Influence of economic relations on bilateral relations

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Declaration

I hereby declare that this dissertation is my own original work.

Antje Schuett

25th January 2010, Graz, Austria

Acknowledgement

I truly want to thank Dietrich Kappeler and Hannah Slavik for their great support and advice during the whole period of the Master Dissertation. Without their help this paper could not have been finished in this quality.

Furthermore I'd like to thank my friend.

He challenged me, he supported me, he confronted me, he held up on me…

He has been my muse, my friend, my hardest critic, my greatest fan, my inspiration, my foundation, my greatest dispute and overall he has been "my" person.

Willi without you, this paper would have been nowhere near to what it is. Thank you.

Dedication

To the father of our unborn child:

Wilhelm Graupner

Abstract

The title of the master thesis is “Influence of economic relations on bilateral relations”.

Firstly, three thesis statements concerning the influence of economic relations on non-economic bilateral relations have been developed.

In order to validate the thesis statements a methodology was chosen that is mainly data driven and based on two case studies and a data comparison procedure, as opposed to a "theoretical approach".

After the methodology was evaluated a choice of cases was made and data were collected. Furthermore appropriate data (frequency and availability of data) were collected and presented. Finally data evaluation was undertaken (as a comparability check) and conclusions (e.g. that the relation of Germany and France is 100:8 stronger than Germany-China, based on data!) derived from the collected data were made.

As a next step the "impact matrix" of Vester (that is commonly used to analyze influences) was developed based on the data out of the two cases and the data comparison sections.

Based on all evaluated data, the final evaluation of the thesis statements took place with the following results:

Evaluation of 1st Thesis: Confirmed

Evaluation of 2nd Thesis: Confirmed

Evaluation of 3rd Thesis: Confirmed

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List of abbreviations and acronyms

- CIM - Cross Impact Matrix
- WTO – Word Trade Organization
- NATO – North Atlantic Treaty Organization
- ADS – Approved Destination Status
- CNTA – China National Tourism Administration
- ICT – Information and Communication Technology
- HDI – Human Development Index
- NBI - Anholt Nation Brands Index
- CIA – Central Intelligence Agency
- EUR - Euro

Chapter 1: Introduction, Theses & Methodology

a. Definition and boundary scenarios

A relationship between two states is called "bilateral relations". One part of these bilateral relations is economic relations.

In this paper the influence of economic relations on the bilateral relations is analyzed by applying the “Vester matrix”. The Vester matrix also known as a method used frequently to assess influences of one entity on the other in complex systems. As well, the Vester matrix is known as the cross-impact-matrix (CIM). The CIM-based approach is an established method to investigate influences between multiple variables and forces in complex systems.

The attention to this topic is driven by situations where the goals of powerful groups or corporations can be in conflict with the government’s goals. Fruitful bilateral relations are the basis for growth and prosperity for countries – hence, the driving forces and the stakeholders need to be understood and identified in order to ensure a beneficial development for the countries and populations involved and not just for small, but usually powerful, minorities that put their individual benefit above the well-being of the countries.

Hence in various situations the question of the impact of economics on bilateral relations appears to be more and more interesting. In this introduction, two extreme scenarios are pointed out in order to outline the possible influence of economic relations on bilateral relations. These extreme scenarios will rarely occur but they illustrate the symptoms of power struggles quite well:

Case 1: Economic relations have no impact on bilateral relations.

Case 2: Economic relations dominate bilateral relations.

In case 1 the bilateral relations will be driven by many diverse forces, e.g. cultural interaction, educational and exchange programs as well as common political projects. The stakeholders in this scenario would be a very wide spectrum of people, among them, of course, also economic representatives such as stock brokers, economic scientists, business consultants etcetera. As this scenario would involve a wide range of people for the creation, development and "maintenance" of the bilateral relations, namely politicians, scientists, teachers, students, etc., the quality and direction of the bilateral relations are determined by many segments of the civil societies. This means that the bilateral relations in this scenario are under a broad sphere of influence. No dominance and no concentrated power concerning one topic or set of stakeholders will be feasible.

Therefore the bilateral relation between these two countries would be defined by various areas of interaction and by the common interest of many groups, which of course lead to contradictory effects. This implies that the coordination effort for the governments and foreign affairs officials needs to be broader and more intense if they want to steer the relations into a certain direction. The potential for problems increases due to the diversity of the relations.

The following quotation from Cabestan (2009, p 93) exemplifies the situation for China, where a wide variety of actors influence bilateral relations: “The steady increase of de facto decision-making loci in foreign and security policy clearly compels the Party leadership to contemplate the establishment of additional horizontal coordination structures within both central and local governments.”

In Case 2 the bilateral relations are assumed to be dominated by the economy. Although other bilateral issues will be investigated, they are of secondary importance.

In this scenario therefore the bilateral relations will be dominated by economic topics and other bilateral issues would be kept on one side or might be influenced strongly by the economic questions. Therefore non-economic affairs would have little or no effect on the quality of the bilateral relations. The stakeholders in the bilateral relations of this scenario would be mainly representatives of the economy or related to it. The dominance of economic stakeholders can lead to a situation where the governments are not able to shape the relations autonomously anymore. Political issues such as human rights or environmental protection could be pushed aside by the dominance of economic factors. The small group of economic representatives would shape the quality, the intensity and the balance of the bilateral relation.

On the positive side it can be stated that in the case of strong bilateral economic interdependence the use of military force, against the other country, would destroy the common economic base of the two countries involved. Hence the use of military force between them is highly unlikely in a Case 2 scenario with strong interdependence. Furthermore, often once a common economic foundation between two states has been built, the development of further bilateral aspects can take place more easily. In order to evaluate this topic more deeply one could look at the Palestinians, being a major provider of labor to Israel and being totally dependent on their neighbor for their economic development. However, the intention of this work is not to investigate the relationships between grossly unequal partners.

b. Formulation of thesis statements

The diplomatic relationship between two countries is called ”bilateral relations“– they will be divided into non-economic relations and economic relations. The following 3 thesis statements will be evaluated in this paper:

Thesis 1:

The influence of economic relations on bilateral relations is determined by the relative strength and intensity of the non-economic relationship.

Therefore the economic relations do not necessarily have a dominant influence on the bilateral relations (if other ties exist that are of equal or even higher strength and quality).

Thesis 2:

If the non-economic relations barely exist the economic relations will have a greater, even dominating influence on bilateral relations. The bilateral relations are determined by economic representatives.

Thesis 3:

If distinctive non-economic relations exist the economic relations will have a smaller influence on bilateral relations. The bilateral relations are determined by a more diverse group.

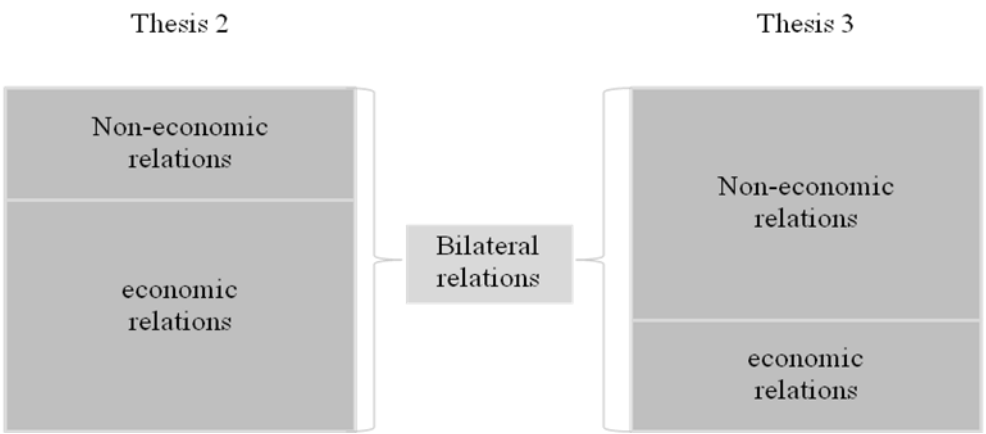


Figure 1 Thesis statements. A graphical presentation of Thesis statement 2 and 3.

c. Structure of thesis & methodology

Firstly three thesis statements concerning the influence of economic relations on non-economic bilateral relations have been developed.

In order to validate the thesis statements a methodology was chosen that is mainly data driven and based on two case studies and a data comparison procedure.

After the methodology was evaluated choice of cases was made and data were collected.

Finally data evaluation was undertaken (as a comparability check) and conclusions (e.g. that the relation of Germany and France is 100:8 stronger than Germany-China, based on data!) derived from the collected data were made.

As a next step the "impact matrix" of Vester (which is commonly used to analyze influences) was developed based on the data out of the two cases and the data comparison sections.

Based on all evaluated data, the final evaluation of the thesis statements took place.

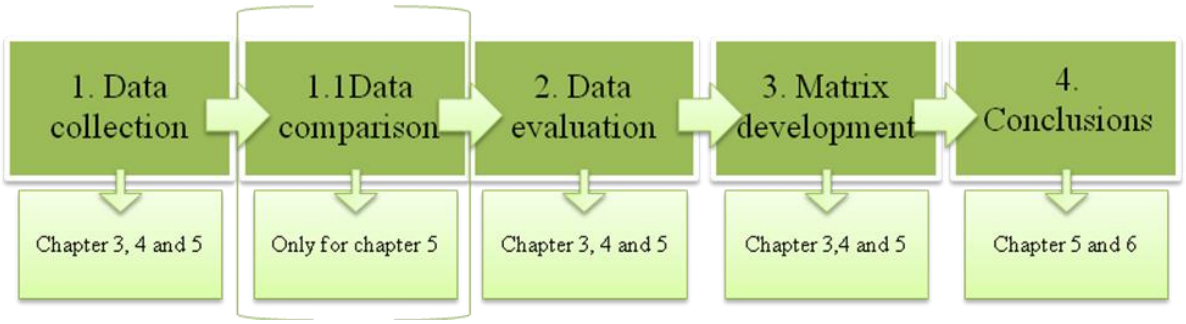


Figure 2 Flow Chart of methodology

Figure 2 Flow Chart of methodology Figure 2 shows the flow of the methodology in this paper. Therefore this Figure shows the core of the work. As the flow chart shows, one step follows another serially. Step 2 can't be done without step 1 or 1.1. In order to complete step 4, steps 1-3 have to be finished and so on.

Principally, three chapters in this paper focus in data presentation and evaluation. Chapter 3 and 4 are quite similar from a structural point of view. Chapter 5 differs in the kind of data presentation and has an additional section for the evaluation.

Chapter 5 only considers quantitative data i.e. measurable and comparable data. The three chapters and their relevance for the evaluation of the thesis statements will be closer explained in the next section.

In Figure 2, Step 1 focuses on the collection of data for all three chapters (3 to 5). Step 1.1 only has relevance to chapter 5 as only here are quantitative data compared. In step 2 the data evaluation again has relevance as regards chapters 3 to 5. In the 3rd step, all data from all three chapters are considered in order to develop a matrix that will be used to evaluate the influence of economic aspects on the non-economic aspects. In a later section of this chapter detailed information about the matrix will be given. The last step is the deriving of the conclusion from the data in the matrix.

At the beginning several wordings have to be clarified in order to achieve a common understanding of the way the subject is presented in this paper. The wordings important to this paper are described in Figure 3. All words presented in Figure 3 are relevant from step 1 in Figure 2 to step 4 in Figure 2. Besides the wordings, also the structure used in this paper is explained in the following paragraph.

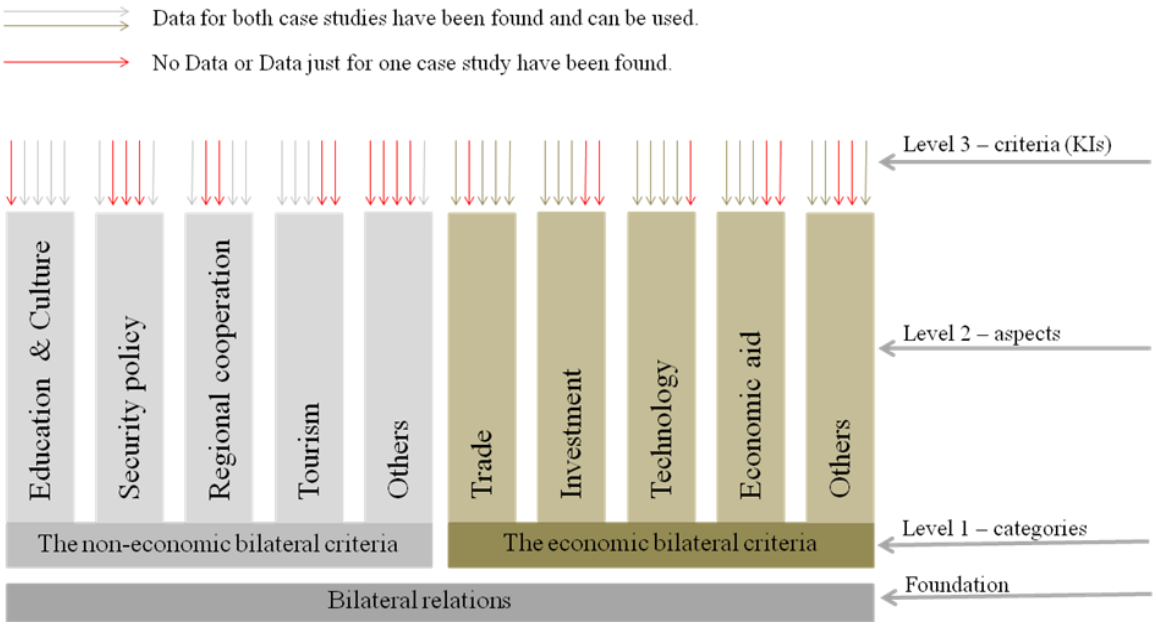


Figure 3 Methodology used in this paper – for the explanation of terminology and choice of Levels see text below.

All the wordings found in Figure 3 will be used through every stage of the flow of methodology as shown in Figure 2. “Bilateral relations” build the foundation to evaluate the thesis statements. The foundation is shown in Figure 3 as dark gray bar. For this work the bilateral relations have been split into categories the “non-economic” (gray in Figure 3) and the “economic” (brown in Figure 3) ones. This differentiation was made as the influence of economics on non-economic aspects will be analyzed. The non-economic aspects are defined as “everything else in bilateral relations that are not specifically acknowledged as being concerned with the economy in this paper”. As shown in Figure 3 the level 1, categories consist out of several aspects for each category. Hence Level 2 (the aspects) shows a more detailed view of the categories of level 1. This detailed view is needed in order to have defined topics of investigation when analyzing the total field of bilateral relations. When attempting a quantitative analysis further granularity is needed. Hence the third level is introduced: the key indicators or criteria. These criteria are the more detailed content of the aspects and they lead to numbers that can be assessed. Each aspect is hence judged by several criteria (marked as level 3 in Figure 3). The criteria are marked in different colors to indicate their availability for this work. Red means that data are either not available or just available for one of the cases mentioned and investigated below. Arrows in brown and gray in level 3 indicate data that are available for both case studies.

i. Case studies and quantitative data (Chapters 3-5)

As mentioned at the beginning of chapter 1, chapter 3-5 are considered as data presentation and evaluating chapters that describe the situations of the countries in the case studies. The data are then used for the established methodology to derive the thesis' conclusions.

For the chapters 3 and 4 Case studies have been chosen to evaluate the theses presented. The use of case studies enables the consideration of a wide range of theoretical and practical experience as well as quantitative data as opposed to just theoretical assessments.

In chapter 2 the paper contains an explanation over the choice of the selected states / case studies. There will be two case studies, each focusing on the bilateral relations of two countries. The criteria in this chapter will reflect the unusual attributes of the bilateral relationship. Therefore the data considered will be chosen by frequency and availability for each of the two bilateral relations. Therefore the criteria will differ between chapter 3 and 4. Chapter 5 (which follows after the two case studies in chapter 3 and 4) will only consider data that can be directly compared. These data are shown in Figure 3 as criteria with arrows marked brown and gray.

The Level 3 criteria are split in two categories represented in the matrix:

(a) "bilateral": non-economic bilateral issues

(b) "eco": economic relations

Ad (a): Bilateral criteria (rows of the matrix)

Any topic concerning two states can be considered as bilateral. Berridge and James (1993, p. 21) define bilateral relations as : "Any form of direct diplomatic contact between two states beyond the formal confines of a multilateral conference, including contacts in the wings of such gatherings when the subject of discussion is different from that of the conference and only of concern to the two states themselves."

In order to not get lost in the amount of bilateral criteria (because of the many possible choices) unambiguous criteria have been chosen:

- Cultural interaction/programs between the two states
- Educational sponsorship
- Common Security concerns
- Diplomatic Mission abroad
- Other important characteristic of the relationship
- Short historical development
- Common summits, agreements or contracts

Ad (b): Economic criteria (columns of the matrix)

Based on Rana's book "Bilateral Diplomacy" (2002) the first four criteria were decided upon after considering from chapter 5 "Trade, Investment, Aid and Technology". Therefore this paper focuses on:

- Trade volume between the two states
- Investment by branch of industry in the two states
- Exchange of technology

The results from chapters 3, 4 and 5 will be transferred in chapter 6 to the cross-impact matrix. This matrix will show the relationship between its row- and column-criteria in quantified way and hence allow the evaluating of the influence of the economic relations on the bilateral relations - by definition a cross-impact matrix. The matrix elements will hence be the influencing parameters between economic and non-economic bilateral relations. The rows of the matrix consist of economic criteria, the columns contain of non-economic and/or additional economic criteria, i.e. represent the overall bilateral relations.

Figure 4 Example of the cross-impact matrix. The criteria for this matrix are derived from the Level 3 and 2 information in Figure 3.

Chapter 2: ”Selection of Case Studies to validate theses“

As explained in chapter 1.c “methodology” the thesis statements will be evaluated in a quantitative way by the use of case studies. These case studies will examine the bilateral relationship between the chosen states. To be able to explore a wide variety of criteria that characterize bilateral relations, the relationships Germany-France and Germany-China are selected.

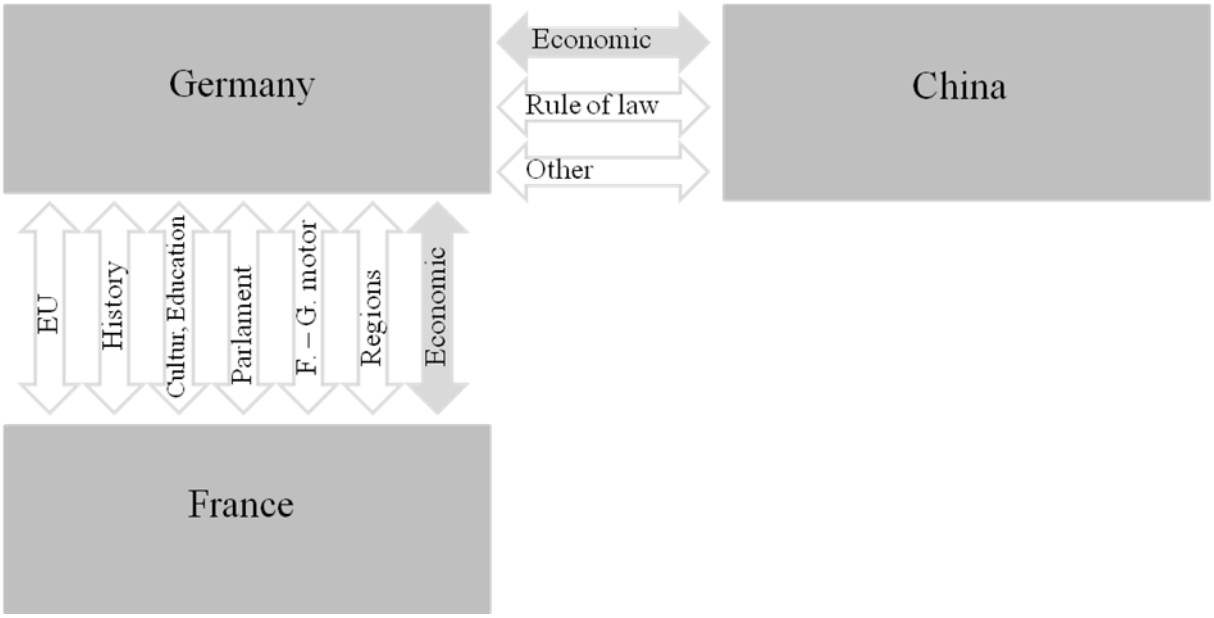


Figure 5 various aspects of the bilateral relations between Germany/China and Germany/France

a. Bilateral relations between Germany & France

The Franco-German relationship is made up of a wide variety of very diverse categories that also differ greatly in their relative importance. The Figure 5 shows only some aspects of the Franco-German relationship. France is the most important partner for Germany in the European Union (EU).

No other two European countries have these intense and permanent alignments in so many categories and are so essential in driving the direction of the union, due to their combined power. Even the Germans Ministry of Foreign Affairs (2010) acknowledges the intensity of the relationship to France:

"France is Germany's closest and most important partner in Europe. With no other country does it coordinate all its policies more extensively or regularly."

The intergovernmental cooperation between Germany and France is hence tremendously important to the EU. Not only, had the Germans Ministry of Foreign Affairs (2010) called it the Franco-German motor. For example, a statement made in 2001 in the leading German Newspaper "Die Welt" (2010), "without this motor and its drive the negotiations about the EU extension, concerning security issues, in 2002 most likely would have failed". Besides that, the German Bundestag and French National Assembly work closely together. The annual parliamentarians' colloquium Paris-Berlin or the regular exchange of views between German and French parties, are just a few examples. The cooperation is not only taking place at the federal level – also the provinces (Laender) and regional groupings have very active collaborative programs. They focus on cooperation in education, cultural sensitization, common research initiatives or language programs. Next to that the Franco-German political relationship is driven by the security and defense policy. The intensity of cooperation in security and defense policy is highly developed as explained on the website of the Germany Ministry of Foreign Affairs (2009):

> "For over 20 years now, the Franco-German Defense and Security Council have met several times a year. The joint Franco-German Brigade initially symbolized the two countries' will to cooperate on military policy. Along with the Eurocorps, it now forms the basis for integrated and synchronized European armed forces as part of European Security and Defense Policy (ESDP).

The above-mentioned ties and areas of common interest between Germany and France are supplemented in various other areas. Throughout intensive cooperation in research, economic affairs, culture, and social matters as well as education, Franco-German bilateral relations are becoming even stronger.

The relationship between Germany and France, historically and at present, in positive and negative ways, politically and socially, internationally and locally shaped by a very diverse mix of forces and interests continues to develop – the economic part being only ONE of them.

b. Bilateral relations between Germany & China

Besides several secondary topics the German-Chinese bilateral relationship is mainly dominated by economic growth, investments, imports and exports, and tourism and export trade promotion. In this paper this assumed dominance is:

- firstly, explained in a quantitative way in chapter 5
- secondly, used to compare this case to a situation that lacks such dominance (Germany-France) in order to evaluate the thesis statements.

Since Germany and China commenced diplomatic relations in 1972, the economic relationship has grown continuously since. While also acknowledging the strong development of the relationship since 1972 between Germany and China, the Chinese Ministry of Foreign Affairs (2010) has made reference to a number of milestones along the route of this rapidly growing interchange. From the end of the 70s until the mid 80s several economic contracts and agreements have been signed such as;

- 1979 – agreement about the economic cooperation
- 1982 – agreement about technical cooperation
- 1985 – agreement about financial cooperation

These agreements provided an important framework for the growth of the economic relationship.

Since the beginning of the 21st century China has become one of the most important trading partners for Germany outside Europe. And Germany has become the most important trading partner within Europe for China - so the German Ministry of Foreign Affairs (2010b) state on their website. Also the Chinese Ministry referred on the importance of investments emanating from Germany.

Not does trade shows the intensity of the economic relationship - investment does as well. Also since the late 1990s Germany, as the German Ministry of Foreign Affairs (2010a) states, became the most important European investor in China. This is quite a considerable advance given the historic presence of the UK in China. By the end of 2008, German companies had made direct investments totaling some USD 16 billion in China.

Other important aspects of the economic relationship between Germany and China are to do with technology and finance. Two agreements concerning these were signed in the 1980s. Even though the Chinese economy and its cooperation with Germany are growing and are well established China is still regarded as a developing country as stated on the Chinese embassy webpage of the United States of America.

Schueller (2003, p. 186), mentions the contrast between the rapid growth of the economy and China's situation of partly being a developing country, as follows:

> "China's economy is booming. With US$ 700 billion (2005), the People's Republic of China has the world's second largest foreign currency reserves, is able to afford its own space program and has with US$ 35.3 billion (2006) the world's third largest defense budget. Beijing will host the 2008 Olympic Games, Shanghai the EXPO in 2010. China even provides its own development aid to several African countries.

As well Rostoski (2006, p. unknown) recognizes the problematic situation of the paradox of China being simultaneously a developing country and an economic powerhouse.

> Looking at the skylines of some Chinese cities, many Europeans are beginning to feel that they lag behind in progress. Nevertheless, China is one of the world's largest beneficiaries of development aid." (Rostoski, 2006).

Other aspects of Sino-German bilateral relations are the dialog about the rule of law. At the beginning of November 1999, the Federal Government proposed that a comprehensive dialogue be conducted with China on questions regarding the Rule of Law. This proposal was taken up by the Chinese side because social stability, economic growth and foreign investment require a high degree of legal certainty for investors (according to the German Federal Ministry of Justice).

The German-Chinese relationship has many aspects of interaction, still the main focus in their relationship lies in the aspect of economy.

c. How the selected case studies serve to validate the theses

In this paper the influence of economic relations on bilateral relations will be analyzed. The work therefore aims at confirming the three following thesis statements;

Thesis 1:

The influence of economic relations on bilateral relations is determined by the relative strength and intensity of the non-economic relationship. Therefore the economic relations do not necessarily have a dominant influence on the bilateral relations (if other ties exist that are of equal or even higher strength and quality.

Thesis 2:

If non-economic relations barely exist, economic relations will have a greater, even dominating influence on bilateral relations. Bilateral relations are determined by economic representatives.

Thesis 3:

If distinctive non-economic relations exist, economic relations will have a smaller influence on bilateral relations. Bilateral relations are determined by a more diverse group.
In order to be able to validate the thesis statements a detailed examination of the economic and bilateral relationships involving Germany-France and the Germany-China were chosen.

Both relations are in their own way very intense and strong but in reality they are completely different. On the one hand the bilateral relationship between Germany and France is defined by a wide variety of interwoven aspects. These aspects demand an intense degree of interaction, which both states are willing to participate in. Whereas, on the other hand the bilateral relationship between Germany and China is not as broad in many areas as is the relationship between Germany and France but even though a wide variety is missing, a highly intermeshed and well established economic interaction is apparent.
For both of these different but still strongly linked bilateral relationships the economy has an influence on the bilateral relations. Due to the different priorities that economic relations take in the relationships involving Germany-France and Germany-China within the whole construct of the bilateral relations, the influence of economics on bilateral relations therefore will be very much different.

In order to confirm the thesis statements the results of the analyses have to show how the bilateral relations between Germany and China are driven by economics. Stakeholders as well as all other bilateral issues depend on these economic factors.

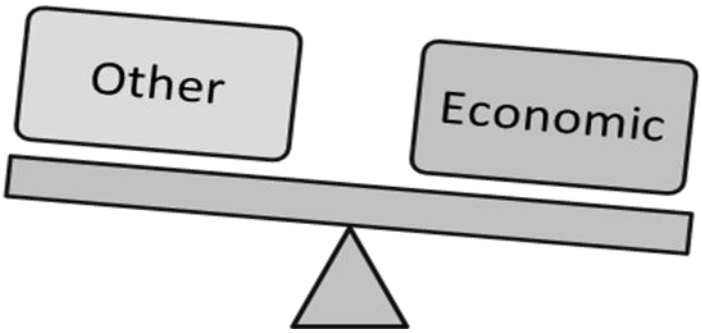


Figure 6 German-Chinese distribution of bilateral topics

The results would need to show as well that the bilateral relationship between Germany and France is hardly influenced by mainly one topic, namely “the economy”.

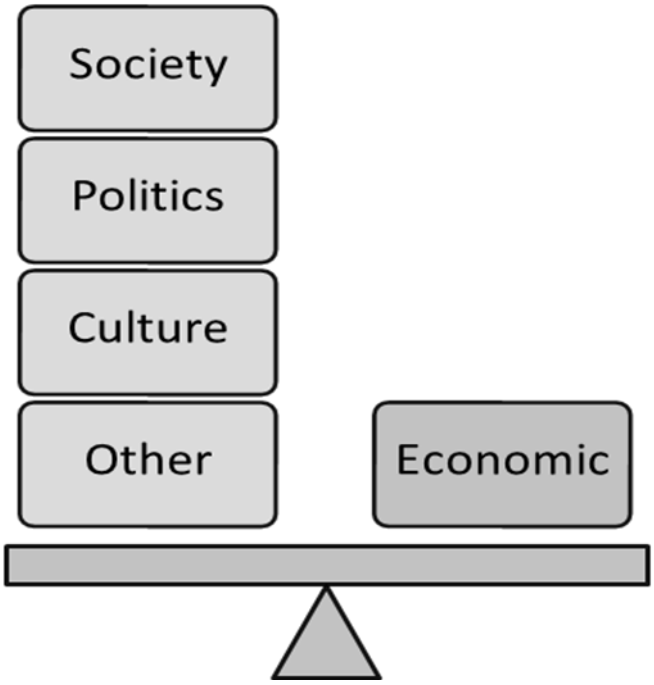


Figure 7 Franco-German distribution of bilateral topics

Chapter 3: Case Study – Germany France

In this chapter special characteristics to do with the relationship between Germany and France will be pointed out. As a direct comparison of data, "hard facts" (facts that can be measured in numbers) will be considered in chapter 5 while this chapter is more concerned with looking at the "soft facts". As the relationship between Germany and France has a long history and a wide variety of issues not every "special" aspect will be considered in this paper as this is beyond the scope of this paper.

a. Non-economic

i. Culture

The Franco-German relationship has also been quite strongly shaped by intercultural exchanges. Germany and France have their own joint TV broadcast station "ARTE.tv". This broadcast station was founded by Germany in France in 1990 in order to achieve more understanding for the other culture (so ARTE comments on their website (2010)). Shows have to have a culturally important and international character in order to be broadcast on ARTE.tv.

The Franco-German official Diplo website (2010) also mentioned the intense cooperation in cultural and literary aspects.

Germany and France have a council of culture. Founded in 1988, the council of culture is intended bring German and French artists of every kind together.

Germany and France have even founded a prize for journalism. The prize was first awarded in 2009 for categories such as TV, Radio and print media. In addition, Germany and France also founded in 2000 a film academy. Even an agreement about cooperation regarding digital libraries is in place between Germany and France.

Cooperation on cultural issues between Germany and France is widespread. These above-mentioned co-operations are just a very small part of the overall joint cultural landscape that Germany and France offer.

ii. Agriculture

According to the German Ministry of Agriculture (2010c),

Germany and France cooperate not only because of the European Union (EU) in the field of agriculture. This cooperation is traditionally very intense. Germany and France are focusing in their interaction in the field of agriculture on three special topics;

- Firstly, intense and friendly cooperation on every important issue.
- Secondly, the constant exchange between respective ministries staff members and experts.
- Thirdly, Cooperation on veterinary issues especially in the fight against animal diseases.

The German Ministry of Agriculture (2010d) also provides information about current issues and common projects.

Presently, Germany and France are cooperating in order to support dairy farmers. Germany and France wrote an official letter to the European commissioners with the objective of stabilizing the milk market.

Germany and France are also cooperating in several twinning- projects, such as with Poland or Morocco. Twinning-projects are projects where public authority staff is exchanged with a partner country for several years.

Not only do France and Germany cooperate on issues like agriculture - they work in tandem in order to support and cooperate with other countries in agricultural issues.

iii. Tourism

The "German Center for Tourism" (2010b) analyzed various indicators in order to estimate what the joint tourist market involving Germany and France will look like.

"Positive trends are seen in:

- Wellness travel with high quality standards
- Business Travel
- Cultural travel
- "All-inclusive" travel
- Transport options
- Language travel (due to the sponsoring of language programs because of the 40th anniversary of the Franco-German cooperation"

France and Germany are not just focusing on the present relationship in tourism they are trying to establish even more activities in order to intensify their relationship.

iv. Education

The Franco-German Diplo website (2010b) has published summarized information about the cooperation in education between Germany and France. The cooperation in education between Germany and France takes place from the primary to the tertiary level.

A current topic in the cooperation is the Franco-German history book project. In 2006 the first volume of the book was presented in Germany and France and introduced in secondary schools. In 2010 the third volume will be issued to schools. The Franco-German College cooperation, founded in 1999, is another expression of joint interaction in education. 150 colleges and universities have joined this program with the aim of strengthening scientific and research cooperation between Germany and France.

The Master program for European governance and administration is a cooperation in which Germany and France are working together. Started in 2005 in France, the first diploma was presented in 2006 in Germany.

18th September 2003 the cooperation concerning students went another step forward. An agreement about the acceptance and comparability of academic and technical qualifications was signed by Germany and France.

Cooperation in education has developed rapidly and widely at various levels. There has been enormous enthusiasm for this from both parties.

v. Social Welfare policy and solidarity

Using the Franco-German Diplo website (2010c), information about welfare policy and solidarity have been summarized and interpreted for this section.

Social welfare policy was never a part of the Elysee agreement, and as a consequence, welfare cooperation between Germany and France is quite new. It started in 2006. Topics being worked on are "integration and equal opportunities" and health policy.

Presently the cooperation on integration involves the exchange of experience between the two countries. Blogs, webpage's, meetings at national and international levels and many other channels with many other stakeholders are used to work on this topic - by using one anothers experiences.

Cooperation on the health system is focused currently on bioethics, a common fight against cancer and on crisis intervention programs for animal diseases.

The common fight against cancer is a cooperation between several research institutes and governmental organizations. The concrete actions taken such as an intense exchange of information, educational seminars and the set up of network platforms are supported by a robust project plan and time table.

Exchange, interaction and cooperation are what the Franco-German relationship is made of. This section also shows clearly which types of cooperation are used in order to improve cooperation on one topic.

vi. Foreign and defense policy

Besides the regular cooperation through the EU, Germany and France have a common foreign and security policy. The Franco-German Diplo website (2010d) provides several information about the foreign and defense policy.

As to foreign policy, Germany and France just recently opened up a radio station in Ghana. Common cultural programs in third countries such as movie, music, or painting programs are promoted jointly by Germany and France. These programs aim to present Franco-German culture globally.

Germany and France also share the same accommodation in many places in the world. Diplomatic missions, cultural programs or even school programs from Germany and France share the same accommodation as shown in Figure 8.

Figure 8 Shared accommodation - http://www.deutschland-frankreich.diplo.de/Gemeinsame-Unterbringung-deutscher,2839.html (2010)

Figure 8 shows; German and French schools sharing the same accommodation are marked red in Figure 8. Cultural institutes, which share accommodation, are marked in yellow, diplomatic missions, which share accommodation, are marked in white.
Several foreign programs between the Germany and France even share the same accommodation.

The defense policy is more than just the cooperation involving the Eurokorps. Germany and France have a military cooperation agreement in existence since 1989 - the cooperation agreement for the Franco-German brigade. The Franco-German brigade is available for interventions within the EU and NATO responsibility areas - in addition it actively supports the European security and defense policy.
Germany and France have exchange programs. These programs aim to enhance cultural knowledge, information exchange and e trust. Therefore these programs increase the overall knowledge on the topics.

vii. Regional cooperation

Regional cooperation between Germany and France can be found in different variations. The Franco-German Diplo website (2010f) provides good information on this topic. At province, region or city level, several cooperations can be found. Every one of the 16 Federal states (laender) in Germany has at least one cooperation with a French province and another 14 cooperations can be found on the area level besides several city cooperations ("twinnings").
The aims of all these cooperation are the improvement, development and stabilization of cultural, economic, social and educational issues. The Franco-German Diplo website (2010e) refers in 2009 to 2,200 regional cooperations between Germany and France.
There are intense Franco-German relationships not only at the level of the German federal states and French provinces, but also at the lower levels of areas, cities and town.

viii. Environmental and sustainable issues

Germany and France are cooperating intensively in environmental issues as can be seen on the Franco-German Diplo website (2010g). In 2006 the development cooperation on forestry has been extended and intensified. A joint office for Germany and France was set up in Central Africa to facilitate easier coordination and organization of aid programs from there. That is just one step towards the overall goal of intensive common work on sustainable development issues.

As well, both countries are focusing on decreasing the CO2 emissions by 30 percent by 2020 in order to be able to achieve reduction of 50 percent by 2050. The emission topic was just one item on the agenda of the conference of the Franco-German environmental council. Further common topics such as energy policy, the development of environmental programs or the alpine convention were also addressed.

ix. EU

The official website of the EU (2010) provides much information about the founding of the EU and the common topics that concern Germany and France.

From the beginning of the European Union (following on the European Coal and Steel Community (ECSC) in the 1950's) Germany and France cooperated, next with four neighboring countries.

Another aspect of the uniqueness of Germanys and Frances relationship is the EU. As the official website of the EU shows other important steps followed.

They stated the following 12 development steps as being very important in the history of the EU (2010):

- "1951: The European Coal and Steel Community is established by the six founding members
- 1957: The Treaty of Rome establishes a common market
- 1973: The Community expands to nine member states and develops its common policies
- 1979: The first direct elections to the European Parliament
- 1981: The first Mediterranean enlargement
- 1993: Completion of the single market
- 1993: The Treaty of Maastricht establishes the European Union
- 1995: The EU expands to 15 members
- 2002: Euro notes and coins are introduced
- 2004: Ten more countries join the Union"

Due to long cooperation within the EU and outside a large range of topics are addressed actively in the Franco-German relationship. The EU alone covers more than 30 topics where Germany and France cooperate. Topics such as:-

- Audiovisual and media
- Competition
- Consumers
- Customs
- Development
- Enlargement
- Fight against fraud
- Human rights
- And many more.

Strengthened and supported by the EU, Germany and France have had the opportunity for more than 50 years now to develop a strong and intensive cooperation in nearly every aspect that can be thought of. Following this long road has resulted is a well established bilateral relationship between Germany and France.

x. G8

The website "Eurotopics" (2010) presents a large amount of information about Europe. In this section the information about the G8 is summarized and presented.

Founded in 1975 the G8 was the former G6. Germany and France have been (along with 4 other countries) the founding members. The original idea of the G6 (later G8) was the creation of a platform for interaction in topics such as the currency and financial issues. It happened to be that the topics evolved and diverged and health, social, environmental and even more issues were discussed. In 1976 with the addition of Canada the G6 changed to G7 and in 1998 the G7 (with the joining of Russia) became the G8.

Yet another forum for interaction between Germany and France! Also in the field of international cooperation Germany and France exchange on various concerns.

xi. NATO

The information provided in this paragraph is taken from the official website of NATO (2010).

Both Germany and France are full members of the North Atlantic Treaty Organization (NATO). Although France has just recently became a full member again after 43 years. NATO is also a platform where information about security and defense issues is exchanged. This platform (besides the already existing military cooperation) is also used by Germany and France.

Also NATO is committed to defend its member states against attacks and threats. Besides that the NATO and its members are helping in crisis situations such as in Kosovo or Afghanistan. Again Germany and France have another platform for cooperation on three different (even though similar) issues concerning security and defense policy.

b. Economic

Germany and France have as well a long history as to economic exchange. The German Ministry of Foreign Affairs (2010c) described the relationship as follows:

> "Germany continues to be France's most important trading partner by far – and vice versa. In 2008, the volume of bilateral trade reached EUR 137.3 billion, compared with EUR 133.6 billion in the previous year. France typically records a balance of trade deficit, this reaching a new record level of nearly EUR 18.6 billion in 2008. The deficit is principally due to differences in economic structures. Germany is the second-largest foreign investor in France, after the United States. Even in 2008, a difficult year in economic terms, German investments created nearly 5,000 new jobs in France. Altogether, German investments in France have created approximately 320,000 jobs there."

i. Subsidies

Especially the close cooperation in economic concerns made through the European Union causes the interaction between Germany and France to sometimes be difficult. Subsidies in many areas are distributed by the European Union to member states. So potentially Germany and France both would have the chance to receive the subsidies. This creates a situation of competition between them.

A recent agreement by Germany and France is that no subsidies race will take place. That is what they stated in a press release issued by the Germany Ministry of Economy and Technology (2010c). Both countries acknowledged that a subsidies race between them would harm their relationship as well as in the end damage their countries. Even though this is a delicate situation, Germany and France have through open communication and information exchange overcome a risk of harmful competition and now try to work hand in hand as to subsidies.

ii. Research and Innovation

Germany and France have been cooperating in research and development regarding industry over years now, according to the German Ministry of Foreign Affairs (2009). Both of them are convinced that in certain aspects and issues their common work might be useful for the European Union. As well, Germany and France are trying to persuade the EU to set up measures for research and innovation suggested by Germany and France.

Germany and France are convinced that their common knowledge and experience is useful for the development of the EU and other member states. On the one hand to inspire bilateral cooperation and on the other hand the developed results.

iii. Taxation

Issues about taxes between Germany and France do not just involve only Germany and France anymore. They have already surmounted the bilateral situation on tax issues and now work together for taxation on certain issues concerning the European Union. The Franco-German Diplo website (2010a) provides presently information about a common undertaking for attempting to set up common taxation rules for businesses at the community level. Germany's and France's ministers of finance complied a document regarding this which has been submitted to the EU commission.

This is another aspect that shows that Germany and France collaborate so closely that no direct cooperation developments are taking place - it is evident that they have become "one government" in many areas and are concentrating on developing further bilateral relations with other countries.

iv. Expertise platform

For a number of years already, several institutions, committees, foundations, associations and so one have been established in order to cope with the growing knowledge on economic related issues and the changes in the patterns of competition. These platforms are especially used for development and research issues that are interesting for economic reasons. The central institute is the "Kompetenznetz" (2010). The official website of the Kompetenznetz is provides much information about economy and technology related cooperation. Cooperation in such areas as biomechanics, nanotechnology, information technology and software and nuclear research are just some topics which are worked on jointly between Germany and France.

As it can be seen Germany and France are not only concentrating on exchanging information, they are also trying actively to exchange research results and focus on common development.

c. Summary

The chapter 3 focused on specific characteristics of the bilateral relation between Germany and France. As already mentioned at the beginning of this chapter not every aspect of the bilateral relationships can be named or analyzed here. It was important in this chapter to give an impression regarding the quality and quantity of bilateral relations between Germany and France.

As just few aspects could be mentioned, many had to be left out. The already mentioned aspects but also some omitted aspects show clearly how widely spread bilateral relations between Germany and France are. Every aspect of all the afore-mentioned ones in the economic or non-economic sections showed that Germany and France have a strong and intense interaction. Not only a direct interaction on several aspects itself but also the cooperation in common groups such as the EU and G8 ensured over the last decades a constant development of their bilateral relations.

Even though the described aspects demonstrated that the relationship between Germany and France is quite old they didn't even give an impression though as to what relations between Germany and France have been like in the past. The history of the interaction between these two countries lies more in the past than in what is presented here - also this matter of fact is another aspect of their special relationship. The history of Germany and France - from being long-term enemies to becoming partners and friends makes this relationship unique and special.

Chapter 4: Case Study – Germany China

In this chapter the evaluation of the thesis statements is done on the case study of the bilateral relationship between Germany and China. In order to confirm the thesis statements, evaluation of the bilateral relationship had been divided into non-economic and economic criteria. That makes it easier to differentiate between these aspects.

a. Non economic

i. Cultural relations

A short summary of the cultural development between Germany and China can be found the official website of the Chinese Ministry of Foreign Affairs (2010).

“In 1979, the Agreement on Cultural Exchange was signed between the two countries. In April 2002, China and Germany signed the "Minutes of Talks" on the Establishment of Cultural Exchange Center". In the past few years, there have been frequent activities undertaken such in cultural contacts, artistic expositions and commercial performances. In September 2001, China, as a guest of honor, attended the third "Asia Pacific Week" held in Berlin.

The statement made by the Chinese Ministry of Foreign Affairs (2010) really just involved the subject of culture. Over the past decades scholarship programs, theater and orchestra exchanges, exhibitions, student exchange programs and many more activities have been arranged in order to bring the two cultures together.

One of the latest milestones reached was in 2005, when a new cultural agreement was signed by China and Germany - besides that Germany and China collaborate concerning the Chinese Culture Center in Berlin. The center was opened in 2008 and since then its cultural repertoire has grown significantly. Movies, exhibitions, concerts, teaching classes and many more activities can be found there. On the website of the Chinese Culture Center in Berlin (2010) further information about these activities can be found

ii. Military

The Chinese Ministry of Foreign Affairs (2010) also provides a brief summary about military cooperation between Germany and China.

"In 1976, the two countries established military attaché offices in their respective embassies. From February 2001 to March 2002, the defense ministers of the two countries conducted an exchange of visits. In September 2001 when a flotilla of the Chinese navy made its first voyage to Europe, the flotilla visited the German navy port of Wilhelmshafen."

While the Chinese Ministry of Foreign Affairs (2010) does at least refer to military cooperation between Germany and China the Germany Ministry of Foreign Affairs (2010) does not mention the topic at all. Even the German ministry of defense does not mention such military cooperation on their webpage. The only references on cooperation that can be found are support and help activities of the German 'Bundeswehr[1]' in China.

Summing up, a cooperation between Germany and China is well established, but an intense and equal cooperation is still missing.

[1] German armed forces

iii. Regional cooperation

Another issue mentioned by the Chinese Ministry of Foreign Affairs (2010) but not by the Germany Ministry of Foreign Affairs is the cooperation between the provinces and/or cities.

"In September 2002, there were in total 42 collaborations of provinces, states and cities established between Beijing, Shanghai, Liaoning, Sichuanon the Chinese side, and Berlin, Hamburg, Baden-Württemberg and Nordrhein-Westfalen on the German side."
While the Chinese Ministry of Foreign Affairs is just reference on 4 German federal states that have established the cooperation with Chinese provinces - other sources are more up to date.

Federal States - Germany	**Provinces or cities – China**
Baden-Württemberg	Liaoning, Jiangsu
Bavaria	Shandong
Bremen	Dalian
Hamburg	Shanghai
Hessen	Jiangsu, Hunan, Liaoning
Lower Saxony	Anhui
Nordrhein-Westfalen	Jiangsu, Sichuan, Shanxi
Rhineland-Palatinate	Anhui, Fujian
Saarland	Huan, Hubei, Shanxi
Schleswig-Holstein	Zhejiang

Figure 9 Province cooperation Germany and China - http://econlaw.wordpress.com/2008/07/17/wirtschaftliche-beziehungen-zwischen-deutschland-und-china/#_ftn4#_ftn4 (2010).

iv. Education

The German-Chinese Year of Science and Education 2009/10 was inaugurated in March 2009. The aim of the cooperation year was stated by the German Ministry of Foreign Affairs (2010a) as follows:

> "To improve long-term, structural cooperation between Germany and China, it is planned to launch joint research and development projects in sunrise sectors such as climate, energy and health research. There are also plans to extend the range of German-Chinese study programs offering joint degrees."

Besides an intensive cooperation year the Germany-Chinese education cooperation has been established since the 1980s and has developed rapidly. As the Chinese Ministry of Foreign Affairs (2010) states on their website:

> "So far there are over 300 Chinese schools of higher learning having had inter-school contact relations with about a hundred German schools of higher learning."

In 2002 an Agreement on "Mutual Acknowledgement of Equivalence of qualifications within Higher education" was signed by the two countries.

v. Agriculture

The priority in the Sino-Germany agricultural relationship, as the German Ministry of Agriculture (2010a) states, lies in the agricultural engineering and in food safety areas. A German-Chinese working group "agricultural issues" is presently focusing on issues considering livestock breeding, agricultural engineering and national as well as international agricultural concerns.

Described on the official website of the German Ministry of Agriculture (2010b) is another cooperation project between Germany and China which is focused on a "demonstration of an agricultural business".

This project is a show agricultural business that demonstrates how a business should work. Therefore agricultural business shall have the opportunity to learn and gather information about sustainable cultivation, agricultural technology and more efficient harvesting are also provided.

vi. Tourism

This information about the characteristics of the Sino-German tourism was provided by the official website of the German center for tourism (2010a).

The importance of CNTA for tourism to and from China

The China Nation Tourism Administration (CNTA) is an independent institution that belongs to and is financed by the Privy Council.

The CNTA is responsible for the coordination of the national development of tourism, the production of tourist roadmaps as well as coordination of the b various tourist offices. The CNTA also deals with foreign tourist travel for Chinese citizens.

Approved Destination Status (ADS)

Since the mid 90s selected travel agencies are allowed to organize foreign trips for Chinese tourist groups. An approved destination status can only be issued if a bilateral agreement between the aim country and the CNTA has been signed. This agreement includes faster administration of visa applications and the possibilities for agencies travels to apply for a group visa. The maximum length of stay is 90 days. On 1st of July Germany became the first western country with permission for advertisement so that Chinese tourist group trips can be arranged that visit Germany. One consequence was that advertisements for group travel to Germany are now possible in the Chinese media. Visits to other European countries for Chinese residents are more difficult due to various restrictions.

vii. Rule of law

In 1999 Germany and China agreed to deal with the issues considering the “rule of law”. As the definition can differ, the general definition of the Centre for International Finance and Development of the University of Iowa has been accepted (2010):

“The rule of law does not have a precise definition, and its meaning can vary between different nations and legal traditions. Generally, however, it can be understood as a legal-political regime under which the law restrains the government by promoting certain liberties and creating order and predictability regarding how a country functions. In the most basic sense, the rule of law is a system that attempts to protect the rights of citizens from arbitrary and abusive use of government power. “

In 2008 Germany and China signed the fourth two-year program on exchange and cooperation in the legal field. This agreement was made for 2008 and 2009. The content was considering legal aspects such as social law or commercial law.

viii. Human rights

One other important aspect of the bilateral relation of Germany and China is the human rights dialog. While the Chinese Ministry of Foreign Affairs (2010) refers to the topic on their website with a rebuke:

> “In June 1996, however, the German Parliament (Bundestag) adopted an anti-China resolution - the so called "Improvement in the Human Rights Situation", resulting in bilateral relations being seriously affected.”

The German Ministry of Foreign Affairs (2010b) still considers the human rights situation in China as critical:

> "The human rights situation in China continues to be a subject of critical discussion in bilateral relations. Even though China has made substantial progress in a large number of areas, many problems remain. Among Germans, there is keen and widespread interest in issues relating to the freedom of speech and religious freedom, China's frequent imposition of the death penalty and the human-rights situation in Tibet and Xinjiang are a cause for concern."

Clearly it can be seen that still no resolution or at least a common view on this topic have been established. This topic still has the potential to harm the rest of the bilateral relations.

b. Economic

Germany and China have a rapidly developed cooperation concerning the economy. The German Ministry of Foreign Affairs (2010a) stated:

> "Sino-German economic relations have progressed at breathtaking speed into the success story they are today. In 1972, German enterprises exported goods for just USD 270 million; in 2008, the Figure was USD 50 billion, more than a hundred and eighty-five times as much. In 1972, Germany imported from China goods worth USD 175 million; in 2008, imports were worth more than USD 87 billion, more than four hundred and ninety-seven times as much.
>
> Since 2002, China has been Germany's second biggest export market outside Europe, after the USA and ahead of Japan. Germany is by far China's largest European trading partner, ranking sixth overall amongst China's trading partners (and fourth excluding Hong Kong and Taiwan)."

i. Competition policy

The competition conditions have generally improved over recent years but still a lot of an improvement is needed, as the data and facts from the German Ministry of Economy and Technology (2010a) show.

Competition conditions in China are not equitable yet. Even though China joined the World Trade Organization (WTO) and opened up their markets to a large degree, they still have a long way to go in order to achieve equal competition conditions. In order to achieve an equal competition situation China would need to improve discrimination of the market entry such as the restriction of the amount of business for foreign companies. China also has not yet signed up to the Government Procurement Agreement of the WTO.

ii. Intellectual property

The German Ministry of Economy and Technology (2010a) is considering various aspects about intellectual property issues.

China is a country which has serious issues regarding intellectual property damage. This is one of the burdens Germany as well as many other countries have to deal with. In recent years the Chinese government has enacted a law to protect intellectual property. Even though this law meets international standards, and the legal situation has improved somewhat, enforcement is still inadequate and frequently non-existent. It also seems that due to rapid technological developments in China the importance of protecting intellectual property belonging to non-Chinese enterprises is becoming more and more important.

The legal situation is still a deficiency in the Chinese system that affects the German cooperation to China negatively.

iii. Cooperation councils

German-Chinese Economy Committee.

The German-Chinese economy committee (founded in 1979) became the most important coordination instrument for the German Ministry of Economic and Technology (2010) in relation to the Chinese board of trade. Under a rotating presidency Germany and China meet in this committee every year. Topics such as German investment in China, the financial situation, trade issues, open markets and competition issues are discussed.

German-Chinese forum for Economical and Technological cooperation.

The German Ministry of Economy and Technology states (2010b), that this cooperation has working groups focusing on Environmental technology, medical laboratory and biomechanics as well as on electronics and telecommunication and issues concerning energy.

Therefore this forum is not only for representatives of the German and/or Chinese government - it is more a platform for the exchange of information between professional experts from China and Germany as well as for governmental representatives.

c. Summary

The German-Chinese relationship has developed rapidly over the past decades. During this period man aspects of the German-Chinese relationship have been established. Not only has a greater degree of cooperation been established, but the attitude of Germany towards China and China towards Germany has improved.

Even though a lot of positive changes have occurred over the years regarding bilateral relations, there is still much room for improvements.

Points of contention can be found in human right concerns or deficiencies in the rule of law or its enforcement. China seems to concentrate of cooperating on economic matters while neglecting duties and guidelines as to equal and fair treatment.

As well the German-Chinese relationship seems not to be yet satisfactorily established as there are too many “problematic” issues affecting the cooperation on a continuing basis. As well, data available on the German-Chinese relationships is sparse and rare. The ministries of foreign affairs provide just certain information, and omit much information l or provide incomplete information.

All together the relationship still needs a lot of work if a positive cooperation in more aspects is to be brought about.

Chapter 5: Direct comparison of Data

In this chapter the comparable data for both bilateral relations that are needed for case study 1 and 2 will be presented and analyzed. The gray and brown arrows in Figure 1 show criteria that will be compared directly between Germany, France and China because the data are available in the same quality and format for both. These common bilateral criteria have been chosen for the following reasons:

a. The relevance of the criteria to bilateral relations
b. Availability of data for the bilateral relations for Germany – France and Germany – China
c. The plausibility of the data.

Ad (a): Criteria have been chosen as relevant to bilateral diplomacy if two of the three countries foreign affairs ministries believed these criteria to be important or relevant to bilateral relations.

Ad (b): As in this chapter the focus lies on the comparisons on the data, the data needed to be available for both bilateral relations. Therefore the data needed firstly to be available and secondly needed to be of the same quality to make a meaningful comparison possible.

Ad (c): Most of the data are from the Internet. Depending on the aspects (level 2 in Figure 9) different official websites have been used in order to ensure the plausibility and the correctness of the data.

Even if the data are comparable specific factors have to be taken in account. Therefore the bilateral relation between Germany – France and Germany – China underlie following specific factors that may have an uncontrolled and unidentified influence on the comparison of the bilateral relations between Germany and France and Germany and China:

- The geographical size of China and France are very different
- China's population is about 20 times larger than France's
- China and France have a different form of government
- China's and France's geographical distances from Germany are hugely different
- -China and France have a very different degree of development with respect to their economies. Hence Germany will e.g. see China as an emerging market where participation in significant economic growth is possible while this is totally different for the important but rather static market in France

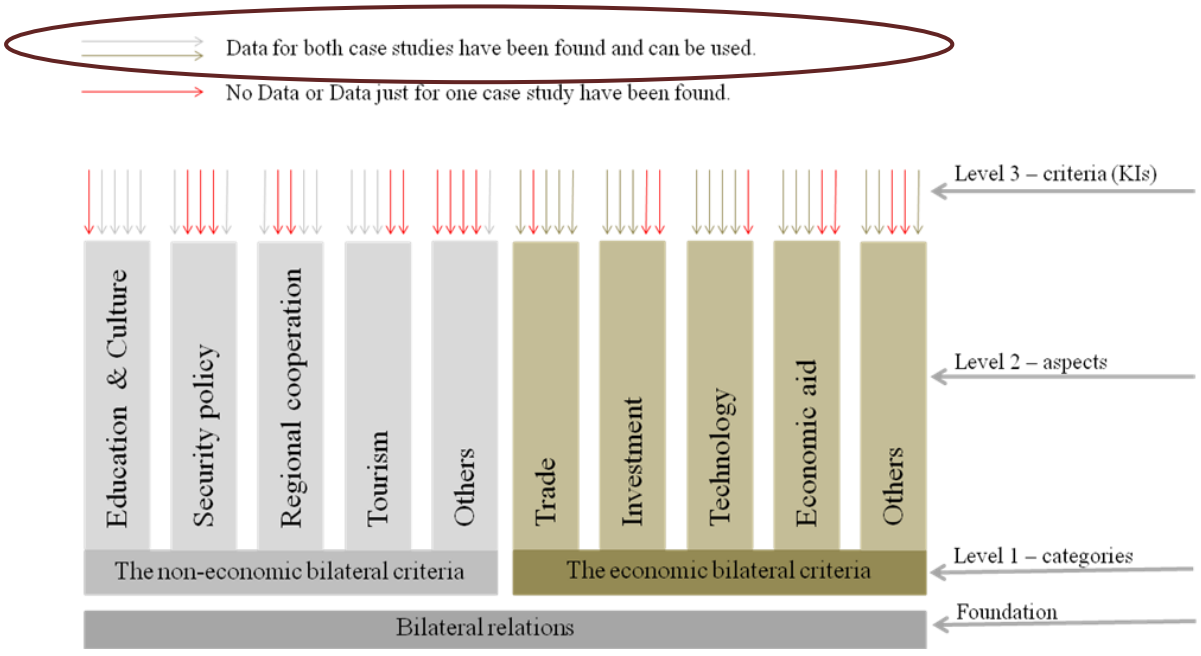


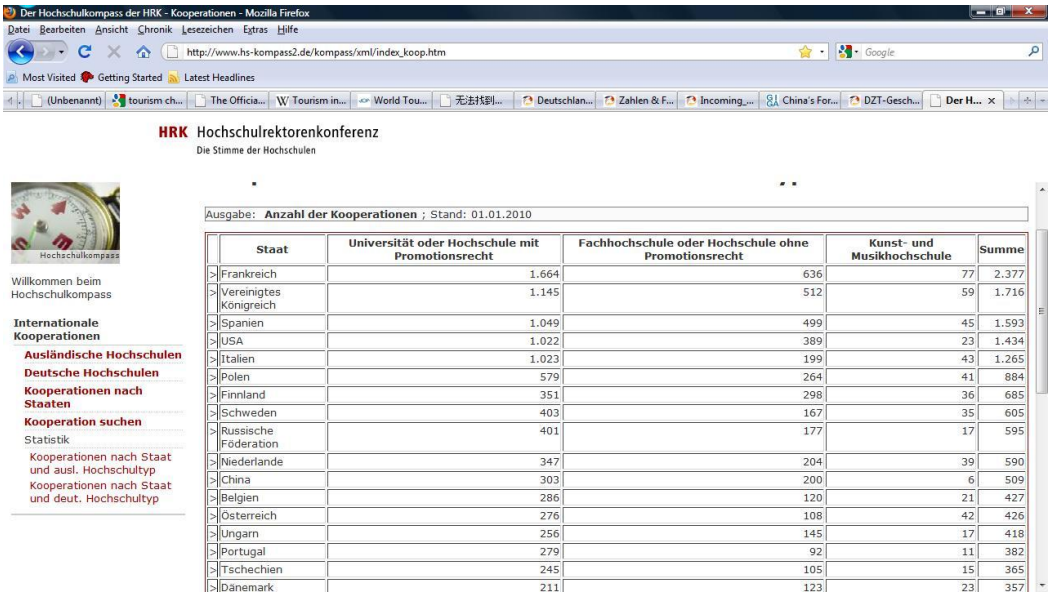
Figure 10 Direct comparison of Data – Level 3

a. Non-economic

i. Culture

One of the quantitative indicators for bilateral relations in the cultural-aspect (level 2, see Figure 10) is the university cooperation between the states. German universities and academic institutes created a website, mainly for students and academic staff to find international universities and academic institutes and their cooperation.

Figure 11 shows the results of the search on the academic webpage in January 2010. The last update of the data has been made on January 1st 2010. The purpose of this search was to obtain numbers that characterize the strength of the existing bilateral academic collaborations for the two cases.



Ausgabe: **Anzahl der Kooperationen** ; Stand: 01.01.2010

Staat	Universität oder Hochschule mit Promotionsrecht	Fachhochschule oder Hochschule ohne Promotionsrecht	Kunst- und Musikhochschule	Summe
Frankreich	1.664	636	77	2.377
Vereinigtes Königreich	1.145	512	59	1.716
Spanien	1.049	499	45	1.593
USA	1.022	389	23	1.434
Italien	1.023	199	43	1.265
Polen	579	264	41	884
Finnland	351	298	36	685
Schweden	403	167	35	605
Russische Föderation	401	177	17	595
Niederlande	347	204	39	590
China	303	200	6	509
Belgien	286	120	21	427
Österreich	276	108	42	426
Ungarn	256	145	17	418
Portugal	279	92	11	382
Tschechien	245	105	15	365
Dänemark	211	123	23	357

Figure 11 Query Website German University and academic institute group. For the results see Figure 12

State	Graduate Universities and colleges	Undergraduate Universities and Colleges	Art and music colleges	Total
France	**1.664**	**636**	**77**	**2.377**
United Kingdom	1.145	512	59	1.716
Spain	1.049	499	45	1.593
USA	1.022	389	23	1.434
Italy	1.023	199	43	1.265
Poland	579	264	41	884
Finland	351	298	36	685
Sweden	403	167	35	605
Russia	401	177	17	595
Netherlands	347	204	39	590
China	**303**	**200**	**6**	**509**

Figure 12 University and college cooperation – results obtained from the Webpage shown in Figure 11

Figure 12 the results of the query that has been shown in Figure 11 are presented here. While France and Germany have a total of 2.377 academic cooperations, China and Germany only have 1/5 of that. This means that the cooperation between universities and colleges seem to be much stronger between Germany and France than between Germany and China. The absolute difference of a factor of 5 is even more striking if the population difference between France and China is considered. As China has roughly 20 times the population of France, the relative strength of the academic cooperation between France and Germany is 20 x 5 = 100 times stronger than the one for Germany and China. In order to put the presented numbers in the right perspective the results for other states are also shown in Figure 12.

Another criterion for the educational aspect is the existing scholarship programs. The website of the "German academic exchange service" provided very comprehensive information for scholarship programs that are set up bilaterally between Germany and France and Germany and China respectively.

The accessible database allows the setting up of various possible choices of queries. As there is a high number of different specific queries but no "integral" query to characterize the bilateral status, choices had to be made for representative queries. These results are shown in Figure 13. The queries were limited to students and post doc students for this investigation.

Figure 13 German Academic Exchange Program – Database. Results from the queries are shown in Figure 14 http://www.daad.de/deutschland/foerderung/stipendiendatenbank/00462.de.html?fachrichtung=-1&land=18&status=3&enter.x=31&enter.y=8 (2010)

Studies	China		France	
	Students	Post gradual	Students	Post gradual
Architecture	14	20	20	17
Study of humanities	16	22	21	20
Health System & Medicine	15	19	21	19
Science of Arts	15	21	20	18
Agriculture & ecology	16	17	21	15
Mathematics & informatics	17	17	22	17
Natural Science	17	20	20	20
Law	15	16	20	15
Science of social studies	15	18	20	17
Economics	17	16	22	15

Figure 14 Evaluation of scholarships programs for France and China as obtained from queries on the Database shown.

A significant difference can only be seen between the student scholarship programs of China and France.

Typically up to 40 percent or 5 programs more are offered for French students in order to apply for a scholarship. Especially in fields like architecture, study of humanities, health system & medicine, science of arts, mathematics & informatics, law, science of social studies and even economics. The difference between the post gradual scholarship programs is not significant. Hence the absolute number of the programs is roughly the same. This has to be seen in context with the population difference between France and China: Again, as China has roughly 20 times the population of France, the **relative** strength of the scholarship programs between France and Germany is 20 times stronger than the one for Germany and China.

This criterion can be seen as a supportive one for the exchange programs. Even if the **absolute** results here do not show a tremendous difference, the values re-scaled for population of the countries involved show the same strong direction as seen in the numbers for the exchange programs in Figure 13.

The same website that was used for the scholarship programs offers a different database that can be used to calculate how many student programs are available in Germany in the French and Chinese languages.
When submitting the query a differentiation between the level of degree (Bachelor, Master and Doctoral) was made.

	Chinese	**French**
Bachelor	5	14
Master	4	29
Doctoral	1	3

Figure 15 Study programs in French or Chinese

The Figure 15 clearly shows that much more programs for French students are offered than for Chinese students. An absolute number is difficult to determine as the range is from 1:3 to 1:7. However, if scaled by the population this leads to ratios of 1:60 to 1.140 – and that fully confirms the results and trends of the exchange programs and the scholarship programs shown in Figure 13 and Figure 14.

ii. Education

Educational criteria that have been analyzed are considering foreign students in Germany. A special program from the "German academic exchange service" (2010) provides an online system where facts and Figures for international research and studies are presented. From the comprehensive information that can be found there a set, relevant to bilateral relations was selected and presented. The data in this section have been compiled from queries made in January 2010.

2008	2007	Country of origin	Number	in % of all foreign students
1	**1**	**China**	25.479	10,9
2	2	Turkey	21.404	9,2
3	3	Poland	13.028	5,6
4	4	Russia	11.847	5,1
5	5	Bulgaria	10.504	4,5
6	6	Ukraine	8.408	3,6
7	7	Morocco	6.918	3,0
8	8	Italy	6.512	2,8
9	9	Austria	6.018	2,6
10	**10**	**France**	5.476	2,3

Figure 16 Foreign students in Germany by nation of origin. From http://www.wissenschaft-weltoffen.de/. (2010)

Figure 16 and Figure 17 present the results of the queries made on the website of the "German academic exchange service". Figure 16 shows the 10 strongest nations with respect to active students in German universities. China has the most students in Germany and compared to France has roughly 5 times more students in Germany. Again, scaling for the population of France and China, this still means that France outdoes China by 1/5 x 20 = 4. A factor of 4 is much smaller when compared to all the previously mentioned educational criteria. Out of the foreign student body in Germany China provides every 10th student. That result is the same for 2007 and 2008.

So compared to the first three criteria considered the “foreign students criterion” is the first one were China is not so far behind when compared to France. Another perspective on the numbers is obtained when the absolute populations are used to retrieve percentages of students abroad. Chinas population is 1.3 billion (Central Intelligence Agency [CIA] World Factbook, 2010a and France’s populations is 64 million (CIA World Factbook, 2010b). Even though 25,000 Chinese students are studying in Germany they represent only 0.002 percent of the total Chinese population. As discussed above, the absolute number of French students is low when compared to the Chinese numbers but compared to the population the percentage is 0.008 percent.

A comparison with the total of Chinese and French students shows the same trend as the comparison of the population did. While we just compared the foreign student numbers in Germany and their relation to the population of the home countries the next analysis looks at the relative strength of these student groups in Germany compared to the total student population “at home”. A statistical website provides several statistics about the number of students in China and France.

China has a total number of 44.5 million students. The total number compared to the number of Chinese students in Germany reveals that 0.05 percent of Chinese students study in Germany. In France the percentage is 0.2 and therefore again a factor of 4 higher when taking into account France’s 2.2 million students.
France therefore sends, compared to the population and the total number of students, about 4 times more students to Germany than China sends to Germany.

Ranking 2006	State of exchange	2006	2005
		Number	Number
1	Netherlands	13.988	11.896
2	United Kingdom	12.145	11.600
3	Austria	11.961	10.174
4	Switzerland	8.868	7.839
5	USA	8.656	8.829
6	**France**	**6.939**	**6.867**
7	Sweden	3.000	2.999
8	Australia	2.825	2.764
9	Canada	1.700	1.707
10	Italy	1.607	1.607
11	Hungary	1.519	1.403
12	Spain	1.480	1.478
13	**China**	**1.280**	**1.280**
14	Denmark	1.000	1.002
15	New Zealand	970	970

Figure 17 German students in foreign countries
http://www.wissenschaft-weltoffen.de/ (2010)

After looking at the foreign student populations in Germany the reverse perspective is now taken: Figure 17 presents the students from German that study in another country. Nearly 7000 German students study in France. About 1300 German students are following their lectures in China – this is not even 1/5 of the French number.

It is interesting that the factor of 5 is nearly identical to the factor of 4 when comparing foreign students in Germany. When considering that more students from Germany study in France then in China one needs to note that one reason could be the easier procedures for German students wishing to study in a country of the European Union. This remark also holds for the analysis of the foreign students in Germany.

The last criterion in this section is focusing on the exchange of scientific staff. The following data have been also collected from the website of the German academic exchange service. 3 times more scientists from China when compared to France were in Germany as Figure 18 shows. Again, rescaled for absolute population of the country of origin this means that France outnumbers China by a factor of 1/3 x 20 = approx, 7. This value roughly confirms the numbers for student's exchange. On the other hand 3 times more scientists from Germany have been to France then to China (see
Figure 19). Only the statistics of the incoming scientists has to be seen in relation to the population of the country of origin.

For the bilateral relations between Germany and France it does mean that the scientific exchange is clearly more active and intense than the one between Germany and China. The bilateral relation between Germany and China concerning the exchange of scientific staff and students looks a bit different from the numbers representing the exchange programs.

It is important to stress that from the absolute numbers one could get the impression that China is more important to Germany from an academic cooperation point of view. This impression is clearly changed when absolute numbers of the population are taken into account and it becomes clear that the "academic link" between Germany and France is much stronger than the Chinese-German link. Germany and its students are still more focused on the "traditional" cooperation countries such as the UK, USA, and Russia.

Foreign scientists in Germany in 2007: 50 ranked according to the most important countries of origin		
Rank	Country of origin	Number
1	Russia	2,736
2	USA	1,.898
3	**China**	**1,779**
4	India	1,321
5	Poland	849
6	**France**	**597**
7	Italy	556
8	Ukraine	530
9	Brazil	500
10	Japan	482

Figure 18 Foreign scientists in Germany
http://www.wissenschaft-weltoffen.de/daten/6/2/4 (2010)

German scientists in foreign countries 2007: 50 ranked according to the most important foreign countries		
Rank	Foreign country	Number
1	USA	1,445
2	United Kingdom (Great Britain and North Ireland)	568
3	**France**	**337**
4	Italy	278
5	Russia	238
6	Switzerland	232
7	Japan	196
8	Canada	140
9	Australia	133
10	**China**	**117**

Figure 19 German scientists in foreign countries
http://www.wissenschaft-weltoffen.de/daten/6/6/4 (2010)

iii. Tourism

While the previous Section on academic exchange focused on very small groups of the population that have opinion leader and decider functions in the future, the current section deals with much larger groups of the general population that experience their neighbors via tourism. The section tourism is analyzed by various criteria concerning travel and its economic importance for the cases Germany – France and Germany – China. All data in this section have been collected from the "German center for tourism" (2010c) website. The data have been translated from German into English and are presented in the Figures in this section. Figures taken directly from the website are specially marked. The section "tourism" shall give an overview on "how intense the interest of the Chinese and French people is about Germany", "what impression do the Chinese and French have about Germany" and the evaluation on "which facts and Figures give a meaningful impression about the country's situation". .

Since tourism does have a direct and indirect influence on the economy, some economic data are also shown. The way tourists spend money and on what, does have an influence on the economy of the guest country. The German center for tourism (2010c) issued a report on the influence of tourism in 2008 by country. The most important countries are presented in Figure 20. The tourist activities and the combined direct and indirect effect on the economy have been ranked below.

Rank	Country	Billion-US-$
1	USA	1.356,9
2	Japan	479,3
3	**China**	**449,3**
4	**France**	**278,2**
5	**Germany**	**267,3**
6	Spain	251,5
7	Italy	212,5
8	UK	200,1
9	Mexico	133,8
10	Canada	110,4

Figure 20 Sum of direct and indirect influence of tourism on economy 2008. For "direct influence only" see Figure 21.

Even though China, France and Germany are close with respect to the ranking, the amount of tourist activity and the direct and indirect effect on economy do differ by a large amount. Especially the gap between Germany and France respectively to China is quite high. As it can be seen in the data of "the German center of tourism" Chinese tourism does affect the direct and indirect economy by 449 billion US Dollars. French tourism affected the economy by 278 billion US Dollars. German tourism is similar to the French one by 267 billion US Dollars. China therefore shows an economic potential for tourism and its growth that is twice as high as the potential in France and Germany. The tourist sector in China with its effects - direct and indirect – on economy is enormous. Actually, it is 40 percent higher than the potential in France and Germany.

So also with respect to tourism China is an emerging market with a lot of potential. The potential might even get stronger due to the Expo 2010 in Shanghai.

The direct influence only of tourism on economy is presented in Figure 21. It is seen that the Figures for China and France are much closer together as in Figure 20 before. The direct influences are considered as services and goods such as overnight stays, food, visits to museums, means of travel, purchase of souvenirs and gifts etc. and so on.

The rankings of China and France are the same as in Figure 20 but the numbers are much closer together. Germany instead is several places below the two others and differs greatly numerically to China and France. Chinese tourism had a direct effect on economy in 2008 of 107 billion US Dollars. French tourism had a direct effect on economy in 2008 by 103 billion US Dollars.

German tourism had a much lower direct effect on the economy in 2008, namely 75 billion US Dollars. China and France see a much stronger effect on the direct economy than Germany through tourism. Actually, Germany differs by more than 30 percent to China and France.

Considering that the countries are quite comparable in their tourist resources Germany therefore has much potential that is not utilized yet.

Rank	Country	-Billion US-$
1	USA	503.4
2	Japan	177.6
3	**China**	**107.3**
4	**France**	**103.6**
5	Spain	93.7
6	Italy	85.8
7	UK	76.2
8	**Germany**	**72.6**
9	Mexico	44.8
10	Australia	36.9

Figure 21 direct influence of tourism on economy 2008 – for the sum of direct and indirect influence see Figure 20.

The Figure 22 shows two tables. Firstly the tourist demand and secondly the tourism related capital investment. It is interesting on the side of the tourist demand that China, Germany and France seem to have a similar interest in tourist activities.

On the side of capital investment it clearly shows that China seems to be a growing market in tourism. France and Germany didn't even invest ¼ of the amount in tourism as China did. That means that the spending potential for tourism is quite the same from Germany, France and China while the investment is just strong on Chinese side. A part of this certainly can be compared by the fact that Germany and France have a strong existing tourist infrastructure while China is about to build it.

Tourist demand			Capital investment		
Rank	**Country**	**Bill.-US-$**	**Rank**	**Country**	**Bill..-US-$**
1	USA	1640.3	1	USA	262.3
2	Japan	556.1	**2**	**China**	**165.4**
3	**China**	**526.6**	3	Japan	65.2
4	**Germany**	**438.4**	4	Spain	60
5	**France**	**378.1**	5	Italy	29.3
6	Spain	310	**6**	**France**	**38.3**
7	UK	307.2	7	Russia	36.5
8	Italy	281	**8**	**Germany**	**32.8**
9	Canada	176.8	9	UK	31
10	Mexico	158.2	10	Australia	30.9

Figure 22 Tourist demand and capital investment of tourism in Germany 2008

The following Figure 23 was taken from of an annual report “Incoming-Tourism Deutschland” of the German tourism service. This Figure shows the best 20 source markets in tourism by stay over’s in 2008 include Germany. Clearly it can be seen that presently France and their 2,400,000 tourist are still more important to Germany than China with 900,000 tourists.

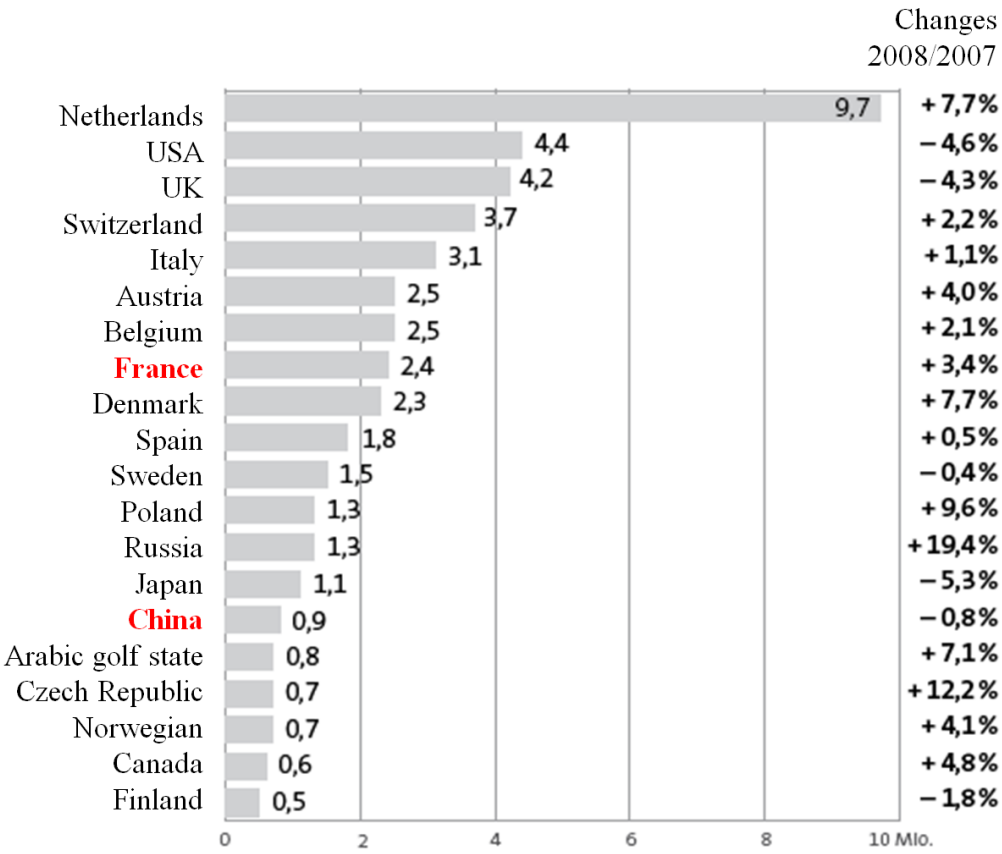
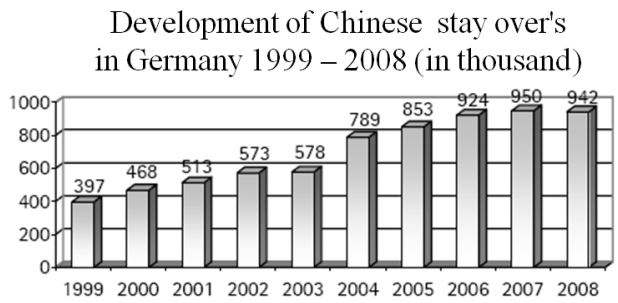


Figure 23 German source markets
http://www.deutschland-extranet.de/pdf/Incoming_Tourismus_Deutschland_Edition_2009.pdf (2010)

In the methodology consistently applied in this chapter we now compare the absolute numbers of 2.4 and 0.9 million, representing a ratio of about 2.5:1. When normalized to the population France clearly dominates by 2.5 x 20 = 50:1.

Even though French tourism to Germany is presently more greater than Chinese tourism to Germany, the number of Chinese tourist visits has increased steadily over the last 10 years. Figure 24 shows the development of overnight stays from 1999 to 2008 in Germany for Chinese and French tourists.



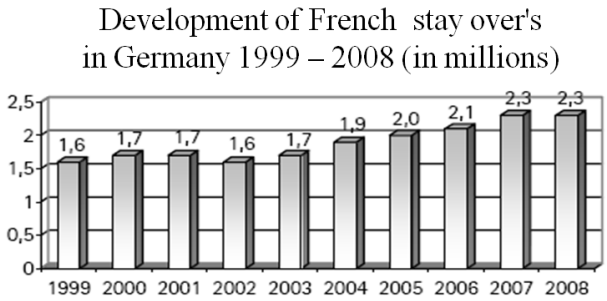


Figure 24 Chinese and French development of stay over's in Germany
http://www.deutschland-extranet.de/pdf/MI_China_HongKong_2009.pdf & http://www.deutschland-extranet.de/pdf/MI_Frankreich_2009.pdf (2010)

Within 10 years the number of stay over's from both countries increased by more than 540.000; the Chinese increased their stay over's starting in 1999. The French stay over's in Germany increased by 700.000. The percentage development between 1999 and 2008 can be seen in Figure 16. 2004 clearly shows the best Figures over the last decade. The main conclusion is that the French numbers have increased by about 50 % over these years while the Chinese ones have more than doubled.

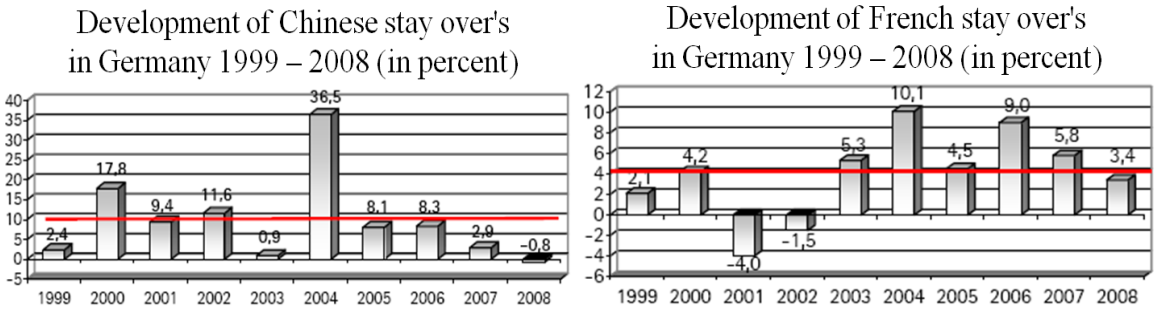


Figure 25 Chinese and French development of stay over's in Germany in percent
http://www.deutschland-extranet.de/pdf/MI_China_HongKong_2009.pdf & http://www.deutschland-extranet.de/pdf/MI_Frankreich_2009.pdf (2010)

Therefore the trend of tourism in Germany as regards tourists both from China and France looks positive. France still provides the greatest amount of tourists to Germany. The regional closeness and the less administrative hassle for visas etcetera might influence these numbers.

Once a year the Germany center for tourism gives out a questionnaire about the image of Germany. This questionnaire is called “Anholt Nation Brands Index”–questionnaire, also known as NBI-index.

This questionnaire, filled in by tourists, is considering various factors of one country images. A website was found that gave official information about the purpose and content of this Index.

> “Growing from 35 to now 50 countries, *The Anholt-GfK Roper Nation Brands Index* measures the power and quality of each country's 'brand image' by combining the following six dimensions:
>
> - **Exports** – Determines the public's image of products and services from each country and the extent to which consumers proactively seek or avoid products from each country-of-origin.
> - **Governance** – Measures public opinion regarding the level of national government competency and fairness and describes individuals' beliefs about each country's government, as well as its perceived commitment to global issues such as democracy, justice, poverty and the environment.
> - **Culture and Heritage** – Reveals global perceptions of each nation's heritage and appreciation for its contemporary culture, including film, music, art, sport and literature.
> - **People** – Measures the population's reputation for competence, education, openness and friendliness and other qualities, as well as perceived levels of potential hostility and discrimination.
> - **Tourism** – Captures the level of interest in visiting a country and the draw of natural and man-made tourist attractions.

- **Investment and Immigration** – Determines the power to attract people to live, work or study in each country and reveals how people perceive a country's economic and social situation."

The scales in Figure 26 and Figure 27 show the possible rating numbers from 1 to 7. While 1 is the worst rating 7 is the best rating that the participating countries could achieve in this questionnaire. Both Figures show an extract of the possible questions of a dimension. Still, every dimension is represented in these Figures.

The results of the Chinese questionnaires have been worse that the average answers. The major gap between the Chinese impression and the overall impression occurs in the section culture (modern as well as heritage culture).

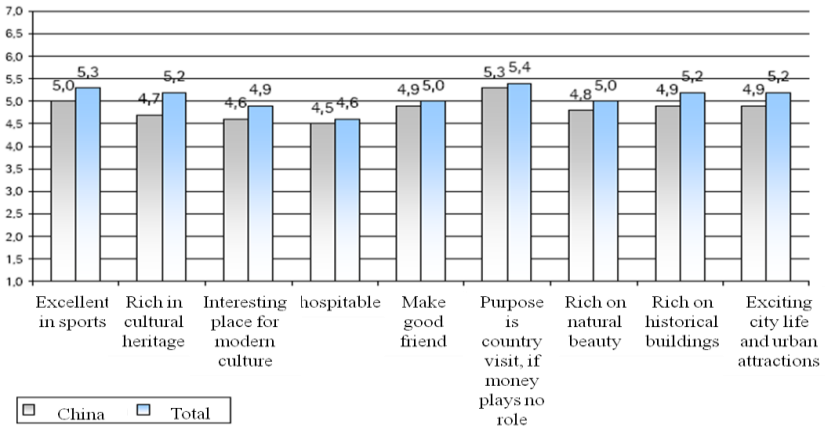


Figure 26 NBI 2008 China on Germany - percent
http://www.deutschland-extranet.de/pdf/MI_China_HongKong_2009.pdf (2010)

As mentioned before, France is in the source market for Germany s tourism at rank number 8 and therefore an important market.

The results considering Germany as stated by French tourists are mainly positive. They ranked Germany with number 3. The French feedback has been quite positive in all possible dimensions of the questionnaire.

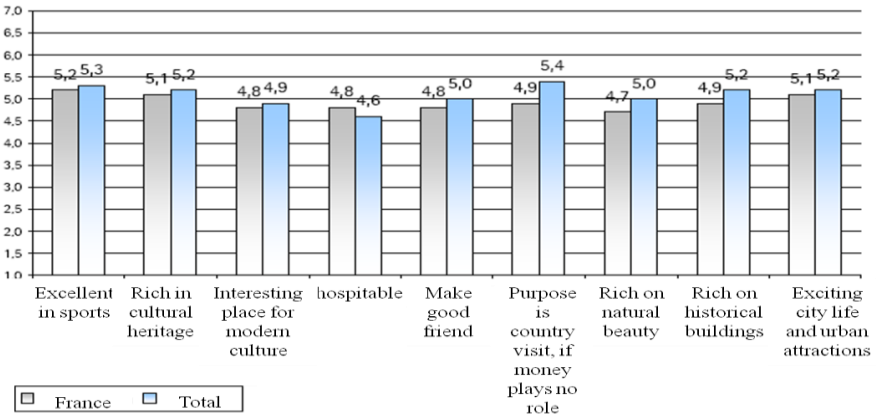


Figure 27 NBI 2008 France on Germany
http://www.deutschland-extranet.de/pdf/MI_Frankreich_2009.pdf (2010)

The French answers out of the questionnaire have been better that the Chinese results. As in Figure 26 and Figure 27 shown the impression of the French have been better in nearly every section that the impressions of the Chinese. The French impression about the German culture especially have been much better that the Chinese impression, in particular because Chinese ranked the culture even below the overall average.

iv. Others

A Google search made for this study in January 2010 presented quite interesting results. Google is the most frequently used search engine on the Internet. If looking for information, pictures, maps, destinations and so on Google nowadays is the first address to go to. Depending on the specification of queries made the results are wider or narrower.

The query made in January 2010 was looking for the link between Germans and several other countries. The aim of the query was to Figure out how many links can be found between Germany and country "X". These results have then been put into a relation to the population of the country "X".

Figure 28 shows the relationship between the population and the hits in Google. The general observation among comparable countries is that "the higher the population the more Google hits have to be found" – this is expressed by the blue line in Figure 28.

The area left of the blue line shows those countries that yielded a higher Google rate than expected from their population. On the right side one can find two different groups – both however, show lower hit rates than expected by their population. Due to the huge population China and India have the Google hits should have been much higher. France is slightly above the "average line".

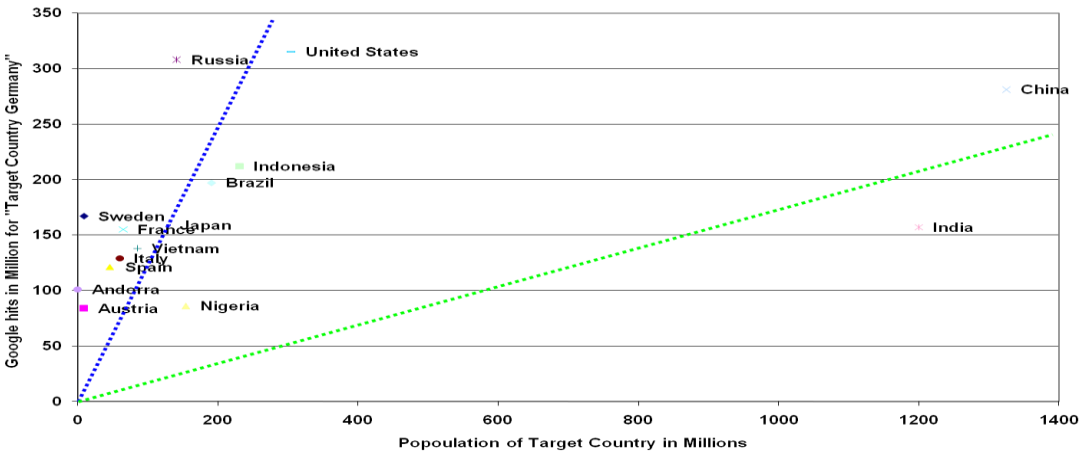


Figure 28 Google hits for target country Germany

Figure 28 shows the ranking of the considered countries. Several other countries except of China and France have been considered in order to see which other national factors have impacts on the result. It can be shown e.g. that distance is not the driving factor as regards rankings. China much lower than European countries – Indonesia and Brazil are ranking much higher than China and India. So it is fair to assume that the communist government in China and the state of development in China and India are the main factors that lead to the low rank.

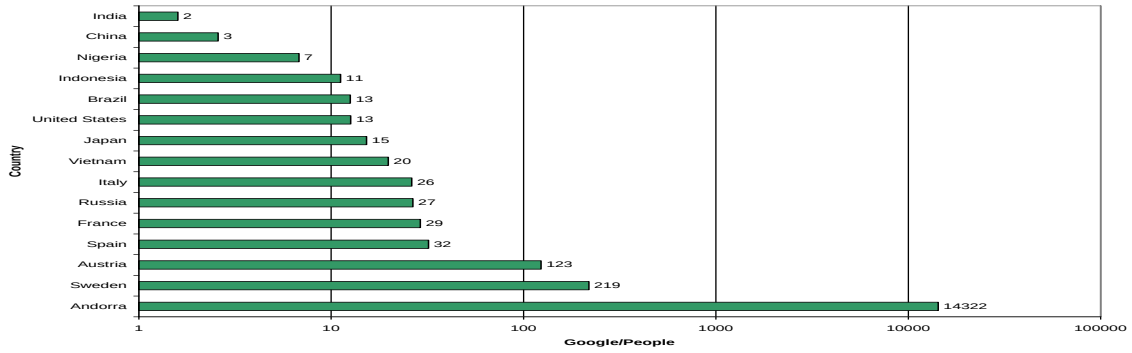


Figure 29 Google Ranking - People/Google

The search “Germany France” yielded 155.000 Google hits. The search Germany China had 281.000 Google hits. The number of hits for Germany and China is bigger compared to Germany and France. However by putting the numbers in proportion to the population of China and France the hits per person in France are much higher than in China. From the ranking in Figure 29 France leads 29:3 or approximately 10:1.

v. Development cooperation

Human Development Report

The human development report (HDR) reflects the situation of the development of a country. The HDR was chosen to be considered in this section because to work out and present the tremendous difference between Germany, France and China. Even though several aspects regarding the three countries are increasingly similar, still the difference is noticeable.

The Human Development Index is explained as following:

> The HDI provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and gross enrolment in education) and having a decent standard of living (measured by purchasing power parity, PPP, income). The index is not in any sense a comprehensive measure of human development. It does not, for example, include important indicators such as gender or income inequality nor more difficult to measure concepts like respect for human rights and political freedoms. What it does provide is a broadened prism for viewing human progress and the complex relationship between income and well-being.

As comprehensive comparisons using the human development report would be to overwhelming in volumes, specific data have been chosen to be presented in this paper. Some factors concerning the human development index and some factors concerning the number of immigrants will be considered. The Figure 30 and
Figure 31 are each comparing three tables with results from the human development report.

Looking at Figure 30 four different numbers can be compared. Firstly the HDI itself, secondly the life expectancy, thirdly combined gross enrolment ration and fourthly the Gross domestic product (GDP) per capita. The rankings between the HDI values are quite widely spread.

While France with rank 8 and Germany with rank 33 are still quite close together, China is ranked 92 out of 182. The highest value that can be reached is 1. None of the participating countries were at ranking 1. The lowest ranking that was achieved was by Niger, with rank 182. The second factor evaluated was life expectancy at birth. France is takes the lead with a life expectancy of 81 years, followed by Germany with an expectancy of 79.8 years and China with 72.9 years. The difference between China and France are therefore 8 years, between France and Germany just about 1 year.
The gross enrolment ratio is in indicator for the level of education. France again is taking the lead with 95.4 percent, followed by Germany with 88.1 percent and China by 68.7 percent. The gross enrolment ratio shows how many people in the school age and student age are visiting a facility of education. In China 30 percent of the people in the school and study age are not visiting any facility of education. While in France only 5 percent are not using a facility of education.
The last factor in this section is the gross domestic product per capita. Here the lead is taken by Germany at rank 24 directly followed by France on rank 25. China is 77 rankings lower at rank 102.

Table 1: Germany's human development index 2007

HDI value	Life expectancy at birth (years)	Combined gross enrolment ratio (%)	GDP per capita (PPP US$)
1. Norway (0.971)	1. Japan (82.7)	1. Australia (114.2)	1. Liechtenstein (85,382)
20. New Zealand (0.950)	15. Austria (79.9)	36. Argentina (88.6)	22. Australia (34,923)
21. United Kingdom (0.947)	16. Netherlands (79.8)	37. Peru (88.1)	23. Finland (34,526)
22. Germany (0.947)	**17. Germany (79.8)**	**38. Germany (88.1)**	**24. Germany (34,401)**
23. Singapore (0.944)	18. Ireland (79.7)	39. Poland (87.7)	25. France (33,674)
24. Hong Kong, China (SAR) (0.944)	19. Cyprus (79.6)	40. Brazil (87.2)	26. Japan (33,632)
182. Niger (0.340)	176. Afghanistan (43.6)	177. Djibouti (25.5)	181. Congo (Democratic Republic of the) (298)

Table 1: France's human development index 2007

HDI value	Life expectancy at birth (years)	Combined gross enrolment ratio (%)	GDP per capita (PPP US$)
1. Norway (0.971)	1. Japan (82.7)	1. Australia (114.2)	1. Liechtenstein (85,382)
6. Netherlands (0.964)	5. Australia (81.4)	13. Iceland (96.0)	23. Finland (34,526)
7. Sweden (0.963)	6. Italy (81.1)	14. Libyan Arab Jamahiriya (95.8)	24. Germany (34,401)
8. France (0.961)	**7. France (81.0)**	**15. France (95.4)**	**25. France (33,674)**
9. Switzerland (0.960)	8. Sweden (80.8)	16. Luxembourg (94.4)	26. Japan (33,632)
10. Japan (0.960)	9. Spain (80.7)	17. Belgium (94.3)	27. Spain (31,560)
182. Niger (0.340)	176. Afghanistan (43.6)	177. Djibouti (25.5)	181. Congo (Democratic Republic of the) (298)

Table 1: China's human development index 2007

HDI value	Life expectancy at birth (years)	Adult literacy rate (% ages 15 and above)	Combined gross enrolment ratio (%)	GDP per capita (PPP US$)
1. Norway (0.971)	1. Japan (82.7)	1. Georgia (100.0)	1. Australia (114.2)	1. Liechtenstein (85,382)
90. Dominican Republic (0.777)	70. Peru (73.0)	54. Philippines (93.4)	110. Bosnia and Herzegovina (69.0)	100. Armenia (5,693)
91. Saint Vincent and the Grenadines (0.772)	71. Estonia (72.9)	55. Panama (93.4)	111. Saint Vincent and the Grenadines (68.9)	101. Angola (5,385)
92. China (0.772)	**72. China (72.9)**	**56. China (93.3)**	**112. China (68.7)**	**102. China (5,383)**
93. Belize (0.772)	73. Colombia (72.7)	57. Qatar (93.1)	113. Sri Lanka (68.7)	103. Egypt (5,349)
94. Samoa (0.771)	74. Nicaragua (72.7)	58. Mexico (92.8)	114. Oman (68.2)	104. Maldives (5,196)
182. Niger (0.340)	176. Afghanistan (43.6)	151. Mali (26.2)	177. Djibouti (25.5)	181. Congo (Democratic Republic of the) (298)

Figure 30 Human development index Germany, China, France - http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_DEU.html & http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_FRA.html & http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_CHN.html (2010)

The comparison of the four factors considering the HDI is clearly showing that China seems to be well out of the league of Germany and France. Even though China has developed considerably over the past decades concerning HDI, a lot of work is still needed.

Figure 31 shows 2 factors concerning the immigration situation in Germany, France and China.

The first two columns in each table show the destination as well as the present amount of immigrants in this destination. Therefore Germany is leading with an amount of more than 10 million immigrants followed by France with 6.5 million immigrants. China has 590 thousand immigrants.

The two columns on the right show again the destination of migrants and the share of the immigrants to the population of the destination country. The amount of Chinas immigrants is so small that the percentage is close to zero and has therefore the last ranking number at 182. Germany and France in contrast lie over the 10 percent mark.

Table 4: Immigrants

Destination of migrants	Immigrant stock (thousands)	Destination of migrants	Immigrants as a share of population (%) 2005
1. United States	39,266.5	1. Qatar	80.5
1. United States	39,266.5	4. Andorra	63.1
		31. Austria	14.0
		34. United States	13.0
3. Germany	**10,597.9**	**35. Germany**	**12.9**
4. France	6,478.6	37. Sweden	12.3
6. Canada	6,304.0	41. Spain	10.7
164. Liechtenstein	11.9	129. Japan	1.6
182. Vanuatu	1.0	182. China	0.0
Global aggregates			
OECD	97,622.8	OECD	8.4
Very high human development	107,625.9	Very high human development	11.1
World	195,245.4	World	3.0

Table 4: Immigrants

Destination of migrants	Immigrant stock (thousands)	Destination of migrants	Immigrants as a share of population (%) 2005
1. United States	39,266.5	1. Qatar	80.5
1. United States	39,266.5	4. Andorra	63.1
		41. Spain	10.7
3. Germany	10,597.9	42. Netherlands	10.6
4. France	**6,478.6**	**43. France**	**10.6**
6. Canada	6,304.0	50. United Kingdom	9.7
8. United Kingdom	5,837.8	52. Greece	8.8
164. Liechtenstein	11.9	129. Japan	1.6
182. Vanuatu	1.0	182. China	0.0
Global aggregates			
OECD	97,622.8	OECD	8.4
Very high human development	107,625.9	Very high human development	11.1
World	195,245.4	World	3.0

Table 5: Immigrants

Destination of migrants	Immigrant stock (thousands)	Destination of migrants	Immigrants as a share of population (%) 2005
1. United States	39,266.5	1. Qatar	80.5
16. Hong Kong, China (SAR)	2,721.1	8. Hong Kong, China (SAR)	39.5
29. Singapore	1,494.0	180. Viet Nam	0.1
39. Thailand	982.0	181. Indonesia	0.1
61. China	**590.3**	**182. China**	**0.0**
63. Korea (Republic of)	551.2		
76. Philippines	374.8		
182. Vanuatu	1.0		
		182. China	0.0
Global aggregates			
OECD	97,622.8	OECD	8.4
Medium human development	40,948.6	Medium human development	0.8
World	195,245.4	World	3.0

Figure 31 Immigrants Germany, China, France - http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_DEU.html & http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_FRA.html & http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_CHN.html (2010)

While Germany and France are dealing with a considerable immigration this is no concern for China. This is another aspect were Germany and France have more in common than Germany and China.

b. Economy

The section economy will lay the focus on the bilateral aspects between Germany and France and Germany and China. An overall impression about the economic interaction between these countries will be given first and a comparison about basic economic indicators will be presented about these three countries. Economic key data of the bilateral relations of Germany and France and Germany and China will be analyzed. The data on this page mainly have been retrieved from official governmental websites. The sources will be pointed out in every section.

vi. Trade

Figure 31 shows France's main supplier countries in 2008. Germany is the most important supplying partner with 16.3 percent to France as it can be seen in Figure 31. The institution "Germany Trade & Invest" of the Germany government stated that France's imports in 2008 are 465.3 billion US Dollars. That means that German exported an amount over 75 billion US Dollars to France in 2008.

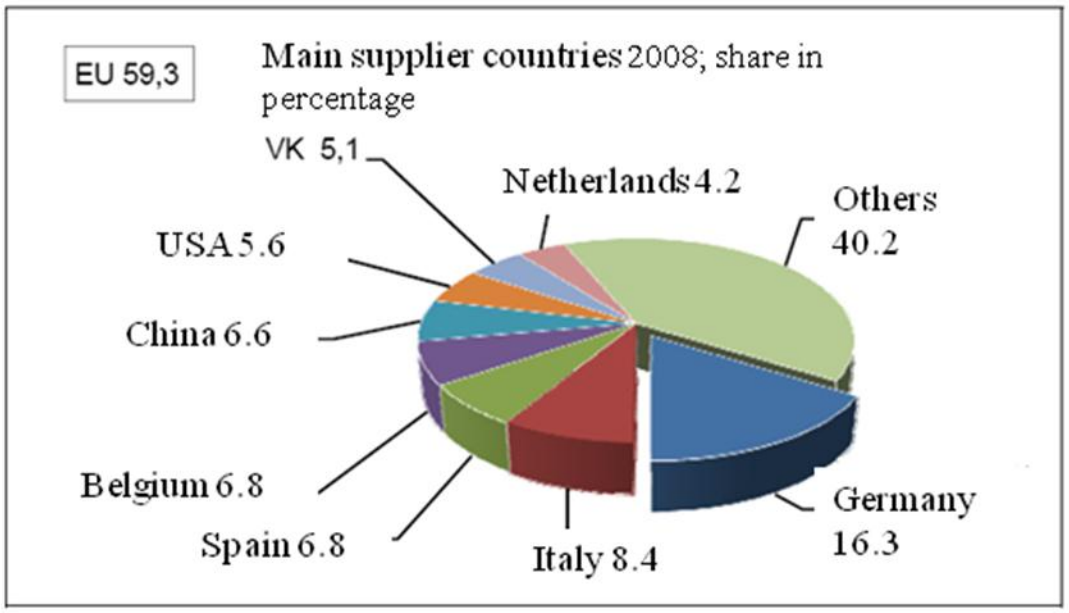


Figure 32 France's main supplier countries in 2008 - http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=PUB200911108029&suche=[suche][land]61[/land][sort]dat[/sort][kat]-Eua[/kat][sicht]suche[/sicht][fachDb]matrixsuche[/fachDb][/suche]&snavi.page=0 (2010)

Germany is also one of China's important suppliers in trade. Within the European Union Germany is by nearly 5% the most important European supplier to China, as Figure 33 shows. The total imports of China, as the institute "Germany Trade & Invest" presented, in 2008 was 1.133.1 billion US Dollars. Therefore Germany has exported an amount over 55 billion US Dollars to China. Hence comparing the German goods and service imported to China (55 b$) to the value for France (75b$), it is seen that France dominates by 8:6 while rescaling for population this means a ratio of 20x8:6 = 100:4

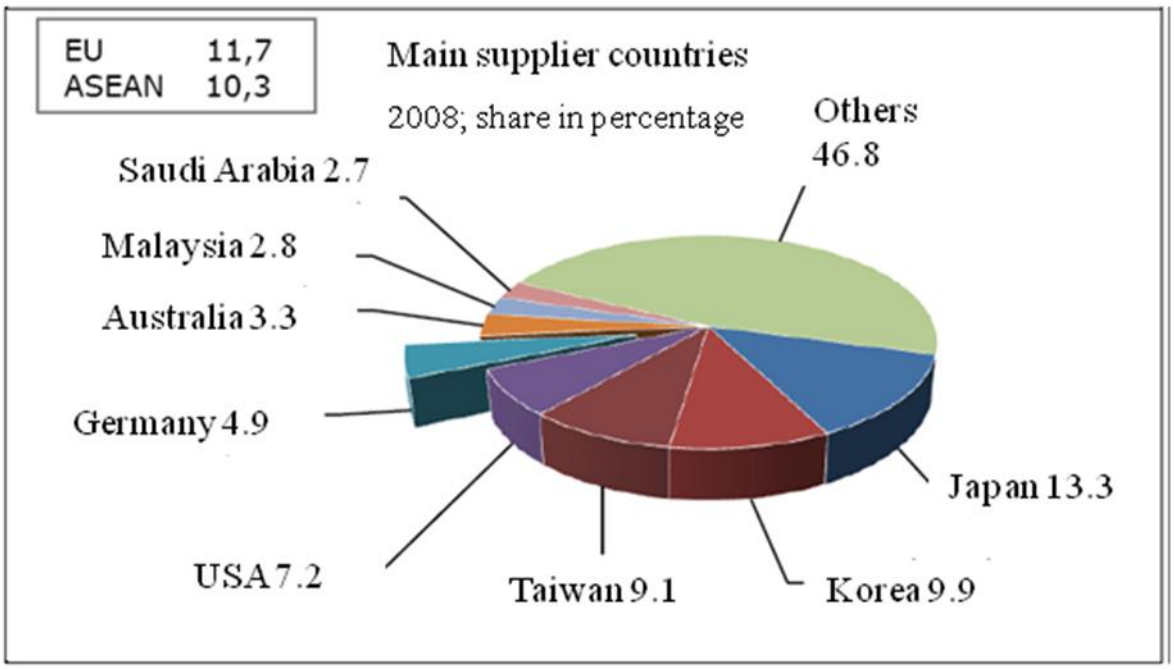


Figure 33 Chinese main supplier countries in 2008
http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=PUB200911118073&suche=[suche][land]42[/land][sort]dat[/sort][kat]-Eua[/kat][sicht]suche[/sicht][fachDb]matrixsuche[/fachDb][/suche]&snavi.page=0 (2010)

Comparing Germans export to France and China more than 20 million US Dollars of imports are going from Germany to France.

A similar picture can be drawn from the data of the first half of 2009 as Figures 33 and 34 show. While Germany exported goods worth 31 million US Dollars to France, they only exported goods worth 24 million US Dollars to China. As both Figures 33 and 34 also shown is that exports to both countries have also decreased by each more than 10 percent, mostly due to the economic crisis. When calculating the ratio, rescaled by population, we obtain 31x20: 24 = 600: 24 or about 100 to 4.

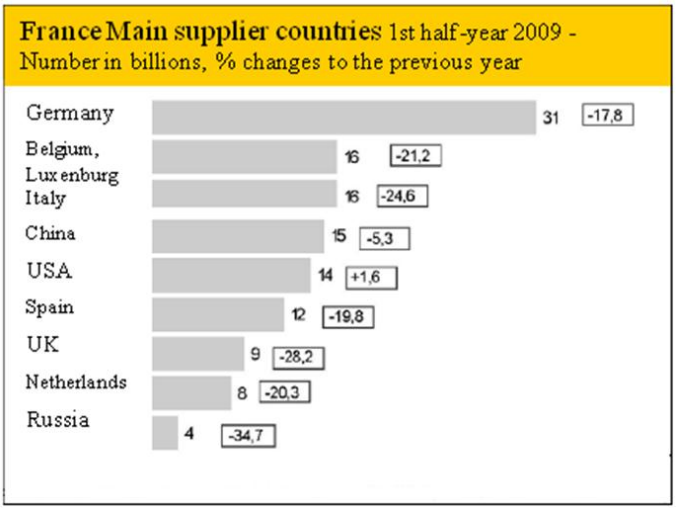


Figure 34 France main supplier countries 2009
http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=MKT200911268000 (2010)

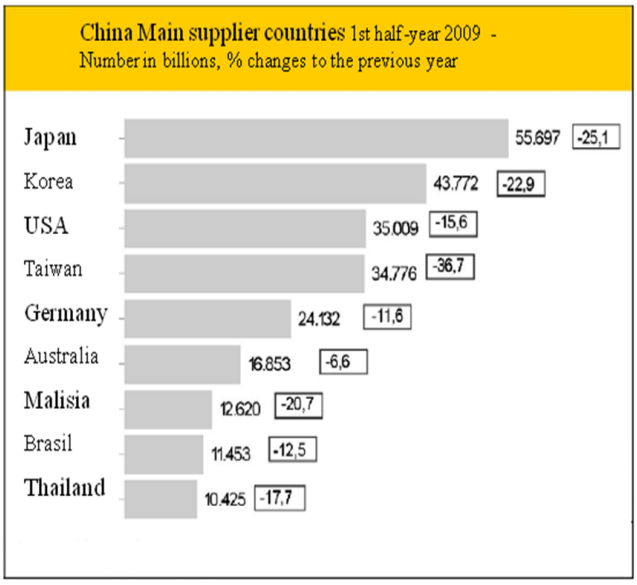


Figure 35 China main supplier countries 2009
http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=MKT200912098008 (2010)

Figures 36 and 37 show the main consumer countries of France and China in 2008. Figure 36 shows clearly that Germany is the main consumer country of France by 14.6 percent.

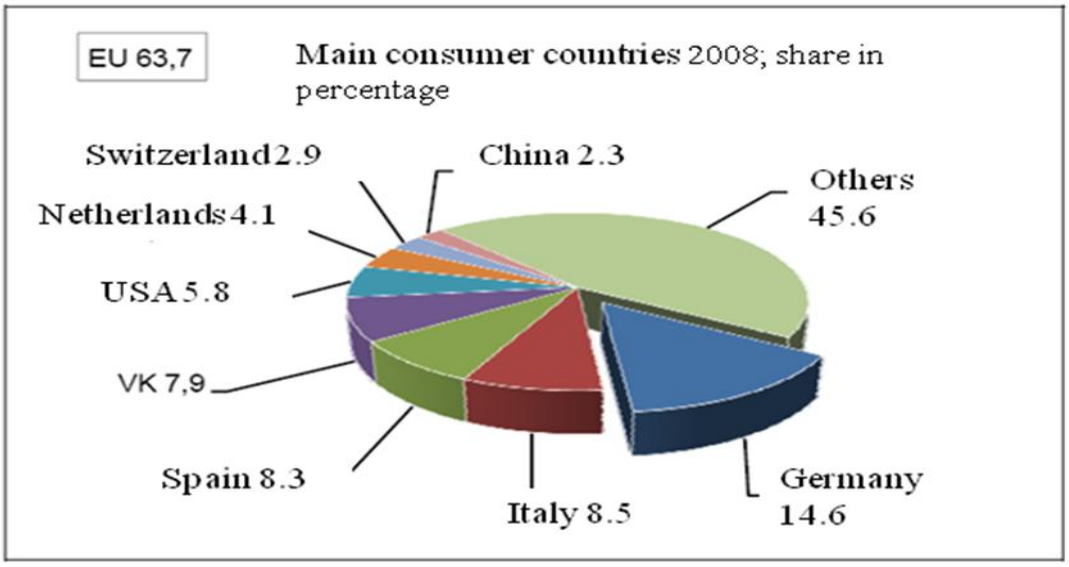


Figure 36 Frances main consumer countries in 2008
http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=PUB200911108029&suche=[suche][land]61[/land][sort]dat[/sort][kat]Eua[/kat][sicht]suche[/sicht][fachDb]matrixsuche[/fachDb][/suche]&snavi.page=0 (2010)

Figure 37 shows that Germany by 4.1 percent is the most important European Union consumer market.

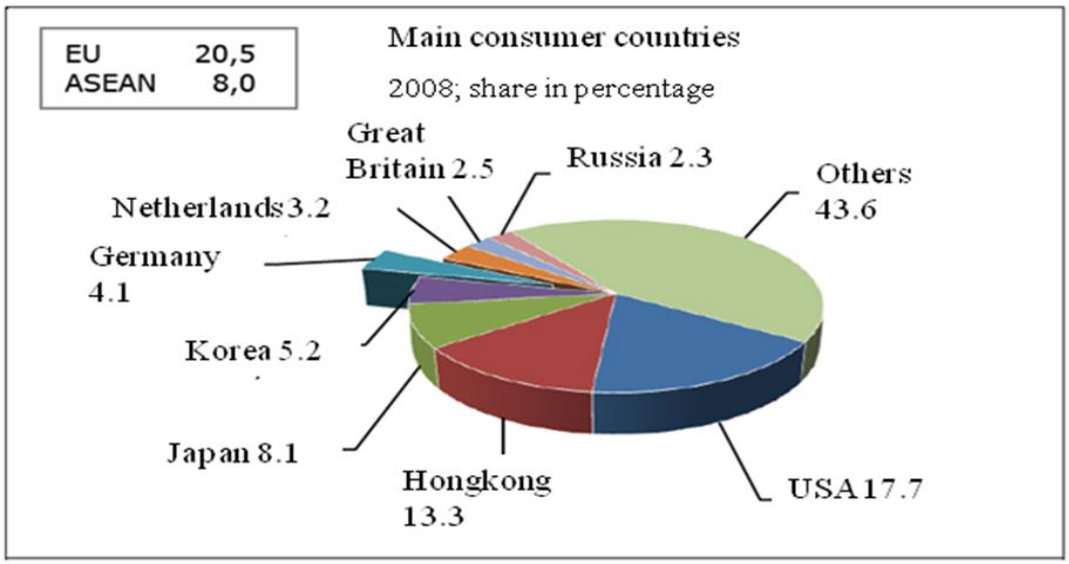


Figure 37 Chinas main consumer countries 2008
http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=PUB200911118073&suche=[suche][land]42[/land][sort]dat[/sort][kat]-Eua[/kat][sicht]suche[/sicht][fachDb]matrixsuche[/fachDb][/suche]&snavi.page=0 (2010)

Germany is percentage wise a more important consumer to France than to China. The relation is about 1:3. Compared to the total Export amount the percentage shown a stronger tendency

than the comparison of the total amount. The institute “Germany Trade & Invest” presented following export data for France and China.

Therefore France has a total export amount in 2008 of 409.6 billion US Dollars. China has a total export amount in 2008 by 1.428.5 billion US Dollars.
Germany imported or consumed over 59 billion US Dollars goods from France compared to the value of China, around 58 billion US Dollars. The numbers differ only by around a million US Dollars. Hence the ratio is 20:1.

Eurostat is an information service provided by the European Union as they explain on their official webpage.
Eurostat is responsible to supply the European Union with statistical analysis. Available on the Eurostat webpage is a database with facts and Figures about country details. These facts and Figures are used for comparison. Figure 38 shows conditions in the query that was used for the gathering of data about Germanys import and export behavior to France and China. The results to the query shown in Figure 38 can be seen in Figure 39.

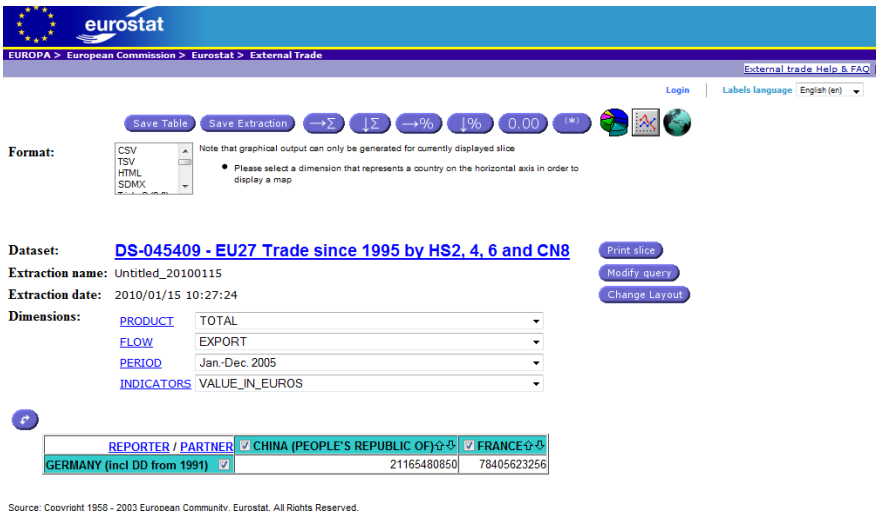


Figure 38 Eurostat website for the trade query. http://epp.eurostat.ec.europa.eu/newxtweb/submitresultsextraction.do (2010). Results will be found in Figure 39.

REPORTER - Germany	Year	Partner	
		CHINA (EUR)	FRANCE (EUR)
Import	2005	35.121.434.860	53.550.449.225
	2006	43.148.545.184	62.079.411.569
	2007	48.727.036.707	64.594.555.376
	2008	51.461.388.399	64.776.967.760
Export	2005	21.165.480.850	78.405.623.256
	2006	27.119.185.036	84.579.426.544
	2007	29.853.565.529	91.604.720.437
	2008	34.036.954.352	93.668.579.679

Figure 39 Germans Import and Export 2005-2008. Results of Figure 38.

As Figure 39 shows German imports from France and German exports to France are much higher that their imports and exports from or to China.

vii. Investment

Another aspect of economic interaction that presents the intensity of the relationships is investment.

The German institute for Trade & Invest Germany reported following number of investment for 2007 on their website:

Germany invested up until December the 31st 2007 44.422 Million Euros in France.

Germany's direct investment in China till the 31st of December 2007 was reported with 14.081 million Euros. The difference between Germans investment in France and German investment in China was therefore about 30.000 million Euros. This means that the direct investment ratio favors France by 3:1 - taking into account the population, one even arrives at a 60:1 ratio.

Looking at the numbers other way around, they also can be found on the same page of the German institute for Trade & Invest, France invested in the year 2007 an amount of 61.825 million Euros in Germany. China invested in Germany in 2007 370 million Euros.

The German Federal statistics office provides a more detailed table of the investments Germany is making in France and China. In Figure 40 the branches of investment are presented. The red marked cells show the greater amount of investment by Germany. Clearly it can be seen that the investment of Germany in France is larger than the investment of Germany in China.

Country of investment	Stand at End of the year								
	2006	2007	Branch of economy of German investors (Mill. EUR)						
			Chemical industry	Engineering	Electric devices	Vehicle	Maintenance	Credit institutions	Affiliated companies
France	40.203	43.703	3.702	1.380	914	2.321	1.645	1.801	22.542
China	12.908	15.189	1.130	1.291	1.352	2.873	89	586	5.378

Figure 40 Germans Direct Investment
http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/SharedContent/Oeffentlich/AI/IC/Publikationen/Jahrbuch/Zahlungsbilanz,property=file.pdf (2010)

viii. Technology

The following factors in the section "Technology" have been evaluated in order to get an impression about the technological situation in each of the compared countries. No data for bilateral comparison of France to Germany and China to Germany was available. For the cross-impact matrix technological influences are needed as described in chapter 1 section methodology. Therefore technological criteria about the countries have been evaluated.

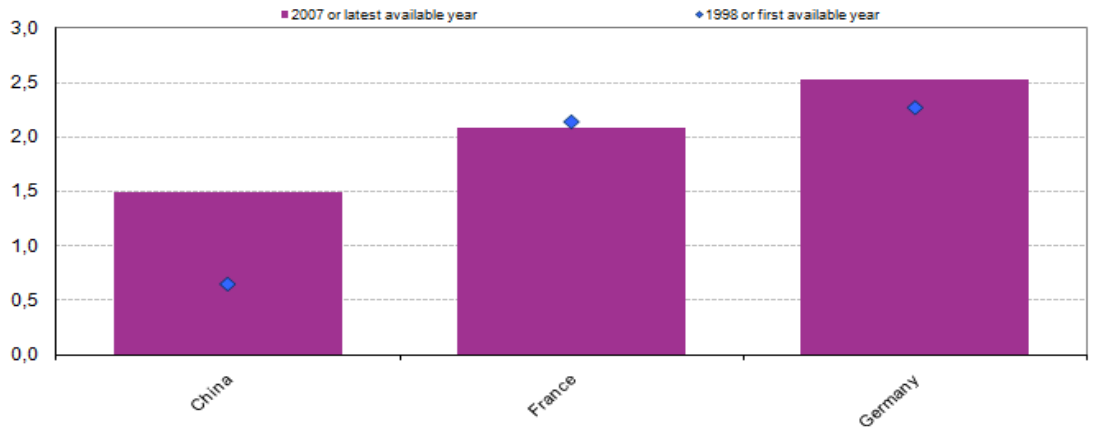


Figure 41 Comparison of China, France and Germanys Research & Development expenditure of the GDP. Numbers are shown as percentage of the GDP.
http://puck.sourceoecd.org/vl=1029364/cl=29/nw=1/rpsv/factbook2009/index.htm (2010)

Figure 41 shows a comparison between Germany, France and China on how much money each country spends for Research and Development in comparison to its gross domestic product. While Germany and France within 10 years stayed with the same percentage of expenditure Chinese expenditure for R&D more than doubled in this time. That indicates that China is a growing market which also is reflected by the investment in R&D.

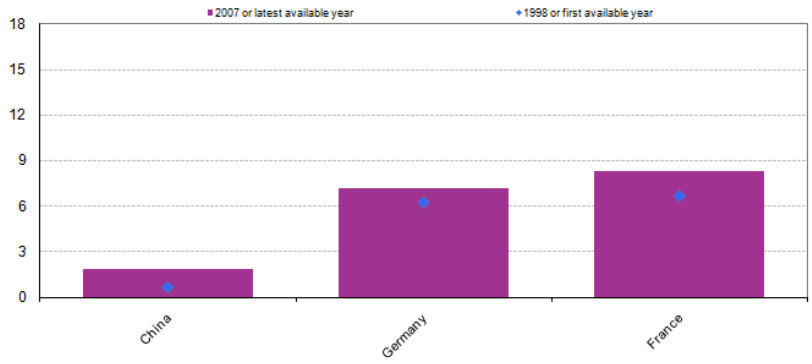


Figure 42 Comparison of China, France and Germanys Researchers per thousand employments. Full-time equivalent on R&D
http://puck.sourceoecd.org/vl=1029364/cl=29/nw=1/rpsv/factbook2009/index.htm (2010)

Figure 42 shows the numbers of researchers in Germany, France and Chine in 1998 and 2007. Each of the countries researchers full-time equivalents increased since 1998. Even though the numbers rose over the period of 10 years a difference can be seen. While China more than doubled its numbers, France and Germany only slightly increased theirs. As already seen in Figure 41 China is a growing market, especially concerning the development of technology.

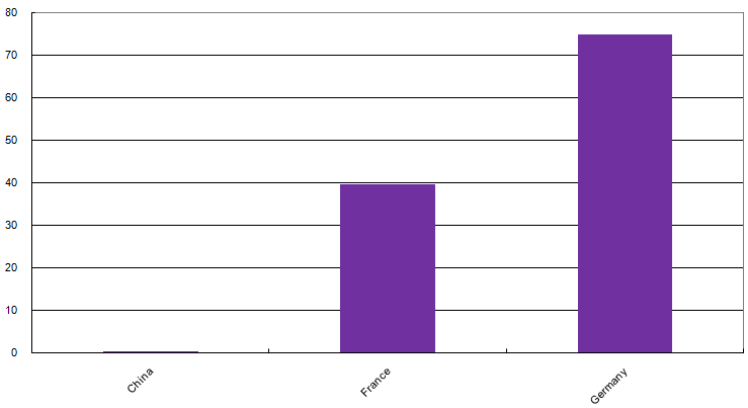


Figure 43 Comparison of China, France and Germanys Triadic patent families. Number per million inhabitants, 2006
http://puck.sourceoecd.org/vl=1029364/cl=29/nw=1/rpsv/factbook2009/index.htm (2010)

Figure 43 compares the triadic patent families of 2006 between Germany, France and China. Germany is leading in this field by over 70 patents by 1 million inhabitants while China only achieves 0.4 patents per million inhabitants. France lies in this comparison in the middle with about 40 patents per …….

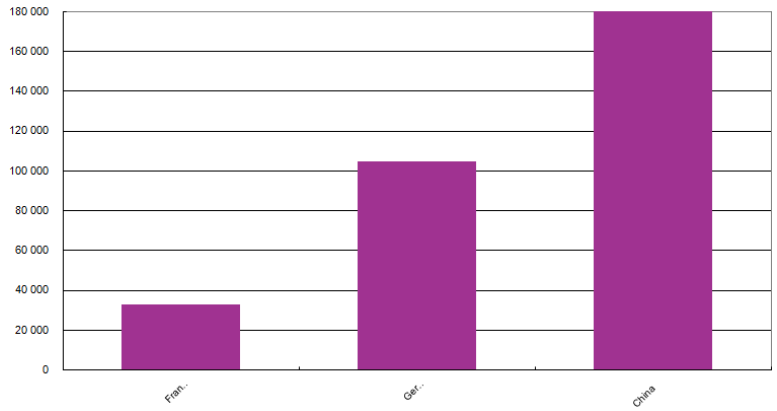


Figure 44 Comparison of China, France and Germanys Exports of ICT Equipment. Million US Dollars, 2007
http://puck.sourceoecd.org/vl=1029364/cl=29/nw=1/rpsv/factbook2009/index.htm (2010)

Figure 44 shows in US Dollars the export comparison of Information & Communication Technology (ICT) Equipments of Germany, France and China.

This time China is leading the comparison by an export value of more than 350 million US Dollars. Germany follows by not even 1/3 of the Chinese amount. France is exporting less than 10 percent of the Chinese volume. Not has China developed rapidly over the last years in technology as Figure 41and Figure 42 show. China also became in this comparison the most important supplier for ICT equipment.

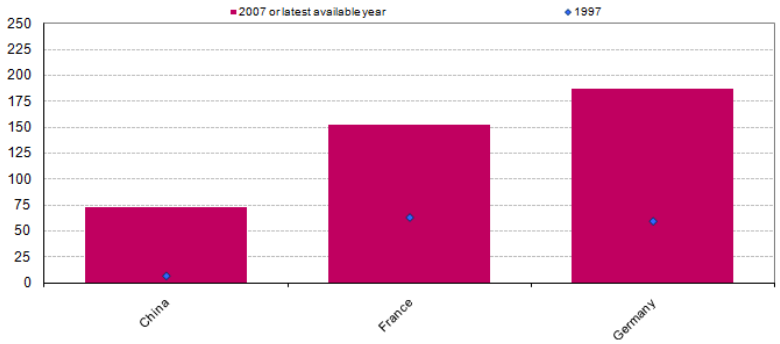


Figure 45 Comparison of China, France and Germanys of telephone access. Number of telecommunication access paths per 100 inhabitants
http://puck.sourceoecd.org/vl=1029364/cl=29/nw=1/rpsv/factbook2009/index.htm (2010)

Figure 45 shows a comparison of telecommunication access paths per 100 inhabitants between Germany, France and China. The Figure shows the numbers out of 1997 and 2007. Each country at least doubled the number of paths. China within 10 years increased its path by more than 10 times. This is also a result of the daily stronger growing Internet market. Even though China does not take the lead it clearly leads in rapidity of development.

In an overall conclusion based on the data presented it can be stated that China is a fast growing country concerning technological aspects. While China is catching up in absolute numbers in comparison to the population the development is relatively slow.

c. Summary

In concluding from the data presented above the main facts are summarized here and summarized in the table shown in Figure 46. As a next step the data that characterizes the bilateral relations are plotted for both countries and shown in Figure 47 – yielding a quantitative assessment of the overall bilateral relations between China and Germany as well as France and Germany

In conclusion:

1. Figure 12 shows: The German-Chinese academic cooperation is 20% of the Franco-German one. If rescaled for population difference, the Chinese-German cooperation is 1% of the French-German academic cooperation **(C:F = 1:100)**
2. Figure 14 shows: The German-Chinese scholarship program is about the size of the Franco-German one. In the student field it is about 20% smaller. If rescaled for population difference, the Chinese-German cooperation is 5 % of the French-German academic cooperation **(C:F = 5:100)**
3. Figure 15 shows: The foreign language programs Germany offers to Chinese and French students are about 1:3 to 1:7, depending on degree level. The French programs

always outnumber the Chinese ones. When rescaled for population difference, the programs favor French students with a ratio of 1:60 to 1:140, confirming the percentage levels from above. **(C:F = 1:100)**

4. Figure 16 shows: for foreign students in Germany that the absolute number of Chinese students is 5 times larger than the French student population in Germany. Accounting for the population of the home-countries, France outdoes China by a factor of 4 – a factor considerably smaller than all the previously investigated criteria. This factor of 4 also holds when the foreign student numbers in Germany are compared to the student population in their home countries. **(C:F = 25:100)**
5. Figure 17 shows: German students in France outnumber German students in China by a factor of 5 – confirming the numbers for the reverse situation of foreign students in Germany (factor of 4, Figure 7). **(C:F = 20:100)**
6. Figure 18 and Figure 19 show: China outnumbers France by a factor of 3 when looking at scientists in Germany - rescaled for absolute population of the country of origin this means that France outnumbers China by a factor of 7. This is matched by 3 times more scientists from Germany in France than in China. **(C:F = 15:100)**
7. The tourism numbers in Figure 23 represent a ratio of about 2.5:1 with France dominating. When normalized to the population France even dominates by 2.5 x 20 = 50:1. **(C:F = 2:100)**
8. When assessing the Google ranking in Figure 29, France leads 29:3 or approximately 10:1. **(C:F = 10:100)**

9. When comparing the 2008 Figure 32 and Figure 33 for German goods and service exported to China (55 b$) to the value for France (75b$), it is seen that France dominates by 100:4. The same ratio is found for the first half of 2009 in Figure 34 and Figure 35. **(C:F = 4:100)**
10. The imports in Figure 36 and Figure 37 from France and China to Germany are about the same – hence rescaling for population (factor of 20), France dominates by 20:1. **(C:F = 5:100)**

All the numbers summarized here are now reported in Figure 46 to give an overview of all the data:

		China	:	France
1	Academic cooperation	1	:	100
2	Scholarship program	5	:	100
3	Foreign language programs	1	:	100
4	Foreign students in Germany	25	:	100
5	German students abroad	20	:	100
6	Scientists in Germany	15	:	100
7	German scientists in foreign countries	15	:	100
8	Tourism stay over's	2	:	100
9	Google Hits	10	:	100
10	Exports France China to German 2008	4	:	100
11	Exports France China to German 2009	4	:	100
12	Imports from France and China	5	:	100
13	Direct Investment	1,5	:	100

Figure 46 Summary of the data that characterize the bilateral relations of France and China with Germany.

With the previous table it is now possible to plot the relative strengths of the bilateral relations between China and Germany as well as France and Germany:

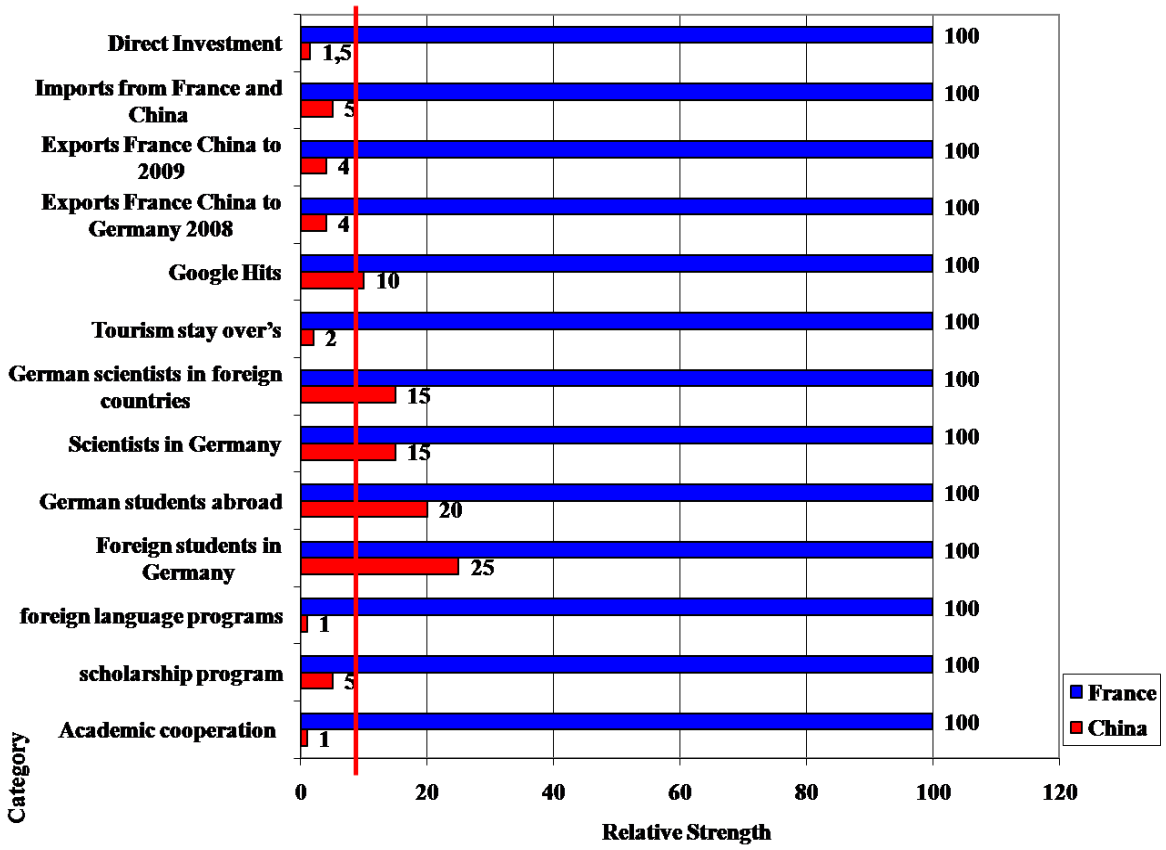


Figure 47 Summary of the data that characterize the bilateral relations of France and China with Germany – data are taken from Figure 46. The value for France was normalized to 100 as in all cases the German-Chinese value is the lower one. Hence a comparative profile of the relations can be visualized

When reducing all the data in this section to ONE number we see that the average relative strength of the Chinese-German relations is at about 8 compared to 100, representing the French-German relation. So the quantitative conclusion for the bilateral relations is that the ties between France and Germany are about 12 times stronger than the ties between China and Germany.

Figure 46 shows fewer criteria than evaluated in this chapter. The criteria shown in Figure 46 focus on actual bilateral data such as data that can be measured between two countries and that reflect their relationship (e.g. either Germany and France or Germany and China). The criteria not listed in Figure 46 are focusing more on country data.

The country data are criteria concerning facts about each country (Germany, France and China) and therefore they do not focus on the relationship. Not only that the criteria out of Figure 46 showed that the Franco-German relationship is 12 times stronger than the German-Chinese relationship both kinds of criteria are also important to the paper in order to develop the cross-impact matrix. The matrix and the use of the detailed criteria will be examined in the following chapter.

Chapter 6: Cross Impact Matrix and Conclusions

a. Analysis of cross impact matrix

As explained in detail in chapter 2 (methodology) the impact of economic aspects on non-economic bilateral aspects will be evaluated by the use of the cross impact matrix.

Figure 48 shows an example of how the cross impact analysis works.

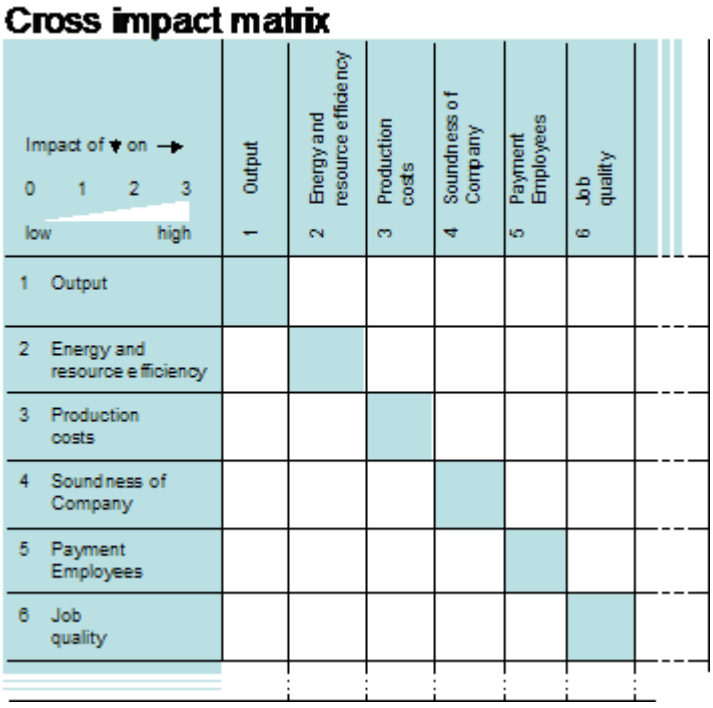


Figure 48 example of the cross impact matrix
http://www.mepss.nl/index.php?p=tool&l4=W07 (2010)

A more detailed explanation than the webpage in Figure 48 can be found in the book (Glasgow: lessons for innovation and implementation, 2002, p. 276):

"Cross-impact analysis is a technique recognizing that "everything affects everything else", and shows how the interaction of interdependence of trends or events upon each other can be identified and evaluated. …..

But there are all kinds if contingencies and dependencies that may affect such forecasts. Put another way, the occurrence of particular events may depend on the occurrence of other events. Cross-impact analysis is designed to deal with this by construction of a matrix showing the interdependencies of different events."

Even though the cross-impact analysis is used to validate the thesis statements it was not the only way to do so – the results of chapters 3 and 4 were also used in Section c in this Chapter to validate the theses. I the book Glasgow (lessons for innovation and implementation, Page 276) it is clearly written that the matrix is just a piece of the total analysis.

"Moreover, it is more frequently used in a qualitative rather than a quantitative way, and is a technique which should be used as a part of a larger system."

The cross-impact analysis is treated in this paper in the same way. For the proof of the thesis statements the cross impact analysis is an important step but not the only one as already explained in chapter 2 (methodology).

i. Development of Matrix

For the development of the matrix influencing parameters had to be identified. For a start ALL influencing parameters have been evaluated through a comprehensive comparison of all data in chapter 3, 4 and 5.

The parameters on the columns need now to reflect the non-economic aspects. Therefore the complete aspects of chapter 3, 4 and the non-economic aspects on chapter 5 have been listed in the following Figure 49. Again, aspects of chapter 3 and 4 considering only non-quantifiable data (can't be directly compared and measured) chapter 5 is only considering quantifiable data (direct comparison and measurement possible).

As mentioned in the beginning of chapter 3, 4 and 5 many more non-economic aspects than those that have been evaluated exist. In order not to get lost in data and considering the availability and frequency of the data just several non-economic aspects have been chosen for the matrix.

Therefore the combined data out of the three chapters have been compared. The non-economic aspects that were presented in chapter 3, 4 and 5 are those that are easily available and are found in many different sources. Therefore, they were considered the important ones to the analyzed for bilateral relations. For example, while data for the status of bilateral relations of Germany and France was frequently available with respect to welfare policy and solidarity the same data for the relation Germany - China and for the analysis of the quantity data comparison in chapter 5 could not be found.

Therefore the available and frequent data have been chosen as columns in the cross-impact matrix. These equal aspects out of chapter 3, 4 and 5 are marked green in
Figure 49.
In order to get additional categories for columns identified equal aspects of chapter 3 and 4 have been chosen for the columns of the cross-impact matrix. The common aspects of chapter 3 and 4 are marked blue in Figure 49.

The green marked aspects are called the primary block and the blue marked aspects are called the secondary block.

	Germany – France (Chapter 3)	Germany – China (Chapter 4)	Non-economic direct comparison (Chapter 5)
Non-Economic	Culture	Cultural	Education
	Agriculture	Military	
	Tourism	Regional cooperation	
	Education	Education	Culture
	Welfare policy and solidarity	Agriculture	
	Foreign and defense policy	Tourism	
	Regional cooperation		Tourism
	Environmental and sustainable	Rule of law	
	EU		Development cooperation
	G8	Human rights	
	NATO		
Economic	Research and Innovation	Competition policy	To be find on the y-axis of Figure xx
	Taxation	Intellectual property	
	Expertise platform	Cooperation councils	
	Subsidies		

Figure 49 Aspects of chapter 3, 4 and non-economic aspects of chapter 5

Economic aspects	Primary Block			Secondary Block	
	Culture	Tourism	Education	Agriculture	Regional cooperation
Export					
Import					
Direct Investment					
Gross domestic expenditure on R&D					
Researchers					
Triadic patent families					
Exports of ICT equipment					
Telephone access					

Figure 50 Template of the Cross-impact matrix. The rows are the level 3 topics from Figure 3. The columns are the level 2 from Figure 3.

Due to the consideration of the aspects and criteria out of chapter 3, 4 and 5 the template of the cross-impact matrix can be seen in Figure 50.

In a further evaluation it became clear that only the “regional cooperation” column in the secondary block can be used for a quantitative analysis in the matrix-methodology. Therefore the “agriculture” column in the secondary block was left out from the final matrix.

ii. Results of Matrix

As the intention of chapter 5 and its interpretation was to obtain a stringent quantified impact analysis of economic relations onto bilateral relations, these numbers are now being used for the final creation of the matrix. Figure 51 shows this matrix. The values were all taken from the respective Sections in Chapters 3-5.

In order to populate the matrix for each criterion two numbers, x representing China and y representing France were retrieved from Chapter 5. Then the ratio for these two numbers was calculated. In each cell of the matrix the two ratios, representing the ratio of the column criterion (a) and the ratio of the row criterion (b) were plotted. If these ratios are close to each other a correlation between the two criteria is possible. Hence the function (1-(a-b)/(a+b)) in % was formed. This function yields 100% if a=b and yields very low percentages when a and b are very different. In order to get a fast overview of all (1-(a-b)/(a+b)) percentages the results were color-coded:

red	76-100%
orange	for 51-75%
yellow	for 26-50%
beige	for 0-25%

The more cells are red the higher the general impact of economic on non-economic relations. If most of the cells are beige it means that there is no impact of economic criteria on non economic aspects.

			France	China	France	China	France	China	France	China
			100	7	100	18	100	2	2200	42
			Culture		Education		Tourism		Regional Cooperation	
Export	France	100		14,29		5,56		50,00		52,38
	China	5	20	**83%**	20	**43%**	20	**57%**	20	**55%**
Import	France	100		14,29		5,56		50,00		52,38
	China	4	25	**73%**	25	**36%**	25	**67%**	25	**65%**
Direct Investment	France	100		14,29		5,56		50,00		52,38
	China	1,5	67	**35%**	67	**15%**	67	**86%**	67	**88%**
Gross Domestic Expenditure on R&D	France	2		14,29		5,56		50,00		52,38
	China	1,5	1	**17%**	1	**39%**	1	**5%**	1	**5%**
Researchers	France	8,3		14,29		5,56		50,00		52,38
	China	1,8	5	**49%**	5	**91%**	5	**17%**	5	**16%**
Patent	France	39,5		14,29		5,56		50,00		52,38
	China	0,4	99	**25%**	99	**11%**	99	**67%**	99	**69%**
Export of ICT equipment	France	32		14,29		5,56		50,00		52,38
	China	355	0	**1%**	0	**3%**	0	**0%**	0	**0%**
Telephone Access	France	152		14,29		5,56		50,00		52,38
	China	73	2	**25%**	2	**55%**	2	**8%**	2	**8%**

Figure 51 Cross impact matrix for bilateral relations

b. Overall Conclusions for Chapter 3-5

Chapter 3 clearly shows that well established links in both economically and non-economic related areas exist between France and Germany. In both cases they represent vital interests of both countries and a highly dynamic development that shapes not only trends in France and Germany but even affects the whole EU, to a lesser extent even NATO and G8. The economic relations are important but do not dominate the bilateral relations – important non-economic common visions were created by these aligned partners who were fierce enemies just over half a century ago.

Chapter 4 clearly shows that well established economic links exist between China and Germany with some problematic issues on the topics of intellectual property and competition policy. The non-economic relations are dominated by the Human rights topic, which still seems to have no influence whatsoever on the booming economic interaction.

Hence the conclusion is that the economic relations dominate the bilateral relations as both partners expect a lot from the economic collaboration – access to important markets and for China Germany also means access to highest level technology as well as education. All these factors are almost purely economic topics.

Chapter 5 yields the analysis of the comparable bilateral data, both economic and non-economic in nature. These data show clearly that the bilateral relations between France and Germany are stronger on average by a factor of 12 (see Figure 47), but sometimes even by a factor of 100. This is in excellent alignment with both chapters 3 and 4.

For the purpose of general conclusions Figure 52 is the condensed version of the Figure 51 in order to understand the main results easier. The matrix shows that the overall influence of economic criteria on non-economic aspects is comparatively low except of a few specific cases as marked in red. The average impact % for all fields is 38% - this is a low overall impact of economic on non-economic issues based on the case studies presented in this Chapter. This main conclusion derived from a quantitative analysis will be used below to support the thesis statements.

	Culture	Education	Tourism	Regional Cooperation
Export	**83%**	**43%**	**57%**	**55%**
Import	**73%**	**36%**	**67%**	**65%**
Direct Investment	**35%**	**15%**	**86%**	**88%**
Gross Domestic Expenditure on R&D	**17%**	**39%**	**5%**	**5%**
Researchers	**49%**	**91%**	**17%**	**16%**
Patent	**25%**	**11%**	**67%**	**69%**
Export of ICT equipment	**1%**	**3%**	**0%**	**0%**
Telephone Access	**25%**	**55%**	**8%**	**8%**

Figure 52 Conclusion matrix – the average impact % is 38, which means a rather low impact overall

c. Validation of thesis statements

Thesis 1:

The influence of economic relations on bilateral relations is determined by the relative strength and intensity of the non-economic relationship. Therefore the economic relations do not necessarily have a dominant influence on the bilateral relations (if other ties exist that are of equal or even higher strength and quality.

Conclusions:

- **Confirmed** - The influence of economic relations on bilateral relations is determined by the relative strength and intensity of the non-economic relationship.
    - Due to chapter 3 and 4 this part of the thesis statement can be confirmed. Chapter 3 clearly shows that well established non economic link exist between France and Germany these links represent vital interest of both countries and the collaboration in these areas shapes not only non-economic topics in France and Germany but even affect the whole EU to a lesser extent even NATO and G8. Hence, the high relative strength of the non-economic relations do not allow economic issues to dominate the links between France and Germany. In contrast chapter 4 clearly shows that the weak non-economic links between China and Germany are barely able to affect the economic relations of the two countries. Hence the relative weakness of the non-economic relations leads to a dominance of the economic ones when bilateral issues of China and France are concerned.

- As expressed in Figure 52 there is no strong and dominant influence of economic relations on the bilateral ones. This means, if the bilateral relations are mainly economic, they will dominate BUT only because of the relative weakness of the non-economic ties. The non-economic ties are not necessarily influenced strongly by the economic relations (low impact factors overall in Figure 52)

- **Confirmed** – Therefore economic relations do not necessarily have a dominant influence on the bilateral relations (if other ties exist that are of equal or even higher strength and quality.
  - As it was shown in Figure 52: economic do not necessarily have a strong impact on non-economic relations. (lack of red matrix cells, average value of 38 %)

Thesis 2:

If the non-economic relations barely exist the economic relations will have a greater, even dominating influence on bilateral relations. The bilateral relations are determined by economic representatives.

Conclusion

- **Confirmed** – If the non-economic relations barely exist the economic relations will have a greater, even dominating influence on bilateral relations.
  - In chapter 4 the economic and non-economic relationship between Germany and China was examined. As it can be seen the dominating factor was the economic one. An important non-economic aspect about their relationships was the human right issue. Even though Germany was considering this issue as important it did after all not influence the bilateral relation. While in 1996 rumor about human right issues occurred and officially the relation has been affected further economic cooperation and tourist activities still did take place.

- **Confirmed** – The bilateral relations are determined by economic representatives.
    - It was stated in chapter 4 section “Human rights” that the human rights issue in China is a topic of considerable interest in Germany. It seems that the groups of human rights representatives do not have a strong influence on the bilateral relations. After all, the “rumor” in 1996 did not affect the economy on a sustainable level.

Thesis 3:

If distinctive non-economic relations exist the economic relations will have a smaller influence on bilateral relations. The bilateral relations are determined by a more diverse group.

Conclusion

- **Confirmed** - If distinctive non-economic relations exist the economic relations will have a smaller influence on bilateral relations.
    - Chapter 3 does confirm this part of the thesis statements 3. Chapter 3 shows that a bilateral relationship such as the Franco-German one exists out of many various aspects. These aspects build the overall bilateral relation in which neither the economic nor the non-economic aspects dominate the influence on their bilateral relations. Figure 52 also supports this statement as it confirms that the economic topics have a weak influence on non-economic issue of the bilateral relations.
- **Confirmed** – The bilateral relations are determined by a more diverse group.
    - Chapter 3 presents economic and non-economic aspects about the Franco-German relationship. It clearly can be seen that the bilateral relationship of them is intense in every described aspect. Due to the intensity in so many fields various groups determine the quality and intensity of the relationship.

Reference List

All countries statistic. (2010). *Education statistics* [online]. Available from: http://www.allcountries.org/china_statistics/21_11_number_of_students_in_regular.html [Accessed 7 January 2010].

ARTE TV broadcast station. (2010). *ARTE TV broadcast station* [online]. Available from: http://www.arte.tv/de/70.html [Accessed 8 January 2010].

Berridge, G.R and James, A. (2003). *A dictionary of diplomacy*. Hampshire: Palgrave Macmillan.

Cabestan, J. (2009). *China's foreign- and aecurity-policy decision-making processes under Hu Jintao*. Hamburg: Institute of Asian Studies.

Chinese Culture Center in Berlin. (2010). *Activities of the Chinese Culture Center in Berlin* [online]. Available from: http://www.culturalink.gov.cn/2009-01/06/content_319416_2.htm [Accessed 8 January 2010].

Chinese Ministry of Foreign Affairs. (2010). *Bilateral relation to Germany* [online]. Available from: http://www.fmprc.gov.cn/eng/wjb/zzjg/xos/gjlb/3296/ [Accessed 04 January 2010].

CIA World Factbook. (2010a). *Country data, China* [online]. Available from: https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html [Accessed January 2010].

CIA World Factbook. (2010b). *Country data, France* [online]. Available from: https://www.cia.gov/library/publications/the-world-factbook/geos/fr.html [Accessed January 2010].

Chinese Embassy of the United States of America. (2010). *Statistician by Li Deshui* [online]. Available from: http://www.china-embassy.org/eng/xw/t227443.htm [Accessed 26 January 2010].

CRI (2010). *Economic cooperation* [online]. Available from: http://german.cri.cn/1565/2009/01/30/1s107965.htm [Accessed 7 January 2010].

Custom Research for North America. (2010). *Custom Research for North America – NBI Index* [online]. Available from: http://www.gfkamerica.com/practice_areas/roper_pam/nbi_index/index.en.html [Accessed 9 January 2010].

Die Welt. (2010). *Eitel Sonnenschein auf dem deutsch-franzosischen Gipfel* [online]. Available from: http://www.welt.de/print-welt/article456575/Eitel_Sonnenschein_auf_dem_deutsch_franzoesischen_Gipfel.html [Accessed 3 January 2010].

European Union (2010). *10 historic Steps* [online]. Available from: http://europa.eu/abc/12lessons/lesson_2/index_en.htm [Accessed 8 January 2010].

Eurotopics (2010). *Eurotopics > Search > G8* [online]. Available from: http://www.eurotopics.net [Accessed 8 January 2010].

Eurostat, the information service by the European Union. (2010). *Eurostat statistics* [online]. Available from: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes [Accessed 15 January 2010].

German Center for Tourism. (2010a). *German Center for Tourism - Chinese Market Information* [pdf]. Available from: http://www.deutschland-extranet.de/pdf/MI_China_HongKong_2009.pdf [Accessed 10 January 2010].

German Center for Tourism (2010b). *German Center for Tourism* [online]. Available from: http://www.deutschland-extranet.de [Accessed 9 January 2010].

German Center for Tourism. (2010c). *Facts and Figure* [online]. Available from: http://www.deutschland-extranet.de/EXD/zahlen_und_fakten/marktinfos.htm [Accessed 8 January 2010].

Franco-German Diplomacy. (2010a). *Franco-German Diplomacy – Taxation* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Besteuerung-4-Deutsch,433.html [Accessed 8 January 2010].

Franco-German Diplomacy. (2010b). *Franco-German Diplomacy – Education* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Bildung-Ausbildung-und-Studium,1344.html [Accessed 8 January 2010].

Franco-German Diplomacy. (2010c). *Franco-German Diplomacy – Welfare* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Sozialpolitik-und-Solidaritat,1414.html [Accessed 8 January 2010].

Franco-German Diplomacy. (2010d). *Franco-German Diplomacy – Foreign Policy* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Aussen-und-Sicherheitspolitik,1396.html [Accessed 8 January 2010].

Franco-German Diplomacy. (2010e). *Franco-German Diplomacy – Regional Cooperation* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Stadtepartnerschaften-und,3595.html [Accessed 8 January 2010].

Franco-German Diplomacy. (2010f). *The major issues* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Die-grossen-Themen,1392.html [Accessed 8 January 2010].

Franco-German Diplomacy. (2010g). *Franco-German Diplomacy – Environment* [online]. Available from: http://www.deutschland-frankreich.diplo.de/Pressestatement-der,5001.html [Accessed 8 January 2010].

German Ministry of Agriculture. (2010a). *China cooperation* [online]. Available from: http://www.bmelv.de/cln_182/sid_1D3734B23C232D1FEC6A05351675091D/SharedDocs/Pressemitteilungen/2006/123-China.html [Accessed 20 January 2010].

German Ministry of Agriculture. (2010b). *Cooperation projects* [online]. Available from: http://www.bmelv.de/cae/servlet/contentblob/381148/publicationFile/51075/LaufendeKooperationsprojekte.pdf [Accessed 20 January 2010].

German Ministry of Agriculture. (2010c). *German Ministry of Agriculture* [online]. Available from: http://www.bmelv.de/cln_182/DE/Startseite/startseite_node.html [Accessed 8 January 2010].

German Ministry of Agriculture. (2010d). *Twinning projects* [online]. Available from: http://www.bmelv.de/cln_182/DE/Europa-Internationales/IntZusammenarbeit/Twinning/twinning_node.html [Accessed 8 January 2010].

German Ministry of Economy and Technology. (2010a). *Economic relationships & country information about China* [online]. Available from: http://www.bmwi.de/BMWi/Navigation/Aussenwirtschaft/Bilaterale-Wirtschaftsbeziehungen/laenderinformationen,did=316542.html [Accessed 7 January 2010].

German Ministry of Economy and Technology. (2010b). *Institutions and Cooperation* [pdf]. Available from: http://www.bmwi.de/BMWi/Redaktion/PDF/G/gemischte-wirschaftsgremien-und-kooperationsraete,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf [Accessed 7 January 2010].

German Ministry of Economy and Technology. (2010c). *Subsidy race between Germany and France* [online]. Available from: http://www.bmwi.de/BMWi/Navigation/Presse/pressemitteilungen,did=290010.html. [Accessed 7 January 2010].

German Ministry of Foreign Affairs. (2010a). *Bilateral Relations to China* [online]. Available from: http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/China/Bilateral.html#t4 [Accessed 4 January 2010].

German Ministry of Foreign Affairs. (2010b). *Germans Ministry of Foreign Affairs Country Information - China* [online]. Available from: http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/01-Laender/China.html [Accessed 3 January 2010]

German Ministry of Foreign Affairs. (2010c). *German Ministry of Foreign Affairs Country Information -France* [online]. Available from: http://www.auswaertiges-amt.de/diplo/en/Laenderinformationen/01-Laender/Frankreich.html [Accessed 3 January 2010].

German Ministry of Foreign Affairs. (2009). *Bilateral Relations to France* [online]. Available from: http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/Frankreich/Bilateral.html [Accessed 28 December 2009].

Google (2010). *Google* [online]. Available from: http://www.google.com [Accessed 9 January 2010].

Kompetenznetz. (2010). *Kompetenznetz – Wissenschaft Frankreich* [pdf]. Available from: http://www.kompetenznetze.de/service/nachrichten/2007/medien/2007-01-18-wsf-frankreich-113.pdf [Accessed 8 January 2010].

North Atlantic Treaty Organization (NATO). (2010). *What is NATO?* [online]. Available from: http://www.nato.int/cps/en/SID-7C717F98-3BDBBFDA/natolive/what_is_nato.htm [Accessed 8 January 2010].

Organization for Economic Co-operation and Development. (2002). *Glasgow: Lessons for innovation and implementation*. Paris: Centre francais d'exploitation du droit de copie.

Rana, K. (2002). *Bilateral Diplomacy*. Malta: DiploProjects.

Rostoski, K. (2006). *Development cooperation between Germany and China: does China still need development aid?* Heidelberg: Springer Berlin.

Schueller, S. (2003). *Asian Europe Journal*, Heidelberg: Springer Berlin.

The German Institute for Trade & Invest. (2010). *Economic data compact* [online]. Available from: http://www.gtai.de/DE/Content/__SharedDocs/Links-Einzeldokumente-Datenbanken/fachdokument.html?fIdent=PUB200911108029&suche=[suche][land]61[/land][sort]dat[/sort][kat]-Eua[/kat][sicht]suche[/sicht][fachDb]matrixsuche[/fachDb][/suche]&snavi.page=0 [Accessed 6 January 2010].

United Nations Development Programme. (2010). *The Human Development Index* [online]. Available from: http://drstats.undp.org/en/countries/country_fact_sheets/cty_fs_DEU.html [Accessed 2 January 2010].

Yu H. and Guernsey A. (2010). *The Rule of Law as a Goal of Development Policy* [online]. Available from: http://www.uiowa.edu/ifdebook/faq/Rule_of_Law.shtml [Accessed 7 January 2010].