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Post-Graduation Strategies for Students from Developing Countries

An Exploration of four Developed Countries through the Lenses of
Brain Drain, Brain Gain and Brain Circulation.

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POST-GRADUATION STRATEGIES FOR STUDENTS FROM DEVELOPING COUNTRIES

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ABSTRACT

This study addresses the increasing global student mobility by means of exploring the post-graduation strategies that developed countries have in place for students from developing countries. Four European countries are selected, Germany, Norway, the Netherlands and the United Kingdom. They are closer investigated in terms of specific instruments and overall policy packages they use to encourage a retention or return of students. This study tries to examine the impact of their national policies on developing countries by using the concepts of brain drain, brain gain and brain circulation. Mathematical calculations are left apart, however. Although the countries under study reflect differences with regard to the used instruments, the general tenor reveals no full covering policies after post-graduation. The issue of brain drain, brain gain and brain circulation is not high on the agenda, leading to concerns of a brain drain situation for developing countries. The investigated countries could make improvements and take a more conscious position with regard to their post-graduation strategies for students from developing countries

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ABBREVIATIONS

EU	European Union
GATS	General Agreement on Trade in Services
IND	Immigratie- en Naturalisatiedienst
IOM	International Organization for Migration
MVV	Machtiging tot Voorlopig Verblijf
NESO	Netherlands Education Support Offices
Nuffic	Netherlands Organization for International Cooperation in Higher Education
OECD	Organisation for Economic Cooperation and Development
PMI	Prime Minister's Initiative
PMI2	Follow-up Prime Minister's Initiative
UDI	Norwegian Directorate of Immigration
USA	United States of America
VVR	Verblijfsvergunning Regulier
WTO	World Trade Organization

PART I

INTRODUCTION

In 2007, there were about 2.8 million students worldwide, who did not study in their country of origin to pursue a degree. This number raises immediately some questions, which are addressed in this section: How can student mobility be understood in a wider framework of global trends? Why is student mobility becoming so popular? What is the extent of the phenomenon and how did it develop over the last years? What are favoured destinations? Where do most of the students come from and what factors contribute to these developments?

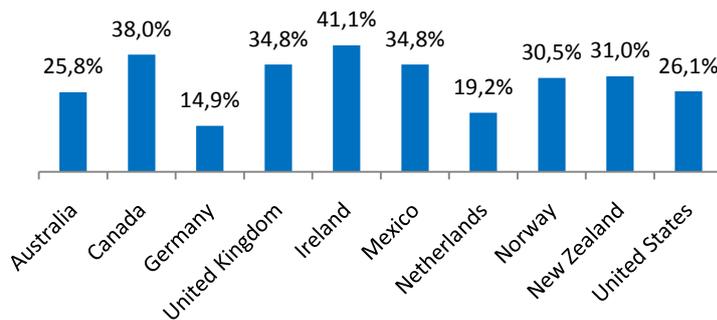
In times of globalisation, national, regional and jurisdictional borders are blurring and appear to lose relevance. Globalisation is considered to be “the flow of people, cultures, ideas and values, knowledge, technology and economy across borders, resulting in a more interconnected and independent world” (Knight, 2006b, p. 18), being facilitated by new communication technologies and cheaper transport costs. Another distinct feature of globalisation is the importance attached to knowledge and skills. These days, they are decisive factors for the success and competitiveness of a society, thus defined as the knowledge society. This research deals with a core element of globalisation, *the migration of highly skilled manpower*. In particular it focuses on *student mobility* as being a significant part of this (Altbach & Bassett, 2004; Goldin, Reinert, & Beath, 2007; Lowell & Findlay, 2002; OECD, 2002; Skeldon, 2005). The last years revealed that governments perceive the importance attached to highly skilled manpower: many countries liberalised their admission policies in favour of them. Even more they tend to formulate policies towards retaining those highly skilled people, involving complex consequences for the countries involved (OECD, 2002; Tremblay, 2008).

The phenomenon of global student mobility shows that the domains of higher education and migration get connected. To illustrate this, higher education institutions are ‘producing highly skilled people’, who in turn foster innovation and research, being key elements for societies in terms of being competitive (Canton, 2001; European Commission, 2006). Universities are considered to be strongly involved with the provision of highly skilled immigrant labour and are more and more seen as “stepping-stones to immigration” (Goldin, et al., 2007; Suter & Jandl, 2008). Even stronger, it is claimed that “*the links between migration and internationalization of higher education are reciprocal in that migration strategies and policies encourage and facilitate the internationalization of higher education while, at the same time, they are becoming increasingly dependent on, that process*” (Vincent-Lancrin, 2008, p. 117).

MOBILITY OF HIGHLY SKILLED PEOPLE

Corresponding, the mobility of highly skilled people is a characteristic of a globalising world - people follow the jobs. A closer look at this mobility, demonstrates that countries are differently affected: some tend to have a high influx of highly skilled manpower, whereas others suffer from highly skilled manpower leaving. To describe this, OECD¹ countries are an attractive destination,

Figure 1: Percentage Tertiary Education Foreign Born (OECD, 2008a)

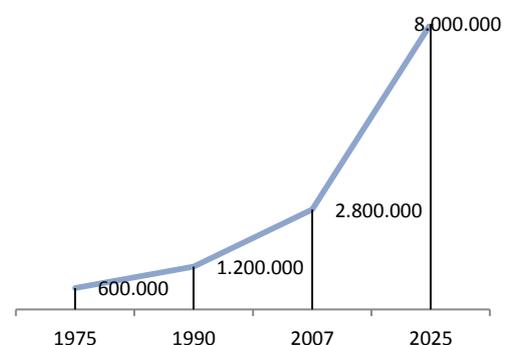


hosting around 75.7 million foreign-born people. On average 24.3% of these are considered to be highly educated (OECD, 2008a, 2008b). Most foreign born in the OECD come from Europe (ca. 29 million) followed by Latin America (ca.19 million) and Asia (ca.16 million). Looking closer at the distribution according to the OECD countries, differences are observed: Ireland and Canada have a rather high percentage of foreign born people who are tertiary educated, which means studying in higher education. The Netherlands and Germany score rather low. For a full overview see the appendix. The opposite question is: **who is suffering from a high number of expatriates abroad?** Taiwan (61.1%), Nigeria, (55.1%), India (51.9%), Egypt (51.2)% and Malaysia (50.8%)² (OECD, 2005) are the most affected countries. They suffer a lot because more than 50% of all expatriates are highly skilled – resulting in a loss of manpower. These countries are all considered to be developing, according to the definition of this study (see section 1.3).

GLOBAL STUDENT MOBILITY

The mobility of students, being of major interest for this research, is considered to be a subset of highly skilled mobility. Therefore current streams and developments are sketched. Student mobility is nothing new: a lot of programmes (like Erasmus) facilitated mobility taking place on a temporary basis (Lee, Maldonado - Maldonado, & Rhoades, 2006). The last years, however, revealed a remarkable increase in the amount of students pursuing an education abroad. In 1975 the total number of mobile students was around 0.6 million, in 1990 the number doubled to 1.2 million

Figure 2: Development Student Mobility



¹A list of member countries can be found here:

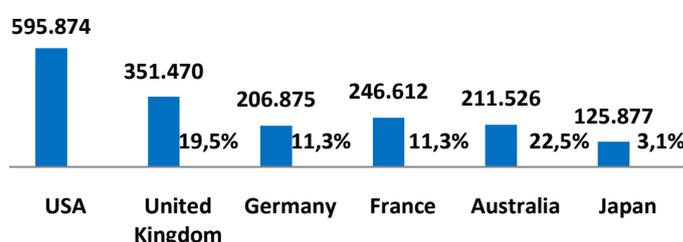
http://www.oecd.org/countrieslist/0,3351,en_33873108_33844430_1_1_1_1_1,00.html

² The numbers shall be read as follows: The total number of expatriates is taken and the percentage which is made of highly skilled people is calculated. Thus it can be explained why the percentages seem to be so high.

and in 2007 it approached 2.8 million (OECD, 2009a; UNESCO & UIS, 2009). Forecasts estimate that the number of international mobile students is going to increase to 8 million students in 2025 (Altbach & Bassett, 2004; OECD, 2009b).

But where do most of the students go to? The straightforward answer is that the majority of students goes to OECD countries. Around 62% of all mobile students go to six top destination countries: the USA, the United Kingdom, France, Australia, Germany and Japan (OECD, 2009b; UNESCO & UIS, 2009). Looking at the relative percentage of students in the system, the picture is slightly different: New Zealand has the biggest share of international students in the system with 26.8%, followed by Australia (22.5%), the UK (19.5%) and Switzerland with 19.3%. For a full overview see the appendix.

Figure 3: Absolute and Relative Number of foreign students in the system (OECD, 2009b)³



The top receiving countries of international students can be clustered in different groups, according to the Observatory Board on Higher Education. The USA, the

United Kingdom and Australia are considered as major players. Germany and France as middle powers and Japan, Canada and New Zealand are evolving destinations. Countries like Malaysia, Singapore and China are considered to be emerging contenders in the field of international student mobility (Robertson, 2007). It is assumed that if the middle powers make stronger use of current European developments (Bologna Process and European Higher Education Area), and adapt more towards English as a language of instruction, they could position themselves in a better way and have a bigger market share. In relation to the student mobility streams, two developments are seen: first, a tendency that students stay in their region of origin (i.e.: students from Europe tend to stay in Europe). Second an expansion of the destination choice is visible. Some countries, having been popular destinations over the last decades have increased their share (i.e.: Australia, Canada, France, Italy, Japan, New Zealand and South Africa) others like the USA record smaller increases (Altbach & Bassett, 2004; Jaschik, 2007; UNESCO & UIS, 2009). Besides, a range of other popular destinations emerged: China, New Zealand and the Republic of Korea.

Having identified the most attractive destination countries for international students two more questions are posed in return: where do most of the international students come from and where do they go to? For a country specific picture, China is by far the country having most of its nationals abroad (421.100). It is followed with quite some distance by India (153.300) and Korea (105.300)(UNESCO & UIS, 2009). Together with Germany, Japan, France, the USA, Malaysia,

³ Note that for the USA no data for the relative percentage is available.

Canada and the Russian Federation, these countries account for 37.5% of all mobile students (it should be kept in mind that these countries are rather large in terms of population). For illustration purposes, reference is made to the Global Education Digest (UNESCO & UIS, 2009) which investigates the patterns of destination of mobile students. When leaving their own region

Table 1: Destination Patterns of Mobile Students (in percentages)

Region of Origin	Top two Destination regions (intra-regional mobility not taken into account)	
Arab States	Western Europe 56.9%	North America 15.4%
Central and Eastern Europe	Western Europe 55.4%	North America 12.3%
Central Asia	Central Eastern Europe 44.2%	Western Europe 12.5%
East Asia and Pacific	North America 33%	Western Europe 22.9%
Latin America and Caribbean	North America 43.2%	Western Europe 30.9%
North America	Western Europe 40.5%	East Asia and Pacific 15.4%
Western Europe	North America 14.4%	Central and Eastern Europe 3.9%
South and West Asia	North America 45.7%	Western Europe 26.1%
Sub-Saharan Africa	Western Europe 49.8%	North America 17.4%

Source: UNESCO & UIS (2009)

apart, a high percentage of mobile students goes to Western Europe and North America. For the Arab States, Central and Eastern Europe, East Asia and Pacific, Latin America and Caribbean, South and West Asia and Sub Saharan Africa, between 50% and 70% go to Western Europe and North America. The overview would confirm the phenomenon perceived by Altbach (2004) : a general flow from South to North, from the developing countries to the developed ones. It is ascertained that more than half of all current students are from developing countries, and their number is still increasing (Altbach, 2004; Altbach & Bassett, 2004; Goldin, et al., 2007; Kapur & McHale, 2005).

FACTORS EXPLAINING STUDENT MOBILITY

Finally, factors being responsible for these developments are addressed. A common explanation as to why highly skilled manpower crosses borders refers to the effects of globalisation: better and cheaper communication and transport possibilities, a global interconnectedness, and an increase in the demand for an international labour market (Suter & Jandl, 2008; Tremblay, 2008; Vincent-Lancrin, 2008). Vlk (2006) identifies three different aspects: 1. the increasing use of English as a language in higher education, taking over national languages, 2. the grown awareness of the advantages students gain when being in another country and 3. international students are seen as new sources of revenue generation. This combination is considered to be responsible for the increasing mobility of students. Particularly the increase of English as a language of instruction seems beneficial for the ‘skyrocketing’ of the number of international students: “The English language, once forced upon Europe’s continental universities, is now turning into one of their strongest selling points” (The Hindu, 2009).

Other reasons focus more on the individual student's level, though not considered in this research. The factors are listed as to overcome the impression that migration is regulated and forced upon individuals by governments and other external factors. It is differentiated between factors that **push** students to pursue their education abroad and those factors that **pull** students to leave their country of origin (UNESCO & UIS, 2009). The Global Education Digest (2009, p. 35) identifies as **push** factors, the possibility to make new experiences, culturally and intellectually, to pursue a particular education/programme or benefit from better equipped universities. Altbach (2004, pp. 3-4) investigates push and pull factors for students from developing countries, going to developed ones. Though he designs the framework for the USA, it is valuable to report the factors here. A mismatch of supply and demand in higher education is identified as a push factor. This refers to the availability of certain fields of study, the possibility to further specialise (doing a PhD) and the entrance conditions. Sending students abroad is seen as a way to overcome this mismatch. Northern institutions are considered to have more a better reputation. Apart from that "social and political forces" can affect students in their choice to go abroad, push them abroad (OECD, 2002).

As for **factors pulling** students to leave their country of origin, the reputation of academic institutions is mentioned, too. In developing countries according to Altbach, hardly any 'world class' institutions exist. Thus students seek a good quality degree in developed higher education systems⁴. This factor is often combined with better career prospects in the respective countries. In more detail students have a chance to enter the domestic labour market after their studies and get higher wages (Altbach, 2004; UNESCO & UIS, 2009). The combination of these factors is facilitating international student mobility and particularly the flow of students from developing to developed countries. When believing Rosenzweig, "the substantial out-migration of persons from low-income countries is in part a manifestation of problems in those countries, whether due to poor institutions or poor geography" (2005, p. 14).

This introduction provides the background of the phenomenon of the mobility of highly skilled manpower and of students in particular. Especially a flow of students from developing to developed countries is observed. In the following, this flow will be further addressed from a perspective of possible brain drain from the developing world.

⁴ Note, that world class universities have a different meaning these days, as they are often associated with excellence initiatives.

1 PROBLEM STATEMENT & METHODOLOGY

This chapter serves three functions: first the problem being central for this research is introduced. Second, the questions of interests stemming from this problem are listed and third the underlying methodology to perform the study and answer the questions is presented.

1.1 PROBLEM STATEMENT

This section argues for the problems being connected to the international migration of skills in form of the mobility of students. The key point lies in the role of highly skilled people: they are considered to be an important source for innovation, an indicator for research competitiveness and accordingly a contribution to the knowledge economy (European Commission, 2006; Tremblay, 2005). Thus they are a form of human capital (Docquier, 2006; Skeldon, 2005). Logically countries having a large amount of highly skilled people seem to be better off than countries having a small amount. The previous section illustrated that student mobility, as a subset of highly skilled mobility, is steadily increasing. Furthermore a flow of students from developing to developed countries has been observed.

This flow is particularly relevant to address, when keeping the importance attached to highly skilled persons and their role for innovation in mind. In other words, questions rise whether a balanced situation is reached as a consequence of this flow. The literature is discussing controversially whether this is the case: for developed countries this student flow is considered beneficial, as a contribution is made to their own economic situation in terms of overcoming an ageing population and fostering research capacity and innovation (Chiswick, 2005; OECD, 2009b; Vlk, 2006). Students from developing country can also be seen as an instrument for providing development aid and capacity building (OECD, 2009b). Other scholars claim that this student flow is balanced for the developing world as well, because it helps to overcome domestic shortages and yields potential for gathering new knowledge. In addition it is offering possibilities in terms of education, not existing in these countries in the first place (D'Costa, 2006; Wickramasekara, 2002).

However, doubts exist whether this flow is resulting in an asymmetric relation as developing countries control the process (Altbach & Knight, 2007). Even stronger, it is claimed that “ the migration of qualified workers boils down to an indirect transfer of prosperity from the Third World to the First World” and is hence not in line with what is known as development cooperation (Körner, 1998). A similar problem is seen by Docquier, though not specifically addressed towards student mobility: “*the emigration of skilled workers is usually blamed for depriving developing countries of one of their scarcest sources, human capital*”(2006, p. 2).

The literature reveals scholars who do not consider this flow balanced and others who do. What has been neglected is the question what happens when students have pursued their education abroad? Do they leave the country or remain in their destination country? This is the problem being central for this research. It is difficult to find an immediate answer to this, as often data on return – rates does not exist (Skeldon, 2005). Yet it is assumed that students from developing countries tend to return, as they feel strongly connected homeward and aim to apply the knowledge they received (Saxenian, 2005). Others claim that this is not always the case. Although no coherent data sets are available, it is considered that university study is a new channel for migration (Baruch, Budhwar, & Khatri, 2007; Cervantes & Guellec, 2002; Goldin, et al., 2007; Gribble, 2008; Tremblay, 2005): “university study has emerged as a major avenue by which young people from developing countries can obtain the right to work and permanently reside in developed countries” (Goldin, et al., 2007, p. 167).

This aspect is particularly important when trying to answer the underlying problem of this research: if a balance of interests is reached or whether *one man’s meat is another man’s poison*? Within this discourse the research takes place aiming to shed light in particular on the **post-graduation stage**. The national policies that **governments** use in order to facilitate retention or return of individuals are investigated. Additionally, the focus is on the question whether governments are contributing actively to what is known as the brain drain and brain gain debate. Note that the situation cannot be understood as having only winners and losers and is either good or bad. Instead the picture is more complex. This is illustrated in the following.

1.2 RESEARCH QUESTIONS

For this research, the following main research question is asked:

What are the strategies that governments of developed countries pursue for students from developing countries in terms of post-graduation and how can the situation be understood through the lenses of brain drain, brain gain and brain circulation?

As to answer this question, a number of sub questions are formulated:

1. What are the global trends with regard to highly skilled mobility in general and student mobility in particular?
2. What are the main issues and concepts being connected to the mobility of international students?
3. What are the motives for governments to attract students and retain or 'return' graduates after graduation?
4. What policy instruments are used to retain or 'return' graduates?
5. How can the brain drain, brain gain and brain circulation approaches help to understand and analyse the central phenomenon?
6. What theoretical framework is most applicable to address the student mobility from developing to developed countries?
7. How do different countries deal with the attraction, retention and 'return' of students from developing countries?
8. What conclusions can be drawn for policy practices with regard to retaining and 'returning' graduating international students, if the theoretical framework is applied?

1.3 DEFINITIONS

In order to ensure validity, a coherent and stringent use of the concepts is drawn up. By means of doing so the respective concepts and definitions at hand are provided at this early stage.

INTERNATIONAL STUDENTS

International students are defined for this study as “students who have crossed a national or territorial border for the purposes of education and are now enrolled outside their country of origin”(UNESCO, 2006). Note that the focus is here on students being/entering at the Bachelor and Master level as well as the PhD level.

DEVELOPING COUNTRIES

The concept of developing countries is based on the World Bank classification. Countries are clustered accordingly to their gross national income per capita and calculated accordingly to the Atlas method⁵. Countries being categorized as low income and lower middle income are considered developing countries here. All other countries not falling into these categories are considered developed countries (for a full list see appendix) (The World Bank, 2009).

HIGHLY SKILLED MOBILITY/MIGRANTS

For classifying the mobility of the highly skilled, migrants are often “the most entrepreneurial and dynamic members of society” (Koser, 2007, p. 1). Highly skilled mobility is about the movement of “men and women with a broad range of educational and occupational backgrounds; [...] Some of these highly skilled individuals [...] migrate on a temporary basis, while others migrate with an intention to settle permanently in the host country” (OECD, 2002, p. 2). Here an educational background refers to “a university degree or equivalent” (Hansen, 2003, p. 4). Although students attracted at the Bachelor level do not have a degree yet, they strive for attaining it and are hence included here when talking about highly skilled mobility.

STRATEGIES AFTER GRADUATION OF STUDENTS

The concept of strategies is as such a broad variable. Here it comprises the combination of the legal framework applying to the students after graduation in addition to the instruments, and incentives governments use, intending to steer students in one or the other direction. Note that for ‘national strategies’, ‘national policies’ can be used interchangeably.

⁵ See for more information on the Atlas method:
<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20452009~menuPK:64133156~pagePK:64133150~piPK:64133175~theSitePK:239419~isCURL:Y~isCURL:Y,00.html>

1.4 RESEARCH DESIGN

For this research the considerations and quality standards formulated by Shadish, Cook & Campbell in relation to reliability and validity are taken into account, assuring a coherent and methodologically correct research (2002).

This research combines three purposes, according to Babbie (2004): explore, describe and explain. Still, as the context has hardly been approached by academics before, it strongly focuses on exploratory and descriptive features. The overall aim is to identify the strategies, instruments and incentives that **governments** pursue for students from developing countries upon graduation. In connection it is investigated whether an imbalanced situation for sending countries is resulting from this. Although governments are not directly involved in the attraction of students (this is mainly done at University level), they are setting up the legal scope of action after graduation. It is important to obtain more information about this, as global student mobility is expected to increase in the future, leading to changes and new challenges. Additionally this research helps to redefine the position of developed and developing countries, of potential outsourcers and outsourced.

Furthermore this research aims to be comparative and intends to contrast the different national strategies existing in that field. For a comparative study, the general guideline is the more countries being studied, the better. Here four European countries are selected yielding diversity: Germany, Norway, the Netherlands and the United Kingdom. Diversity is created in relation to the view that countries take on the internationalisation of higher education. The literature yields different views, serving different goals and instruments. Three of them are applicable here: mutual understanding, skilled migration and revenue generation (Knight, 2004, 2006a; OECD, 2004, 2009b). The way a country positions itself with regard to the internationalisation of higher education is assumed to be part of a wider strategy. Thus it creates a platform for formulating expectations for post-graduation strategies for students from developing countries. The subsequent chapters introduce this in more detail.

The view on internationalisation shall serve as the explanatory variable for post-graduation strategies, governments use. In connection to the migration literature and the theoretical brain drain/gain and brain circulation approach a set of expectations is formulated (see chapter 5). Subsequently these expectations are merged with the data in order to obtain a more nuanced picture of the situation. This serves as a good starting point for doing further research. The next section specifies the data collection process and the sources which are used.

1.5 DATA COLLECTION

For this research qualitative data is used. Although accused of not being explicit, making data difficult to compare and summarise and leaving more space for ambiguity (Babbie, 2004) it is the preferred choice. It seems to be beneficial here as it leaves room for assumptions not considered in the first place. Hence a new set of conclusions might be provided. This study consults different data sources in order to reach a “convergence of evidence” (Yin, 2003). For a general understanding and a mapping of the general trends of international student mobility, a literature review was made. The theoretical background is as well obtained from the literature. In order to position the countries with regard to their view on internationalisation, the internationalisation strategies of the respective countries are consulted.

Two different sources are used for gathering the empirical data: first, rules and regulations manifested in legal documents are consulted and subject of analysis. They are in turn validated and amended with information obtained from agencies supporting student mobility. Second, semi-structured interviews were held and questionnaires sent around (see appendix). The underlying intention was to get to know more about strategic efforts and governmental points of view. Interviews were held with spokespersons from different ministries, because the post-graduation strategies cover different political areas: education policy, development policy, migration policy and economic aspects.

Using two sources is beneficial because a more recent picture is provided and reference can be made to developments not yet formulated in law. Next, it helps to clarify the legal documents and overcomes the weaknesses that occur due to the lack of documents translated in English. Although the intention was to have a balanced picture with regard to the number of interviews conducted, this was not always possible due to limited cooperation or political circumstances (i.e.: elections in the United Kingdom). In addition to governments, the aim was to include non-governmental organisations which are dealing with these issues on a daily basis, meant to secure a mixed picture. As can be seen below this was only possible in a few cases.

Table 2: Overview Telephone Interviews & Written Communication

Country	Telephone Interviews/ Written Communication
Germany	<ol style="list-style-type: none"> 1. Written Communication Federal Ministry for Education and Research 2. Written Communication Federal Ministry of the Interior 3. Written Communication German Rectors' Conference 4. Written Communication Eurydice Unit 5. Written Communication <i>Deutsches Studentenwerk</i> 6. Written Communication German Academic Exchange Service (DAAD) 7. Written Communication The Federal Chancellor 8. Telephone Interview Office for Migration and Refugees
Norway	<ol style="list-style-type: none"> 1. Written Communication Ministry of Justice 2. Written Communication International Students' Union 3. Written Communication International Organisation for Migration Norway (IOM) 4. Written Communication Norwegian Centre for International Cooperation in Higher Education (SIU) 5. Telephone Interview and Communication Norwegian Directorate of Immigration (UDI) 6. Telephone Interview Norwegian Organisation for Development Cooperation (NORAD)
The Netherlands	<ol style="list-style-type: none"> 1. Written Communication Netherlands organization for international cooperation in higher education (Nuffic) 2. Written Communication Ministry of Justice 3. Telephone Interview Ministry for Education 4. Telephone Interview <i>Immigratie- en Naturalisatiedienst</i> (IND)
The United Kingdom	<ol style="list-style-type: none"> 1. Written Communication British Council 2. Telephone Interview Department for Business, Innovation and Skills
Non-Governmental Organisations	<ol style="list-style-type: none"> 1. Written Communication European Commission - Directorate General on Education and Culture

1.6 DEMARCATIONS

For this research the migration of students from developing countries is explored: in particular, strategies which are pursued at the governmental level in order to steer the process in a certain direction. In addition it is questioned whether a balanced situation for sending countries is reached. Hence the focus is clearly on the governmental level, not considering the choices and preferences of individuals. Yet it is important to acknowledge that migration is not a phenomenon which is solely determined at the governmental level. This research looks at the national policies that hosting countries have in place and tries to estimate the impact of these on the sending country. However, the individual context of the sending country is left apart. This leads to a rather narrow view on the situation, acknowledging in a restricted way the positive effects that this migration might yield for sending countries.

Furthermore the effects on hosting countries in relation to this student migration are left apart. Due to complexity reasons, the existences and structures of scholarships for students from developing countries are not taken into account. In addition, simplified procedures for obtaining permanent settlement permits, as a result of for instance marriage are neglected, too.

1.7 STRUCTURE OF THE STUDY

This study is divided into three parts.

Part I serves as an introduction to the topic and presents an overview about the situation of highly skilled mobility in general and student mobility in specific. Subsequently, chapter one addresses the specific problems being connected to this research and introduces the underlying methodological considerations.

Part II of this study introduces the theoretical framework, consisting of a combination of three different perspectives. Chapter two connects the phenomenon of student mobility from developing to developed countries to cross-border education. In accordance with this, rationales for attracting and retaining students are presented. Chapter three explores the different strategies for dealing with skilled migration. Chapter four introduces the concepts of brain drain, brain gain and brain circulation. Furthermore the differences and similarities of the different concepts are discussed and a section on the applicability of the framework for this research is given. Particular reference is made to the outcomes and effects of the two phenomena in terms of whether there are winners and losers resulting from this. Chapter five merges the three perspectives and renders a coherent framework. Subsequently it generates expectations on the outcomes of the study.

Part III is the empirical part of the study. First, it introduces the role of the European Union in these developments and in turn presents the empirical data for the countries under study (chapter 6-9). Chapter ten provides a conclusion of the results and compares the different views of the countries. Furthermore the results are placed in context with the previously formulated expectations. The data is analysed through the lenses of brain drain, brain gain and brain circulation. Chapter eleven is concluding on this research and answers the formulated sub questions. Finally suggestions for further research are made.

PART II

This part introduces the theoretical framework for the study. It enables an understanding of the situation and provides a basis for interpreting the results of this empirical investigation. It is valuable for every research to be explicit about the theoretical framework and the concepts related to it. By means of doing so, three different perspectives are used rendering a coherent framework for analysing the phenomenon of student mobility from developing to developed countries. Accordingly, the theoretical part intends to link

- the concept of cross-border education, with
- the policy approaches, strategies and instruments being available for dealing with highly skilled migration.
- Finally, these parts are supported by the brain gain, brain drain and brain circulation debate, meant as an indicator towards estimating the situation in terms of balance of interests.

2 CONCEPTUALISING THE MOBILITY OF INTERNATIONAL STUDENTS

For the purpose of conceptualising the mobility of international students, the theoretical framework of the internationalisation of higher education, more specific the lens of cross-border education is used, being a subset of internationalisation (Knight, 2006a, 2009). To begin with, a few words are addressed to the internationalisation of higher education. It entails that “nation states continue to play a role as economic, social and cultural systems, but that they are becoming more interconnected and activities crossing their borders are increasing. Cooperation between nation states is expanding and national policies are placing a stronger emphasis on regulating or facilitating cross-border activities” (Huisman & van der Wende, 2005, p. 11). The importance of the internationalisation of higher education is perceived by national systems and higher education institutions. Accordingly different instruments and means are used as to achieve these goals⁶.

The most prominent and most valued instrument is the mobility of students as cultural exchanges take place and international experiences are gained (Söderqvist, 2002; Suter & Jandl, 2008). In order to live up to these goals, governments position themselves and formulate strategies (Brakel, Huisman, Luijten-Lub, Matissen, & van der Wende, 2004; Tremblay, 2008). The internationalisation of higher education is distributed among different levels, according to a comparative study: the ministry for education has a central role in these developments. Still other ministries dealing with judicial affairs, economic affairs, foreign affairs and social affairs are

⁶ For a full overview see (Huisman & van der Wende, 2005; Knight, 2004)

considered as having a share as well, in form of issuing residence permits etc. In addition different agencies cooperating with the ministry for education can be involved in the process (Knight, 2004; Lijten-Lub, van der Wende, & Huisman, 2005).

2.1 CROSS-BORDER EDUCATION

The phenomenon of international student mobility is clearly associated with what is known as cross-border education. To illustrate this, the higher education sector is coined by a lot of changes in the last few years, leading to the provision of a new dimension of higher education which is no longer limited to national and jurisdictional borders (Kehm, 2003; Marginson & van der Wende, 2006). Instead **people, programmes, providers, and projects** are tradable goods and moving across borders, known as **transnational/ cross-border/ borderless/ or offshore education**. Facilitation for this is provided by the World Trade Organisation (WTO) and the General Agreement on Trade in Services (GATS). Yet the inclusion of higher education in GATS is much disputed among academics. First because of the economic connotation being automatically attached to higher education and second because the role of governments might decrease and they lose control over the sector (Knight, 2006b; Larsen & Vincent-Lancrin, 2002; OECD, 2004; Van der Wende & Middlehurst, 2004). Merging the four different modes of supply stemming from GATS with the expressions of cross-border education, the following picture is obtained:

1. Cross-border supply (as being programme mobility)
2. **Consumption abroad (as being people (student) mobility)**
3. Commercial presence (as being institution mobility)
4. Presence of natural persons (as being people (academic) mobility) (OECD, 2004).

Here the mobility of people is central, being as well the most common expression of this cross-border education and expected to be increasing over the coming years (Knight, 2006a; OECD, 2004; Vincent-Lancrin, 2004). In particular this mobility can cover temporary stays abroad, an internship abroad, or being relevant for this research, the **pursuance of a full degree** (Knight, 2009). Per definition this consumption abroad refers to “situations where a service consumer [...] moves into another Member’s territory to obtain a service” (World Trade Organization). This rather economic expression ‘consumption’ can be explained by the perception that the attraction (‘import’) of international students is a huge business for governments/institutions. Even stronger it is considered a new source for income generation particularly in relation to full-degrees (Altbach, 2004; Jennissen, 2004; Skeldon, 2005; Tremblay, 2005): “education has become a multi-million dollar migrant industry, particularly at the global level” (Skeldon, 2005, p. 15). Connecting the phenomenon under study with cross-border education, the question arises: why do governments get involved in this? Reference has been made to the economic connotation; still a thorough understanding of this is needed. The next section looks at the rationales for cross-border activities.

2.2 RATIONALE BEHIND CROSS-BORDER EDUCATION

The engagement of governments in cross-border education is connected to the following aspects: it enhances a country's competitiveness, contributes to economic well-being, aims to meet domestic demands and can be understood as being part of a wider governmental strategy (Huisman & van der Wende, 2005; OECD, 2004).

For the more nuanced rationales behind cross-border education, it is drawn on the OECD framework (2004, 2009b). Four approaches are identified, serving as an explanation as to why countries take action. Note that a country can have different perspectives on different actions. The four approaches being distinguished and differentiated according to their specific features are:

1. Mutual understanding,
2. Skilled migration/strategy on excellence and competition for talent
3. Revenue-generation
4. Capacity building.

The mutual understanding approach is the basic element for all approaches. The ideas and values it incorporates are a part of the other approaches on cross-border education. This is because it intends to create a peaceful world, facilitated by strong ties and networks among countries. This approach focuses on cooperation rather than competition. Accordingly the economic rationale is not dominantly expressed in policies. Instruments as to contribute to these goals are the mobility of students and academics, partnership programmes, grants and programmes aimed to stimulate the interaction between the developed and developing world.

The **skilled migration approach/strategy on excellence and competition for talent** rests on the mutual understanding rationale. It perceives the importance of strong ties among countries with regard to cultural, academic, social and political issues, yet a strong focus is on the economic aspects of cross-border education. The skilled migration approach realises that being internationally competitive is important these days. Cross-border education is considered as a means to this. In more detail students are seen as potential skilled immigrants, as they are young, dynamic and have a good knowledge of the country next to an understanding of the native language. Accordingly it is assumed that international students are 'perfect highly skilled immigrants' (Suter & Jandl, 2008), having short-term as well as long-term benefits for the respective economy (Chiswick, 2005).

Even stronger, it is stated that countries "are importing the raw material to train some of the human capital they need [...]. In effect, the developed country is generating 'designer immigrants'" (Skeldon, 2005, p. 17). All in all, importance is attached to them, because they make a contribution to being competitive and are a solution for the ageing society/the demographic deficit (Coppel, Dumont, & Visco, 2001; Vlk, 2006).

Accordingly emphasis is placed on the attraction of international students. Agencies are set up, as to fulfil this task and promote the higher education sector. In addition immigration policies are unclenched as to pave the way for students coming to the country and staying after graduation.

The **revenue-generating** approach builds as well on the ideas of the mutual understanding approach and the enrichment that is brought to countries being involved. Like the skilled migration approach, the economic connotation in cross-border education is important here. Higher education is offered at a full fee basis, meaning that international students constitute additional sources of income. In strategies the potential they reveal is explicitly formulated next to explicit policies for attracting them.

The last approach is the **capacity-building** approach. It is, however, only applicable for **emerging economies** and refers to the import side of education. Domestic demand shall be met by two elements: send domestic students abroad and remove barriers in order to establish foreign institutions and programmes. Students are encouraged to go abroad as to receive additional experiences and bring knowledge to the country. It needs to be mentioned that developed countries mostly fulfil the exporting function of this education. Thus if a country aims to use instruments intending to stimulate the development of countries, this would fall into the mutual understanding approach rather than into the capacity building one. Hence for this research, the approach is not important.

It is assumed that international students have a positive impact on domestic students. They provide an international dimension and an international environment and improve the quality of higher education due to the creation of knowledge and the transfer of it (Suter & Jandl, 2008). This section shows that there are different perspectives and intentions for governments to get involved in cross-border education and in the attraction of students in particular. Hence also the goals and instruments used vary. Student mobility is identified as an important tool to facilitate internationalisation. The table below offers a comprehensive overview, containing those elements which can be used as indicators later on. It is questionable if the approaches can be found in pure form in reality, or whether they are more likely to be mixed. The indicators are used as an instrument to describe which approach fits best/most with which country.

Table 3: Rationale Cross-Border Education (OECD, 2004, 2009b)

Perspective	Rationale Cross-border Education	Goals	Indicators
Developed Country	Mutual Understanding Approach	<ul style="list-style-type: none"> • Establish political, cultural, academic ties • Development aid focus • Cooperation 	<ul style="list-style-type: none"> • Encouraging international student mobility, • Scholarship programmes, • Academic partnerships between institutions • Not part of an economic strategy • Cooperation
Developed Country	Skilled Migration Approach	<ul style="list-style-type: none"> • Mutual understanding approach • Emphasis on recruitment of international students • Include students in host economy • Ensure competitive higher education sector 	<ul style="list-style-type: none"> • Cross-border education considered as fostering economic growth and competitiveness for society • Attention paid on the attraction of skilled students, being potential immigrants • Attraction of large number of foreign students, through agencies abroad • Liberalisation of visa and immigration regulations • Scholarship programmes offered
Developed Country	Revenue-Generation Approach	<ul style="list-style-type: none"> • Mutual understanding approach • Skilled migration approach • Perceiving cross-border education as a business in itself (additional source of income) 	<ul style="list-style-type: none"> • High tuition fees for non-domestic students –a market service • Efforts to maintain reputation of higher education sector • Establish education brand • Competition
Developing Country	Capacity Building	<ul style="list-style-type: none"> • Build/improve capacity in the country • Importing Education 	<ul style="list-style-type: none"> • Sending students abroad • Remove barriers for Higher Education Institutions to act in the country • Twinning agreements and partnerships

2.3 RATIONALES OF POLICY MAKERS TO RETAIN AND 'RETURN' STUDENTS

Apart from attracting international students to a country, policy makers focus these days increasingly on immigration policies addressing the retention of highly skilled people (Chiswick, 2005). Reasons for this have partly been mentioned, but in a nutshell they can be summarized to the following ones:

- Students are considered as potential highly skilled workers and perfect / designer immigrants as they are integrated into society and have a background of the country. Accordingly they create an international labour market (OECD, 2001; Suter & Jandl, 2008).
- Highly skilled talent in form of students is seen as a solution to the ageing population (Vlk, 2006).
- Students are “driving forces for innovation and invention” (Chiswick, 2005, p. 4; OECD, 2009b).
- Students are retained to fill places where the domestic demand is unmet in order to contribute to the research standards and capacity of a country in the long run (OECD, 2004).
- Students create networks, leading to a well connected community and carrying political implications (ambassadors) (Nuffic, 2004).

It appears to be a good choice for governments to formulate policies to retain students, because they are integrated and familiar with the country. Furthermore, financial investments have been made into them, which can be balanced if students enter the labour market after graduation. The reasons for retaining international students seem to contribute to wider economic governmental aims. The literature tackles to a smaller amount the rationales connected to a 'return' of students. The first and utmost reason seems to be linked to development aid rationales. Students are allowed to come to a developed country as to acquire knowledge which in turn shall be used in their home country, as to contribute to development. A more economic point of view would suggest that students are supposed to return after graduation, when a country is not in need of the respective qualification the student has obtained. Therefore students are no longer economically beneficial and expected to leave.

2.4 CONCLUSION

To conclude, this chapter linked the mobility of students from developing countries to a cross-border perspective. This mobility is often connected to economic grounds as international students are considered to be a new market, contributing to the knowledge society and yielding great potential for hosting societies. The rationales behind the attraction and retention of international students confirmed this: the focus is stronger on economic benefits than on political and social ties.

As for the wider framework of this research, this chapter serves two functions. First, the four views on cross-border education yield different targets and policy instruments. It is assumed that the way countries position themselves in terms of cross-border education is facilitating a wider governmental strategy. Hence they can be connected to post-graduation strategies for students from developing countries. This typology shall be used as to categorise and select the countries under study and be a platform for formulating expectations upon. Thus, it is forming the independent variable of this research. Second, the role of students for society has been illustrated as designer immigrations, resulting in intentions of governments as to stimulate their retention. The next section provides more information about the implications and policy approaches being applicable for dealing with the mobility of the highly skilled.

3 POLICY APPROACHES FOR DEALING WITH SKILLED MIGRATION

This chapter is the second component of the theoretical framework. It intends to investigate closer the options for developed economies for dealing with migration of the highly skilled from developing countries. In more detail, different policy approaches and concrete instruments shall be explored. This chapter particularly looks at the approaches being applicable for host countries of international students. A demarcation shall be made here: the intention of this research is not to create the idea that migration is a phenomenon purely arranged and controlled by governments. The individual side is very important with regard to migration, and there are reasons why people move. Still for this research they are mostly left aside, as the focus is on actions formulated at the governmental level intended to steer the process in one or the other direction.

3.1 POLICY APPROACHES

When addressing policy approaches in relation to highly skilled migration, a critique has to be formulated. The literature hardly focuses on the side of receiving countries, but mostly on the situation for sending countries. Even more, the situation for receiving countries is neglected in terms of whether the efforts made are paying off and an advocating position for developing countries is taken – resulting in an imbalance of perspectives taken. Furthermore it shall be highlighted that the literature reveals general policy approaches, however, lacks to suggest and identify clear instruments.

Despite the formulated critique, reference shall be made to Lowell et al. (2004) who suggest three general policy options for optimising skilled migration, being applicable for both sending and receiving countries. By means of doing so three interconnected fields are addressed:

1. Migration management,
2. The 'Diaspora option'
3. Democracy and development.

In the following the first two approaches will be dealt with in more detail. The approach directed towards democracy and development is not dealt with any further here. This is because it focuses on investments in sending countries. It is accordingly designed for politics improving the infrastructure, establish democratic institutions etc. rather than on student mobility. Hence it does not fit for providing more information how governments can steer the choice of individuals.

In more detail the option of **migration management** places emphasis on a coherent management of migration and focussing on the *temporary* character of migration. Accordingly, special admission policies shall be designed in line with domestic demand and incentives shall be offered meant to encourage *return migration* (Lowell & Findlay, 2002). The admission side is of less interest here, but the temporal character is useful. To explore this, highly skilled mobility can take place on a temporary basis or on a permanent basis. Although the concepts seem to be rather self-explanatory, reference shall be made to Bell & Ward (2000) who attempt to compare the two concepts by means of the following dimensions, options for return, duration of the stay, frequency (Bell & Ward, 2000, p. 99).

Permanent migration is considered to be a change of residence without intentions to return and thus a singular action taking place. Temporary migration instead is non-permanent and can take place to different countries, a couple of times. The options for return are given and the event might be repetitive. The question whether skilled migration is taking place on a temporary or on a permanent basis is in the first place connected to the individual decision. Yet, it is also dependent on governments, as they determine the entrance criteria, the legal framework in place and are aware of societal needs. It shall be noted, however, that a temporary stay is often preceding a permanent one. In their attempt to provide policy responses to skilled migration without further liberalising the system, Kapur & McHale (2005) offer instruments for rich and poor countries. They state that policies in terms of 'connection' are favourable. More specific, circulatory migration shall be facilitated as well as temporary stays to prevent brain drain.

The **Diaspora option** is considered to be a good way for compensation/return. The option stimulates the transfer of knowledge and technology back to the developing countries by means of networks. These networks might establish automatically and are not restricted to national and organisational barriers or in need of an infrastructure. To illustrate this, once individuals leave their home country economic and professional ties might come into being (Nuffic, 2004). These ties might result into frequent exchanges. It also strengthens the connection individuals have with their home country. Thus, knowledge transfers and interactions are enabled, being important for an increasingly interconnected marketplace. These transfers "can boost productivity, provide resources for development, stimulate education and business, develop two-way trade, and create more stable long-term partners" (Lowell, et al., 2004, p. 23).

Accordingly it is seen as something that governments can stimulate, though being in the hands of individuals. Sending countries strongly perceive the benefits of organising their Diasporas. Also receiving countries have an interest in this two-way trade. It is advised that both developing and developed countries should place emphasis on organising these networks. All in all it can be said that "once diasporas are seen as agents for change, host countries can seek out a nation's expatriates as facilitators of projects for international assistance" (Lowell, et al., 2004, p. 25). Another option connected to the Diaspora issue is the flow of financial means (remittances). It is considered to be a tool for overcoming poverty, being however mostly in the hands of individuals.

Governments can make sure that instruments are in place making the *flow of remittances* smoother.

To a large extent, the literature identifies temporary migration programmes as being most favoured for the movement of students from developing to developed countries. In relation to that, the return of highly skilled people shall be facilitated. A rather positive view has been taken, referring to the flow of remittances, the benefits from Diaspora options, the inflow of knowledge and technology and the economic benefits for the workers involved and the country (Carr, Inkson, & Thorn, 2005a; Lowell & Findlay, 2002; Lowell, et al., 2004). However, it is important to take a look at the other side of the coin: “there is nothing more permanent than a temporary migrant” (Crisp, 2007, p. 24). The question is whether migrants leave the country again, although their stay was on a temporary basis in the first place.

3.2 APPLICATION TO THE MOBILITY OF STUDENTS

It is interesting to see how the different perspectives vary with regard to the mobility of students from developing countries. The previous chapter illustrated the importance of highly skilled workers for society and the literature revealed that governments are keen on retaining them. Here, a more balanced point of view is taken, calling for the inclusion of the perspective of sending countries. The literature offers two general options for dealing with highly skilled migration. The **first** option intends to manage the **temporal** dimension connected to student migration: students may enter the country on a temporary or a long-term basis. It is suggested that this choice shall be done consciously. As for students from developing countries, the options after graduation are either a **return** to their country of origin/ a country of their choice or a **retention** in the hosting country.

From a previous research, different categories can be identified as ‘pathways’ for foreign students: temporary work permits upon graduation, or long-term and permanent residence permits upon graduation (Tremblay, 2005). In other words this retention can take place on a permanent/long-term or temporary basis. **Second** the literature stresses the creation of networks as a way to deal with highly skilled mobility and the fostering of the return of migrants. In connection to the previous information in addition to own considerations, the following picture is obtained for the instruments which are applicable for post-graduation options. In the following, the instruments are connected with the views on internationalisation.

Table 4: Post-Graduation Options

Policy Approach		Indicators/ Instruments	Return to home country
Management	Temporary Retention:	<ul style="list-style-type: none"> • Transition period between graduation and leaving the country • Option for continuing education (PhD, second master) • Freedom to look for a job in a certain timeframe • Possibility to change status/reason for entering country in the first place • Prolong stay 	Likely
	Long-Term Retention	<ul style="list-style-type: none"> • Offer long term work permit • Possibility to obtain permanent residence permit 	Unlikely
	Return	<ul style="list-style-type: none"> • Purpose related residence permit which cannot be renewed and not changed • Establish Reintegration programs • Barrier to re-enter country for a certain timeframe 	Likely
Diaspora	Facilitation Networks/ Return	<ul style="list-style-type: none"> • Stimulate creation of networks • Make sure that students remain ties to home country (temporary stays) • Enable flow of remittances 	Likely

3.3 CONCLUSION

This chapter provided insights with regard to the policy approaches connected to highly skilled migration. By means of doing so, two main approaches for dealing with highly skilled mobility from developing to developed countries could be identified: the management and the Diaspora option. In turn these approaches were explored and linked to a temporal dimension. In addition a number of indicators facilitating the management of highly skilled migration and the Diaspora option have been generated. By means of doing so,

1. the main ideas behind the two approaches were taken into account and instruments were taken from the respective literature.
2. other studies have been consulted, containing instruments as well.
3. own considerations have been made.

This chapter serves a wider function as it provides a lens for investigating the countries later on. In addition the instruments identified above are linked to the view that is taken on the internationalisation of higher education later on. It supplements the theoretical framework. The next section introduces the theoretical considerations of the brain drain, brain gain and brain circulation interactions, providing a tool for estimating ‘balance issues’.

4 BRAIN DRAIN, BRAIN GAIN AND BRAIN CIRCULATION

This chapter forms the third part of the theoretical framework, serving as an addition to the previously introduced cross-border education and migration section and render a coherent framework. By means of doing so the concepts of brain drain, brain gain and brain circulation are presented, next to a discussion on differences and similarities. As a very first step towards four aspects/dimensions are raised. They are important for a general understanding for brain drain, brain gain and brain circulation:

1. Highly skilled migration involves a sending and a receiving country, being positively and/or negatively affected
2. The effects of brain drain/gain and brain circulation differ for whether the country at hand is considered to be a developed or a developing country
3. A temporal dimension is connected to highly skilled migration: does migration take place on a temporary basis or a long-term/permanent basis?
4. The interaction of these aspects is important for further considering the issue of brain drain, brain gain and brain circulation.

In the first place reference is made to the brain drain debate which is strongly connected to the brain gain debate. Furthermore the brain circulation approach is investigated.

4.1 BRAIN DRAIN

Here the concept of brain drain is explored in more detail by first referring to the use of the term in the past, providing a definition and addressing the implications of the concept.

4.1.1 USE OF THE CONCEPT IN THE PAST

The concept of brain drain has first been mentioned in the early 1960s and since then been used for a number of situations. In the early 1960s the 'exodus' of British scientist going to the USA was conceptualised as a brain drain (Hansen, 2003, pp. 2-4; Lowell, et al., 2004). The following years associated the brain drain concept strongly with the emigration of professionals from developing countries and the flow of students from poorer countries aiming to stay on in richer countries. A change took place in the 1978s, connected to a report confirming that brain drain was no longer a problem, as a number of people leaving in the first place, seemed to be returning. Finally the 1980s revived an interest in the brain drain concept connected to various emigration waves and highlighted brain drain as an issue being still considered (Hansen, 2003).

4.1.2 DEFINITION

The historic use of the concept of brain drain, presents in a good way the different dimensions connected to the concept. The understanding and the definitions of the concept of brain drain are multiple. Logically the effects and consequences are differently perceived by academics (Hansen, 2003, p. 33). The following definition seems to be comprehensive:

“A brain drain can occur if emigration of tertiary educated persons for permanent or long stays abroad reaches significant levels and is not offset by the “feedback” effects of remittances, technology transfer, investments, or trade. Brain drain reduces economic growth through loss return on investment in education and depletion of the source country’s human capital assets” (Lowell & Findlay, 2002, p. 7).

This definition involves the following important dimensions: movement of skilled people, on a permanent or long term basis being problematic if the absence is not compensated by feedback. Although it remains rather neutral on brain drain, reference is made to the dangers that can occur, namely a loss of human capital.

4.1.3 WHO IS AFFECTED?

As mentioned in the introduction, there are different points of views connected to brain drain. The literature is not clear on the consequences of skilled student mobility. It is hence essential in the first place to identify the four flows marking a brain drain:

- Brain drain for **developing countries**: people moving from developing to developed countries (and stay there on a long-term basis, also in relation to education)
- Brain drain for **developed countries**: people educated in the developed country return to home country or another country.
- People moving between **developed** countries
- People moving between **developing** countries

For this research only the first two streams are of interest. Some scholars connect the concept of brain drain exclusively to the “flow of high skilled immigrants from developing to developed countries”(Lien & Wang, 2003, p. 153). As illustrated previously, this situation is particularly bad for developing countries, as human capital is a crucial condition for a country’s development and the reduction and eradication of poverty (Skeldon, 2005). Putting it in the words of Todaro (1985) as cited in Saxenian (2005): “the people who migrate legally from poorer to richer lands are the very ones that Third World countries can least afford to lose, the highly educated and skilled”. Accordingly a stream of authors considers sending countries to be negatively affected by highly skilled migration, as the brightest manpower is leaving the country and receiving countries as being purely benefiting from this (Chiswick, 2005).

This situation is as well considered to be problematic because often, once people have left the country they are not very likely to return to their home country (Baruch, et al., 2007; Cervantes & Guellec, 2002).

Reasons for this refer to the limited opportunities existing in terms of research funding, career options, intellectual input, education for children and political circumstances (Dodani & LaPorte, 2005, p. 489) next to the options prevailing in host countries. Yet, the literature is divided. Other scholars argue that particularly students from developing countries want to return home and make use of their knowledge and contribute to an improvement of the situation (Gwynne, 1999) or claim that no empirical justification exists for negative consequences of brain drain (Beine, Docquier, & Rapoport, 2008) and instead a certain brain drain is even considered to be optimal. This is because other individuals are stimulated to participate in higher education and get higher wages as well. Furthermore it is considered that spillovers can occur to other areas (Lowell & Findlay, 2002). However it has been observed that the brain drain is stronger in countries having a low level of schooling and in those countries being not too distant from OECD countries (Docquier, Lohest, & Marfouk, 2007).

A brain drain situation is as well occurring when a country is educating nationals/foreigners, who leave the country immediately after graduation. Another important aspect to be considered here is the temporal dimension. Temporary stays are rarely associated with a brain drain situation. The focus is instead on permanent or long-term migration (Tremblay, 2005). Closely connected to the concept of brain drain is the concept of brain gain. Is one country's brain drain another country's brain gain? The distinction between sending and receiving country is accordingly an important aspect for the brain drain concept as well.

4.2 BRAIN GAIN

Here the concept of brain gain is explored in more detail by providing a definition and referring to the implications.

4.2.1 DEFINITION

The concept of brain gain is rather self-explanatory, particularly when knowing that it is indispensably connected to the issue of brain drain. Brain gain refers to an influx of highly skilled people through immigration (Carr, Inkson, & Thorn, 2005b, p. 387). This inflow of highly skilled manpower is particularly valuable as it is contributing to a country's competitiveness in terms of research and innovation (Cervantes & Guellec, 2002). Brain gain is often considered to be the equivalent of brain drain; still it is hardly in itself approached as a concept. According to Jalowiecki & Gorzelak (2004), the term brain gain has gained attention in the 1990s and is used for policies designed to attract scientists to a certain country.

4.2.2 WHO IS AFFECTED?

The brain gain effect needs to be considered with regard to various dimensions as well: sending countries and receiving countries as well as a time perspective. In a nutshell, brain gain can occur at various levels. For the matter of completeness all levels are listed, yet only the first two are relevant here.

- Brain gain for **developing countries**: people who moved abroad and come back educated (reverse migration)
- Brain gain for **developed countries**: attract people that can be formed according to certain needs, or work at a highly skilled level
- People moving between **developed** countries: drain for the country the people leave and gain for country the people move to
- People moving between **developing** countries: drain for the country the people leave and gain for country people move to

Taking a receiving country perspective, brain gain refers to highly skilled people who are already specialized and enter the country. Thus the receiving country was not involved in financing the education and is just benefiting. This situation is applicable for developing countries sending its students abroad and making them return afterwards. The attraction of what Skeldon terms raw material (being young talent), as to form designer immigrants is considered to be brain gain as well (2005, p. 17). Societies which are losing skilled people can as well gain through replacements, in this case reverse migration. Reverse migration is about the return of people who have been educated abroad. Accordingly they bring new knowledge to the country (Carr, et al., 2005b, p. 388). Furthermore, it seems as if sometimes it is part of a wider 'economic development strategy' to send domestic students abroad and benefit from the reverse migration (Cervantes & Guellec, 2002, p. 2; OECD, 2004).

4.3 BALANCE BRAIN DRAIN AND BRAIN GAIN

In a nutshell there are a number of issues to be taken into account when looking at brain drain and brain gain. For both concepts, it is important to differentiate first between the sending and the receiving country, second between the place where the people have been educated and third between the duration of their stay. The two concepts are connected indispensably with each other and are rather static: one country's brain gain is another country's brain drain. The literature often associates the mobility of the highly skilled people with a negative view: a loss for sending countries and a gain for receiving countries (Cervantes & Guellec, 2002; Körner, 1998). Some scholars claim, however, that the situation has two faces. According to Wickramasekara the benefits and the losses are divided among sending and receiving countries (2002).

Starting with the **positive** aspects of this mobility: educated people can make use of their possibilities, which might not be available at home (overcome what is known as brain waste (Hansen, 2003)). Remittances are sent back home, very often accounting for a high amount (Dodani & LaPorte, 2005)). Furthermore the situation should be seen as an incentive for countries to invest in their domestic education; the return of skilled migrants might bring new knowledge and increase the amount of human capital. Finally if nationals are located in various countries, a huge network is established yielding benefits. This option has already been introduced and known as the Diaspora option. In the following this is dealt with in more detail.

A **negative** view suggests that countries are exposed to a loss of human capital influencing growth and productivity. A financial loss is seen especially if the country invested previously in that education. The remittances might decrease over time and the quality of essential services of education might decrease. Finally students being educated on governments costs mark a further drain and options for short-term movement are often restricted by immigration policies (2002, p. 7). All in all a brain drain and brain gain situation might yields positive and negative effects, being strongly connected to the perspective that is taken.

Table 5: Brain Drain & Brain Gain

Balance	Perspective taken	Indicators
Brain Gain	Home Country	<ul style="list-style-type: none"> • Students go abroad, return with knowledge; • Hardly any money invested from sending country
	Host Country	<ul style="list-style-type: none"> • Inflow of skills according to certain needs • Students stay in country for a longer period: • follow a continuous education, do a PhD (do innovative research), or participate in the labour market
Brain Drain	Home Country	<ul style="list-style-type: none"> • Students go abroad • No return for a long time • No feedback effects (remittances/network creation)
	Host Country	<ul style="list-style-type: none"> • Students having been educated do not participate in the labour market • Students leave the country /move to another country /return home

4.4 BRAIN CIRCULATION

A number of scholars and politicians take a different point of view for approaching international mobility and the effects on the countries involved. Instead of placing huge emphasis on the sending and receiving country the distinction is getting blurred and the process is considered less static. More specific, in times of globalisation where borders are diminishing and people often lose their feeling of national identity and statehood, scholars tend to describe international mobility as global talent flow and circular migration (Carr, et al., 2005b; Vertovec, 2007), skill flow (Clemens, 2009) or brain circulation (Lowell & Findlay, 2002; Saxenian, 2005).

4.4.1 EMERGENCE AND ASSUMPTIONS

The concept emerged in the last couple of years as a response to current trends and experiences from the past (Saxenian, 2005; Vertovec, 2007). Saxenian provides a milestone with regard to the theoretical exploration of brain circulation by means of illustrating the Silicon Valley experience in the USA. Here huge emphasis is placed on the role of transnational communities (Saxenian, 2005).

The following cycle, based on the information and ideas of Saxenian (2006a), is a good illustration for the ideas connected to brain circulation. Particular stress is placed on the entrepreneurial idea behind it. Although the cycle is designed for the Silicon Valley experience in the first place, it is applicable here for providing the assumptions of brain circulation in a coherent way. It is assumed, that people in the first place move abroad as to get a foreign education and stay eventually there for some time and set up businesses. This stage is perceived as a **brain drain** for the sending country at that point. Later on, however, people return to their home countries and cooperate with governmental officials, spread their knowledge and in turn make investments into

universities and training. Eventually new firms and enterprises might be set up, contributing to a competitive environment with new networks, ties and options for expansion.

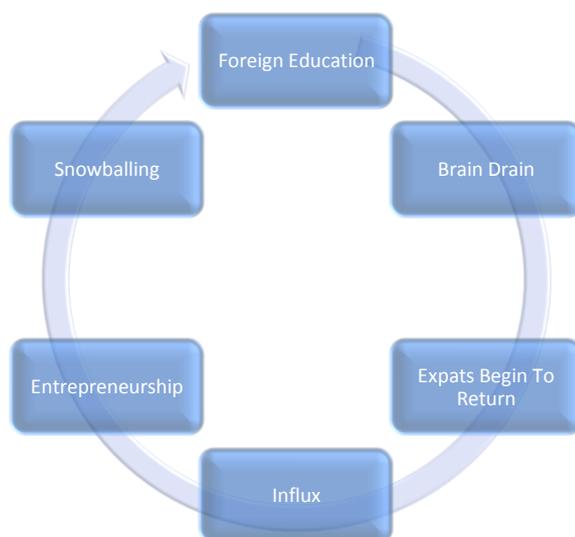


Figure 4: Brain Circulation

The brain circulation approach has some distinct features, clearly extending the

previous assumptions of brain drain and brain gain: first, a less static point in terms of sending and receiving country is taken. A brain drain is perceived in the first place before benefits are set off. Second, reference is made to the interactive character that is connected to brain circulation. And third the temporal dimension is important as migration the process is flexible and return migration can occur. It seems that the positive effects of brain circulation take time to pay off, and are long-term wise oriented. In a nutshell, the concept of the “lively return migration of the native born, or “brain circulation”, re-supplies the highly educated population in the sending country and, to the degree that returned migrants are more productive, boosts source country productivity” (Lowell & Findlay, 2002, pp. 7-8).

4.4.2 WHO IS AFFECTED?

The brain circulation approach is particularly applicable for the movement of highly skilled manpower between developing and developed countries. It suggests that highly skilled workers once sent out, set up links with their home countries, resulting in an interconnectedness with other countries in forms of well connected diasporas (Nuffic, 2004). It is assumed that the mobility of people has a positive impact on the development of competencies within that environment and on the people themselves (Carr, et al., 2005b). The closer investigation of Silicon Valley by Saxenian (2005) proves that those people who left the country in the first place are either returning after a certain time or create networks and ties with their home country. Saxenian states that what previously have been remittances are nowadays transnational communities who “foster economic development directly, by creating new jobs and wealth, as well as indirectly, by coordinating the information flows and providing the linguistic and cultural know-how that promote trade and investment in their home countries” (Saxenian, 2002). Accordingly a strong connection is seen between sending and receiving country, not identifying winners and losers and instead focusing on a mutual benefit situation. Furthermore it is ascertained that people actually circulate between countries (i.e.: from the USA to developing countries) (Saxenian, 2006b).

An immediate question is the applicability and success of the assumptions outside of Silicon Valley. Saxenian stresses the role of individuals in this and their likeliness to return home in terms of a few aspects: if a country is politically and economically stable enough and has invested in higher education, it is an attractive place to return to (Saxenian, 2005). Other scholars confirm similar positive effects of brain circulation: it seems to be positively contributing to issues of ‘economic development, labour shortages, public opinion and illegal migration’ (Vertovec, 2007, p. 7). Accordingly politicians have realised the importance of brain circulation, as has already been highlighted in the previous section and the ‘Diaspora’ option. Three reasons are identified in particular, why the concept has risen in importance: first, the role of transnational networks has been valued and the development potential that is connected to it.

Second, it is considered to promote a win-win situation of the countries involved and third, temporary forms of migration are more amendable to public opinion. (Vertovec, 2007)

Table 6: Brain Circulation

Perspective taken	Indicators
Home Country	<ul style="list-style-type: none"> • Students create networks with home country – Diaspora Option • Send remittances and knowledge back
Host Country	<ul style="list-style-type: none"> • Governments facilitate the establishing of networks • Ambassador function • Create options/incentives for return

4.5 APPLICATION TO THE MOBILITY OF STUDENTS

The previously introduced concepts are addressed towards highly skilled mobility in general. How does the situation, however, look when they are applied to the mobility of students from developing countries? The literature is not explicit about the relation between international student mobility and brain drain, brain gain and brain circulation. Thus, a few words about the applicability of the concepts to the phenomena under study are desirable.

First of all, it should be noted that in order to call a situation as being brain drain or brain gain, a number of mathematical calculations are required. The balance between the losses which are experienced from people leaving the country is equalised with the benefits that people bring. By means of doing so different data is required (outflow rates, inflow rates, amount of remittances etc.). This data is not sufficiently available, making it difficult to actually compare and measure these economic weightings (Carrington & Detragiache, 1999; Koser & Salt, 1997; Wickramasekara, 2002). For this research, the economic weightings (whether a surplus is reached or a deficit is approached), are not considered as it would exceed the scope of this research. Instead the national policies and instruments governments made available and designed for students from developing countries shall be identified. Subsequently they are interpreted in terms of the concepts of brain drain, brain gain and brain circulation. By means of doing so, it is especially the temporal dimension that is decisive. Thus expectations are formulated in light of this. It is certainly acknowledged that by just looking at this level, and leaving the mathematical calculations apart, the precise character is limited. Still looking at the instruments and policies through a brain drain, brain gain and brain circulation situation is beneficial and valuable for multiple things: getting an impression, perceiving a tendency for the situation and estimate to what extent national policies might facilitate an imbalance.

It has been demonstrated that particularly the concept of brain circulation yields benefits paying off in the long run. Additionally the success is strongly connected to the actions of individuals. Here, however, the focus is on immediate efforts directed towards individuals, put in place by governments as to stimulate a brain circulation situation. These concepts particularly show, that

the question whether one man's meat is another one's poison, is clearly related to the perspectives and dimensions taken into account. Brain circulation assumes that highly skilled migration benefits both sides and thus would deny the statement.

The brain drain and brain gain approach in turn, identifies clear winners and losers and looks accordingly different on the situation. Thus it rather confirms the statement. All in all it is very interesting to see, that a situation might look completely different depending on the perspective that is taken and the temporal character. This shall be kept in mind for the following sections and the interpretation of the data later on.

4.6 COMPARING THE CONCEPTS AND CONCLUSION

The previous sections introduced the concepts of brain drain, brain gain and brain circulation. It is obvious that the concepts, though related, take different points of departure. The brain circulation approach exceeds the brain drain/brain gain debate in two ways: first it takes a time dynamic position. Mobility takes place under the umbrella of temporary stays rather than permanent migration. The decision to migrate is more flexible and can involve different countries over time. Connected to this is the second point: the distinction between sending and receiving country is getting blurred and losing importance. This is because a mutual benefit situation is approached, entailing that the countries involved benefit equally from this movement (Saxenian, 2005; Vertovec, 2007). Accordingly the distinction between sending and receiving country is of marginal interest in the brain circulation approach. The brain drain and brain gain approach instead see winners and losers in the movement of highly skilled mobility and strongly focussed on the distinction between sending and receiving country.

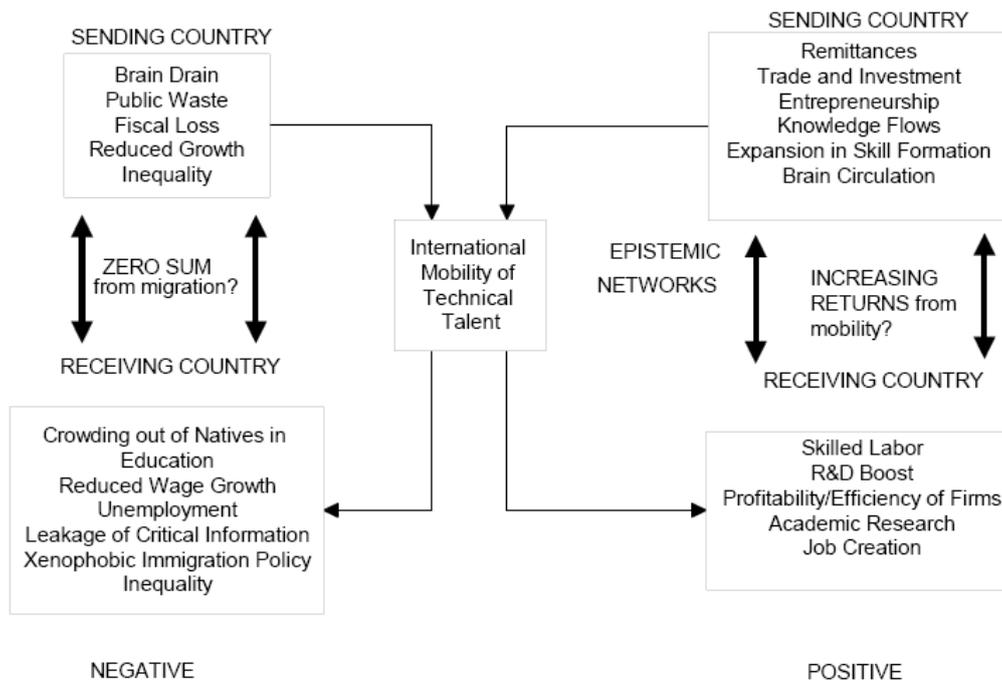
Nevertheless, a critique to the brain circulation approach however has to be formulated. The perceived benefits for both countries are seen in a long-term view and are connected strongly to the infrastructure prevailing in the sending country. Although Saxenian (2005) perceives positive effects for developing economies like India and China awareness exists that these effects might not be the same for other countries. In addition some conditions need to be fulfilled so that individuals are eager to return. Thus it should be taken into account that although the intentions might have been created in a way facilitating brain circulation, obstacles could occur in the transformation. The figure below, provided by D'Costa (2006), summarises in a good way the mobility of the highly skilled. Although the figure is designed for the mobility of technical talent, it captures the most important aspects as presented previously.

D'Costa differentiates among two dimensions: a sending or receiving view next to a positive or a negative view. The brain drain approach is clearly associated with a zero-sum game⁷ (a negative view), whereas the positive view ascertains an equally beneficial situation due to brain circulation

⁷ A zero-sum game is conceptualised in a way that if one party wins it goes at the expense of the other party.

(still it is mentioned that inequality might arise under ‘increasing returns’). The next section merges the different theoretical approaches and formulates expectations derived from this, to be tested in the following of this study.

Figure 5: Positive & Negative View on Highly Skilled Mobility



(D'Costa, 2006)

5 MERGING THE CONCEPTS AND EXPECTATIONS

After having gained insights about global student flows, the implications of cross-border education, policy approaches for skilled migration and the brain drain, brain gain and brain circulation debate the information shall be combined and linked in order to establish a coherent framework. This framework shall serve as a platform to formulate expectations for the outcomes of the study. In order to demonstrate the linkages and connection between the single parts:

1. **Cross-border education framework:** it is assumed that the way developed countries look upon internationalisation has an impact on how they deal with students (from developing countries) after graduation. This is because, it can be seen as a part of a wider governmental strategy aiming to meet domestic demands (particularly economically seen (OECD, 2004)). Furthermore because student mobility is a facilitator of internationalisation. The way countries look upon cross-border education is considered to be the variable meant to explain variation with regard to post-graduation strategies for this study.
2. **Approaches for dealing with highly skilled migration:** in terms of post-graduation strategies for students, there are two general ways of dealing with this: first focus on the management side of migration. To be explicit, governments can either use a strategy aimed to retain those students or rather a strategy ensuring that students leave the country. Second, governments can use options for creating Diasporas. A number of instruments are generated from these to be approached to be used in the following. It is assumed that these national policies are connected to the perspective on cross-border education which is taken by a country.
3. **Brain drain, brain gain and brain circulation lenses:** although countries are reluctant to actively pursue a strategy creating an imbalanced situation, the instruments and strategies in place point into certain directions. The situation needs to be examined carefully in terms of the brain drain, brain gain and brain circulation lenses. It should be kept in mind that the strategies in place might be a response to a country's contemporary situation, yet having a long-term impact.

5.1 EXPECTATIONS

The theoretical approaches have been merged, rendering a coherent framework. Based on this, expectations can be formulated. In the following the three approaches are taken. Expectations are formulated on answering the question: given that a certain view on internationalisation is taken, what instruments and strategies are expected to be used?

MUTUAL UNDERSTANDING APPROACH

If a country has a **mutual understanding approach** to cross-border education, in the form of student mobility, it is expected that actions take place under the umbrella of development aid. Accordingly countries focus on the development side of student mobility, rather than taking their own economic situation into account. Therefore three expectations can be formulated:

- a) *It is likely to have a conscious management for policies directed towards student mobility in light of cooperation: i.e.: temporary character of stays, education in light of development*
- b) *It is likely to have policies that strengthen the Diaspora considerations and create a win-win situation.*
- c) *It is not likely to have policies that stimulate international students to stay on a long-term basis in the country after graduation.*
- d) *Balance: It is likely to have a policy package facilitating a brain gain and brain circulation for sending countries, rather than a brain drain.*

SKILLED MIGRATION APPROACH

If a country takes a **skilled migration approach** on student mobility, it is expected to have the mutual understanding approach as an underlying rationale. However, it rather focuses on the economic benefits that student yield for their country. Therefore four expectations can be formulated:

- a) *Is likely to manage its policies in light of competition, though keeping cooperation with developing countries in mind.*
- b) *It is likely to have policies that stimulate the long- term retention of students.*
- c) *It is not likely to have policies that stimulate and force international students to leave the country after graduation.*
- d) *It is not likely to have policies that strongly facilitate the Diaspora option.*
- e) *Balance: It is likely to have a policy package resulting in a brain drain for sending countries and minor elements facilitating a brain circulation.*

REVENUE GENERATION APPROACH

If a country has a **revenue generation view** on cross-border education, it is even stronger focussing on economic aspects, although the mutual understanding view and the skilled migration view are underlying. Therefore, three expectations can be formulated:

- a) *It is likely to manage its policies in light of an economic view: i.e.: higher tuition for non-domestic students.*
- b) *It is not likely to have policies stimulating the long-term retention of students but rather focus on the temporary nature.*
- c) *It is not likely to have policies that focus strongly on the Diaspora option/brain circulation.*
- d) *Balance: It is likely to have a policy package in place, not leading to long term brain drain. Brain gain and brain circulation for sending countries is likely to take place unintentionally.*

The following table provides an overview about the different aspects of this theoretical framework. It summarises which kind of instruments are expected to be used, given that a country takes the respective view on internationalisation. Furthermore these instruments, as generated in chapter 3, are considered from a brain drain/brain gain and brain circulation perspective. The potential effect on the sending country is estimated, depending on whether the instrument is used or not. Note that sometimes it is difficult to say whether a certain instrument is likely to occur under a certain approach as well as to assess whether it is supporting a brain drain, brain gain or a brain circulation. This is because basically the **context** is decisive for this. In relation to brain circulation the role and actions of individuals matter, though not being taken into account here. Furthermore it should be stressed, that although indicators have been created as to position countries with regard to their view on cross-border education, it is under question to what extent reality yields these approaches in pure form. The instruments are not expected to be mutually exclusive. Instead a combination of instruments can be used and identified as leading to brain drain, brain gain and brain circulation. In order to gauge whether they are in place or not, a distinction is made between **very likely, likely, unlikely and neutral** (though not forming an ideal scale for doing so, as it is not balanced).

Questions rise on the effect of these instruments on the receiving country. Measuring the impact is problematic: **the way these instruments affect the receiving country is strongly linked to reasons for implementing them in the first place.** In other words, instruments which seem to lead to a brain drain situation for receiving countries might be justified by the view on cross-border education that is taken. Thus considering the impact of these instruments would not create a correct picture. Instead the **context** is decisive. Nevertheless, because brain drain and brain gain are indispensably connected, the impact on receiving countries is, however, expected to be the opposite of what is shown in the table below.

Table 7: Expectations for the Outcomes of the Study

Approach	Instruments	Probability that Receiving Countries use the following instruments with this view on cross-border education			Impact on Sending Country	
		Mutual Understanding	Skilled Migration	Revenue Generation	If instrument is used	If instrument is not used
Management	Expectation to leave country after purpose is reached	Likely	Unlikely	Likely	Brain Gain	Brain Drain
	Option for continuous education (Master/PhD)	Likely	Very likely	Likely	Brain Drain (longer if a PhD is done)	Brain Gain
	Option to look for a job after graduation	Unlikely	Very likely	Likely	Brain Drain	Brain Gain
	Possibility to change status/reason for entering country in the first place	Unlikely	Very likely	Neutral	Brain Drain	Brain Gain
	Prolong stay	Likely	Very Likely	Likely	Brain Drain (short term)	Brain Gain
	Receive long term work permit	Unlikely	Likely	Neutral	Brain Drain	Brain Gain
	Possibility to obtain permanent residence permit	Unlikely	Very Likely	Unlikely	Brain Drain (long term)	Brain Gain
	Purpose related residence permit which cannot be renewed	Likely	Unlikely	Likely	Brain Gain	Brain Drain
	Reintegration / Return Programmes	Likely	Neutral	Neutral	Brain Gain/ Brain circulation	Brain Drain
Diaspora	Financial Incentives for return	Likely	Unlikely	Neutral	Brain Gain/ Brain Circulation	Brain Drain
	Restrict Entry to country within a certain timeframe	Likely	Unlikely	Likely	Brain Circulation	Brain Drain
	Allow for improving flow of remittances	Likely	Neutral	Unlikely	Brain Circulation	Brain Drain
	Facilitate Creation of Networks	Likely	Likely	Neutral	Brain Circulation	Brain Drain

PART III

This part presents the empirical data being collected for this research. As mentioned in the beginning of this research, in order to enable for comparisons, diversity shall be reached with regard to the countries which are investigated. This is done according to the way they position themselves with regard to the internationalisation of higher education by using the cross-border education rationales. Four countries are selected, representing the different views on internationalisation. This is motivated subsequently. More variety is reached with regard to the number of international students in the system, the geographic position within Europe and their native languages and languages of instruction, to be seen in the following. For a better understanding the diversity is briefly anticipated here:

- **Germany:** skilled migration approach, high influx of international students, Central Europe, often German as a language of instruction.
- **Norway:** mutual understanding approach, low influx of international students, a small Northern country, not in the EU, frequent use of English as a language of instruction.
- **The Netherlands:** skilled migration approach and tendencies to shift to a revenue generation approach, medium influx of international students, a small Central European country, increasingly using English as a language of instruction.
- **The United Kingdom:** revenue generation approach, very high influx of international students, special international position, native English speaking country.

By means of exploring the post-graduation strategies for a selection of countries, it is essential to look at the competences of the European Union (EU) in this field. This is because the EU is increasingly present in all kind of policy areas these days and influences the policies of its member states. Hence it is important to identify if and how the EU is influencing the post-graduation field. Although Norway is not part of the EU, it is linked to it by certain agreements.

EUROPEAN UNION IMPLICATIONS

The EU is getting more involved in all kinds of policy areas these days and has according to the treaty a say in these fields, too: compare Art. 2 on the harmonisation of policies; Art. 3 on the actions regulating the entry and movement of persons; Art.63 related to immigration policy and the conditions of entry and the issuing of residence permits and Art. 149 on higher education (European Union, 2006). As the treaty sets out the responsibilities of the European Union, it is expected that actions are undertaken as to influence the member states. A consultation of the literature revealed that the EU has competences in fields being connected to this research. In particular the EU regulates the entry and settlement of persons outside of the EU. This is because the EU has realised the need for highly qualified skills and has paved the way to facilitate this, compare the 'student directive' (European Council, 2004). It aims to regulate the admission of

students to higher education by means of defining common criteria in relation to a study purpose: applicants must be accepted at a higher education institution, have resources to finance stay and knowledge of the course language. Furthermore the directive sets out that a residence permit for students is issued for a period at least up to one year. These common measures are expected to be found in the countries under study. To what extent Norway is influenced by this, needs to be seen. Another milestone has recently been released, known as the 'EU Blue Card' directive. It intends to regulate the entry and residence conditions of third-country nationals (The Council of the European Union, 2009). This directive, however, does not seem to be applicable for students having studied in one of the member states, but for newly entering highly skilled persons (which could be former students). The EU is hence taking different kinds of actions in this field, intending to harmonise procedures among member states. Especially at the European level forums exist, addressing issues of brain drain/brain and brain circulation. Although this is not yet incorporated into domestic politics, it is important to keep this for the future in mind. The empirical data being collected for Norway confirms that although it is not legally bound to the European Union, it is concerned with European policy developments and challenges and intends to reach close cooperation. This is because Norway is part of the Schengen area, being an area without international borders in Europe, granting economic freedoms to people, money, goods and services.

STRUCTURE FOR PRESENTING THE EMPIRICAL DATA

The countries are presented in the following section in more detail, forming the empirical section of this research. They are structured and categorised as follows:

1. Country specific data is provided to introduce the country and get an impression of the extent of the student mobility.
2. The view on internationalisation of the country at hand is presented and positioned according to the previously introduced cross-border education framework.
3. The results are presented, making reference to: the entrance, the legal framework for students from developing countries after graduation, the instruments for retaining and returning foreign students and the systematic efforts (as obtained from the approaches for highly skilled migration).
4. A conclusion is provided for each section.

Note for the following chapters of this empirical part, that unless specified otherwise, the numbers presented here are retrieved from the United Nations Data Centre for Education (UIS, 2009). The countries are presented in the following order: Germany, Norway, the Netherlands and the United Kingdom.

6 GERMANY

6.1 COUNTRY SPECIFIC DATA

Reference has been made previously to the competitive position of Germany with regard to international students. More insights of the phenomenon are provided here. In Germany the total enrolment in tertiary education has increased over the last years as well as the

Germany	Total Enrolment (HIS data)	Students Dev. Countries	Percentage
1999	1.801.233	44.044	2.45%
2003	1.938.811	70.325	3.63%
2007	1.985.765	70.620	3.56%

Source: UIS, DAAD & HIS (2009; 2009)

number of students from developing countries in the system. A closer look at the percentage of these students reveals that the number is relatively small compared to overall enrolment. In terms of the major five sending countries and developing countries in particular, China has by far the largest share with 23.791 students as can be seen in the table below. All other countries have a considerably smaller number of students in Germany. Note that the absolute number of students abroad is strongly connected to country sizes. The international students from developing countries are at different academic levels.

Referring “Wissenschaft Weltoffen 2009”⁸ (DAAD & HIS, 2009), around 57.400 students from developing countries are enrolled at Universities and around 20.500 at Universities of applied sciences. The division among academic levels for universities is as follows: 36.770 students are doing their first degree, 11.539 pursue what is termed “continuing education”⁹ and around 7.912 students are engaged in doctoral studies (table 1.6.6). Lastly, reference is made to the financial side in relation to German higher education: formerly tuition fees were not common in Germany; however reforms changed this in the last few years. The amount differs between the federal states: in some states it is free, in others the fees are between 500€s and 1000€ per semester. A semester contribution between 50€-250€ is commonly charged, however (DAAD, 2010).

All Countries	China	Poland	Russian Federation	Bulgaria	Turkey
	23.791	12.592	12.047	11.486	7.165
Developing Countries	China	Ukraine	Cameroon	Morocco	Republic of Korea
	23.791	6.870	5.139	4.369	3.901

Source: UIS (2009)

⁸ Note that the countries being labeled as developing countries vary for this study and the HIS study. Being more specific the following countries, considered to be developing countries here, are missing in the HIS classification: Belize, Kosovo, Marshall Islands, Micronesia Federal States, Samoa, Solomon Island, Timor-Leste, Vanuatu, Papua New Guinea and West Bank and Gaza. The HIS classification, though using the same Worldbank classification, includes eleven other countries, plus a number from an unspecified origin. All in all, HIS considers 77.842 students in Germany to be from developing countries in 2009. Thus the HIS data can be used for illustration purposes (compare table 1.6.8).

⁹ For clarification see the Glossary on the following website: http://www.wissenschaft-weltoffen.de/glossar/a02_html

6.2 VIEW ON INTERNATIONALISATION

How is Germany positioning itself with regard to Internationalisation and international students in particular? This section indicates which view is taken on internationalisation. This is done firstly by consulting the internationalisation strategy and secondly by providing evidence for attracting international students, gathered in the interviews.

6.2.1 INTERNATIONALISATION STRATEGY

As a very first step the internationalisation strategy refers to the global trends taking place within higher education: borders tend to diminish and knowledge is no longer solely produced at universities. Recognising that students and researchers gain importance these days and are attracted worldwide, Germany engages in this process as well. It aims to be an attractive place for researchers and students worldwide (Bundesministerium für Bildung und Forschung, 2008, p. 5). Its current position identifies Germany as being one of the top five countries in terms of hosting international students. Clear targets are manifested in terms of keeping this top position. Yet attention is paid to the situation for developing countries and brain circulation shall be facilitated, rather than brain drain. By means of doing so, emphasis is placed on cooperation with developing countries. This shall be particularly done as to fight poverty, ensure social and cultural developments and improve the living situation (**mutual understanding approach**). It is assumed that by means of cooperation and improvement of the living situation, the likeliness is reduced that people leave the country on a permanent basis. As a mean for doing so special incentives like Alumni networks and further trainings should be offered (p.14). Particularly graduates from German high schools abroad shall be attracted for study purposes, by means of offering scholarships for instance. Generally the focus is on the attraction at the master level and at the PhD level. It is explicitly stated, that foreign graduates should be able to make use of their skills in Germany (p.18) (**skilled migration approach**) -yet keeping the consequences for developing countries into account by means of connecting programmes to overcome brain drain.

The strategy looks at internationalisation from two perspectives. On the one hand it is considered to be an important tool for cultural, social and political development with special attention to developing countries. This is in line with the **mutual understanding approach**. On the other hand clear goals are formulated for attracting international students and incentives are offered for them to enter the labour market, fitting a weakened **skilled migration approach**. Little is said in terms of the future integration and the role of those students in society. Note that the skilled migration approach rests on the rationales for mutual understanding, thus Germany is considered to follow a weakened **skilled migration approach**.

6.2.2 RATIONALES FOR ATTRACTING INTERNATIONAL STUDENTS

The interviews revealed more specific motives for attracting international students, being important for having a coherent picture. Although the different sources confirmed the general picture above, it has been observed that the various ministries have different goals in connection to international students. To illustrate this, the Federal Ministry for Education and Research (2010) considers international students as important in terms of establishing international networks/ties and carrying political interests. Thus they are having an ambassador function, in the very first place. In addition they are considered as a mean for the internationalisation of universities and for making Germany an attractive research place worldwide. This illustrates a strong mutual understanding approach being present, having some tendencies of a skilled migration approach. The Federal Office for Migration and Refugees (2010) perceives this ambassador function as well and realises in addition the economic potential these students yield, and the contribution they can make to the demographic situation in Germany. Here the skilled migration approach is dominant, being maybe connected to the wider function of the ministry. No special focus is placed on the attraction of students from developing countries; instead a general interest exists in attracting the brightest and most talented people from all over the world. The interviews stressed the information obtained previously, paid, however, less attention to economic grounds, thus confirming the weak skilled migration approach. Keeping these motives in mind, the legal framework setting out the scope of action shall be explored.

6.3 IDENTIFICATION OF STRATEGIES AND INSTRUMENTS

The combined information obtained from documents on the one hand and interviews held on the other hand, provide a good convergence of evidence about the situation. The information provided here stems from legal documents, websites and interviews or written communications with the Federal Ministry for Education and Research, the Federal Ministry for the Interior, the Federal Office for Migration and Refugees, the Eurydice Unit Germany, the German Rector's Conference and the Deutsches Studentenwerk (2010).

6.3.1 ENTRANCE CRITERIA

For international, non-EU students intending to enter Germany for study purposes, § 16 of the 'Aufenthaltsgesetz' is important as it sets out the legal grounds (Bundesregierung, 2004b). In order to be allowed to enter Germany, international students need to apply for a national visa, are in need of being accepted at a higher education institution, need a health insurance and a proof of the capability to finance the stay (DAAD 2007b). The study-related residence permit is timely restricted to the average study length plus three extra semesters. The maximum period for an education related stay is 10 years (Bundesverband Auslaendischer Studierender, 2008). Whereas normally international students applying for education purposes need approval by the

‘Ausländerbehörde’, students entering with a German financed scholarship are freed from this condition according to §34 of AufenthV (Bundesregierung, 2004a).

6.3.2 LEGAL FRAMEWORK AFTER GRADUATION

In general it has been confirmed that the situation for international students continuously improved over the last year with regard to the options after graduation. The current ‘Zuwanderungsgesetz’ came into action in 2005 and combines various legal acts, intending to make immigration more flexible. Most important is section 4 of §16 of the ‘Aufenthaltsgesetz’ for specifying the legal grounds in terms of post-graduation for international non-EU students. There are two pathways allowing a stay in Germany after graduation: either enter the labour market or follow a continuous education.

To start with, **first** an extension of the stay after graduation can be issued by means of a new residence permit granted. This is connected to the intention to look for a job and covers a period up to one year. Given that a job is found, an employment based residence permit and work permit is granted (DAAD, 2007b). According to the old framework in Germany a change of status was not possible, if the primary intention was an education related stay (DAAD, 2007a). Problems arose in 2005, because although graduates could make use of this search period for getting an adequate job they could not take up work for securing their living expenses. This has been changed with the EU directive in 2007, enabling to take up employment during this time of extended residence, under the same grounds as during their study (90 days). **Second**, students may follow a continuous education in form of following a master programme or doing a PhD (given that they are accepted). ‘Aufenthaltsgesetz’ §16 is for doing a PhD still the relevant framework, as it is considered to be a subset of an education related stay. The maximum period of education related residence for a graduate following a master education is again 10 years. For the PhD path it is 15 years. This possibility is open to all countries of origin (German Rector's Conference, 2010). Pursuing a continuous education in form of a second study, however, is generally excluded (Bundesverband Ausländischer Studierender, 2008).

A special situation exists for students holding a scholarship (either from Germany, or their home country). If they did not commit themselves in their scholarship agreement to leave Germany after graduation, the German authorities request a statement before prolonging the residence permit. The statement is issued either by the Federal Ministry for Economic Cooperation and Development, the Federal Ministry for Innovation, Science and Research or a German representation in the student's country of origin. It intends to determine whether or not there are reasons (political or other) speaking against extending the applicant's residence permit (DAAD, 2007a; Eurydice Unit Germany, 2010).

In the long run, an option for permanent settlement is open to international students. This permit is known as the ‘Niederlassungserlaubnis’ and can be issued if several criteria are fulfilled (see §9

‘Aufenthaltsgesetz’). Among others the question is, if the applicant had a legal residence permit for five years in Germany (Bundesregierung, 2004b; DAAD, 2007b). Changes occurred in the last few years as well: previously the education-related stay was not considered as qualifying for permanent residence. These days half of the time is credited, as a result of the European Union directive on permanent settlement in 2007. Finally it shall be mentioned that a guideline has been released, giving German workers and international graduates equal chances on the labour market. This was not the case previously, as Germans and EU inhabitants had been given preferential access. In a nutshell, graduates have unrestricted access to the labour market after a legal residence of three years or after two years of secure employment. Foreigners having studied in Germany for four years, and found a job, are granted unrestricted access to the labour market after one year of this employment.

6.3.3 POLITICS & ACTIONS

The information obtained from the different sources ascertained that the new legislation is stronger focused on societal needs and takes into account demographic considerations and the evidence towards shortage of highly skilled labour work force in various sectors. It is perceived that last years reflected an openness to international student: the old ‘Law on Foreigners’ was based on the assumption that students, particularly from developing countries, returned to their home countries after graduation. That is not applicable these days anymore.

The different sources reveal a number of changes which took place in the last years and liberalised the system. Yet, they did not highlight that there are systematic efforts in place aiming to steer students after graduation in a certain direction. Although no active recruitment or retention strategy for students from developing countries is in place, the economic aspects in relation to these students, particularly from a demographic perspective are considered to be undisputed. It is considered to be vital if young students from other countries come to Germany and stay/work there. The new framework does not explicitly aim to send students home, instead it is stressed during the interviews, that the initiative is left to the students themselves to make use of the possibilities offered, if they intend to stay.

In addition there is no active policy used at the national level intending to either send graduates from developing countries home, or facilitate the reintegration of them. Certain scholarship programmes, support the reintegration of students from developing countries partially financed by public sources. Reference was made to a programme, administered by the Federal ministry for development cooperation, intending to support highly skilled migrants if they aim to return to their home country (being valid for students, too). Special conditions exist however with regard to the permit renewal of scholarship holders, as explained earlier. Reasons, why no active policy in relation to recruitment and retention exist were linked to two aspects: first Germany has to make experiences with the newly introduced framework and observe how things are developing. Second, a balance of interests shall be guaranteed, ensuring that sending countries are benefiting

from these student streams as well. A balance of interest (brain circulation) was considered, to be taking place over a couple of years in form of networks, potentially leading to trade relations and carrying a political function in terms of foreign affairs. Furthermore, financial means are in place, like scholarships, intending to facilitate a brain circulation situation, an international exchange. Nevertheless Germany has an interest in long-term stays of graduates.

It has been stressed that the governmental input is only one side of the coin. A lot of meaning is ascribed to the individual level. Whether or not individuals make use of the possibilities offered in Germany is connected to factors like the economic situation in Europe, the possibilities for getting a job, the opportunities and economic situation existing in their home countries. Accordingly the individual side is important for these processes, in particular for the success of long term effects in form of networks and political functions.

6.4 CONCLUSION

Combing the different pieces of information, it appears that Germany is rather reluctant to formulate an active policy pointing in favour of retaining students from developing countries or sending them away. The legal framework allows to make use of the job seeking period, paving the way for accessing the labour market, or to pursue a continuous education. It has been demonstrated that policies have been liberalised in favour of international graduates. The interviews confirmed the economic role of international students, already highlighted in the internationalisation strategy, but revealed that the scope of action after graduation is left mainly to the students themselves. In relation to the post-graduation strategies for students from developing countries, the empirical data did not indicate that there are varying treatments for students of different origins (students holding a scholarship are treated slightly different). The legal side distinguishes between EU/EEA/EFTA and non-EU students, whereas the former are more privileged. However no special treatment for students from developing countries could be observed.

Emphasis has been placed on the action of individuals and especially to the fact whether the phenomenon is paying off in terms of a balance of interest for sending and receiving countries. It has been stressed that a balanced situation for the countries involved shall be reached, thus not actively promoting a brain drain situation. Still Germany has an ambiguous policy: on the one hand they are in favour of international graduates staying (also from developing countries), as has been indicated in the liberalisation of policy developments. Yet on the other hand they keep in mind the situation for sending countries. How to facilitate a brain circulation situation could not be clearly revealed from the sources, except for the creation of networks (being to a large extent connected to the actions of individuals though). It seems as if the **weak skilled migration approach** is mirrored in the legal framework and the efforts directed towards students from developing countries.

Table 8: Findings Germany

Approach	Instruments	Expectation that instrument is in place	Instrument used?	Impact on Sending Country
Management	Expectation to leave country after purpose is reached	Unlikely	Not in place	Brain Drain
	Option for continuous education (Master/PhD)	Very likely	Yes	Long-term Brain Drain
	Option to look for a job after graduation	Very likely	Yes, 1 year job seeking period	Brain Drain
	Possibility to change status/reason for entering country in the first place	Very Likely	Yes	Brain Drain
	Prolong stay	Very Likely	Yes, maximum period for education related stay is 10 years, if PhD 15 years (not granted immediately though)	Long-term Brain Drain
	Receive long term work permit	Likely	Not in the first place, after two years though	Brain Gain
	Possibility to obtain permanent residence permit	Very Likely	After 5 years. Half of the study time is credited	Long-term Brain Drain
	Purpose related residence permit which cannot be renewed	Unlikely	Not in place	Brain Gain
Both	Reintegration / Return Programmes	Neutral	Yes for voluntarily return	Brain Gain / Brain Circulation
Diaspora	Financial Incentives for return	Unlikely	Not in place	Brain Drain/
	Restrict entry to country within a certain timeframe	Unlikely	No evidence	Brain Drain
	Allow for improving flow of remittances	Neutral	No evidence	Brain Drain
	Facilitate creation of networks	Likely	Yes	Brain Circulation

7 NORWAY

7.1 COUNTRY SPECIFIC DATA

Norway	Total Enrolment	Students Dev. Countries	Percentage
1999	187.482	1.517	0.81%
2003	212.395	2.047	0.96%
2007	215.237	3.995	1.86%

Source: UIS (2009)

In comparison to the other countries under study, Norway is considerably smaller in terms of population. This is hence also mirrored in the higher education sector. Norway has compared to other countries a small higher education sector. The actual number of students from developing countries in the system as well as the percentage is rather small. The developments over the last years illustrate, however, that an increase took place with regard to total enrolment. The absolute number of students from developing countries has steadily increased according to the different time snapshots. Comparing 1999 and 2007, the number has almost doubled. A look at the countries of origin sending students to Norway, other Nordic countries such as Sweden and Denmark are main suppliers.

In terms of developing countries the Russian and Chinese students form the majority of international students.

No specific information could be obtained at which level most students from developing countries enter. The interviews partners estimated that

All	Sweden	Denmark	Russian Federation	China	Germany
	1.264	840	789	725	656
Developing Countries	Russian Federation	China	Islamic Republic of Iran	Ethiopia	Iraq
	789	725	318	281	232

Source: UIS (2009)

most of them enter at the master level. In terms of the financial side, generally public higher education is free of fees in Norway. A semester contribution of 300-600 NOK¹⁰ can be asked, however. For some private institutions fees might be in place (Study in Norway, 2008).

¹⁰ Note that 300 NOK are ca. 38€.

7.2 VIEW ON INTERNATIONALISATION

How is Norway positioning itself with regard to Internationalisation and international students in particular? This section indicates which view is taken on internationalisation. This is done firstly by consulting the internationalisation strategy and secondly by providing evidence for attracting international students, gathered in the interviews.

7.2.1 INTERNATIONALISATION STRATEGY

In terms of the internationalisation of higher education in Norway, reference can be made to a document from 2008 (Norwegian Ministry of Education and Research). When doing so, it should be kept in mind that according to the OECD categorisation, Norway is considered as following a mutual understanding approach in terms of internationalisation (2004). The strategy document hardly refers to the issue of international student mobility and international student recruitment. It is mentioned that more courses shall be offered in English, and Norwegian education shall be internationally competitive and possess a strong reputation. Specific targets and instruments with regard to this are not formulated, however. Emphasis instead is placed on the importance of internationalisation itself and the importance for society. It is perceived that internationalisation is an important and serious aspect for Norwegian higher education. 'Internationalisation at home' is a huge facilitation of this. The role of international students in the system is important, yet no clear attempts are formulated how to stimulate this. Economic issues do not seem to be at stake and in general a tentative approach is taken. Hence, Norway can be confirmed as following a **mutual understanding** path with regard to internationalisation.

7.2.2 RATIONALES FOR ATTRACTING INTERNATIONAL STUDENTS

The interviews revealed in more detail that international students are attracted to Norway (not particularly from developing countries though), because of the following rationales: first, their role as a facilitator of the internationalisation process at education institutions is highlighted. Second, the attraction of international students is understood as a tool for supporting developing countries. Special programmes aim to focus on educating students and equipping developing countries with skilled people. Third, international students can potentially serve the Norwegian labour market. Thus they are an indirect way of recruiting qualified labour. Fourth, reference is made to the commercial effect of international students on private institutions. However, this is only a minor motive as public education is free. The motives seem to be mixed and international students serve different goals. Apart from that, it has been stressed that in the past students from developing countries came to Norway in relation of giving 'development aid'. The focus has shifted to all kind of students from all over the world these days. The information partly confirms the mutual understanding approach, yet indicators are visible of a **skilled migration approach**. Keeping in mind these motives, the legal framework is explored.

7.3 IDENTIFICATION OF STRATEGIES AND INSTRUMENTS

The combined information obtained from documents on the one hand and interviews held on the other hand, provide a good convergence of evidence about the situation. Communications took place with spokespersons from the Migration Department of the Ministry of Justice, the Norwegian Directorate of Immigration (UDI), the International Students' Union of Norway, the International Organization for Migration (IOM) Norway, the Norwegian Centre for International Cooperation in Higher Education (SIU) and the Norwegian Organisation for Development Cooperation (NORAD) (2010).

7.3.1 ENTRANCE CRITERIA

In order to be able to study in Norway, persons who are not included in the EEA and EFTA conventions are in need of applying for a residence permit in relation to study purposes. The UDI is the agency in charge of administrating this. Potential students are in need of the following conditions: they have to document their identity, they are accepted at a higher education institution on a full time basis, they are financially covered during their stay, and they have arranged accommodation. It is stressed particularly that a study related permit is timely limited in the first place, not including grounds for permanent residence (UDI, 2010b, 2010d). In addition the assumption is that students leave the country once the study purpose is fulfilled. The likeliness that this condition is fulfilled is already checked in connection to issuing the permit (Norwegian Directorate of Immigration, 2010). If there are reasons for doubting this condition, a permit is not granted. The study related residence permit can be renewed if the purpose of doing studies is not fulfilled yet and entrance conditions are still met. Although the permit is supposed to be of a temporary nature in the first place, the legal framework includes options to stay in Norway, i.e.: allowing for a change of residence purpose on the completion of studies – not being education related (Thorud, Haagensen, & Jolstad, 2009).

7.3.2 FRAMEWORK AFTER GRADUATION

In general, the current legal framework, being introduced in 2010 yields options for foreign students to stay in Norway after graduation. Foreign students can either follow an education-related path or a work-related path. To start with the education related path, students can continue to stay for doing a master study if they are able to finance the studies themselves and if they are accepted at an institution. Furthermore an option also exists to do a PhD after completion of the studies. Note however, that according to Circular 2010-101, doctoral students are not considered as belonging to the student category. Instead they are considered to be employees (UDI, 2010b).

In terms of the work-related channel, a liberalisation of the legal framework could be observed in terms of offering possibilities for students to stay in the country after graduation. Only in 2001,

the option for changing the residence purpose was introduced. Thus beforehand students could not change their permit and enter as a skilled person the labour market (Thorud, et al., 2009). The newly introduced Immigration Act (2010) liberalised the framework even more: students holding a study related residence permit can apply for another residence permit, being related to job seeking purposes. This job seeking period is limited to a period of six months and available to all foreign students in Norway (UDI, 2010a, 2010c). Furthermore, after a period of a three years legal stay, in addition to a decent knowledge of the Norwegian Language, and a certificate of good conduct, foreigners can apply for a permanent residence permit in Norway.

7.3.3 POLITICS & ACTIONS

The different sources reveal that there is nothing like a coherent policy in relation to steering students from developing countries after graduation into one direction. Although the importance and value of international students is perceived, no clear initiatives are visible intending to make students stay in the country. Still, the new legislation introduced the option to stay, in order to look for a job. It is intended that students who are willing to stay on in Norway, are given the option for doing so. Furthermore it is perceived as not being beneficial to close the labour market for international students, as Norway paid for the education. This change is seen as a way to ensure that highly skilled graduates do not opt for migrating to other high income countries (which has been experienced when the policy was stricter).

In relation to an active policy towards sending students home, the past revealed strong efforts for doing so. To illustrate this, it has been confirmed that before 2001 students had to leave the country for five years before being allowed again to enter as a qualified worker, known as the 'Quarantine'. A special instrument has been designed, the 'Quota scheme', being a scholarship programme intending to create capacity in the first place and designed for students from developing countries. Here, a negative financial incentive is implemented as to ensure that students leave Norway again and return to their home country: students who remain in Norway, move to another country than their home country or come back to Norway within a period of 10 years after the financed period is over, have to pay the scholarship money back. Thus there are clear negative financial incentives ensuring that students entering with this special scholarship leave Norway later again. This is as well checked by the UDI. These special conditions are, however, not communicated in the first place at the "Study in Norway" website. Furthermore a special program (VARP) for migrants in an irregular situation exists, facilitating a voluntary return (students can be part of this). The IOM is financially taking care of this.

The interviews paid attention to the benefits of circular migration: students come to study in Norway, work for some time and later on migrate again and make use of their skills. Another part of the medal is considered to be that students, intending to stay permanently, set up networks, make investments and send back remittances. This circular migration shall be supported. It has

been confirmed that policies are formulated meant to assure that remittances are made cheaper and safer. Still a general tenor is that these policies could be better coordinated.

7.4 CONCLUSION

The prior section revealed that the national policies serve different needs: the own national situation is considered as well as the effects on sending countries. According to the information obtained, the policies have been liberalised over the years, with regard to the options for staying in Norway after graduation. No information could, however, be obtained to what target group they have been designed in the first place. Strict programmes for students from developing countries are in place, imposing negative financial instruments on them if they do not return. In addition the legal framework in the past did not allow students a re-entry to Norway within a certain period and some scholarships these days have similar conditions. Thus it seems as if policies are designed for ensuring that circular migration takes place. Although a number of instruments are in place as to facilitate a return of students, the importance of the economic potential international students reveal is acknowledged. An inclusion into the Norwegian labour market is considered to be beneficial. However, the job-seeking period after graduation is rather short, with six months only. This is maybe because only a small group shall be allowed to the system. Yet in order to apply for permanent settlement it takes only 3 years of legal stay. This is a very different picture compared to the German one presented previously. It is important to acknowledge that doing a PhD is not considered as belonging to study purposes in Norway. In general it can be said that students from developing countries do not have a special treatment (except for special scholarship treatments). The immigration act and the regulations in place only distinguish between EFTA and EU students and those not falling in these categories. The empirical data collected, emphasised a balanced picture and a focus on the situation for sending countries. Looking at the expectations placed on the mutual understanding approach and the instruments, it can be said that some instruments, though not expected to be used are present and vice versa. All in all, however, the data confirmed the mutual understanding approach being present here, yet some elements of a skilled migration approach are visible. It is interesting to observe that the different interview partners placed again emphasis on different goals (probably related to their inherent position in the system).

Table 9: Findings Norway

Approach	Instruments	Expectation that instrument is in place	Instrument used?	Impact on Sending Country
Management	Expectation to leave country after purpose is reached	Likely	Yes	Brain Gain
	Option for continuous education (Master/PhD)	Likely	Yes, though PhD does not fall into the study category	Long-term Brain Drain
	Option to look for a job after graduation	Unlikely	Yes, job seeking period is meant for six month	Brain Drain/ Brain Circulation
	Possibility to change status/reason for entering country in the first place	Unlikely	Yes	Brain Drain
	Prolong stay	Likely	Yes	Brain Drain
	Receive long term work permit	Unlikely	Not immediately	Brain Drain
	Possibility to obtain permanent residence permit	Unlikely	Yes, after a period of 3 years	Brain Drain
	Purpose related residence permit which cannot be renewed	Likely	Not in place	Brain Drain
Both	Reintegration / Return Programs	Likely	Yes	Brain Circulation/Brain Gain
Diaspora	Financial Incentives for return	Likely	Yes, negative financial incentives. Loan to be paid back	Brain Circulation/Brain Gain
	Restrict entry to country within a certain timeframe	Likely	Back in time this was in place. Today partly connected to some scholarship agreements	Brain Circulation
	Allow for improving flow of remittances	Likely	Yes	Brain Circulation
	Facilitate Creation of Networks	Likely	Yes	Brain Circulation

8 THE NETHERLANDS

8.1 COUNTRY SPECIFIC DATA

Having succeeded with offering a lot of programmes in English and thus attracting international students (Maiworm & Wächter, 2008), a more specific picture about students from developing countries is presented. First the proportion of general enrolment in tertiary educations and students from developing countries is illustrated. Enrolment in Dutch higher education institutions has significantly increased over the last years. The percentage of students from developing countries is relatively small in comparison to the total number of students in the Netherlands. A drop is observed for the number of students from developing countries in this period. This was linked to a decrease in the number of students coming from China and a funding reform in connection to that.

Netherlands	Total Enrolment	Students Dev. Countries	Percentage
1999	469.885	3.843	0.82%
2003	526.767	5.770	1.1%
2007	590.121	3.743	0.64%

Source: UIS (2009)

It is interesting to get to know more about major sending countries to the Netherlands. The highest influx of students comes from Germany, followed with quite some distance by China. As for developing countries, China is listed, followed by Indonesia and Suriname having colonial ties with the Netherlands. As data on students from developing countries is lacking, the picture for foreign students in general is used as an illustration (Nuffic, 2009b): the distribution between research universities and universities of applied sciences is equal with regard to general foreign student enrolment. Most of the foreign students are at the Bachelor level (77%), around 22% are at the Master's level and only a minor percentage of 1 % is at the post master level. The tuition

All Countries	Germany	China	Belgium	Indonesia	Poland
	10.170	1.789	991	442	401
Developing Countries	China	Indonesia	Suriname	Morocco	Vietnam
	1.789	442	313	234	174

Source: UIS (2009)

fees related to higher education vary for different student groups and are particularly higher for non-EU students (Nuffic, 2010d).

8.2 VIEW ON INTERNATIONALISATION

How are the Netherlands positioning themselves with regard to Internationalisation and international students in particular? This section indicates which view is taken on internationalisation. This is done firstly by consulting the internationalisation strategy and secondly by providing evidence for attracting international students, gathered in the interviews.

8.2.1 INTERNATIONALISATION STRATEGY

As a first step the strategic document acknowledges the increasing mobility of students worldwide and the growing competition for these (Ministry of Education Culture and Science, 2007). This mobility is connected to the brain drain/gain debate. In particular the Netherlands understand their position in these developments, as having succeeded in attracting a number of foreign students, due to using English as a language of instruction. In terms of future targets, it is expressed that the presence of foreign students is having a positive effect on the international atmosphere and on the learning behaviour of Dutch students (compare (Suter & Jandl, 2008) and should thus be stimulated (**mutual understanding approach**). In order to reach that, a number of issues need to be taken into account, however.

The strategic document as to position the Dutch higher education system refers to the following main points (Ministerie van Onderwijs Cultuur en Wetenschap, 2009): First, a profiling and positioning of the Dutch education system abroad should be done. Netherlands Education Support Offices (NESO) shall be set up in certain developing countries as to attract international students and do capacity building (**skilled migration approach**). Second, development cooperation shall be facilitated as to encourage a brain circulation situation. Third, the migration possibilities for students and researchers outside of Europe to the Netherlands should be improved. Attention shall be paid to the situation of developing countries, yet nothing specific is mentioned here (**skilled migration approach**).

In a nutshell the focus is on positioning and creating a good reputation of the higher education system in the world. Attracting international students and offering options for simplifying migration opportunities for international students and researchers is another target. Keeping in mind that tuition fees vary for different student groups, the Netherlands can be categorized as following a **strong revenue generation approach**, typically yielding characteristics of the mutual understanding approach and the skilled migration approach.

8.2.2 RATIONALES FOR ATTRACTING INTERNATIONAL STUDENTS

The interviews revealed in more detail why international students are important for the Netherlands. The following reasons have been mentioned and confirm the previous picture: internationalising the universities, fostering their market share and reputation and creating a competitive and international atmosphere for Dutch students. In addition to these reasons, strong emphasis is placed on the importance of international students for the knowledge society and the competitive role of the Netherlands to be facilitated by having these highly skilled migrants in the country (see also (Hercog, 2008)). However, it has been mentioned that the focus is not exclusively on attracting students from developing countries for pursuing these goals, although they can make a contribution. There are as well some scholarships specifically designed for students from developing countries. It has been observed that the rationales vary qua focus according to the different sources consulted. The ministry of education places huge emphasis on

the education related importance. The *Immigratie- en Naturalisatiedienst* (IND), however, sees these students as a contribution to wider economic goals. Keeping these motives in mind, the legal framework setting out the scope of action is explored.

8.3 IDENTIFICATION OF STRATEGIES AND INSTRUMENTS

The combined information obtained from documents on the one hand and interviews held on the other hand, provide a good convergence of evidence about the situation. Communications took place with spokespersons from the Ministry for Education, Science and Culture, the IND and the Netherlands organization for international cooperation in higher education (Nuffic).

8.3.1 ENTRANCE CRITERIA

The IND is in charge of administering the entrance of foreigners to the Netherlands. Entrance criteria vary for EU and non- EU students. For students of non-EU countries there are slight differences for the respective countries in relation to entrance visa or requirements for obtaining a residence permit. However, common conditions exist according to the IND Residence Wizard (2010): students have to enrol at an educational institution on full time basis, they have to sign what is known as the code of conduct and are in need of signing an agreement with the IND. Special rules apply for Chinese students, being in need of a NESO certificate (Ivho, 2008; Nuffic, 2010c), which is meant to assure that these students “are sufficiently qualified to pursue their studies. This way they enhance their chances to have a successful and meaningful stay in the Netherlands”(Nuffic, 2009c).

Closer examination yields that two steps need to be taken: first students have to apply for a provisional residence permit related to education purposes (*Machtiging tot Voorlopig Verblijf* (MVV)).

This permit allows to travel to the Netherlands where they can change their preliminary permit into a temporary one (*Verblijfsvergunning Regulier* (VVR)) after having consulted the respective educational institution and the IND. The temporary residence permit is issued for one year in the first place and can be extended for the normal study duration plus two additional years. Furthermore the residence permit is linked to a certain purpose (in this case education) and to an education institution. Changes for one of the two need to be approved by the IND (*Immigratie - en Naturalisatiedienst*, 2010; Ivho, 2008). The ‘*moderne Migratiebleid*’, coming into force in 2011, intends to make the current framework more transparent and accessible: i.e. a residence permits shall be issued not requiring renewal, a rearrangement of getting the MVV and VVR is made and finally no approval and notice to IND is needed if the education institution is changed (Ministerie van Justitie, 2008; Ministerie van Onderwijs Cultuur en Wetenschap, 2009).

8.3.2 LEGAL FRAMEWORK AFTER GRADUATION

There are two general roads which can be taken after an international student has graduated. Accompanying the residence permit is the fact, that it expires once the studies are finished (Immigratie - en Naturalisatiedienst, 2010). Yet, the framework allows for two roads that international students can take in relation to staying the Netherlands.

The first road refers to following a continuous education. Although a maximum period exist for study purposes, the counting starts new when students apply for another study programme like a Master. The residence permit is issued for the time of study duration and two additional years. If international master graduates intend to stay in the Netherland in order to do a PhD a different situation is approached. This is because PhD positions are not considered as studies but rather like a job. Accordingly international students are in need of changing the education related purpose of their residence permit at the IND (Nuffic, 2010a).

The second road is part of a policy package enabling international students to stay/come to the Netherlands. More specific the first part is known as the **'Seeking work after Graduation'** admission scheme coming into action in 2007. The scheme is applicable for international Bachelor or Master graduates of a recognised Dutch higher education institution. In particular, graduates can apply for a permit, allowing them to extend their stay in the Netherlands for a period up to one year as to look for an adequate job. During that period graduates can freely access the labour market and look for a job according to their specialisation. This in turn enables them to stay in the Netherlands –thus changing the purpose of their stay. In order to qualify as a highly skilled migrant, the minimum salary per years must be 25.800€. The permit being issued in order to find a job cannot be extended after the period of one year is over (Nuffic, 2009a). Accordingly either a change of residence purpose must be asked for, or international students are required to leave the country. This search year option is available for all international students independent of their country of origin. The implementation of this scheme in 2007 seems to be a liberalisation. Beforehand students could only stay for 3 month in the country after graduation and the minimum salary per year threshold was higher.

The other part of this package is known as **the 'Admission scheme for highly educated persons'**. This scheme is valid for Master graduates and PhDs which either obtained a degree from a Dutch institution or from abroad (university listed in the top 150 in either Times Higher Education or Jiao Tong Shanghai University). More specific, if they intend to apply for a job, they can do so within a period of three years after having obtained their degree. They can stay up to one year in order to look for a job or otherwise leave the country. In addition to that 35 points are needed to be attained to grant entry. The points result from the education level (PhD is 30 points, Master 25 points), age (5 points) and a range of indicators (each 5 points) ensuring a successful stay in the Netherlands (Nuffic, 2010b).

In addition options for permanent settlement exist, after a legal stay for five years. After a period a lawful employment of three years, the labour market can be accessed freely. The new

legislation coming into action in 2011 is expected to make it easier for international students to come to the Netherlands and stay because international students are assumed to be positively affecting cultural/social and economic fields of Dutch society (Nuffic, 2010c).

8.3.3 POLITICS & ACTIONS

The different sources, which were consulted, revealed that there is no active policy in place intending to steer international students from developing countries in one or the other direction after graduation. Although the importance of international students for Dutch society is stressed, in connection to the desirability if these international students stay in the Netherlands, responsibility is placed in the hands of individuals to make use of the options available. Particularly the 'seeking work after graduation' and the 'admission scheme for highly education persons' channels were introduced to give international graduates the option to make use of their skills in the country. This is because the danger was perceived that these international students might opt for migration to other countries, if no options to stay are available. Thus after having invested a lot of money in these students, it would be a bad bargain if they leave again. In addition the Dutch government intended to encourage international talent to stay longer. Hence competitive rationales were leading factors for this development. It was stressed that the economic rationale connected to these options was not devised for students from developing countries in the first place but for mainstream international students.

Reference has been made to the fact that a distinction is necessary between whether students enter on basis of a scholarship or on their own account. If students enter on their own account the use of this 'seeking work after graduation channel' is more appreciated than for students entering on a scholarship with the intention to build capacity at home. However a mismatch is observed. Whereas on the one hand there are scholarships linked to purposes of development aid, the IND does not possess this information. Hence it might issue new permits, enabling students to stay in the country. This might be contradictory to the original ideas of these scholarships. It has been confirmed that no strategic efforts are taken, ensuring that students from developing countries leave after graduation. Although after accomplishing the studies, the permit expires, no instruments are in place assuring that students leave the Netherlands again. It is left up to individuals whether they intend to return or not. In addition, no return or reintegration programmes have been identified ensuring that students leave the country.

The interviews stressed that some institutions might have programmes in place, however not at the governmental level (although indirect governmental funding might exist for these programmes, as institutions can allocate the money themselves). In terms of a brain circulation situation, attention is rather paid on Dutch researchers as being key players in this. However, as PhD students fall into the research category as well, attempts towards international cooperation can be mentioned here. No explicit incentives addressed towards international students could be observed, although the internationalisation strategy aimed to take action in that.

8.4 CONCLUSION

The prior section revealed that the policies and instruments in place serve different needs. On the one hand the importance of international students is perceived and the contribution they make for Dutch society, as highly skilled migrants. No distinction is made between international students in general and students from developing countries in particular. Thus, the legal framework allows for two different options after graduation. Either follow a continuous one or make use of the 'seeking work after graduation' or 'admission scheme for highly educated persons' channel. The former channel allows for a maximum stay of one year. The latter, allows as well for a maximum stay of one year, though applications can be made up to a period of three years after graduation. People can freely access the labour market after a lawful employment of three years.

A mismatch has been observed however: the IND does not control the conditions specified in scholarship agreements. To illustrate this: although a student from a developing country entered on scholarship with the intention to return home with his knowledge, can stay in the Netherlands and make use of this job seeking year as well. Hence it seems as if reality paints a different picture and it is doubtful to what extent the primary purpose is reached. Furthermore in the interviews, reference has been made to the fact that concerns exist with regard to a brain drain situation for sending countries. However no instruments and incentives could be observed addressing this issue. Even stronger in terms of instruments facilitating brain circulation, the focus has rather been placed on Dutch researchers than on graduated students and international PhDs. The interviews stressed the responsibility being placed in the hands of individuals here, in relation to whether the post-graduation options are used.

The Netherlands has previously been identified as following a strong revenue generation approach with features of the skilled migration and mutual understanding view. Contrasting the expectations with the data being collected, the revenue generation approach and the strong skilled migration are equally strong present: high tuition fees exist for non EU students, and good options are available for people intending to stay in the country and make use of their skills, even after a period of three years. No incentives could be observed making sure that students leave after graduation. All in all it seems that the expectations formulated in the first place are rather confirmed than rejected and the skilled migration approach is a strong way embodied in the Netherlands.

Table 10: Findings the Netherlands

Approach	Instruments	Expectation that instrument is in place	Instrument used?	Impact on Sending Country
Management	Expectation to leave country after purpose is reached	Likely	Yes	Brain Gain
	Option for continuous education (Master/PhD)	Likely	Yes, though a PhD does not fall into the study category	Long-term Brain Drain
	Option to look for a job after graduation	Likely	Yes, job seeking period is possible for one year	Brain Drain/ Brain Circulation
	Possibility to change status/reason for entering country in the first place	Neutral	Yes, but in need of notification	Brain Drain
	Prolong stay	Likely	Yes, study duration plus two additional years	Long-term Brain Drain
	Receive long term work permit	Unlikely	Not in the first place, after three years	Brain Drain
	Possibility to obtain permanent residence permit	Neutral	Yes, after 5 years	Long-term Brain Drain
	Purpose related residence permit which cannot be renewed	Likely	Not in place	Brain Drain
Both	Reintegration / Return Programmes	Neutral	Not in place	Brain Drain
Diaspora	Financial Incentives for return	Neutral	Not in place	Brain Drain
	Restrict Entry to country within a certain timeframe	Likely	Not in place	Brain Drain
	Allow for improving flow of remittances	Unlikely	No evidence	Brain Drain
	Facilitate Creation of Networks	Neutral	Yes, partly	Brain Circulation

9 THE UNITED KINGDOM

9.1 COUNTRY SPECIFIC DATA

The United Kingdom is an active player in the field of international student mobility. An illustration of this is provided in the following.

UK	Total Enrolment	Students Dev. Countries	Percentage
1999	2.080.960	32.508	1.5%
2003	2.287.833	71.913	3.1%
2007	2.362.815	131.824	5.5%

Source: UIS (2009)

As for the different countries under comparison here, the United Kingdom has the biggest absolute and relative number of students from developing countries in the system with 5.5%. The trend over the last ten years shows a steady increase of total enrolment. As for students from developing countries the increase between 2003 and

2007 is immense (probably as a result of the governmental initiatives, referred to in the following). With regard to the countries sending its students to the United Kingdom, China is having the largest share: the Chinese students account for 38% of all students from developing countries in 2007. Other countries having a big share are India, followed by Malaysia, Nigeria and Hong Kong.

In terms of the proportion between the different levels the students enter, it has been confirmed by the department of Business Innovation and Skills, that the proportion is almost equal between undergraduates and postgraduates. It shall be kept in mind that the tuition fees non-EU students have to pay may vary at the different institutions and ranges from 4.000 to 18.000 £¹¹ per year (UK Council for International Student Affairs, 2010).

All	China	India	Ireland	Greece	USA
	49.594	23.833	16.254	16.051	15.956
Developing Countries	China	India	Malaysia	Nigeria	SAR Hong Kong
	49.594	23.833	11.811	11.136	9.639

Source: UIS (2009)

¹¹ Note that 4.000 £ are ca. 4780€, hence 18.000 £ are ca. 21550€.

9.2 VIEW ON INTERNATIONALISATION

How is the United Kingdom positioning itself with regard to Internationalisation and international students in particular? This section indicates which view is taken on internationalisation. This is done firstly by consulting the internationalisation strategy and secondly by providing evidence for attracting international students, gathered in the interviews.

9.2.1 INTERNATIONALISATION STRATEGY

First and foremost it shall be mentioned that the United Kingdom is having an important role with regard to the provision of higher education on the international market (UK Higher Education International Unit, 2007). In connection to that, two important strategies, known as the Prime Minister's Initiative have been released (PMI, launched in 1999 as a five-year strategy /PMI2, launched in 2005 as a five-year strategy). They address targets as to stimulate the further success of British education (British Council, 2008). The United Kingdom generates a huge amount of money per year in connection to education (£ 12.5 billion). Most of this derives from international student recruitment, namely £ 8.5 billion per year. The PMI2 strongly mentions that a balance of international activities shall be reached between recruitment of international students, the establishment of partnerships, research and capacity building.

This is particularly done to overcome the image that the United Kingdom is only active in international education because of money reasons (British Council, 2008, p. 1). In the PMI2 attention is paid to the further attraction of international students: around 70.000 additional international students shall be attracted in the following years. The amount of partnership agreements shall increase as well. An important feature of the PMI2 is the circumstance that education in the United Kingdom is seen as a brand to be sold abroad. This marketing shall attract new students and advertises to bring social, cultural and career benefits to its consumer. Hence, making the United Kingdom a study destination is considered to yield lots of benefits for consumers in the first place and employers later on. Note that reference was not made to issues of balance in these strategic documents (which is different from the other countries). The nature of international activities has strongly been associated with an economic rationale in the past (money generation). The PMI2 tries to put this image down by focussing on more activities. Still targets are newly formulated with regard to an increase in the number of students.

9.2.2 RATIONALES FOR ATTRACTING INTERNATIONAL STUDENTS

Next to the internationalisation strategy, the interviews revealed more specific motives for attracting international students. The reasons include different aspects: international students are linked to matters of prestige: institutions are interested in having the best students from all over the world as it is contributing to the research capability. Furthermore international students create diversity on campuses and are important because of bringing an international atmosphere

to domestic students - internationalisation at home. In the United Kingdom, institutions can charge higher fees for international students, thus being a financial rationale. The overall aim is to attract the brightest students from all over the world, not specifically focussing on students from developing countries.

Keeping in mind the revenue which is generated in connection to international students and the targets to further increase the numbers it stands to reason that the United Kingdom is taking a **revenue-generation approach** with regard to internationalisation (yet the department for Business, Skills and Innovations does not communicate this aspect, being probably linked to its wider aims -the internationalisation of higher education in the first place).

9.3 IDENTIFICATION OF STRATEGIES AND INSTRUMENTS

The combined information obtained from documents on the one hand and interviews held on the other hand, provide a good impression on the situation. In comparison to the other countries under study, it was difficult to obtain information for the United Kingdom. Next to the documents two communications took place with the British Council on the one hand and the Department of Business, Innovation & Skills on the other hand. It shall be kept in mind that the consultation of only two sources might constrain the research in terms of providing a complete and harmonious picture.

9.3.1 ENTRANCE CRITERIA

The United Kingdom has a points-based migration system in place, differentiating between entry routes linked to a certain purpose and qualification. Students intending to study in the United Kingdom need to apply for a student visa under tier 4. They are in need of acquiring 40 points in order to be allowed to enter the United Kingdom: 30 for being accepted for study purposes at an education provider ('sponsor') and another 10 points are obtained if it is granted that students have enough money as to cover their study and living expenses (Home Office UK Border Agency, 2010b). Students from some countries are in addition, in need of health certificates when intending to enter the United Kingdom (British Council, 2010). Connected to issuing a study related residence permit in the first place, is the condition that students leave the country once they have graduated. As such the stay is considered to be of a temporary nature (Home Office UK Border Agency, 2008)

9.3.2 Legal FRAMEWORK AFTER GRADUATION

There are opportunities for students as to stay in the United Kingdom, although the stay is considered to be temporary. Once again there are two roads for doing so: first in terms of a continuous education and second in terms of accessing the labour market. To start with, if a student intends to follow a continuous education in form of a second degree, an extension of the student visa is needed. By means of doing so the 40 points requirement has to be met again (Graduate Prospects, 2010). Another option is to stay in the country with the purpose of doing a PhD, being limited to the duration for receiving the title (British Council, 2010).

The second road is applicable for students having successfully completed their studies. Students can apply under tier 1 for an extension of their period in the United Kingdom with the intention to look for a job, known as post-study work scheme. Whereas in 2006 the period of looking for an adequate job was limited to 12 month and changes of tiers were limited to some students who should form part of the country's workforce (Home Office UK Border Agency, 2006), the current system shows a different picture. The post-study visa allows students to stay another two years in the country with the intention to look for a job. This scheme is applicable for all international students who have graduated in the United Kingdom, unless specified otherwise in their scholarship agreement. No special work permit, job offer and sponsor are needed for doing so, only the immigration status has to be changed (British Council, 2010). This job searching period is considered to serve as a bridge between the tiers. During that period students have the chance to meet the eligibility criteria for entering another tier like the one for the highly skilled. Even stronger it is expected that students applying for this category change to another tier of the points based system (Home Office UK Border Agency, 2010a). This post study visa can however not be used as time for qualifying for permanent settlement (Graduate Prospects, 2010). In order to obtain a permanent residence permit, the applicant is in need of a lawful stay of a period for five years and has to be in another category than tier 4 (UK Border Agency, 2010).

9.3.3 POLITICS & ACTIONS

The data collected confirmed that the United Kingdom is having a strong recruitment strategy and aim to attract the brightest minds from all over the world, not focussing on a certain group of students. Related to this recruitment strategy, are the post-graduation strategies for international students: the interviews underlined that the options in place were issued as to give international students a package. On the one hand they are receiving a British degree and are offered the possibility to gain working experiences as an additional feature. It is considered that this is beneficial for the international labour market. It has been accentuated that these options make the United Kingdom a more attractive study destination, leading to a win-win situation. Apart from these benefits, however, the sources stressed that no specific encouragements exist as to stimulate international students to stay in the country after graduation.

Even stronger, it is claimed that the country merely enables those who wish to stay to do so, placing responsibility in the hands of individuals.

The sources underlined that individuals have to make a conscious choice whether they want to stay or not, as the job-seeking period is considered to be a bridge between the different tiers. The government, however, does not formulate targets with regard to this, thus taking a rather passive role. In addition it has been confirmed that no return or reintegration strategy is directed to students from developing countries, ensuring that they leave the United Kingdom. The individual institutions might be involved in this; however no actions at the governmental level are held. Although international students are supposed to return once their permit expires no evidence is gathered as to what extent this is controlled. For the United Kingdom no information could be obtained with regard to ensuring that a balance of interests is reached. Reference has been made that concerns over brain drain exist if international students stay after graduation. Yet no incentives could be observed as to overcome this. Furthermore in terms of brain circulation, the stress was on the facilitation of Alumni networks, in addition to partnership agreements and collaborate initiatives. The latter are , however, not directed towards individuals.

9.4 CONCLUSION

Combing the different information, a strong recruitment strategy for international students was observed. However in terms of retaining and 'returning' international students, less strong incentives are detected. Some options exist for students who intend to stay in the United Kingdom for a longer period, yet the interviews stressed that little attention is paid to whether this option is actually used. With regard to incentives ensuring that students leave the country, a similar picture is painted: the idea is that students leave the country after their visa expires, whether or not this is controlled and checked could, however, not be identified. Likewise the other countries, responsibility to use the options were placed in the hand of individuals. The system revealed some changes of the last years. Whereas previously international students were allowed to stay for a period of 12 month as to look for job, these days the period is extended to two years, being rather long in comparison to the other countries under study. Options for permanent settlement are available as well. After a lawful stay of five years, this is possible.

All in all the United Kingdom was associated with a revenue-generation approach, focussing on short-term benefits rather than on long-term options. In addition it was expected that a country following a revenue-generation approach is more or less thinking in economic terms: if students are beneficial for society they might stay, otherwise they should return. This thinking has been confirmed in the interviews, as reference has been made frequently to the circumstance that the United Kingdom does not have clear targets with regard to post-graduation. Instead it merely enables those to stay who wish. Thus it seems as if the United Kingdom takes a slightly indifferent

approach on this. All in all it seems however that the information confirms the revenue-generation approach the United Kingdom is taking.

Table 11: Findings the United Kingdom

Approach	Instruments	Expectation that instrument is in place	Instrument used?	Impact on Sending Country
Management	Expectation to leave country after purpose is reached	Likely	Yes	Brain Gain
	Option for continuous education (Master/PhD)	Likely	Yes	Long-term Brain Drain
	Option to look for a job after graduation	Likely	Yes, job seeking period for two years (bridge between tiers)	Brain Drain/ Brain Circulation
	Possibility to change status/reason for entering country in the first place	Neutral	Yes	Brain Drain
	Prolong stay	Likely	Yes	Brain Drain
	Receive long term work permit	Likely	Not in the first place.	Brain Drain
	Possibility to obtain permanent residence permit	Unlikely	Yes, after 5 years of legal residence.	Brain Drain
	Purpose related residence permit which cannot be renewed	Likely	Not in place	Brain Gain
Both	Reintegration / Return Programmes	Neutral	Not in place	Brain Drain
Diaspora	Financial Incentives for return	Neutral	No evidence	Brain Circulation
	Restrict Entry to country within a certain timeframe	Likely	No evidence	Brain Circulation
	Allow for improving flow of remittances	Unlikely	No evidence	Brain Drain
	Facilitate Creation of Networks	Neutral	Yes	Brain Circulation

10 COMPARISON & ANALYSIS

The previous chapter presented the empirical data, having been collected for this research. This chapter processes this data in two ways: first, it creates a combined picture in order to be able to identify similarities and differences for the countries involved. Second the results are analysed through the theoretical lenses and contrasted with the expectations formulated previously.

10.1 COMPARING THE RESULTS

The following table yields an overview of the results of the different countries. In turn each of the instruments is discussed in detail.

Table 12: Comparing the Findings

Instruments	Results Norway	Results Germany	Results United Kingdom	Results the Netherlands
Expectation to leave country after purpose is reached	In place	Not in place	In place	In place
Option for continuous education (Master/PhD)	Yes, though PhD does not fall into the study category	Yes	Yes	Yes, though PhD does not fall into the study category
Option to look for a job after graduation	Yes, six month job seeking period	Yes, one year job seeking period	Yes, two years job seeking period	Yes, one year job seeking period
Possibility to change status/reason for entering country in the first place	Yes	Yes	Yes	Yes, but in need of notification
Prolong stay	Yes	Yes: up to 10 years for Master studies, 15 years PhD (not issued immediately)	Yes	Yes. Study duration plus two additional years
Receive long term work permit	Not immediately	Not immediately, after two years	Not immediately	Not immediately, after three years
Possibility to obtain permanent residence permit	Yes, after a period of 3 years	Yes, after 5 years. Half of the study time is credited	Yes, after 5 years of legal residence	Yes, after 5 years of legal residence
Purpose related residence permit which cannot be renewed	Not in place	Not in place	Not in place	Not in place
Reintegration / Return Programmes	Yes	Yes, for voluntary return	Not in place	Not in place
Financial Incentives for return	Yes, negative incentives. Pay back loan.	Not in place	No evidence	Not in place
Restrict Entry to country within a certain timeframe	Partly connected to some scholarships	No evidence	No evidence	Not in place
Allow for improving flow of remittances	Yes	No evidence	No evidence	No evidence
Facilitate Creation of Networks	Yes	Yes	Yes	Yes (research networks)

10.1.1 COMPARING THE INSTRUMENTS

ENTRANCE CRITERIA & PERCEPTION ON STUDENTS FROM DEVELOPING COUNTRIES

To start with, all the four countries have a strong interest in including international students in their higher education system. Reasons for this interest range from contributions to the quality of domestic education to wider economic reasons. However, none of the countries focuses actively on the attraction of students from developing countries. All countries have scholarship programmes in place, directed towards students from developing countries. These are often intended to create capacity. As for the entrance criteria, the countries ask similar conditions from its international students: i.e. being accepted at a higher education institution and possess financial means to cover the stay. Differences are observed with regard to the temporal dimension of the entrance. Norway, the United Kingdom and the Netherlands place emphasis on the temporary nature of the education-related stay. The expectation is in place that students have to leave the country after obtaining their degree. In Germany a similar condition was formerly in place, being however removed with legislation coming into force in the last years.

OPTION FOR CONTINUOUS EDUCATION (MASTER/PHD) & PROLONG STAY

All countries allow in general for doing a continuous education in form of a master study or a PhD. This option is connected to the option for prolonging the stay in general. Specific time periods could only be obtained from Germany and the Netherlands. For Germany the maximum period for doing an education up to the Master is 10 years. For a PhD this is 15 years. It does not allow in general for a second study. Furthermore, for students from developing countries (entering on a scholarship) a prolonging of the stay depends on the situation of the home country. The Netherlands allow for the normal timeframe of the study and two additional years. If students intend to do a Master as well, the time counter is set back. PhDs are in Norway and in the Netherlands not considered to be linked to study purposes. Instead they fall into the work/research category.

OPTION TO LOOK FOR A JOB AFTER GRADUATION

All countries offer the option to look for a job after graduation. In more detail they offer a certain period to graduates, during which they can try to find a job according to their qualification. The timeframes for doing so differ, however. Norway has a rather short period of six months in comparison to the Netherlands and Germany, allowing for a one year stay. The United Kingdom enables the longest period, being two years. In the United Kingdom this job-seeking period shall be used as a bridge between the tiers, ensuring that students enter via another tier (preferably the highly skilled one). The Netherlands have a special package in place, allowing Dutch Master and PhD graduates to make use of the search year option up to a period of three years after graduation.

POSSIBILITY TO CHANGE STATUS/REASON FOR ENTERING THE COUNTRY IN THE FIRST PLACE

All countries under study allow for a change of status/reason for entering the country in the first place. To be more explicit, students who entered with a permit being linked to the purpose of obtaining an education can apply for a change of permit as well (i.e.: work permit, or transition period for looking for a job). It was mentioned though, that in Norway this was formerly not possible. Also the Netherlands reflected changes with regard to this, as a result of the reform in 2007.

RECEIVE LONG TERM WORK PERMIT & PERMANENT RESIDENCE

In none of the countries, it is possible to receive a long term permit granting free access to the labour market immediately. This is probably because the stays of students are considered to be temporary in the first place and are linked to **study purposes**. Germany reflected however that after two years of legal employment, students can freely access the labour market. In case of the Netherlands, this is set to five years. For the other two countries, it could not be obtained when and if a long term work permit is granted. All countries under study have options for permanent settlement, being applicable for students from developing countries as well. Differences with regard to this are observed: Norway has a rather short period of only three years of lawful residence. Germany has a period of five years in place, whereas half of the study time is credited in this. The Netherlands and the United Kingdom have a period of five years as well.

Linking these conditions to the job-seeking period it can be said that Norway has a rather small time span as to look for job and a rather short one for permanent settlement as well. It could be hypothesised that those students who take the effort and have success in finding a job, are rewarded for this later on. Germany and the Netherlands request a lawful stay of a period of five years. In connection to offering a job-seeking period of 12 months, the options enable for a successful entry. The United Kingdom, has also a period of five years. Yet it offers students to look for a job in a timeframe of two years, creating good chances to enter the labour market and stay on. Note of course that it takes a range of other criteria for being entitled to get a permanent residence permit. They are, however, not important to consider here.

PURPOSE RELATED RESIDENCE PERMIT, NOT RENEWABLE

Although in the previous sections it has been claimed that this kind of permit is not in place, it needs to be formulated in a different way: all countries allow for renewable permits. However once students make use of the job-seeking period the permit issued for doing so cannot be renewed and students have to leave the country.

REINTEGRATION/RETURN PROGRAMMES & FINANCIAL INCENTIVES FOR RETURN & RESTRICTION OF RE-ENTRY

The countries under study have not been too concerned with issues of 'return'. Germany and Norway have return programmes in place. However, these programmes are only applicable if students do not have legal grounds for residence anymore or aim to return voluntarily. Hence, they are supporting actions once individuals have already decided to return, rather than being encouragements for doing so. As for the Netherlands and the United Kingdom nothing like this

could be observed. All countries except Norway do not have active 'return' strategies, as they do not want to interfere in the decision of individuals. Even stronger, the Netherlands claim that they do not have a 'return' policy in place as it would not be in line with their values.

In terms of Norway, the past reflected strong restrictions after graduation. A special condition is connected to some scholarship agreements these days. It is prescribed that the loan needs to be paid back: if individuals do not leave Norway after graduation, turn to another country or try to re-enter within a timeframe of ten years. Nevertheless all countries claimed that an active 'return' policy for students from developing countries would not be efficient. This is because it cannot be controlled in a good way that students go to their home country.

ALLOW FOR IMPROVING FLOW OF REMITTANCES & FACILITATION OF NETWORK CREATION

Except for Norway, no evidence could be gathered that countries are actively trying to improve the flow of remittances. However, all countries stressed the importance of the facilitation of networks, either in form of Alumni networks or among researchers.

10.1.2 COMPARING THE POLICY PACKAGES ON RETENTION AND 'RETURN'

All the countries under study emphasised that they are not actively trying to retain students after graduation. Instead the general perception is that governments provide the legal framework and students have to decide individually whether they would like to stay or not. Although they are aware of the potential the students yield for their economy, they place responsibility in the hands of students. The empirical data stressed that all countries look back on changes in the legal system in the last ten years, resulting in better options for foreign graduates to stay on. Hence this liberalisation of policies, as already mentioned in the literature previously (Chiswick, 2005; OECD, 2002; Tremblay, 2005), is confirmed for the countries under study. Reasons for doing so are similar for the four countries. All referred to the economic implications that might result from these highly skilled people: a contribution to the demographic situation and a factor with regard to competitiveness.

Another reason for implementing options to stay on in the country relates to the competition which exists between countries. To illustrate this, particularly Norway and the Netherlands stressed that if they do not offer options for these international students to stay on, they might go to those OECD countries having a more liberalised migration system. Accordingly, governments perceive that it cannot be controlled that students return indeed to their home country and use the knowledge there. This is also the reason why countries hardly have coherent policies in place ensuring that students return. In terms of scholarships different conditions prevail partly. Norway is strongly ensuring that students entering on a scholarship return (checked by UDI). Germany is also considering whether residence permits might be renewed on basis of the sending country's perspective.

The Netherlands reflect a mismatch with regard to this: the IND does not possess enough information as to know when students are expected to return (on grounds of scholarship agreements).

The countries under study reveal a rather mixed picture: governments claim that **neither the attraction, nor the retention, nor the 'return' of students from developing countries is fostered**. However, a number of instruments are in place, intending to encourage a stay of international students. In a nutshell, the countries under study do have similarities with regard to the perceived potential that international students reveal, the role of students from developing countries and the direction of how to deal with the students after graduation – namely a diplomatic approach by placing responsibility in the hands of individuals. Differences are identified particularly with regard to the job-seeking period and the options for permanent settlement. In the next section this is going to be linked to the way countries have been categorised in the first place, namely according to their internationalisation strategy.

10.2 INTERPRETING THE FINDINGS THROUGH THE THEORETICAL LENS

In the following the results are linked to the theoretical concepts of this study. Reference is made to the view on cross-border education, the approaches directed towards highly skilled migration and the issues of balance.

GERMANY

The expectations, previously formulated for Germany, as taking a skilled migration approach are merged with the data. Considering these expectations they seem to hold.

- a) *Is likely to manage its policies in light of competition, though keeping cooperation with developing countries in mind.*

To start with, German policies reflect a strong liberalisation of policies in favour of the highly skilled. In particular, policies enabled international students to stay in the country upon graduation, rather than be forced to return. Options for continuous education are in place, too. However, special conditions exist for scholarship holders aiming for a renewed permit. Here in particular the situation of the sending country is taken into account.

- b) *It is likely to have policies that stimulate the long-term retention of students.*

The second expectation is also confirmed. Germany has a range of options in place as to facilitate the long – term stay of individuals: do a continuous education up to 10/15 years, apply for permanent settlement and obtain a long-term work permit.

c) *It is not likely to have policies that stimulate and force international students to leave the country after graduation.*

No policies could be identified ensuring that students leave the country after graduation: even more these policies have been abandoned in the past. Accordingly the third expectation holds.

d) *It is not likely to have policies that strongly facilitate the Diaspora option.*

In terms of the Diaspora option, the data reflect a more positive picture than the expectations. Germany has reintegration/return programmes in place and aims to facilitate the creation of networks.

e) *Balance: It is likely to have a policy package resulting in a brain drain for sending countries and minor elements facilitating a brain circulation.*

In terms of balance, four instruments are identified leading to a long-term brain drain. A range of other instruments and indicators, if used in a right way lead to a brain drain situation for sending countries (job-seeking period for 12 months, possibility to change reason of stay, no expectation to leave Germany after graduation). Only two instruments could be identified meant to facilitate a brain circulation. A **twofold thinking** exists with regard to the policies, however. On the one hand the intention to keep foreign graduates is visible and on the other hand the situation for sending countries is recognised. Nevertheless it seems that the instruments point to a brain drain situation for sending countries. No incentives are observed, which could off-set these effects. The interviews tried to put this into perspective by contrasting the options that government offer and the efforts which foreign graduates have to do themselves - hence placing responsibility into the hands of individuals. The expectation holds that the policy package enables foreign graduates to enter the domestic labour market, leading to a **long-term brain drain situation for sending countries**.

Germany: Overview previously identified instruments and their effect on the sending country		
Brain Drain	Brain Gain	Brain Circulation
<ul style="list-style-type: none"> • No expectation to leave country after purpose is reached • Option to look for a job after graduation • Change purpose of entering / no purpose related permit • No financial incentives for return • No restrictions on re-entry • No improved flow of remittances <p><i>Long term:</i></p> <ul style="list-style-type: none"> • Option for continuous education • Prolong stay • Receive long term work permit • Option for permanent residence 	<ul style="list-style-type: none"> • Reintegration / Return programmes 	<ul style="list-style-type: none"> • Reintegration / Return programmes • Facilitate network creation

Accordingly it seems that all the **expectations formulated for a skilled migration approach hold** for Germany. Graduates shall be given the opportunity to use their skills on the labour market, which is also linked to the low percentage of highly skilled person in Germany, presented in the introduction.

NORWAY

The expectations, previously formulated for Norway, as taking a mutual understanding approach are merged with the data.

- a) *It is likely to have a conscious management for policies directed towards student mobility in light of cooperation: i.e.: temporary character of stays, education in light of development.*

Considering them in turn, a conscious management is observed with regard to students from developing countries. Cooperation is a central issue and the past revealed strong instruments as contributing to this. Today, instruments are in place referring to the temporary character of the stay, i.e.: expectation to return.

- b) *It is likely to have policies that strengthen the Diaspora considerations and create a win-win situation.*

It can also be confirmed that Norway has policies which strengthen the Diaspora option. Five different instruments are identified which ensure that a win-win situation take place: i.e. improving the flow or remittances and impose negative financial incentives or entrance barriers in connection to scholarships. It shall be ensured that students leave Norway again, being also checked by the UDI.

- c) *It is not likely to have policies that stimulate international students to stay on a long-term basis in the country after graduation.*

The expectation that no policies are in place stimulating the long-term stay of students after graduation only holds partly. It is assured that student migration is meant to be of a temporary nature and students return upon graduation. However, a range of instruments are in place seeming to off-set this condition. Students can prolong their stay for doing a continuous education and apply for a job-searching period within a timeframe of six months. It only takes applicants a legal residence of three years before being able to apply for permanent settlement. Therefore if a job in Norway is successfully obtained after graduation, permanent settlement is an option leading to long-term brain drain for sending countries. It shall, however, not be left apart, that the government stated that individuals are not actively stimulated to stay. Still the strong focus on the temporary nature of the stay, being expected, does not hold and neither does the assumption of policies stimulating the retention of students.

d) *Balance: It is likely to have a policy package facilitating a brain gain and brain circulation for sending countries, rather than a brain drain.*

When trying to balance the instruments which were observed, there is on the one hand the strong return assumption being complemented by a range of instruments facilitating brain circulation. However, there are equally strong instruments in place, if successfully used, leading to a brain drain situation for sending countries. It seems that students from developing countries, not covered with a scholarship, have good options for staying on a long term basis in Norway. Although the job-seeking period is short with six months, permanent settlement can be obtained after a period of three years. It seems as if the overall package of national policies is pointing into a **brain drain situation for sending countries**. A **brain gain for sending countries** is only reached given that no job is found and scholarship agreements put a barrier on entering Norway. Therefore the last expectation does not hold. Still to be modest **brain circulation** instruments cannot set-off the instruments associated with brain drain, yet might compensate them in the long run.

The expectations formulated for Norway, as following a **mutual understanding approach**, only hold partly. Stronger elements towards a **skilled migration approach** are visible and students from developing countries are not only seen as capacity builders for the developing world but as good contributors to Norwegian society. Hence questions are raised as to what extent it was correct to associate Norway with the mutual understanding approach.

Norway: Overview previously identified instruments and their effect on the sending country		
Brain Drain	Brain Gain	Brain Circulation
<ul style="list-style-type: none"> • Option to look for a job after graduation • Change reason for entering in the first place • No purpose related permit <p><i>Long term:</i></p> <ul style="list-style-type: none"> • Option for continuous education • Prolong stay • Option for permanent residence 	<ul style="list-style-type: none"> • Expectation to leave country after purpose is reached • No immediate long-term work permit • Reintegration/Return programmes • Financial Incentives for Return 	<ul style="list-style-type: none"> • Reintegration/Return programmes • Financial Incentives for Return • Restrict country with a certain timeframe • Improve flow of remittances • Facilitate network creation

THE NETHERLANDS

The expectations, previously formulated for the Netherlands, as taking a revenue-generation approach are merged with the data.

- a) *It is likely to manage its policies in light of an economic view: i.e.: higher tuition for non-domestic students.*

To start with the economic view is confirmed: higher tuition fees exist for non EU students and are a new source of income. In addition the Netherlands are stronger trying to position themselves on the education market. A liberalisation in terms of options to stay on has been reflected in the interviews, confirming the first expectation.

- b) *It is not likely to have policies stimulating the long-term retention of students but rather focus on the temporary nature.*

The assumption that policies focus on a temporary stay of students does not hold. Although the expectation is in place that students are expected to leave after graduation, a number of options exist for long-term stays: following a continuous education, or making use of the search year, opening the doors to the Dutch labour market. Even stronger the 'admission scheme for highly skilled persons' allows for using the job seeking period up to three years after graduation. Still the initiatives for doing so are left to graduates themselves. No restrictions for keeping them away from the labour market could be observed. Even stronger it was assumed of not being in line with Dutch politics. Therefore, the second expectation is rejected.

- c) *It is not likely to have policies that focus strongly on the Diaspora option/brain circulation.*

The third expectation holds: no reintegration programmes, or strong incentives to return students are seen. Yet, the importance being connected to networks as a Diaspora option has been strengthened.

- d) *Balance: It is likely to have a policy package in place, not leading to long term brain drain. Brain gain and brain circulation is likely to take place unintentional.*

The fourth expectation needs to be partly rejected. A number of instruments have been identified leading to a brain drain situation for sending countries although the expectation is that students have to leave the Netherlands after their graduation. This 'return' expectation is rather weak and off-set by two aspects. First a range of options exist to stay in the country i.e.: seeking work after graduation, permanent settlement and unrestricted access to the labour market after three years. Second a weak collaboration in the system is observed. The IND does not control whether students are subject to conditions of return in relation to scholarships. Instead they might grant a new permit – not matching the intention of those scholarships in the first place. Thus, although the 'return' expectation prevails, it does not seem to be strongly pursued. Turning to the expected

outcome for the Netherlands and condition four, it needs to be revised: a range of instruments are visible leading to a brain drain (and a long one in particular). The interviews also stressed that reaching a balanced situation with regard to sending countries is important. This rejects the expectation in relation to brain circulation, too. Yet, no coherent framework addressed to students could be observed.

The data for the Dutch case lead to the conclusion that the overall package of national policies is pointing to a brain drain situation for sending countries due to a range of policies. Although the interviews stressed that no active retention is fostered, the instruments in place tell a different story. The potential that international students yield for society is perceived, leading to the conclusion that policies point towards a strong brain drain situation for sending countries. Keeping this in mind, strong skilled migration features are visible, not having been expected in the first place as the Netherlands have been associated with a revenue generation approach. The introduction showed that the country lacks highly skilled migrants and is considered to be shifting from the skilled migration approach to the revenue generation one. These two factors might in turn explain the current situation.

The Netherlands: Overview previously identified instruments and their effect on the sending country		
Brain Drain	Brain Gain	Brain Circulation
<ul style="list-style-type: none"> • Option to Look for a job after graduation • Change reason for entering in the first place • No purpose related permit • No Reintegration/Return programmes • No financial Incentives for return • No restrictions on re-entry • No improved flow of remittances <p><i>Long term:</i></p> <ul style="list-style-type: none"> • Option for continuous education • Prolong stay • Receive long term work • Option for permanent residence permit 	<ul style="list-style-type: none"> • Expectation to leave country after purpose is reached 	<ul style="list-style-type: none"> • Facilitate network creation

THE UNITED KINGDOM

The expectations, previously formulated for the United Kingdom, as taking a revenue-generation approach are merged with the data.

- a) *It is likely to manage its policies in light of an economic view: i.e.: higher tuition for non-domestic students.*

Considering the expectations in turn, the data confirms that the United Kingdom is having policies directed towards economic aspects. Non-EU students have to pay way higher tuition fees. Additionally a liberalisation of policies has been observed in favour of the highly skilled. The job seeking period was prolonged by one year, being two now. Therefore the first expectation holds.

- b) *It is not likely to have policies stimulating the long-term retention of students but rather focus on the temporary nature.*

Turning to the second expectation, the stress on the temporary nature of policies is partly confirmed. Again the assumption is that students leave after graduation. Yet options to stay exist. Reference can be made to the job seeking period being rather long with two years. The interviews stressed that despite the options in place, graduates who want to stay are merely enabled to do so. Furthermore a conscious decision is expected to be taken as the job seeking period is considered as a bridge between tiers.

- c) *It is not likely to have policies that focus strongly on the Diaspora option/brain circulation.*

The expectation with regard to the Diaspora option holds as well. The importance of networks is perceived, however, other instruments intending to facilitate this could not be observed.

- d) *Balance: It is likely to have a policy package in place, not leading to long term brain drain. Brain gain and brain circulation is likely to take place unintentional.*

Finally looking at the expectation formulated in relation to balance issues, the overall package of policies identifies a number of brain drain instruments which are considered not to be set-off. Particularly the option to leave the country after graduation does not hold in light of the options which exist after graduation. Yet a rather indifferent treatment is observed as the United Kingdom claims to have implemented these graduation options in order to provide graduates with more than just a British degree. Accordingly, the impression is that national policies tend to lead to a **brain drain situation for sending countries**. Turning to the expectations, some instruments would rather confirm a long-term brain drain, i.e.: permanent residence, thus it only holds partly.

All in all it seems that the revenue generation approach of the United Kingdom holds partly. Once again although governments do not actively try to retain or 'return' students, the instruments in place can lead to a brain drain (even a long-term one). Yet responsibility is placed in the hands of individuals to use these options.

The United Kingdom: Overview previously identified instruments and their effect on the sending country		
Brain Drain	Brain Gain	Brain Circulation
<ul style="list-style-type: none"> • Option to Look for a job after graduation • Change reason for entering in the first place • No purpose related permit • No Reintegration/Return programmes • No financial Incentives for return • No restrictions on re-entry • No improved flow of remittances <p><i>Long term:</i></p> <ul style="list-style-type: none"> • Option for continuous education • Prolong stay • Option for permanent residence 	<ul style="list-style-type: none"> • Expectation to leave country after purpose is reached • Not receive long term work permit 	<ul style="list-style-type: none"> • Facilitate network creation

10.3 DISCUSSION

Considering these results, the four countries did not reflect full covering policies in relation to the mobility of students from developing countries. Minor incentives addressing retention and return could be observed. Yet, the issue of brain drain and brain gain is not high on the agenda. In connection to the instruments which are used a brain drain situation for sending countries is likely to be approached.

All countries reflect strong indicators of the skilled migration approach by placing emphasis on the wider functions students have for the economy. However, this is not surprising in a globalising world. It is as well under question, to what extent a mutual understanding approach can still be found in a globalising world. Norway is reflecting most mutual understanding elements. The way countries position themselves according to the internationalisation of higher education can be used as an indicator for post-graduation strategies. Although not all the formulated expectations have been matched, most of the instruments which were expected to be in place, are confirmed.

Looking at this from a slightly different point of view it is asked: is the current situation necessarily bad for developing countries? Are developed countries not giving students from developing countries options they might not have in the first place? They provide an education, allow for a certain working period and if students return, they are equipped with good knowledge and experiences. Developing countries are not only exposed to a brain drain situation but might also benefit from this mobility. A well-connected Diaspora might counterbalance a brain drain situation and lead to a win-win situation in the long run. This can be facilitated by governments, yet lies to a large extent in the hands of individuals themselves.

Nevertheless a conscious management of the situation is called upon the countries involved (Lowell, et al., 2004). Receiving countries should be clear on the reasons for attracting students from developing countries to the system and should in turn provide a policy package which is in line with these needs. In addition countries should be aware of the effects their policies have (i.e.: if an active return policy exists for students from developing countries, dangers of brain waste might occur). The countries under study should rule out mismatches of current policies and could stronger focus on the mutual benefits that result from brain circulation. More supporting instruments could be set in place. In general attracting students to a country entails also responsibilities, rather than just focussing on issues surrounding skilled migration and economic reasons.

One could argue to put this issue more on a European level to define and reach common goals. It is particularly important to overcome a situation when students from developing countries are forced to leave one European state, and go to another one instead. Yet the migration field is a sensitive issue of national politics, leading to doubts in terms of realisation.

11 CONCLUSION

The goal of this research was to answer the following main question:

What are the strategies that governments of developed countries pursue for students from developing countries in terms of post-graduation and how can the situation be understood through the lenses of brain drain, brain gain and brain circulation?

In the chapters throughout this study, eight sub questions were answered in order to answer the main research question.

The first sub question asked about the global trends of highly skilled mobility and student mobility in particular. It was demonstrated that highly skilled people form an important element for knowledge societies these days. Countries perceived this knowledge and liberalised their policies in favour of the highly skilled. Student mobility is a popular subset of highly skilled mobility. As a result of a globalising world, it strongly increased in the past and is expected to rise up to 2.8 million in 2025. OECD countries are popular a destination for students seeking a degree. In addition a student flow from developing countries to developed countries has been observed, forming the core of this research. This flow raises problems. Sub question two takes a closer look.

The second sub question asked for the main issues and concepts in relation to this student mobility. It was answered that a problem is connected to this mobility from developing to developed countries. The discourse circles around the danger that developed countries attract these students to boost their economy and developing countries are deprived of scarce resources. A loss of human capital in form of students was considered crucial for their development. This student mobility is an expression of cross-border education. Students intend to pursue a degree abroad, leading to the question what happens when the students have obtained their degree? Do they stay or go home? In connection to cross-border education, governments play an important role in setting out the legal scope of action. Sub question three asks for the motives of governments in relation to this mobility.

The third sub question asked for reasons why governments facilitate and support this mobility in form of attraction, and the post-graduation strategies: retention and 'return'. For answering this question, the cross-border education framework was applied, revealing three governmental rationales: 1. actions can take place in light of a mutual understanding approach, focussing on cooperation, stimulating the international character of higher education and providing development aid. 2. The skilled migration approach sees students as a future part of the country's work force and 3. The revenue generation approach perceives the economic value of these students. Logically motives to retain graduates are linked to the economic contribution they can make to a country's economy, particularly in light of an ageing population. The motives for 'returning' graduates could be linked to the missing economic potential or to development aid.

Sub question four consulted the literature to identify the instruments which governments can use to retain or 'return' graduates. The instruments are linked to two broad approaches the management of migration and the Diaspora option. Stress is placed on the temporal dimension of this mobility.

Sub question five asked how the theory of brain drain, brain gain and brain circulation can help to understand and analyse the central problem. This was answered as follows: brain drain and brain gain are indispensably connected and try to estimate issues of balance between a sending and a receiving country. Here particularly the temporal dimension is decisive. As student mobility is a mobility of brain it seemed a good theory to be used. The brain circulation theory is used as a supplement because it takes a less static point. It also claims that a win-win situation for both countries is reached. Accordingly the interaction of these theories is beneficial for analysing whether dangers occur for developing countries as a result of student mobility.

Sub question six asked what theoretical framework is most applicable for addressing the post-graduation strategies for students from developing countries. The answer to this was: a combination of three elements. First, the cross-border education framework is used as an explanatory factor why countries get involved in this in the first place. It was expected that the way countries look at cross-border education has an impact on their post-graduation options. The instruments generated from the approaches on highly skilled migration were associated with the three perspectives, serving as a platform for expectations. Finally the brain drain, brain gain and brain circulation theory was applied to measure the impact the instruments could have on the sending country. These three components rendered a coherent framework. This could be used to analyse the data.

Connected to this is sub question seven, asking how different countries deal with the attraction, retention and return of students from developing countries. Accordingly four countries were closer investigated. The countries differed with respect to their view on cross-border education. It was answered here that the countries act consciously and attract students from developing countries on basis of scholarships. The countries under study reflect differences with regard to the instruments they use after post-graduation. However no full covering policies for attracting, retaining and 'returning' students were observed. What does this say in light of this theoretical framework?

Sub question eight asked for the conclusions to be drawn, if the results are investigated from a theoretical lens. The answer to this was that the investigated governments do not have full covering policies in relation to post-graduation of students from developing countries.

Because the issue of brain drain and brain gain is not high on the agenda, this might lead to a brain drain situation for sending countries at this moment. In turn a conscious management of the situation is asked from governments as well as improvements for the facilitation of brain circulation.

Combining the answers from the sub questions, finally the main research question can be answered:

What are the strategies that governments of developed countries pursue for students from developing countries in terms of post-graduation and how can the situation be understood through the lenses of brain drain, brain gain and brain circulation?

The four governments under study do not reflect the use of conscious policies with regard to the post-graduation strategies for students from developing countries. The treatment of students from developing countries does merely differ from the treatment of other international non EU students. These nonexistent policies are leading to strong dangers of a brain drain situation for sending countries. In addition the focus is hardly on systematic efforts in relation to brain circulation, which could off-set the brain drain effects. Furthermore governments tend to leave the responsibility to students whether they stay or return, rather than formulating clear goals and taking actions themselves. This might be a result of the lack of experience and a constantly changing environment. Accordingly, a number of improvements could be made by governments to ensure that a brain drain situation is not taking place.

A PERSONAL NOTE:

This student mobility might be beneficial for developing and developed countries, most certainly in light of intercultural experiences. It would be desirable if the involved countries attempt a mutual benefit situation. Therefore it is expected that especially receiving countries' governments have a conscious policy in place with regard to the students from developing countries, rather than taking an indifferent position. Nevertheless, students shall be equipped with a certain degree of freedom of choice as new opportunities might arise, not considered in the first place.

11.1 REFLECTIONS ON THE RESEARCH

This section reflects upon the research. To start with, this research investigated policy documents and held interviews to see how governments deal with students from developing countries after they have graduated. The view of students and their choices to stay or leave the country is not examined, being beneficial for a more complete picture.

In terms of measuring the effects on the sending country, a rather negative picture has been taken and the positive aspects have been often neglected. Still as this research is a starting point in the field, it seems justified. When formulating the expectations, a four point scale was used. This is normally not desirable but here for illustration purposes acceptable. Furthermore the instruments which have been generated for brain drain, brain gain and brain circulation are not equally distributed and tend to be overrepresented for brain drain. In terms of the theory at hand, reference shall be made to the concept of brain drain and brain gain. These days more and more people consider themselves as being cosmopolitans, not connected to countries and national borders. Hence one has to wonder to what extent the concepts of brain drain and brain gain are still sufficient or whether the focus shall be wider. As illustrated for the brain circulation concept, it seems to be particularly difficult to use it in an academic context as it is difficult to trace back. However these weaknesses are compensated by the two other components rendering the theoretical framework here.

In relation to the data collection: although a variety of sources of evidence were consulted, obstacles might have emerged with regard to the availability of documents, as they are difficult to access as an outsider. Although attention has been paid to this and the interviews were meant to compensate this, it cannot be completely excluded. As for the interviews, they vary in number for the countries under study. Particularly the United Kingdom falls short. Although it was stressed in the interviews that respondents shall not give personal estimations on the situation, it cannot be excluded that this has taken place, despite the measures taken. Other limitations might have occurred in relation to the question of generalisation: do strategies show a coherent picture over time, or are they frequently adapted according to governmental needs. Furthermore the formulation of national policies and the subsequent implementation does not always go as planned, instead there might be a gap (deLeon & deLeon, 2002). This might influence the possibility to generalise upon them, particularly as this research is only taking a snap-shot.

All in all, the research has been conducted in a too limited way to actually estimate whether countries are exposed to brain drain, brain gain or brain circulation, as this requires numeric data. These limitations have been taken into account when interpreting and evaluating the data. The aspects mentioned above do however not seriously affect the validity and reliability of this research.

11.2 SUGGESTIONS FOR FURTHER RESEARCH

During conducting this research a number of new issues and questions arose yielding potential for doing further research and giving the phenomenon at hand more value.

First, data revealed that different ministries are involved with setting up the post-graduation strategies for international students from developing countries. It would be beneficial to investigate whether and how the ministries cooperate and if they work towards a common goal or if they block each other.

Second, it would be interesting to examine the developments of policies addressed towards international students of the last years for a better understanding of the current situation and a possibility to predict future developments upon.

Third, the European point of view could be investigated and to what extent the competences of the European Union in this field might spill over to the higher education sector, which is per treaty still sovereignty of the member states.

Finally, a more coherent picture shall be conducted. Whether a brain drain, brain gain or brain circulation situation is taking place depends to a large extent on the actions of individuals. The question is, what is common practice for students from developing countries, do they stay or return (though difficult to research, as countries hardly have these figures themselves)? Collecting data with regard to this would be beneficial. Additionally it is desirable to research whether governments have compensation instruments and mechanisms in place ensuring that developing countries are not outsourced due to these developments.

APPENDIX

1 LIST OF DEVELOPING COUNTRIES

(The World Bank, 2009)

Low-income economies (43)

Afghanistan	Guinea-Bissau	Rwanda
Bangladesh	Haiti	Senegal
Benin	Kenya	Sierra Leone
Burkina Faso	Korea, Dem Rep.	Somalia
Burundi	Kyrgyz Republic	Tajikistan
Cambodia	Lao PDR	Tanzania
Central African Republic	Liberia	Togo
Chad	Madagascar	Uganda
Comoros	Malawi	Uzbekistan
Congo, Dem. Rep	Mali	Vietnam
Eritrea	Mauritania	Yemen, Rep.
Ethiopia	Mozambique	Zambia
Gambia, The	Myanmar	Zimbabwe
Ghana	Nepal	
Guinea	Niger	

Lower-middle-income economies (55)

Albania	Honduras	Paraguay
Angola	India	Philippines
Armenia	Indonesia	Samoa
Azerbaijan	Iran, Islamic Rep.	São Tomé and Príncipe
Belize	Iraq	Solomon Islands
Bhutan	Jordan	Sri Lanka
Bolivia	Kiribati	Sudan
Cameroon	Kosovo	Swaziland
Cape Verde	Lesotho	Syrian Arab Republic
China	Maldives	Thailand
Congo, Rep.	Marshall Islands	Timor-Leste
Côte d'Ivoire	Micronesia, Fed. Sts.	Tonga
Djibouti	Moldova	Tunisia
Ecuador	Mongolia	Turkmenistan
Egypt, Arab Rep.	Morocco	Ukraine
El Salvador	Nicaragua	Vanuatu
Georgia	Nigeria	West Bank and Gaza
Guatemala	Pakistan	
Guyana	Papua New Guinea	

2 SUPPORTING DATA

Country	Foreign Students in the System			Expatriates		Foreign Born population (in thousands)		
	Absolute number		Relative Number 2007	Total	highly skilled %	Total	from OECD	tertiary educated %
	2000	2007						
Russian Federation	41.210	60.288	n	58.0570	43	n	n	n
Australia	105.764	211.526	22.5	267.314	43.6	3806.2	2242.6	25.8
Japan	59.691	125.877	3.1	575.992	48.9	1142.4	66.7	30
Canada	40.404	68.612	14.8	104.4978	40	5355.2	2371.9	38
France	137.085	246.612	11.3	1.013.581	34.4	500.2	2222.4	18.1
Germany	187.033	206.875	11.3	2.933.757	29.5	7832	3276	149
Italy	24.929	57.271	2.8	2.430.339	12.4	2020.9	790.6	12.2
United Kingdom	222.936	351.470	19.5	3.229.676	39.2	4503.5	1788.1	34.8
USA	475.169	595.874	n	809.540	48.2	31389.9	14732	26.1
New Zealand	8.210	64.950	26.8	410.663	40.6	624.1	341.4	31
Switzerland	26.003	41.058	19.3	262.456	35.8	n	n	n
Norway	n	15.618	7.3	122.079	32.1	305.9	139	30.5

Source: (OECD, 2005, 2008a, 2009b) / n= no data available

3 INTERVIEW QUESTIONS

3.1 FORM INTERNATIONAL STUDENT AGENCIES AND AGENCIES PROMOTING THE COUNTRY ABROAD:

Questions

1. Under what legal grounds do international students enter your country?
 - a. Do the legal grounds differ for certain countries of origin? (If yes, please specify)
 - b. Are legal grounds different for international students having a scholarship?
2. Is it possible for international students to stay in your country after graduation for working purposes or doing a PhD?
3. What are the requirements for doing so?
4. Are these options available to all international students?
 - a. If not, please specify for whom it is available and why there are differences?
5. How are students from developing countries considered in these developments? Do different treatments prevail?
6. Can international students holding a scholarship make use of the same arrangements?
7. Does your country have an active policy in place to make sure that international students leave the country after graduation?
8. From your experience, is the government encouraging international students (particularly from developing countries) to stay after graduation (i.e.: for creating an international classroom, for continuing at the PhD level, for including them as highly skilled migrants into society)?
 - a. If yes, why?
9. How many international students actually stay in your country after their graduation?
10. What is the government in your country doing to address issues of brain drain, brain gain and brain circulation in connection to international students from developing countries?

Note that this research deals particularly with students from developing countries. Developing countries are understood here as low-income and lower-middle income economies according to the World Bank Classification (see http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20421402~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html#Low_income)

3.2 COUNTRY QUESTIONS

General questions for all countries

Background information:

1. *What are reasons for you to attract international students?*
2. *What is the entrance level of these students (Bachelor/Master)?*
3. *Do you particularly attract students from developing countries to your country? (If yes, where do they come from and why do you do that?)*
4. *What is the percentage of students from developing countries entering your country on basis of a scholarship?*

Post-Graduation Strategies : The first set of questions is only asked if the information is not known beforehand.

1. *Do you offer the possibility for graduated international students to continue their education in your country for doing a PhD?*
 - a) *What is the percentage of students that is included in this?*
 - b) *Where do they come from?*
 2. *What are the possibilities for international students to stay in your country after graduation?*
 3. *Under what legal grounds is their stay allowed?*
 4. *How does the situation vary for students from developing countries in general? And for students from developing countries having a scholarship in particular?*
 5. *Do you have an active policy in place to make sure that international students leave the country after graduation?*
-
6. *What are the reasons behind offering these possibilities?*
 7. *Have there been changes with regard to that legal framework in the past 5 years?*
 8. *Are there upcoming reforms that might change the legal framework?*
 9. *What would be an optimal situation for you with regard to the treatment of international students after graduation?*
 - a) *What do you as a government do to support and stimulate this optimal situation?*
 - b) *Why is there a difference between theory and practice?*
 10. *To what extent is the directive 2009/50/EC already implemented into national politics?*

Specific questions for the different countries

Germany

Specific questions/ clarifications on legal background:

1. *According to the law there is not differentiation between groups from outside the EU- is that true? The rules are all the same if they are not EU/EEA-nationals.*
2. *Could you specify the meaning of §9 on permanent stay and its applicability on students?*
3. *How does the situation look for students from developing countries having a stipendium. Do they have the possibility to ask for a prolonging of 1 year as well as to look for a job?*

Brain drain, brain gain and brain circulation

1. *The internationalisation strategy stated that you aim to facilitate brain circulation and overcome brain drain.*
 - a. *What are the policies you design for addressing this?*
 2. *How is a brain circulation situation facilitated given that opportunities for permanent settlement exist?*
 3. *Are you aware of the situation that might occur of sending countries if you offer opportunities of permanent settlement for international students?*
 - a. *How do you ensure that sending countries (developing countries) are not outsourced in terms of human capital?*
 4. *What is common practice? What situation with regard to the treatment of international students after graduation do you as a government actively support and try to stimulate and how?*
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The Netherlands

Brain drain, Brain gain and brain circulation

1. *How do you see the situation with regard to issues of brain drain, brain gain and brain circulation?*
2. *What are the policies you put in place to address these issues?*

3. *How do you see these developments, given that (though rare) opportunities for permanent settlement exist?*
 4. *Are you aware of the situation that might occur of sending countries if you offer opportunities of permanent settlement for international students?*
 - a. *How do you ensure that sending countries (developing countries) are not outsourced in terms of human capital?*
 5. *What is common practice? What situation with regard to the treatment of international students after graduation do you as a government actively support, try to stimulate and how do you approach this?*
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United Kingdom

Specific questions/ clarifications on legal background:

1. *According to some reports, only a small number of graduated students is issued a work permit. What is the reason to attract so many in the first place?*
 - a. *What is the percentage that can change its status (in terms of tiers)*
2. *Do students from developing countries, being granted a scholarship, fall into tier 4 as well? Are they allowed to stay searching for a job as well?*

Brain drain, Brain gain and brain circulation

1. *How do you see the situation with regard to issues of brain drain, brain gain and brain circulation?*
 2. *What are the policies you put in place to address these issues?*
 3. *How do you see these developments, given that (though rare) opportunities for permanent settlement exist?*
 4. *Are you aware of the situation that might occur of sending countries if you offer opportunities of permanent settlement for international students?*
 - a. *How do you ensure that sending countries (developing countries) are not outsourced in terms of human capital?*
 5. *What is common practice? What situation with regard to the treatment of international students after graduation do you as a government actively support, try to stimulate and how do you approach this?*
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Norway

Brain drain, Brain gain and brain circulation

1. *How do you see the situation with regard to issues of brain drain, brain gain and brain circulation?*
2. *What are the policies you put in place to address these issues?*
3. *How do you see these developments, given that (though rare) opportunities for permanent settlement exist?*
4. *Are you aware of the situation that might occur of sending countries if you offer opportunities of permanent settlement for international students?*
 - a. *How do you ensure that sending countries (developing countries) are not outsourced in terms of human capital?*
5. *What is common practice? What situation with regard to the treatment of international students after graduation do you as a government actively support, try to stimulate and how do you approach this?*

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