facilitate the permanent return of business entrepreneurs as well as highly skilled employees from migrant community</p>	

²⁹ Even though information on such programs has not been found for any of the cases studied it would not defy expectations if a large share of the foreign experts and consultants (with different professional skills) hired by the respective governments are members of migrant communities.

³⁰ Tax incentives, material and administrative support offered to returnees in SEZ as well as other areas with similar missions (high tech parks, export processing zones and others, which may target returnees in particular or target a broader group of domestic and foreign entrepreneurs).

Migrant network policies

All countries studied have engaged in migrant network policies to engage with their migrant communities, offer them services and information on developments in the home country and in doing so promote ties with their migrant communities, potentially stimulate the flow of remittances, commercial and business ties, ties between scientists abroad and in the home country, temporary, and permanent return. In some cases these network policies build on existing bottom up initiatives set up by migrant communities themselves – if not, their formation can be stimulated by organisations in the home countries and/or countries' representatives in embassies and consulates. The network policies vary in terms of their inclusiveness, i.e. some focus on specific groups of professionals (students, scientists in a specific discipline, business entrepreneurs, other professionals, etc), others focus on the migrant community as a whole either within a single host country or worldwide. One may conjecture that the potential benefit to network members in terms of relevant professional ties and/or specialised information on opportunities in the home country is higher in the case of specialised professional networks (e.g. a network of Chinese life scientists or a network of commercially oriented individuals). Whether this is so, or whether migrants have other reasons and derive other benefits from these networks, is an empirical question which so far has not been studied.

Especially in the two cases in which the largest share of its migrant communities consist of low skilled migrants, the migrant network policies also aim to guard the rights, interests, and well-being of the members of its migrants (e.g. by providing health support). In all the national cases public organisations engage in the support of migrant networks and migrant professional networks. Since several years this also includes the set up of web-portals in which information is offered on developments in the home country, programs aimed at members of migrant communities and returnees, professional and investment opportunities, events, and conferences organised for migrant students or professionals. Of the four cases studied, the Indian and Mexican initiatives appear to focus primarily on promoting the flow of remittances and in the case of India the promotion of investment and return of entrepreneurs. In addition to networks of entrepreneurs and professionals, China has deployed many activities aimed at maintaining ties with its large overseas communities of students and scientists. In recent years the other countries have also engaged in these activities but their efforts are small in comparison to those of China.

Temporary return programs for scientists/experts

Of the four cases, China has been most active (and for the longest time) with temporary return programs for teachers, scientists, and other experts. As described in section 3, India and Argentina have also set up such programs but they have been established relatively recently and are more limited in scope (and in terms of their budget) than those in China. These programs allow overseas scientists and teachers to return to their home country temporarily, build up a professional network there, and have first hand information on the opportunities offered in a system which is changing over time. This can thus facilitate the participation in permanent return programs for those who have spend a longer time abroad and allow recent migrants to maintain their professional contacts in the home country. As discussed in the second section there has also been a steady flow of returnees who went abroad sponsored by their government and/or research organisation. Often the members of this group remain abroad only for a relatively short period of time. Even if this group constitutes only around 10% of the total number of students going overseas their return is important for raising the level of the research system to a level in which it became more interesting for other (self-sponsored) overseas researchers to return as well. Once a critical mass of returnees has formed the return process appears to have picked up in speed – so that nowadays there are considerable numbers of applicants for the available

vacancies. Again this increase in the flow of returnees may have to do as well with other factors related to the improving conditions in the system in general.³¹

Permanent return migration programs for scientists

Again, China has set up by far the most comprehensive range of programs to promote return migration and facilitate the professional re-integration of its returnees. Among the four countries it also appears to have been the most successful in harnessing the potential of its overseas community and returnees in the development of an indigenous high tech sector and the reform of the economy as a whole. Considering for example the Higher Education sector one finds that at present around 80 % of university presidents, deans at universities in Beijing and Shanghai and around 2/3rds of senior level faculty in elite level research organisations and leaders of large projects have foreign work experience (Li, 2002, People daily, 2004). The influence of returnees in the financial sector is also reported to be large and slowly returnees are occupying more and more influential posts within administrative bodies. As discussed in section 3, India, Mexico, and Argentina all started later with the set up of incentive programs and other measures and the scope of these activities, remains limited in comparison to China. In comparison to China, India and Mexico have put more stress on the facilitation of remittances and investments from their migrant communities than on the active promotion of return migration of public sector researchers. In contrast to China, India has neither been very active nor successful in attracting its overseas scientists to return to work in its public sector research organisations and universities.

Incentives for (High tech) entrepreneurs

Like China, however, India did benefit very much from the return/circulation of highly skilled professionals/entrepreneurs who have been crucial in the development of its software industry and the outsourcing of (increasingly high end) services and R&D. This development can partially be attributed to developments in the US – the bursting of the dotcom bubble – but is certainly also related to the available pool of IT students and the Indian industrial policies which favoured the development of an indigenous software sector and provided incentives for entrepreneurs in this field in the form of among others tax incentives and funding.

For business entrepreneurs (whether low or highly skilled) measures that reduce administrative burdens and tax incentives (several years of income tax exemption, reduced or no taxes on the import of goods and the export of certain products, interest free loans, free or cheap office space etc) are central among the measures implemented in the two Asian cases. These incentives tend to be offered in combination with programs which promote the development of (high tech or export oriented) industrial clusters. In the Indian case, these efforts have been especially successful in the software industry (and the outsourcing of services and R&D) a field in which development was actively promoted by India's industrial policies over the past decade. In the course of the past decades, China, India, and Mexico have all set up various forms of Special Economic Zones in which companies are provided with a favourable regulatory and taxation environment to support the development of export based industries in designated sectors. The Export Processing Zones in Mexico (and the other countries) do not specifically facilitate the set up of enterprises by returning members of migrant communities, but appear more oriented towards the attraction of foreign, multi-national and export oriented domestic companies. In the Indian case a new form of Special Economic Zones has been

³¹ The extent to which the permanent return programs for scientists and the incentive programs for (high tech) entrepreneurs are successful may be heavily dependent on other developments in research system / economy. According to Hah-Zoong Song, in his studies of return migration in Korea which benefited greatly from the return of highly skilled migrants in an earlier decade, the return flow of highly skilled migrants took off mainly due to positive socio-economic developments – and the opportunities these brought. The programs set up by the government to promote the return process in his view can have a positive effect, but only work if system is ready (1997, 2003).

implemented in recent years which among others directly target entrepreneurs from the migrant community and provide a very favourable environment for the establishment and operation of enterprises. Both countries, and especially China, have also been active in the set up of so-called high tech parks in which high technology enterprises are offered a favourable environment to foster the development of indigenous high tech industries. Unlike the other three cases, China has set up special pioneering high tech parks designated for returnees.

Chain re-migration

Highly skilled actors, be it scientists, other professionals, or entrepreneurs tend not to operate (best) in isolation. It may therefore be expected that on average the willingness to return, partially depends on the perception of other actors operating in the home system. In addition, it is likely that the general interest in return increases when larger numbers of similar returnees are already present in their organisation and/or region. Their presence can lead to information flows to potential returnees, through personal ties or through the migration networks discussed in this paper. A critical mass of returnees is furthermore likely to yield externalities including facilities such as international schools. Potentially it may lead to changes in the organisations in which these returnees work as well. Such externalities and the presence of actors with shared experiences, potential problems and needs may make return a more attractive option for other potential returnees. One could refer to this dynamic as *chain-re-migration*. It is expected that this dynamic can be identified in China's main cities Beijing and Shanghai as well as some of India's high tech regions. The expectation is that in the case of many other regions in China and India, as well as in Mexico and Argentina, this dynamic is of limited importance at present due to the relatively small numbers of highly skilled returnees. Whether or not this expectation truly holds is an empirical question.

Coordination between responsible ministries/agencies

Apart from positive changes in the research and broader socio-economic conditions of the sending countries there may be other pre-requisites for the relative success of the various potential policies. First, interactions between migrants and their home country, either in terms of the exchange of valued resources and investments or in terms of temporary and permanent return may be subject to the activities of various governmental agencies which may or may not engage in a high degree of coordination. Without an in depth knowledge of bureaucratic procedures this dispersion of the loci in which relevant information and authority is located can pose a formidable hurdle to members of migrant communities with an interest to engage in stronger interaction with their home country. For example: Returnees and members of the migrant community interested in setting up enterprises in their home country face a range of administrative and taxation issues in addition to potential programs which support return. These issues (including visas, registration, taxation etc) tend to fall under the competence of several different national ministries. In both China and India attempts have been made to improve the coordination between these different ministries and agencies on issues that can facilitate or pose barriers to return, circulation, and/or the remittance of valued resources.

The clearest example of this is the set up of a Ministry of Diaspora Affairs in India – though also in this country other ministries, such as the Department of Science and Technology remain responsible for the administration of specific programs. An active commitment at a high level of government may facilitate a higher degree of coordination between agencies responsible for the implementation of measures aimed to facilitate the flows of remittances, investments, information, and potentially influence. The relative impact of an over-arching ministry like the Indian does, of course, depend on the scope of its mandate and its ability to coordinate the dispersed activities of other ministries and hence the bureaucratic/political culture in the respective countries. Even if the actual competencies and budget of the ministries are limited, they may play a positive role in improving ties with the migrant communities by providing them a central portal of information which would have otherwise have

remained dispersed and hard to locate without an in-depth insight of (and contacts in) the local bureaucracy. Furthermore it can represent a positive signal recognizing the contribution of migrants to the home country.

Citizenship and Residency

Another issue which in some countries is important for the promotion of greater interaction, circulation and permanent return of migrants who have acquired foreign nationality can lay in the laws regarding citizenship. The countries studied differ in their relation to this issue; some like Argentina do not allow migrants to give up their nationality and those who have opted for foreign nationality therefore have dual citizenship. In countries where the constitution, often for historical reasons, does not allow for dual citizenship – as in the Indian and the Chinese case – or where retaining dual-citizenship is not obligatory/customary, offering (selected) members of migrant communities who did not retain the nationality of their (ancestral) home country the option to receive a special status which allows them to come and go on an easier basis can facilitate circulation and/or permanent return. This higher degree of flexibility allows potential returnees, or members of the migrant community who want to invest in their (ancestral) home country, the ability to do so without having to give up their US or European citizenship. This is important for both circulating migrants and permanent returnees, since even returnees who take up full time employment will, at least in the first years be reluctant to forego on the option to be able to return to the country of which they have citizenship.³² The implementation of these measures can thus facilitate both the return and circulation of highly skilled migrants and entrepreneurs.

Conclusions

This concluding section briefly discusses some of the preconditions to induce highly skilled migrants to return and to create adequate conditions to support their reintegration. Furthermore it refers to the conclusions which can be drawn from the comparison of the studied return migration mechanisms characterising each of the four case studies.

The main factor which induces highly skilled migrants to return is the availability of career opportunities and an adequate professional environment in the case of researchers or the existence of an attractive socio-economic environment in the case of business entrepreneurs.³³ The first type of incentives typically involves positions, salary levels, and growth prospects. These incentives tend to be offered in a structured manner in the framework of selective permanent return migration programs. They may also be offered outside the remits of specific programs in which case they have not been identified in this report: e.g. individual research organisations offering incentives to a specific scientist to come and work there. The second type of incentives in the case of researchers includes an adequate research infrastructure, research funding, the availability and access to high quality co-workers and/or students, an organisational structure which facilitates rather than hinders their activities, the openness of the organisation, support for travel and the hosting of foreign colleagues, etc. A third type of incentive is to provide opportunities and facilities to family members, such as employment for spouses and education for children, as the costs they face may be an important barrier to return.

³² In part to test the water and as a security in case their plans do not work out as they had hoped, but also because their foreign citizenship tends to offer them rights that they are unwilling to forego – think for a simple example of the differences in the difficulty involved in visa applications between individuals with different nationality.

³³ Though as explained in section two return migrants are not just or at least not always just, utility maximizing actors in terms of career perspectives. Flexibility may therefore be of crucial importance to attract a specific individual or a specific type of migrant.

Considering the nature of their activities, programs which directly offer employment to returnees tend not to be implemented for business entrepreneurs. In the most successful countries - in terms of the number of returnees and the companies they established - these actors are provided with a broad range of incentives and facilities. These measures help them to set up and run a profitable business in their home country, while often remaining in close contact with their former host system through business and commercial ties as well as personal mobility: circulation. Such incentives and facilities tend to be offered within special parks or designated zones where (returning) entrepreneurs cluster together. This clustering may facilitate the administration and implementation of the incentive schemes and in addition it can lead to externalities as a result of the interaction between the returnees taking part as well as their enterprises.

There are good grounds for both the set up of migrant networks and temporary return migration programmes in their own right. The first type of measures may help, for example, in facilitating the flows of valued resources to the home country, among others in terms of information, knowledge, and remittances. The second type of measures can offer another mechanism to transfer skills and knowledge, which the individuals acquired during their stay abroad. At the same time the successful implementation of both types of policies can help strengthen the ties of members of migrant communities with their home country, provide them with up to date information of opportunities in their home country and allow them to maintain or rebuild a professional network there. These types of policies can therefore also provide an important way to aid potential returnees in preparing for eventual permanent return and professional reintegration in the home system.

Variety in the availability of temporary and permanent return migration programs and other measures aimed at various groups of potential returnees, offers the potential for larger return flows. Some degree of overlap between these programs may yield positive results, in part because it can lead to a healthy degree of competition between the organisations involved. Furthermore, it may help to offer various types of potential returnees a broader variety of return options. This allows for sufficient levels of selectivity in the most costly programs, while at the same time facilitating the return and reintegration of large numbers of expatriates.

Nonetheless, a certain degree of coordination between the various responsible organisations may be required to ensure that duplication is kept in check. Coordination with other relevant actors – such as those involved in the issuance of visas and passports – can also be important to reduce the administrative obstacles to return and professional reintegration. Finally, coordination between relevant agencies allows for the central provision of information to returnees about the opportunities, procedures, and requirements they face. In this way, it can facilitate the return migration process. A certain degree of flexibility with respect to nationality/citizenship appears to be important to facilitate both temporary and permanent return of emigrants, who have acquired foreign citizenship. In countries which do not allow for dual nationality, alternative forms of (partial) citizenship may be considered. Agreements at the level of national governments may furthermore be required to address potential problems such as dual taxation of temporary returnees and circulating migrants.

If socio-economic and professional conditions in the home country would be sufficiently open and attractive relative to expatriates' host countries, there is likely to be little need for measures to promote return: it would happen in and of itself. While these conditions are likely to have a strong influence on the willingness of migrants to return, returnees can themselves be important agents of positive change as well. To induce and enable them to fulfil this potential role they may require incentives and support to overcome institutional resistance and other barriers, hence the need for measures to facilitate return and professional reintegration. What follows from the expectation of chain-re-migration is that the attraction of returnees through return migration programs is likely to be difficult at the outset, but has the potential to become a self-reinforcing process which becomes easier once a critical mass has been reached within an organisation or a relatively small geographic region such as a high tech park or a city. Over time, if conditions allow it, some of these returnees as well as new-comers may then spread to other regions and segments of the home country's society.

A broad range of measures and programs to facilitate permanent return as well as temporary return and the formation of migrant networks is likely to yield the biggest effect in inducing substantial flows of returnees. In a “good case” scenario these measures and programs are complementary while having their independent aims and merits. Incentive schemes should, moreover, be accompanied by measures to overcome existing administrative (and other institutional) barriers which could limit return and professional reintegration processes. A long term systemic perspective involving the implementation of sustained and increasingly intensive measures and programs is considered to be of great importance in facilitating the return migration process as well as the successful professional reintegration of returnees.

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