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Abbreviations

CIRR	Commercial Interest Reference Rate
CRS	Creditor Reporting System
DAC	Development Assistance Committee
DDR	Differential Discount Rate
DFI	Development Finance Institution
ECA	Export Credit Agency
ECG	Export Credit Group
GNI	Gross National Income
ICB	International Competitive Bidding
IMF	International Monetary Fund
LDC	Least Developed Countries
MDG	Millennium Development Goals
OCL	Overall Concessionality Level
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
ÖFSE	Austrian Research Foundation for International Development
OOF	Other Official Flow
SDR	Special Drawing Rights
UNIDO	United Nations Industrial Development Organization
USD	US Dollar

1. Introduction

1.1. The aim of this research

Tied aid credits are a bilateral instrument for financing development. Originally, the instrument, tied aid credits, was established to support national exports against competing offers, grounded in “the expectation that jobs at home can be protected”. (Holthus, Kebschull 1985: 132) The international regulatory framework, the Arrangement on Officially Supported Export Credits, was introduced to prevent an export credit race between industrialized OECD countries. The agreement further sets the rule for tied aid. Per definition, export credits are not eligible for official development assistance (ODA) but government subsidies to these credits for developmental purposes can be reported as ODA grant. The instrument therefore lies between two policy fields: export promotion and development cooperation.

The aim of this thesis is to assess and critically discuss the developmental orientation of the instrument and whether tied aid credits are conducive to finance development. It analyzes to which extend the financial terms and conditions for tied aid credits set by the Arrangement reflect developing countries' needs. Economic theory is used as a tool for analysis and to assess the provision of tied aid credits.

In order to analyze the importance of tied aid credits as an instrument of development finance, statistical data is reviewed. Simultaneously the reporting practices for tied aid credits and relating transparency issues are addressed.

Interestingly this topic has hardly been addressed properly before in the scientific literature. There are no comprehensive independent studies on the international framework and its role in financing development. This thesis aims at making a contribution to fill this gap.

This thesis is part of an Austrian Research Foundation for International Development (ÖFSE) research project “Soft Loans: an effective instrument of development finance?” headed by Dr. Werner Raza. The initial part of the research was carried out in close cooperation with my research colleague Livia Fritz. The aim of this first phase of the research project is to assess conceptual questions of the development orientation of tied aid credits and, in a second step, analyze national implementation of the tied aid credit policies in four selected European countries. The respective study will be published at the beginning of 2014.

1.2. Research questions

On the international level, OECD members (Organisation for Economic Co-operation and Development) agreed to a framework to regulate the use of subsidies for officially supported export credits and tied aid, the so-called *Arrangement*. Simultaneously the Development Assistance Committee (DAC), another OECD body, sets standards for development aid, evaluates national ODA practices (Official Development Assistance), and records quantitative data on ODA and other official flows (OOFs). As a policy instrument tied aid credits lie between the two policy fields of export promotion and development cooperation. Given this institutional setting my research aims at answering the following questions:

- 1) According to economic theory, what justifies the provision of tied aid credits?
- 2) Are the terms of the Arrangement in line with economic theory and recent research findings on effective development aid?
- 3) Which goods, projects or sectors should be financed with tied aid credits?
- 4) To which extent do the terms (maturity, concessionality level, etc.) of the Arrangement respond to developing countries' needs?
- 5) How is data on tied aid credits recorded by the Participants and the DAC?
- 6) Looking at quantitative data on tied aid credits, which donor countries use the instrument and which recipient countries and sectors benefit from tied aid credits?

The thesis provides answers on a conceptual and empirical level. Whether tied aid credits are effective for development can only be answered through evaluation of individual projects.

1.3. Structure of the thesis

The thesis comprises eight chapters. Chapter 2 outlines the research approach and methods. Chapter 3 introduces key terminology (tied aid credits, tied ODA loans, untied aid, etc.) and important concepts such as official development assistance (ODA). Chapter 4 explores the justification on grounds of economic theory and creates the theoretic basis for the assessment of tied aid credits. The chapter includes a discussion on (concessional) loans and grants. Chapter 5 describes the purpose and scope of The Arrangement and presents the relevant financial terms and conditions of this international agreement. Chapter 6 analyses statistical data on tied aid credits and particularly looks at the distribution aid according to sector, recipient and donor country. The second part of Chapter 6 addresses problems of statistical recording of aid and introduces new discussions in the field. Chapter 7

provides the assessment on the appropriateness of tied aid credits to finance development as well as the financial terms and conditions of the Arrangement based on the findings laid out in Chapter 4. The thesis is completed by Chapter 8 with concluding remarks.

2. Research approach and methods

In order to answer the research questions, a mix of methods was chosen to gain and analyze the data. This appeared most intuitive and appropriate for the difficult task of analyzing the material and the field of tied aid credits. Flick (2009: 140) states that qualitative research often does not follow standardized procedures but its flexible approach allows for new and unpredictable outcomes. The approach is characterized by openness towards the field of interest and context has great influence in how research is conducted.

According to Flick (2009: 225), sources and methods relate to each other. He highlights that any combination of different research approaches should be viewed and selected against pragmatic considerations and based on the following considerations: What is needed to answer the research question and comprehend the field of interest? And what can be carried out given the resources and research situation? (Flick 2009: 235) My methodological approach mainly follows a non-standardized qualitative approach. I combined different methodological approaches: literature review, descriptive analysis of statistical records and document analysis, as well as expert interviews.

Research on tied aid credits was undertaken in close cooperation with Livia Fritz. We conducted most of the interviews together and searched the OECD archives jointly. In her thesis Fritz (2013) analyzed tied aid credits from a development policy and cooperation perspective.

2.1. Literature analysis

Textbooks on public finance were used to create the theoretic foundation of my research. There is little literature on public finance and public policy in developing countries compared to the vast amount for industrial countries. Greene (2012) is one of few authors addressing developing countries and emerging markets in his book on public finance. Additionally I used scientific literature on empirical findings on tied aid, provision of, and development finance.

Initially a literature search was conducted. Scientific articles were searched using the common searching machine Google Scholar and the research databases SocIndex and EconLit. The latter were searched in a systematic manner by looking at all research results for the word order "tied aid credits". Only few scientific articles proved to be relevant.

Additionally academic libraries were searched for relevant publications. Few authors have focused their research interest on tied aid credits. The most important authors are Jepma (1991) and Ray (1995) who both worked for the OECD, as well as Petermann (2013), who has quite recently published a book about export promotion and the untying of aid. Since scientific literature in the respective field is rather scarce, primary sources, OECD documents, publications and homepage content and expert interviews constitute the backbone of this thesis.

2.2. Archive material and OECD documents

Primary sources mainly stem from two OECD bodies, the Participants and the DAC. OECD documents are either publicly available at the OECD homepage or were extracted from the OECD archives. In order to access statistical data I searched the OECD archives in Paris from 02/07/2012 to 10/07/2012. In order to identify relevant documents, I searched the OECD digital database using key words. Additionally I extracted all digitally available documents produced by the Participants and the DAC/FA group. Most of the digital documents retrieved, were produced between 1990/1991 and 2005. The archives were searched together with my research colleague Livia Fritz who retrieved non-digitalized documents from an earlier time period.

The OECD documents are categorized according to their status of public access. There are different categories of public accessibility ranging from unclassified official documents to secret documents. Unclassified official documents are publicly available on the OECD homepage¹. OECD documents change their level of access after a determined time period. After seven years all documents with the exception of secret or otherwise restricted documents are available for research purposes. This is the reason why the most recent statistical data dates back to the year 2005. Fritz (2013: 15) comprehensively describes OECD restrictions on data access.

Given the vast amount of documents collected at the OECD archives, my research colleague Livia Fritz and I used the software ATLAS.ti (Scientific Software Development GmbH) to screen and categorize documents according to their content. Only few documents, mainly statistical records, were used for analysis. The most recent available statistical data and latest version of the Arrangement (TAD/PG(2013)1) were chosen for analysis. Other OECD documents were selected according to their explanatory power.

¹ OECD database of unclassified official documents: <http://search.oecd.org/officialdocuments/> [06.05.2013]

Regarding the use of documents for research purposes Flick (2009) points out problematic issues, which I also faced in my research. The disadvantage of using documents that were created for a different purpose, not a scientific purpose, is that the quality of the data cannot be influenced. The documents may address different issues and focus on different aspects which might not correspond with the research question. (Flick 2009: 222) This was also the case with the statistical data used for this analysis. The situation of the creation of documents plays an important role in shaping the content included and the form of its representation. According to Wolff (2007: 511) documents constitute a self-contained level of data. Treating statements of the document in the same way as results from research analyses is problematic since the latter comprise a different level of data gained e.g., through interviews or observations. (Wolff 2007: 511) Even documents which were particularly created as factual report should not be reduced to being a container of information, but should be viewed as methodically created documents and analyzed as such. (Wolff 2007: 511) The decision to use data, such as documents from archives, should therefore be based on the relevance in order to answer the research question. (Flick 2009: 132)

The OECD statistics as well as the publicly available data could only partly answer my research questions. Documents only reflect certain facts or provided fractions of information. Context information was specifically scarce. Furthermore, the respective bodies issuing documents make use of highly specific terms. Understanding the definitions of certain terms represented a major challenge to my work. Expert interviews were conducted to fill these gaps of information.

2.3. Expert interviews

The initial aim of the interviews was to gain information on tied aid credits as a policy instrument of development cooperation. Almost all interviews were conducted in cooperation with my research colleague Livia Fritz. Interview partners were selected on grounds of their expertise derived from their former or present professional position. Most of them partners have worked for the OECD. Additionally representatives of the Austrian Ministry of Finance and the Trade Union Advisory Committee (TUAC) to the OECD were interviewed. Further consultation meetings were held with Hedwig Riegler (DAC Working Party on Statistics), Klaus Steiner (Austrian Federal Ministry for European and International Affairs), and Michael

Obrovsky (ÖFSE).² The interviews were conducted from May through August 2012 in Vienna and Paris, as well as in April and May 2013.

Information provided and answers given by an interview partner cannot be treated as simple facts but have to be considered against his or her background, position, experience, and context. Interview partners were selected based on their current or former professional position. When analyzing and interpreting the given answers, I had to consider their position. I noticed that the position and interest of the interview partner explained why certain interview partners were more willing to provide information than others.

All interview partners were informed about the aim and purpose of the research project. The interviews were semi-structured interviews guided through the research questions, but ended in an open dialog. The openness of the interviews left room to identify new topics and aspects, and discuss details. Throughout the research phase the interview guideline was continuously improved and adapted. Information gained in interviews was integrated in the preparation and guideline of following ones. Most interview partners allowed recording. In cases where recording was refused, a memo, a protocol of the conversation, was immediately created after the interview.

The aim of the interviews was to collect information about the instrument in order to interpret properly the Arrangement text and statistical record. To analyze the content of the interviews free interpretation, which technically is not a research method, according to Gläser and Laudel (2009: 44), was used. They highlight that, although it is not a proper research method, it is widely used in practice. It has to be stated, that free interpretation is vulnerable to selective perception and memory as compared to methodologically sound approaches. (Gläser, Laudel 2009: 45) The application of a scientifically sound and highly elaborated method would have gone beyond the scope of thesis. Therefore the interview content was interpreted on basis of knowledge acquired in the literature review. This approach appeared most appropriate and feasible in answer some of the research questions. Questions focused greatly on understanding processes, definitions and the recording practices of tied aid credits. Additionally consultation meetings were held to discuss findings of this research.

² A complete list of all interviews is provided in the Annex.

2.4. Analysis of statistical data

Statistical data was extracted from three different sources: The Participant's periodical reports on tied aid notifications (TD/PG(2006)23 and TD/CONSENSUS(97)57), the DAC databases³ on ODA and OOFs, and historical exchange rate databases to convert the respective currencies. The Participants publish a review of tied aid notifications twice a year. The data analyzed corresponds to the time span from 1991 to July 2006. More recent data was not available for research purposes due to restricted access. Additionally the DAC statistical databases⁴ were consulted with the aim of identifying tied aid credits. In order to merge the data of the two sources historical annual average exchange rates were needed and provided by the Pacific Exchange Rate Service (University of British Columbia)⁵.

Before analyzing and interpreting the statistical, data it was necessary to comprehend the architecture of the databases and recording practices. The databases were not created for research purposes and therefore only provided limited data to answer my research questions. For the analysis of the statistical data it turned out to be essential to know the context and original purpose of the statistical recordings. The quantitative data was analyzed using Microsoft Excel (Version 2010). Descriptive statistics (univariate analysis) was used to analyze the data. I examined the distribution of tied aid according to sector, recipient and donor country.

The analysis of the statistical recordings of the DAC as well as official documents was particularly challenging because of the highly specific terminology used in the documents and statistics. Many terms e.g., the term "aid", are explicitly or implicitly defined by each group. Additional information was sought and obtained from experts.

³ More information on the databases can be sought on <http://www.oecd.org/dac/stats/idsonline.htm> [06.05.2013]

⁴ OECD.Stat: <http://stats.oecd.org/> [06.05.2013]

⁵ Pacific Exchange Rate Service: <http://fx.sauder.ubc.ca/data.html> [06.05.2013]

3. Key terminology and important concepts

3.1. Distinguishing the terms tied aid credits, tied ODA loans, untied aid, soft loans, mixed credits, and associated financing

This thesis particularly lays its focus of interest in the assessment of tied aid credits. The term tied aid credit is easily confused with similar terms, such as mixed credits or soft loans, because they are sometimes used interchangeably. But each term is specifically defined in a certain context.

This thesis particularly focuses on **tied aid credits** in conformity with the international regulatory framework of the Arrangement (Chapter 5). Tied aid credits are a bilateral instrument for financing development. They are export credits that include a concessional element provided by the exporting country's government. Tied aid credits, as stated in the OECD Glossary (2013a), "are official or officially supported loans, credits or associated financing packages where procurement of the goods or services involved is limited to the donor country or to a group of countries." Tied aid credits are usually provided "for capital goods procurement by developing countries and contractually linked to procurement from firms located in [or in some way benefiting the economy of] the donor country" (ExImBank 2003: 111) Box 1 gives an overview of the characteristics of tied aid credits.

Box 1: Characteristics of tied aid credits

- bilateral instrument of development finance
- defined by the terms of the Arrangement
- credit for which repayment is required
- tied to procurement from the donor country
- concessional element
- government subsidies to these credits are ODA eligible.
- instrument between export promotion and promotion of development

Untied aid is not contractually conditioned upon the purchase of goods and/or services from any particular country. It is less restricted by regulations. (ExImBank 2003: 112)

Tied ODA loans are sometimes also referred to as "tied aid credits" because the term "aid" is understood as a synonym for ODA in the context of the DAC. ODA loans have to comply

with the definition of ODA (See Section 3.2) and are not subject to the Arrangement terms. The thesis uses the term “tied aid credits” as defined by the Arrangement.

Soft loans or **concessional loans** are broad terms which are generally defined as credits with financial terms, such as interest rate, maturity (interval from the commitment date to the date of the last payment), and grace period (the interval from the commitment date of the loan to the date of the first payment of amortization), that are more favorable than market terms. A soft loan or concessional loan is not necessarily procurement tied.

Mixed credits combine government grants, concessional government loans, and commercial loans. As a result they produce below-market interest rates. (Rosefsky 1993: 440f and OECD Glossary 2003) Mixed credits are not tied per se.

The Participants define **tied aid** as “aid which is in effect tied to the procurement of goods and/or services from the donor country and/or a restricted number of countries; it includes loans, grants or associated financing packages”. (TAD/PG(2013)1: 144) The Arrangement distinguishes four different forms of tied aid: tied ODA loans or grants, OOFs excluding officially supported export credits in conformity with the Arrangement, and associated financing.

When defining tied aid, the Participants adopt the definition of ODA loans and grants according to the *DAC Guiding Principles for Associated Financing and Tied and Partially Untied Official Development Assistance* (1987). But with regard to **associated financing**, the Participants and the DAC have similar but differing definitions. Additionally the OECD Glossary of Statistical terms explains the term as follows: In principle associated financing describes the (de jure or de facto) combination of at least two different forms of financing that are interlinked and the concessional component is tied to the acceptance of the non-concessional element. (OECD Glossary 2013b) According to this description associated financing packages are one form of tied aid credits.

This description is also reflected in the Arrangement text. Tied aid in form of associated financing as defined by the Arrangement is described as any association or mixture of tied aid, as well as officially supported export credits according to the Arrangement, other funds near market terms, or down payment from the purchaser. (TAD/PG(2013)1: Article 34) It comes in the form of mixed credits, mixed financing, joint financing, parallel financing, single integrated transactions, etc. (TAD/PG(2013)1: Article 35)

The DAC, on the other hand, has a slightly different understanding of associated financing. According to the OECD Glossary (2013), associated financing is the combination of ODA (both grants and loans) with any other funding so as to create finance packages. These packages have to meet the same criteria of concessionality, developmental relevance and recipient country eligibility as tied aid credits⁶ do.” (DAC Glossary 2013) This definition is specified in the *DAC Guiding Principles*. The document constitutes guidance in order to limit aid and trade distortion and demonstrate the DAC members’ commitment to promote developmental objectives. (DAC 1987: 1) The DAC Guiding Principles define associated financing as follows as the de jure or de facto association of “two or more of the following: ODA, OOFs, and officially supported export credits or other funds with a grant element of less than 25 %. (DAC 1987: 2) Following this definition tied aid credits as defined by the Arrangement fall under the DAC category of associated financing.

The above-mentioned terms demonstrate that various and confusing terms are used to describe similar forms of financing. I find that on the OECD but also on the country level terms may be used differently. As for national programs, tied aid credit arrangements have to be classified based on the terms and conditions and not according to their names.

3.2. Official Development Assistance (ODA)

Because tied aid credits are interlinked to development cooperation the concept of ODA becomes relevant. Export credits are per definition excluded from being ODA eligible however, any government subsidies to these credits for developmental purposes (financially non-viable projects) can be reported as ODA grant. (Interview)

Within the OECD a group of 23 countries and the European Union Institutions form the Development Assistance Committee (DAC). The formal group is dedicated to the architecture of development assistance. Its main tasks include sharing information on development aid by providing statistics as well as setting standards for official development aid and more specific the effectiveness of aid. The core measure used to describe a country’s commitment to international development is the share of gross national income (GNI) devoted to ODA. The definition of ODA is discussed in detail in Section 3.2.

⁶ This description does not indicate whether the term „tied aid“ is used as an equivalent to tied ODA or tied aid according to the Arrangement.

ODA “is defined as those resources to developing countries (and multilateral institutions) provided by official agencies, including state and local governments, or by executive agencies”. (DAC 1987) ODA is generally divided into bilateral and multilateral aid flows. Bilateral transactions are undertaken by the donor country directly with a developing country. On the other side, multilateral development aid is channeled through an international agency, institution, or organization, committed to activities favoring development. (DCD/DAC(2010)40/REV1: 5) For a resource flow to fall under the definition of ODA five criteria must apply:

Box 2: Definition of ODA

- 1) The flow goes to countries and territories on the DAC List of ODA Recipients and to multilateral institutions.
- 2) It is provided by official agencies, including state and local governments, or by their executive agencies.
- 3) It is administered with the promotion of the economic development and welfare of developing countries as its main objective. This test is called “motivational test”. (Interview)
- 4) It is concessional in character.
- 5) It conveys a grant element of at least 25 %⁷.

Source: (OECD 2013b)

The DAC lists developing countries, and territories, which are eligible for ODA.⁸ Currently, countries or territories with GNI per capita below USD 12,275 (in 2010) qualify for ODA. The DAC categorization is based on World Bank estimates and the definition of Least Developed Countries (LDCs) by the United Nations (UN).

⁷ The DAC calculates the grant element at a discount rate of 10 per cent.

⁸ The DAC list of ODA recipients: <http://www.oecd.org/dataoecd/13/58/49483614.pdf> [08.08.2013]

Table 1: DAC categories of ODA recipients

Category	Least developed countries (LDCs)	Other low-income countries	Lower middle-income countries and territories	Upper middle-income countries and territories
Definition	low income, human resource weakness, and economic vulnerability	GNI per capita (in 2010) ≤ USD 1,005	GNI per capita (in 2010) USD 1,006 - 3,975	GNI per capita (in 2010) USD 3,976 – 12,275

Source: DAC (2012b), UN (2013)

3.3. Measures to express concessionality of a loan: grant element versus concessionality level

The grant element and the concessionality level are two different measures to demonstrate the “softness” of a credit. Both measures reflect the same financial terms i.e., the interest rate, maturity, and grace period of a commitment. The method to calculate the grant element and the concessionality level is the same. The difference lies in the discount rate applied. The DAC applies a fixed discount rate of 10 % for the calculation of the **grant element**. “This rate was selected as a proxy for the marginal efficiency of domestic investment i.e., as an indication of the opportunity cost to the donor of making the funds available”. (DCD/DAC/STAT(2012)18/REV1: 2) The Participants use a market-based discount rate, the so-called Differential Discount Rate (DDR) (Table 7, page 46) to calculate the **concessionality level**. The rate represents “a proxy for the funding cost to the donor for making the funds available”. (DCD/DAC/STAT(2012)18/REV1: 2)

The method to calculate the grant element as well as the concessionality level is as follows:

$$\text{grant element} = \text{the concessionality level} = \frac{(\text{nominal value of the loan} - \text{repayments at present value})}{\text{nominal value of the loan}}$$

The grant element and the concessionality level are expressed as the percentage of the nominal value of the loan, calculated by subtracting the present value of all expected future repayments, using a discount rate of 10 % (grant element) or the DDR (concessionality level), from the nominal value of the credit.

The present value of repayments is calculated as follows:

$$\text{present value} = \frac{\text{future value}}{(1+d)^t}$$

The higher the discount rate, the lower the present value of future repayments. Therefore, if the DDR is lower than 10 %, the grant element is higher than the concessionality level. Based on an example published by the DAC in 2012 (DCD/DAC/STAT(2012)18/REV1) I will demonstrate the difference between the two measures using a fictitious loan.

Example: Grant element vs. concessionality level

Table 2 and Table 3 are based on a fictitious loan with the same financial terms. The loan of 1000 units is committed and disbursed on the same day and has a credit period of 7 years. Its interest rate is 2.5 % p.a. and the grace period is 4 years. Repayments are made in equal installments every year as from year 4.

Table 2: Calculation of the grant element

Period (year)	Principal outstanding	Principal payment	Interest	Total future payments	$(1+d)^t$ d = 4 %	Present value of future payments
1	1000.00	-	25.00	25.00	1.10	22.73
2	1000.00	-	25.00	25.00	1.21	20.66
3	1000.00	-	25.00	25.00	1.77	14.11
4	1000.00	250.00	25.00	275.00	1.46	187.83
5	750.00	250.00	18.75	268.75	1.61	166.87
6	500.00	250.00	12.50	262.50	1.77	148.17
7	250.00	250.00	6.25	256.25	1.95	131.50
					Sum	691.87

Source: The example is based on DCD/DAC/STAT(2012)18/REV1.

$$\text{Grant element} = (1000 - 691.87) / 1000 = \mathbf{31 \%}$$

Table 3: Calculation of the concessionality level using a 4 % discount rate

Period (year)	Principal outstanding	Principal payment	Interest	Total future payments	$(1+d)^t$ d = 4 %	Present value of future payments
1	1000.00	-	25.00	25.00	1.04	24.04
2	1000.00	-	25.00	25.00	1.08	23.11
3	1000.00	-	25.00	25.00	1.12	22.22
4	1000.00	250.00	25.00	275.00	1.17	235.07
5	750.00	250.00	18.75	268.75	1.22	220.89
6	500.00	250.00	12.50	262.50	1.27	207.46
7	250.00	250.00	6.25	256.25	1.32	194.73
					Sum	927.53

Source: The example is based on DCD/DAC/STAT(2012)18/REV1.

$$\text{Concessionality level} = (1000 - 927.53) / 1000 = 7 \%$$

This example demonstrates that the discount rate applied plays an essential role in determining the concessional element or softness of a loan. In the given example the DAC's grant element is calculated at 31 % and the Participants' concessionality level at 7 % for the same financial terms. In extreme cases when the DDR which is based on current interest rates is very low, a grant element with a value of 25 % translates into a negative concessionality level. Section 6.2 presents a recent example from the DAC.

Looking at the method of calculating the grant element or concessionality level, raises the question whether the inclusion of the interest rate of the credit is appropriate to calculate the softness of a loan. From the borrower's perspective, concessionality is determined by the terms of a loan that are more favorable than market terms. Therefore, apart from grace periods or a longer credit period, the difference between the interest rate of the credit and the market interest rate determines the concessional element. If the market interest rate (r) equals the interest rate of the credit (i) the concessionality level is zero. If the market interest rate (r) is higher than the interest rate of the credit (i) the concessionality level is positive, and vice versa.

Table 4: Calculation of the concessionality level according to interest rates applied

Interest rate	Concessionality level
$r = i$	$r - i = 0$
$r > i$	$r - i > 0$
$r < i$	$r - i < 0$

4. The economic imperative for development finance

According to Odedokun (2003: 18), “(c)oncessional loans are simply an alternative way of referring to loans which should technically be called subsidized.” Thus, the justification of concessional loans can be analyzed on basis of the economic theory.

4.1. Economic theory, public finance and government intervention

The question, when governments or donors should intervene in the market and what goods should be financed by tied aid credits can partly be answered by searching the field of public finance. Public finance is the study of the goods and services provided through the public sector and their financing. (Greene 2012: 1) The general questions in public finance regard the government's role in the economy. In the case of tied aid credits developing countries' governments cooperate with donor countries' governments in financing certain goods or services.

Before I go into the topic of government intervention and public finance I want to mention some useful clarifications. Gruber (2005: 9) points out that the question how should governments intervene is normative (how it SHOULD be done). Why do governments do what they do is a positive question (why things are the way they are). The second question can only be answered by using political economy. (Gruber 2005: 9) Political economy looks at how political processes lead to decisions that affect individuals and the economy. (Gruber 2005: 9) This chapter on economic theory will address normative questions.

As already stated, economic theory identifies situations for government intervention in the market. Generally there are two economic reasons for which government intervention can be desired: **market failure** and **redistribution**.

In case of market failure the market does not produce the socially desired amount of goods and services. Government intervention may improve outcomes. According to economic theory, a competitive market equilibrium produces the most efficient outcome for society. (Gruber 2005: 3) But there are situations in which the market does not provide the economic or socially desired outcome. In economic terms, market failure occurs when the market economy does not produce an outcome that maximizes efficiency for society. (Gruber 2005: 3) Government intervention can potentially lead to an improvement in efficiency. (Gruber

2005: 4) In reality, government intervention may be a solution but it is not a remedy for any situation of market failure, given that also governments can fail.

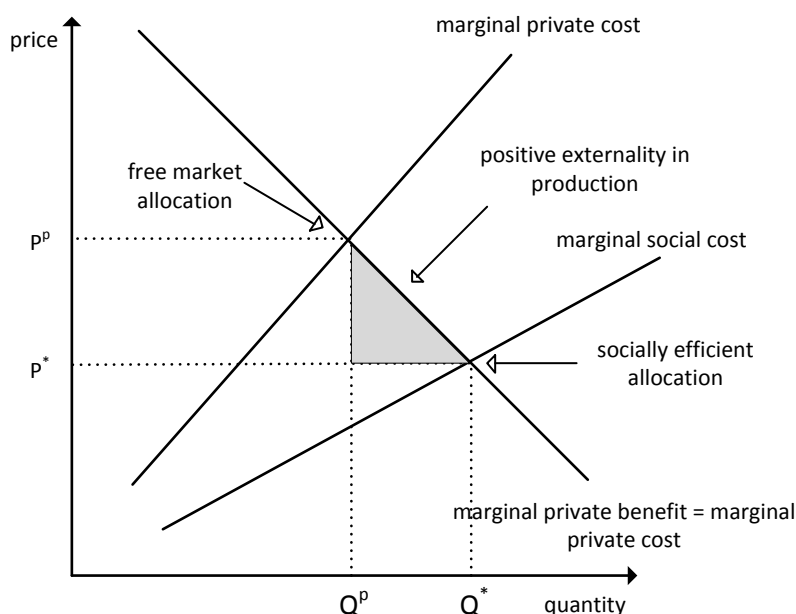
The second reason for government intervention is redistribution. Redistribution is defined as the shifting of resources from certain groups of society to other groups. (Gruber 2005: 5) Redistribution of resources can be also brought to a global level. Development aid can be considered as a form of redistribution between the North and the South.

4.1.1. Externalities, public goods, and market failure

The market may fail to produce the socially desired amount of goods or services due to the existence of externalities. **Externalities** are created whenever an action by one party leads to benefits or losses of another party and the first party is not compensated for those benefits or has to bear the costs of losses. (Gruber 2005: 116) Externalities can arise from production or consumption of goods.

The theory of externalities considers private marginal costs and social marginal costs. Private marginal costs are direct costs to the producers for producing an additional unit of a good. Whereas social marginal costs are the sum of private marginal cost plus any additional costs arising from the production of an additional unit of output. (Gruber 2005: 118)

Figure 1: Positive production externality



A **positive production externality** is created when a firm's production of a good creates a benefit for others and the firm is not being compensated for the benefit. (Gruber 2005: 122) The same holds for **positive consumption externalities**. A positive consumption externality arises when the consumption of an individual increases the well-being of others or creates benefit for others, but this individual is not compensated. (Gruber 2005: 122) A classic example of a positive consumption externality is vaccination. Not only does the individual benefit from the consumption of vaccines but everyone else because vaccines decrease the spread of infectious disease.

Solutions to externalities

In theory, the ideal way of solving the problem caused by externalities is internalizing the externality. Internalizing the externality means that private negotiations or government action leads to the price of a good produced or consumed fully reflecting the external costs or benefits. (Gruber 2005: 124) Based on the assumption that demand meets supply through the price signal mechanism, internalizing externalities may lead to the socially optimal quantity, meaning that there is neither overproduction nor underconsumption. One way to do this is granting property rights to one of the parties. The role of the government is crucial in establishing and enforcing property rights. In reality this Coasian solution faces many difficulties and assigning an externality to a party can be difficult.

4.1.2. Theory of public goods

The theory of public goods distinguishes between four different types of goods according to the characteristics excludability and rivalry. Excludability means that individuals can be deprived from consumption. Rivalry in consumption occurs when an individual's consumption of a good impedes another individual in consuming the good.

Table 5: Types of goods

	excludable	non-excludable
rivalrous	Private good	Common pool good
non rivalrous	Club good	Public good

Most of goods traded and consumed goods are so called private goods. They are characterized by excludability and rivalry in consumption. In case of private goods efficient market outcome is likely. **Public goods**, on the other hand, face the problem of externalities by definition. Pure public goods have two main characteristics: they are non-rival in consumption and non-excludable. Therefore free-riding, consuming but not paying for the good, cannot be prevented. "In addition, the social benefits from public goods will typically far exceed those to any single user, making it unattractive for any one user to bear the cost of providing them." (Greene 2012: 9) This leads to a situation in which the private market generally does not supply the good. Classical text book examples of public goods are vaccination programs, public parks, clean air, or security. Consequently, the market outcome for public goods is underprovision or underconsumption. This socially non-desirable outcome can justify government provision of public goods and finance through coercive payments, such as taxes. (Anand 2004: 215)

In reality, many goods are considered to have a "public good character" or "public good aspects". They are sometimes called "impure public goods". Those goods are often club goods, meaning that excludability is given, or common pool goods, meaning that they are partially rival. (Anand 2004: 217) These are goods, like education or health care insurance, which are in theory underconsumed if left to the market. They often have positive externalities and the private demand lies below the socially desired one.

By extending the concept of public goods to the international context we speak of global public goods. In those cases externalities are not defined by national borders. The issue of global public goods is not subject to my research, but findings are provided by Anand (2004).

The public good problem is naturally intertwined with the financial viability of investments in the production of such a good. Consumers are not willing or able to pay for the good at market price. Consequently an investment will not generate sufficient financial returns to be attractive for commercial financing (commercial viability).

4.1.3. Which goods or sectors should be financed publicly?

Given market imperfections in reality, Greene (2012: 4ff) names activities a government should be involved in. Greene (2012: 5) lists goods and services whose supply needs to be adequately ensured by governments: basic infrastructure (roads, clean water and sewage services), military and police protection, legal services, public health services, primary education. They are all public goods or have public-good characteristics.

In the report *Public goods for economic development*, the UNIDO points to the centrality of mechanisms for the effective delivery of public goods and services for any poverty reduction (or eradication) strategy. Their crucial role is reflected in the fact that several categories of public goods, such as environment, health, knowledge, security, are also related to the Millennium Development Goals (MDGs). (UNIDO 2008: 1)

Public expenditure may further support the private sector and economic growth. Government spending for capital expenditure can ensure adequate infrastructure and public facilities to support private sector activities. "Expenditures for productive infrastructure, such as mass transit facilities or electrical power lines, can improve the business climate and encourage investment." (Greene 2012: 34) Research has shown that some areas of expenditure are particularly supportive of economic growth, including efficient investment in infrastructure, spending for primary education and primary (basic) health services, expenditures for courts, public order, and effective financial regulation. Referring to findings by the International Monetary Fund (IMF), Greene states that infrastructure projects appear to create "the largest payoffs in terms of income and jobs created for each unit of spending". Greene (2012: 24). Further a literate and healthy population is considered to have high returns. Also efficient secondary education contributes to economic growth because it creates a well-trained and employable labor force. Furthermore, good governance positively affects private investment and therefore outlays for activities that promote effective governance contribute to economic

growth. (Greene 2012: 59f) Note that Greene (2012) uses the term “effective” investment with regard to government activities, focusing on the quality of infrastructure, governance, education, judicial system, etc.

Summarizing these findings, the following list names sectors that have been identified as classical sectors for government intervention:

- basic infrastructure (roads, clean water and sewage services)
- expenditures for productive infrastructure, such as mass transit facilities or electrical power lines
- public order, military and police protection
- primary (basic) health services and public health services
- primary education as well as secondary education
- legal services and expenditures for courts
- financial regulation and promotion of governance

This list above is not exhaustive and may be extended to cover other goods or services. Whether government intervention in the market is needed has to be assessed case by case. Greene (2012: 231) underlines that the productivity of public investment spending should be maximized. Projects should be selected on grounds of their net present value calculated using reliable **cost-benefit-analysis**. Although, it has to be acknowledged that when doing a cost-benefit-analysis some parameters are uncertain, such as future costs of maintenance, projection of loss in value and project life, or interest rates to discount future cost and benefits. (Greene 2012: 230)

4.1.4. Government / Donor intervention

As stated above market failure may be a reason for government intervention. But inappropriate government intervention can lead to government failure. Governments represent certain interests and consequently “may be motivated by much more than simply correcting the marked failures or redistributing income”. (Gruber 2005: 9)

Government intervention can further be taken to the international level. “[I]n many developing countries, weak governments or conflicting objectives require the input from a “neutral” third party to help solve the problem” (original emphasis; Gardner, Waller 2005: 99) of externalities or market failure. Providing foreign aid can be a form of such a third-party

intervention. The relating question regards which level is most effective in solving externalities or market failure. Gardner and Waller (2005: 101) argue that “donors need to address the public good problem in the target recipient country” and point out that market failure opens opportunities for donors to engage in successful development projects. In cases where the national government of a developing country refrains from market intervention due to financial constraints donors may step in by providing financing. Further if the public good problem is of international or even global concern, market intervention on an international or respectively global level may be justified.

Governments have various options of interventions in the market. They can intervene using the price mechanism by changing the price of a good through taxes (increasing the price) or subsidies (lowering the price). Also restricting or mandating the private sale or purchase is an option. Examples would be the restricted sale of illegal drugs or purchase of a statutory health insurance. An alternative option is the public provision of goods or public financing for private provision.

The provision of public goods can be a motor for private investments. Therefore, the provision of public goods should follow the principles of equivalence, subsidiarity and economic efficiency, and further contribute to stabilize expectations and generate social peace. (Leschke 2011: 135) Leschke (2011: 135) argues that such goods should be produced by private companies, while it is generally acknowledged that a call for tender is crucial.

As already stated above, as a solution for the public good problem, governments can either become the single producer of the good or when the good is privately supplied regulate the price by setting it at marginal cost. But for goods with a flat or declining marginal cost curve, such as natural monopolies, pricing at marginal costs will not recover the fixed costs of the provision of the good. To establish a social optimum in the market a budgetary transfer is needed. In this case the government would have to subsidize the good through the budget. The second best choice is considered setting the price at average costs. (Greene 2012: 12)

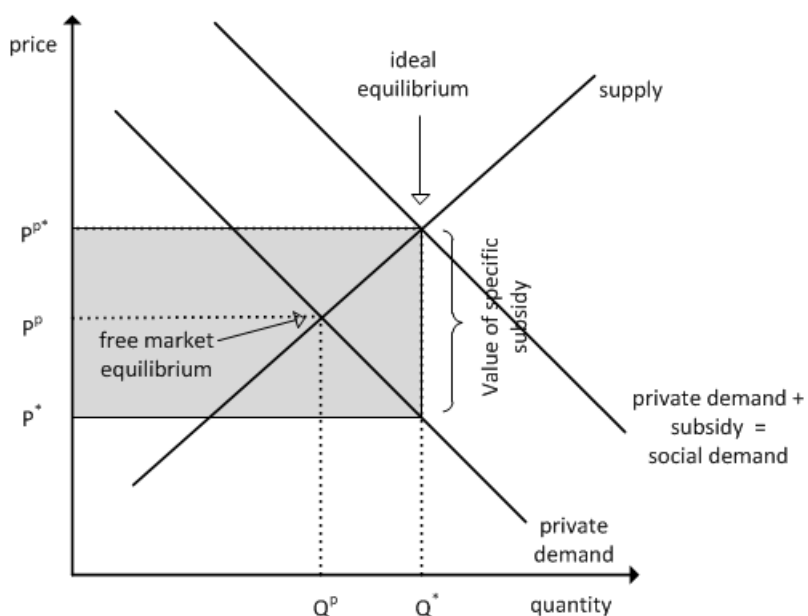
Another question regarding the supply side is how much to supply. Since the price mechanism does not signal which is the socially optimal quantity of the good, non-economic forms of decision making are needed. Possible options are planning by officials based on certain criteria, surveys to get information from the public, or voting. (Greene 2012: 13)

4.1.5. Subsidies as solution to externalities and market failure

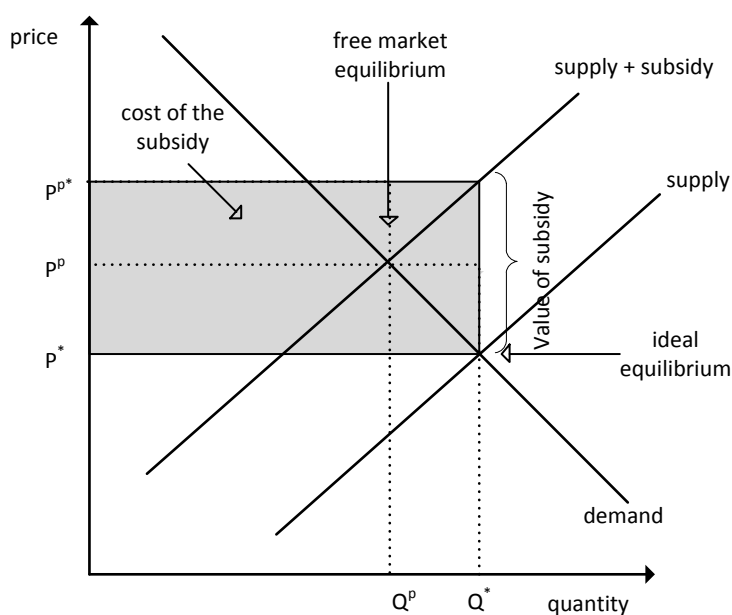
As already stated, governments should address externalities with the following measures: taxes, subsidies, regulation, or activities limiting or stipulating externalities. It is generally acknowledged that subsidizing is the most efficient way to internalize positive externalities, using the price mechanism to lead to a socially optimal level of production or consumption. (Greene 2012: 15) This means that benefits or costs of the externality are reflected in the price. In practice, imposing taxes or subsidies can be difficult because it can be problematic to attribute the responsibility for a negative externality or the benefits from a positive externality to a particular party. If taxing or subsidizing is not effective the government has the possibility to regulate.

Subsidies or transfers can come in many different forms. Governments can produce, sell, or provide goods and services directly at a price lower than the market. (Greene 2012: 223) Subsidies can be granted to consumers purchasing a good produced by private firms, or they can come in the form of a transfer to the producing private firms. Furthermore, subsidies can be tied to conditions. They can come in the form of tax deductions from taxable income or profits. Typical subsidies are funds to public institutions, such as universities or hospitals, to allow them charge lower fees. (Greene 2012: 224) Subsidies for loans are usually payments to financial institutions that lend at a lower interest rate. (Greene 2012: 223f) Subsidies can be a one-time or continuous measure. They generally address defined groups of beneficiaries, individuals, households, or sectors.

Subsidies are divided into consumer and producer subsidies. **Consumer subsidies** directly benefit the consumer by lowering the price of the good. This leads to an increase in demand ($D^* > D$ and $Q^* > Q$) and a higher price ($p^* > p$) if the supply is inelastic. Greene (2012: 225) highlights that consumer subsidies should be well targeted, so the benefits do not go to unintended recipients.

Figure 2: Consumer subsidy

Producer subsidies indirectly benefit the consumer by lowering the costs to the producer, assuming that the producer passes the cost savings onto the consumer. (Greene 2012: 225f) By lowering the price of the good it is expected that the quantity sold increases. This is the case if the demand is elastic. Producer subsidies have the advantage that they usually increase supply.

Figure 3: Producer subsidy

Targeting consumer subsidies are considered to be more efficient in reaching intended beneficiaries. (Greene 2012: 227) If a government intends to reach certain groups targeted consumer subsidies are generally more efficient than producer subsidies. Targeting subsidies may be a necessary task but generally require additional resources. To identify eligible recipients eligibility criteria or requirements have to be determined.

Figure 4: Targeted consumer subsidy

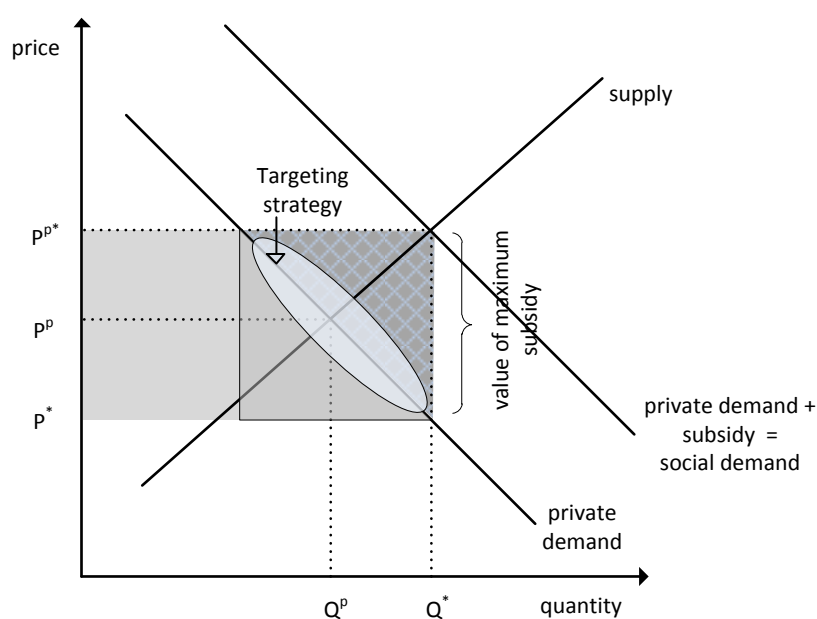


Figure 4 shows that a targeted subsidy is more cost efficient than a non-targeted one. In case of a perfectly targeted subsidy the subsidy equals the dark grey area. A non-targeted subsidy would require a subsidy of the size of both gray areas, which is more than twice the size in Figure 4. The example shows that, if possible and socially accepted, targeted subsidies are preferable.

Further subsidy programs are to be designed minimizing economic distortions. (Greene 2012: 229) This can be achieved by providing subsidies that apply to a broad category of goods. Thus consumers can choose from a variety of qualifying goods. This minimizes the risk that the subsidy leads to **consumer choice distortion** or market distortion. (Greene 2012: 229)

Poorly designed subsidy programs lead to unproductive expenditure. The IMF has defined unproductive expenditure as “the difference between the actual public spending on the

program and the reduced spending that would yield the same social benefit with maximum cost-effectiveness.” (IMF 1995: 5) Military expenditure that goes beyond the needed amount for maintaining national security, public investment projects with a negative net present value, poorly targeted subsidy programs, funding prestige programs with few beneficiaries fall under this definition. (Greene 2012: 232) As for the latter, Greene (2012: 232) mentions the example of a costly hospital in the capital city crowding out expenditures for local health centers benefiting a larger amount of the population. Apart from targeting of subsidy programs and the question who benefits from public expenditure, the problem of unproductive expenditures is further related to the selection of good investment projects.

In conclusion, this chapter demonstrated that government intervention has to be designed and executed wisely. Additionally evaluation of programs is needed to make sure that public expenditure is used effectively and efficiently.

4.2. Revenues and repayment of debt

The analysis would not be complete without writing a few words about revenue raising and repayment of debt because on the other side of any government expenditure lays the question how to finance those activities. One option for goods where actual users are identifiable is charging user fees. This option is called cost recovery. (Greene 2012: 12) Examples are tolls for bridges, roads, or levies for sanitation services. Consequently, such goods or services should be at least partly financially viable.

As for underconsumed goods e.g., primary education, or goods where a user can not be identified, as well as goods with substantial positive externalities, or in cases when “user charges would be prohibitively expensive for many potential users, budget financing through taxation may be preferable”. (Greene 2012: 12)

Greene (2012: 13) highlights that when goods are financed through the budget, the quantity of goods or services depends on the amount of revenue available. Countries, where government revenue is scarce or existing budget responsibilities absorb all available funds, may lack the ability to finance additional expenditures. (Greene 2012: 13) But the level of public provision of goods and services is not simply the outcome of an economic decision - it is also a political one.

Any investment needs to generate resources somehow. Whenever loans are extended for investments the revenue side has to be considered. The financial viability is essential for a

project to recover the investment costs. In addition, Greene (2012: 13f) points out that for many public services creating the facilities constitute just a fraction of the costs and set the basis for future financial obligations (operating and maintenance). Therefore for an investment to be financially sustainable revenue raising or budget financing has to be taken into account.

4.3. Loans versus grants

The question what is the best form to finance development projects leads to the question whether donors should provide loans or grants. The following section will take a closer look at this issue.

Loans or credits are defined as transfers for which repayment is required. Loans vary with the rate of interest, the length of the repayment periods, and grace periods granted. Grants, on the other hand, are funds that do not require repayment. The central question of this section is whether loans or grants are more conducive to financing development projects. There are different incentives attached to each form of financing. The type of project and its circumstances determine whether a loan or grant is more appropriate.

The strict differentiation between grant and loans is not always useful because concessional loans lie between those extremes. A concessional loan can have a concessional level of 99 %. A highly-concessional loan and a grant, which has a concessional level of 100 %, will produce similar incentives for the recipient as well as the donor. Therefore, “(c)oncessional loans are, in effect, grants and non-concessional loans bundled together” (Odedokun 2004: 260)

4.3.1. Justification of loans

What justifies the provision of loans? The most intuitive advantage of loans is that repayments can be reinvested. This assumption holds true when projects generate sufficient resources to repay the loan and if the repayments are actually reinvested in other promising projects.

Furthermore, according to economic theory, loans are used more effectively than grants to finance projects because grants would be used up to the point where its marginal

productivity or utility is zero". (Odedokun 2003: 14) Concessional loans, on the other hand, have opportunity costs. In reality though, the acceptance of grants is usually tied to certain conditions. (Odedokun 2003: 14)

Governments have the incentive to limit borrowing to projects that have an expected positive net return. (Nunnenkamp, Thiele, Wilfer 2005: 10) Good development projects are sometimes not financially and commercially viable. Therefore it is reasonable to subsidize loans for projects that have a positive social return on investment but not necessarily a financial net return.

Further, donors have argued in the past that financing projects through loans enhances the recipient's responsibility. (Nunnenkamp, Thiele, Wilfer 2005: 9) Gibson et al. (2005) provide a more detailed view on the incentives of different means of aid. They point out that the incentives depend on the strength of ownership. (Gibson et al. 2005: 116) According to them, recipients should exercise project ownership in order to have right incentives. They argue that if repayments of credits for a development project are derived from the country's general tax base, rather than from the revenue generated by the project, "there are fewer financial stakes for the project owner or recipient government in the success of a given development project". (Gibson et al. 2005: 116) The responsibility of repaying the credit should therefore be directed to the project owner. According to public finance the principle of fiscal equivalence should be applied. If projects are not financially viable other sources of revenue have to be found. In addition, long-term repayment periods can create a problem of ownership. Political leadership changes and accountability is weakened.

Klein and Hardford (2005: 65f) list common arguments against loans. The main argument against loans is that some projects do not generate financial returns high enough to repay a credit. Projects fail and this leads to an inability to repay the debt. But the authors counter that the reason why investments do not generate sufficient returns is not that the form of financing was bad, but because projects performed poorly. The second argument brought up against loans is that some developing countries are capital constrained for a reason. This problem relates to the macro-economic level. Klein and Hardford (2005: 65f) add that capital constraints are not the only problem but projects lack funding due to other reasons. Consequently, in these two cases loans provided by donor countries will not correct market failure and therefore grants are the preferable instrument. The third common argument against loans is that grants are preferable because repayments will not be reinvested anyway.

Apart from those common arguments, economic theory shows that loans create adverse economic incentives. According to economic theory, subsidized loans should be rationed because the lower price of a loan increases the demand. Additionally cheaper loans may be used less efficiently and consequently raise indebtedness of recipient countries. (Klein, Hardford 2005: 67) Odedokun (2004: 255) demonstrates empirically that a high degree of concessionality on official loans to both lower-income and higher-income countries represents an incentive to increase the volume of borrowing. "There is robust evidence from our empirical test that a high degree of concessionality on official loans is an incentive for recipient governments to borrow more and they respond both to subsidized interest rates and long grace periods. (Odedokun 2003: 29) On a macro-economic level, loans therefore incur "the risk of debt overhang in badly governed and highly indebted poor countries". (Nunnenkamp, Thiele, Wilfer 2005: 14)

4.3.2. Justification of grants

Nunnenkamp, Thiele, and Wilfer (2005: 10) state that under certain circumstances grants perform better than loans. This is the case if the donor or a third party receives the major part of the benefits of a project or an activity. The international or global internalization of external effects as well as transfers supporting donor's interest are generally more successful if projects are financed with grants. Examples are the preservation of biodiversity or military assistance. Grants are more encouraging in carrying out these projects.

Radelet (2005: 4) further claims that social infrastructure such as water, health, and education projects should be financed exclusively by grants because it may take decades until those projects experience an economic return to investment. Furthermore, grants are conducive to finance consumption rather than investment because per definition consumption does not generate revenue.

Radelet (2005: 1) reminds that loans are based on the assumption that the invested funds will generate economic growth and therefore resources to repay the loan. But poor countries have not generated sustainable economic growth in the past to repay loans. Those countries are e.g., vulnerable to climatic or commodity price shocks. Funds may be invested wisely but very poor countries may lack the capability to repay loans. Therefore Radelet (2005: 1) argues that "(u)ntil countries have a proven record of sustained growth, grants are far more prudent than loans". The author argues that instead of repaying banks, revenues generated by strong investments should be re-invested locally. (Radelet 2005: 3)

On the other side, as already stated above, grants carry no or less opportunity costs. Nunnenkamp, Thiele, Wilfer (2005: 10) argue that therefore grants are prone to be used ineffectively and inefficiently unless donors threaten to withhold future resources in case of mismanagement.

On a macro-economic level, there is empirical evidence that an increase in grants seems to suppress domestic tax revenue. (Klein, Hardford 2005: 66) In a study looking at revenue response to loans and grants in 107 developing countries, Gupta et al. (2004: 401) find that “concessional loans are generally associated with higher domestic revenue mobilization, while grants have the opposite effect.” (Gupta et al. 2004: 401) They find that in countries with high levels of corruption an increase in grants is completely offset by declining revenues. Therefore grants to those countries are unlikely to raise the overall resources available to finance public expenditures. (Gupta et al. 2004: 401) Consequently the provision of grants should be selective because grants may substitute for domestic revenues. (Nunnenkamp, Thiele, Wilfer 2005: 14) Odedokun's (2003: 18) empirical findings on the efficiency of grants show that “to the extent that increased government size, increased share of government consumption spending in the budget and in GDP, as well as reduced share of government investment spending in GDP and in total budget can be said to be inefficient, grants are being utilized less efficiently than official loans”. (Odedokun's 2003: 18) Odedokun's (2003: 29) shows that grants affect government consumption spending positively and investment spending negatively as in comparison to loans. A high share of grants in total aid reduces tax effort in relatively low-income countries. This effect was not found for relatively high-income countries. (Odedokun 2003: 29) The acceptance of loans, on the other hand, burdens policymakers of recipient governments with regards to repayments and therefore induces them to mobilize taxes or stabilize the current level of taxes. (Gupta et al. 2004: 386)

Since grants generate unfavorable incentives, some authors such as Lerrick and Meltzer (2002: 1) underline that grants should be granted attached to performance targets. Future financing should be made dependent on the achievement of these targets.

4.3.3. Non-economic reasons to provide grants or concessional loans

Apart from the economic rational in the case of externalities and market failure, Odedokun (2004) lists additional arguments for the provision of grants or concessional loans. Based on the following principles grants or concessional loans are appropriate: self-interest of donors,

encouragement to undertake action, altruism and compassion, and finally correction of or reparation for past misdeeds.

According to Odedokun (2004: 256), in the situation of externalities grants encourage recipient governments to undertake or finance activities, which would otherwise not be carried out to an optimal extent. In the case of global public goods also donor countries benefit from undertaking an activity. This consequently justifies foreign financing in the form of grants or concessional loans.

Activities in the self-interest of donors should be financed by grants, especially when donors accrue a large share of the benefit or even the entire benefit. Examples are bilateral resource transfers for military or strategic assistance, but also procurement-tied aid. (Odedokun 2004: 256f) In these cases grants encourage recipient countries to undertake the activity. There are cases where the donor “may wish to use financial power to leverage, cajole, induce, or ‘bribe’ (if not ‘intimidate’) the (...) [recipient] to ‘behave’.” (original emphasis; Odedokun 2004: 257) Examples are democratization, fighting corruption, privatization, certain macroeconomic reforms, or addressing gender issues. In these cases social, political and economic conditionalities are tied to the transfer of resources. Grants and concessional loans are more effective to finance these activities. (Odedokun 2004: 257)

Odedokun (2004: 257) lists altruism and compassion as a recognized motivation for providing grants, based on the principle of gift-giving. Assisting recipient governments in attaining certain standards of living falls under this category. And finally correction of and reparation for past misdeeds justifies the provision of grants. An example would be “the writing-off of dubious loans that had propped-up tyrants in developing countries during the Cold War era”. (Odedokun 2004: 258)

4.3.4. Grants versus loans: conclusion

The simple answer to the question what is more effective loans or grants in financing development projects is that it depends on the particular situation. Economic theory does not provide normative answers to that question. Basically, it depends on political decisions, the project, and its circumstances whether a project should be financed by a (concessional) loan or a grant. Further, there is no ideal form of financing because loans and grants offer certain (dis-)incentives for both recipient and donor countries. Empirical findings shed some light on this issue. Nunnenkamp, Thiele, Wilfer (2005: 14) provide a literature review on the growth

effects of grants and loans. They find that there is neither conclusive evidence nor a convincing economic rational to favor grants over loans. They conclude that for richer and better governed countries there is no major difference between loans or grants. (Nunnenkamp, Thiele, Wilfer 2005: 11) Burnside and Dollar (2000) show that sound economic policies and a favorable institutional environment determine whether aid is effective. In countries with better institutions and good policies the form of aid, loans or grants, is not a key factor. On the country level, the country characteristics, the quality of governance and the sustainability of debt accumulation, determine whether grants and loans enhance economic growth. (Nunnenkamp, Thiele, Wilfer 2005: 14) Furthermore, grants or concessional loans are appropriate to finance projects which are based on the self-interest of donors, encouragement to undertake action, altruism and compassion, and correction of or reparation for past misdeeds.

I conclude that donors should provide both, loans and grants. Klein and Hardford (2005: 63) add that development finance instruments should additionally include forgiveness of loans and unbundled subsidies, as well as loans combined with grants based on output. According to them, development aid should not be about the volume of funds but focus on development outcomes. Therefore “(d)onor agency staff should be rewarded for outcomes”. (Klein, Hardford 2005: 63) As for the recipients side, Nunnenkamp, Thiele, and Wilfer (2005: 14) suggest to make aid performance-based, withdraw aid in case of non-compliance with performance targets or continue aid in case of achievement of targets. In an ideal case recipient governments would use aid effectively and carefully no matter what form of aid, grants and loans. Consequently, whether loans or grants should be used to finance projects depends on the individual circumstances of the respective country and particular project.

Table 6: Overview on characteristics, advantages and disadvantages of loans and grants

Loans	Grants
Project level	
Repayment is required	No repayment is required
Used to finance investment	Used to finance consumption
Repayments can be reinvested	
Used more effectively according to economic theory because loans have opportunity costs	In reality, the acceptance of grants is usually tied to certain conditionalities
Loans enhance the recipient's responsibility if ownership is exercised	
Governments have no incentive to finance financially non-viable projects	Social infrastructure should be financed by grants because it may take decades until those projects experience an economic return to investment
Projects may not generate enough financial returns to repay a credit or projects may fail	Grants are more encouraging in carrying out certain projects e.g., environmental projects
Cheaper loans increase demand and may be used less efficiently	
	Self-interest of donors, encouragement to undertake action, altruism and compassion, and correction of or reparation for past misdeeds justify the use of grants or concessional loans
Country level	
Poor countries may lack the capability to repay loans	Grants seems to suppress domestic tax revenue
Developing countries are capital constrained	

4.4. Economic imperative for tied aid credits

Public finance addresses the role of governments in dealing with market imperfections. The next paragraphs will give an overview on development aid's contribution to economic growth according to economic theory and findings of development economics. The underlying assumption is that what in industrialized countries is financed by the national government, in developing countries donors may complement or substitute government finance. The

assumption that foreign aid enhances economic development follows the logic that foreign aid finances investments and consequently generates economic growth.

Development aid or external aid, according to Rao (2003: 97), includes an element of concessionality or subsidy and can be seen in contrast to market-based debt. Ideally external aid, as a source of development finance, if properly channeled and utilized effectively by the recipients, “enable relatively poorer societies to tide over financial crisis, enhance economic development, promote economic integration with the global economy, and benefit donor nations with markets for their products and services”. (Rao 2003: 97) Therefore, among other objectives development aid and external aid aims also at creating new markets by generating economic growth in recipient countries.

Financial resources and access to financial resources in all sectors of economic activity are, according to Rao (2003: 29), highly-critical inputs for economic development. Capital markets provide insufficient capital for development. „The provision of capital for multiple objectives of development is unlikely to be feasible if the resource allocation is entirely left to the capital markets.“ (Rao 2003: 29) This justifies market intervention and provision of financing by governments. Rao (2003: 300) therefore stresses that effort is needed by global and domestic institutions to steer resources in all sectors and segments of economic systems. This could be done in two ways, either directly through financial aid, or catalytically through the promotion of sustainable capital flows, capital markets and institutions for efficient financial governance. (Rao 2003: 30)

4.4.1. Market failure due to risks involved in international trade business

As already stated, market failure justifies public intervention in markets. Risks involved in international trade impede transactions from being carried out. The exporting country has an interest in selling national products and services to developing countries. Government intervention in the credit market for exports facilitates transactions. This government intervention comes in the form of provision of financing products, such as guarantees or official support for export credits. Apart from correcting market failure by providing credits, officially supported export credits may include a concessional element (subsidy). Official support for export credits has its roots in assuring national exporters against risks involved in international trade business. Any international trade transaction implies risks (commercial, political, currency, and financial risks). The risks increase with volume of contract, longer periods of payment, longer and costly transport distances. Also bureaucratic hurdles and

delays, as well as delays in the banking system can affect payments but also delivery, not being made according to the contract. (Grath 2012: 23 ff)

The risks involved in a transaction should be covered through the terms of payment laid out in the contract. If the seller or buyer is not able or willing to accept the terms of the contract and deal with the risks involved, a third party can get involved to cover the risk. There are situations, in particular related to the political and commercial risks, in which “the seller may have difficulty in finding (commercial) financial institutions that are willing to accept the inherent risks in the (...) terms of payment”. (Grath 2012: 115) This problem applies to short-term financing and becomes even more serious when dealing with medium- or long-term financing. (Grath 2012: 115) Whenever the private insurance market fails at insuring risks market failure occurs. As stated in Section 0 market failure can justify state intervention. Consequently governments may step in to cover risks involved in the transaction.

The private market covers mainly commercial risk and provides coverage for shorter periods (of usually less than two years). Buyers and certain countries may not be commercially insurable, the indemnity could be too low or the premium prohibitively high. (Grath 2012: 121) Consequently longer periods and more complex export transactions are generally covered through government supported insurance. (Grath 2012: 116)

Many exporting countries provide financing through special export credit banks or similar financial institutions, such as Export Credit Agencies (ECAs). (Grath 2012: 153) About 40 industrialized and emerging market countries have established ECAs. Their prime task is the promotion of exports by securing export transactions and export finance, and by that ECAs aim at helping national exporters in competing for overseas sales. (OECD 2013) Among other activities, ECAs provide official financial support in the form of direct credits to foreign buyers and by that “ECAs enable exporters to be competitive in international procurement processes or to participate in projects in which the element of risk would otherwise not be sustainable”. (Gatti 2008: 179) In the case of direct lending the importing entity is the borrower of funds, usually a government or its executing entities. The ECA is the lender. The loan is granted exclusively for the purchase of goods or services from the ECA's country of origin. (Gatti 2008: 180) According to Fight (2005: 19), ECAs “are generally nationalistic in purpose and nationalistic and political in operation”. Apart from state-supported export credit schemes some ECAs administer “grants in tied or untied mixed or concessionary [sic! concessional] credits to developing countries”. (Grath 2012: 153) The latter can be done on behalf or in conjunction with the government aid agency. (Grath 2012: 153) The structure of their programs and terms of cover, as well as institutional embedding vary according to the

respective country. (Grath 2012: 123) In some countries DFIs provide similar forms of financing. But in contrast to ECAs, their existence is based on a development policy mandate.

ECAs fund their lending activities on the international capital market. (Grath 2012: 153) Additional funding generally comes from their respective governments. (Fight 2005: 19) Grath (2012: 125) argues that “(e)ven if the obligations are guaranteed by the respective state, official ECAs should operate with reasonable confidence of breaking even in the long term, charging customers premiums at levels that are sufficient to cover the perceived market and buyer risk and administration costs”. ECAs also try to “recover amounts paid in claims either directly from individual buyers or borrowers or through the Paris Club of Official Creditors”. (Grath 2012: 125)

Official ECAs are bound to regulations set by the Arrangement. This consensus aims at regulating the market for export credits by “avoiding competitive battles between various countries seeking to offer the most favorable financial conditions for their exports”. (Gatti 2008: 181) Fritz (2013) describes the historical context leading to the adoption of the Arrangement and its subsequent amendments.

5. The Arrangement

As already stated, the Arrangement⁹ is the international key regulation for officially supported export credits and tied aid for OECD countries. In literature the Arrangement is frequently referred to as the “Consensus” or the “Arrangement”. As long as buyer credits are issued on market terms and without government support the terms and conditions of credits are decided between the parties involved. (Grath 2012: 153) Whenever official support by a country, being a Participant to the Arrangement, is involved the terms of the credit must comply with the regulations set in the Arrangement. More importantly, the Arrangement regulates the use of tied aid.

5.1. Purpose and scope of the Arrangement

The Arrangement is the international regulatory framework for officially supported export credits and tied aid credits in particular. It lies within the scope of the OECD and covers any form of official support for export of goods or services, or both, including financial leases. (Article 5)

The main purpose of the Arrangement is to limit market distortions created by officially supported export subsidies. The aim of the Arrangement is to foster competition among exporters. Competitors should compete in quality and price, rather than on the best financial terms and conditions of the financing arrangement. (Article 1) The Arrangement applies to official support provided by governments or by institutions acting on behalf of a government. Private forms of export promotion are excluded. The Arrangement applies to officially supported export credits of a repayment term of minimum 2 years. (Article 5)

The Arrangement sets limitations on the terms and conditions of officially supported export credits, through defining minimum interest rates, premium risk fees and maximum repayment terms. It further regulates the provision of tied aid credits. The most important element of the Arrangement which particularly addresses the use of tied aid is called the Helsinki Package¹⁰. It comprises rules which aim at limiting the use of concessional financing for projects that could otherwise be financed on commercial terms. These are usually projects

⁹ This chapter refers to the Arrangement version TAD/PG(2013)1.

¹⁰ Fritz (2013: 97ff) describes the evolution of the Helsinki Package.

which are financially viable. Whether a project is eligible for an official supported export credit can be assessed using the two key tests on financial and commercial viability, which are explained in detail in Section 5.3.1. In order to give practical guidance the Participants developed an *ex ante* guidance. Published in 1996, it gives additional orientation to potential exporters and financial institutions about whether a project should be financed with tied aid or on commercial terms.

The Arrangement contains the financial disciplines for officially supported export credits. The content of the framework is discussed and agreed upon by the Participants to the Arrangement, commonly referred to as Participants group or the Participants. Interestingly the Participants are not an OECD body, but work under the umbrella of the OECD and are supported by the OECD Export Credits Secretariat. The OECD Secretariat monitors the implementation of the Arrangement. The Participants do not report to or seek approval from the OECD council, but report to the OECD ministers. In turn, impetus regarding content may come from the OECD ministers.

The Arrangement is not an OECD act but a Gentlemen's Agreement among the Participants and consequently not legally binding. (Article 2) Consequently there is also no official body which could enforce the rules. Derogations from the rules and exceptions are technically possible. However, certain parts of the Arrangement are indirectly enforceable, due to their incorporation into EU law and WTO regulations on export credit subsidies. I assume that in practice "naming is shaming" appears to be the force that leads to the common practice being in conformity to the rules. Within the scope of the Arrangement procedures for prior notification, consultation, and information exchange are in place. Exceptions and derogations of the rules, as well as tied aid offers are continuously reviewed by the Participants. (FPS Foreign Affairs, Foreign Trade and Development Cooperation 2011: 121f)

The current (beginning of 2013) members of the Participants are the European Union, representing all of its member countries, as well as Australia, Canada, Japan, Korea, New Zealand, Norway, Switzerland, and the United States. Apart from the Participants, the OECD provides a forum for OECD member countries to exchange information on their export credits systems. The Working Party on Export Credits and Credit Guarantees, frequently called the "Export Credits Group" or simply ECG discusses and agrees on policies governing export credits. In the last years ECG's discussions touched upon the topics of good governance, such as anti-bribery measures, environmental and social due diligence, and sustainable lending. Unlike the Participants, the ECG is an official OECD body. (OECD 2013a) The work of the ECG is not analyzed in this thesis, which focuses on the economic rational of the Arrangement which is within the competence of the Participants.

5.2. Financial terms and conditions for export credits according to the Arrangement¹¹

The Arrangement on Officially Supported Export Credits is constantly revised by the Participants. Minor adjustments have been made but no major changes have been introduced in the past years.

The Arrangement applies exclusively to official support provided by governments or by institutions acting on behalf of a government. Private forms of export promotion are excluded. The Arrangement covers any form of official support for export of goods or services, with the exception of military equipment and agricultural commodities. The framework also covers financial leases. (Article 5) A number of special guidelines, so called sector understandings, complement the Arrangement. Currently sector understandings exist for nuclear power plants, civil aircraft, ships and renewable energies and water projects.

Forms of the official support defined by the Arrangement are export credit guarantees or insurances, direct credit/financing and refinancing, interest rate support, or any combination of the listed. (Article 5) The Arrangement contains regulations that particularly apply to tied aid. Notification procedures and matching also apply to trade-related untied aid.

The core elements of the financial terms and conditions regulated by the Arrangement are the following:

- minimum and maximum credit periods for different types of goods,
- minimum advance payments,
- maximum official support,
- repayment structures,
- minimum government-supported interest rate levels, and
- premium rates for country risk.

¹¹ This subchapter and analysis of the Arrangement is based on the version TAD/PG(2013)1 of the Arrangement. All other references are cited separately.

5.2.1. Repayment terms

The Arrangement regulates export credit support for goods and services with **credit periods** of more than two years. Financial arrangements with credits periods of less than two years are normally covered by the private sector. Regarding the duration of the credit the Participants follow the principle by which the “**repayment terms** do not exceed the useful life of the good”. (TAD/PG(2013)1: 7)

The recipient or buyer countries are divided into two categories in order to grant different **repayment terms**: category I comprises the industrialized countries, that is to say high income OECD countries, all other countries are credited category II. The categorization is determined by World Bank classifications of borrowing countries and based on GNI per capita. The maximum repayment terms for category II countries, this includes all developing countries, is set at ten years. Shorter periods may apply for certain goods or lower contract values. (Article 12)

The Arrangement regulates that the purchaser is required to make a **down payment** of at least 15 % of the export contract at or before the starting point of credit. The starting point varies depending on the good or service purchased. The maximum provision of official support is therefore limited to 85 % of the export contract value. This may include third country supply, but excludes local costs. Official support for local costs is limited to 30 % of the contract value. Exceptions on the maximum amount of official support for local costs are possible, but are subject to prior notification. (Article 10)

The Arrangement further regulates **repayment of principal sum** and **payment of interest**. Generally it allows for payments with a maximum interval of six month in equal installments. Installments include interest rate payments. On a justified basis unequal installments in payment terms are possible, maximum frequency of principal repayment, as well as interest payment, may be extended to a frequency of up to twelve month. (Article 14)

5.2.2. Interest rates

The guidelines set the minimum level for government-supported fixed interest rates. According to the Arrangement, the minimum interest rate applied to loans with a fixed interest rate is the Commercial Interest Reference Rate (CIRR). **CIRRs** should represent market interest rates. The Arrangement states: „CIRRs should represent final commercial lending interest rates in the domestic market of the currency concerned.“ (Article 19) CIRRs

correspond to a rate given to first class borrowers. They are revised monthly. (Grath 2012: 154) Currently the CIRRs are available for 15 currencies, including each currency of the Participants. Officially supported interest rates are usually given on a fixed-interest basis. (Grath 2012: 155) Floating rate loans may be provided.

5.2.3. Credit risk premiums

The Arrangement highlights that an appropriate **credit risk premium** shall be charged. Premiums should reflect the risk elements (country risk, buyer risk) involved in the transaction and the period of the transaction (Grath 2012: 155), mitigation and credit enhancements for country and buyer risk, as well coverage for political and commercial risk, and the quality of the product. (Article 24) The borrower countries are classified according to risk of non-repayment of their external debt into eight categories. High income OECD and Euro-zone countries are listed in category 0. For the categories 1 to 7 minimum premium rates have been established. For further variation the sovereign risk and buyer risk is assessed in order to identify sovereigns and buyers (obligators or guarantors) that face higher or lower risks than the estimated country risk. (Articles 23-27)

5.3. Rules for the provision of tied aid according to the Arrangement

As already stated, Arrangement is the international framework on the provision of tied aid (credits). It exclusively applies to bilateral programs, and not to programs of multilateral or regional institutions. Chapter III of the Arrangement established the rules for the provisions for tied aid. The definitions of tied aid were already explained in Section 3.1.

5.3.1. Helsinki Package

Going back to the analyses of the Arrangement text, the following paragraphs will focus on the eligibility criteria for tied aid credits set by the Participants, the so called Helsinki Package. It sets the rules for country and project eligibility for tied aid. Historical aspects and contextualization of the Helsinki Package is provided in detail by Fritz (2013).

5.3.1.1. *Countries eligible for tied aid*

The Participants limit the group of countries eligible for tied aid. The criterion of tied aid eligibility is GNI per capita based on World Bank estimates. Countries above the upper limit of lower middle income countries are not eligible for tied aid. (Article 36)

5.3.1.2. *Projects eligibility*

The Participants agreed that projects that are commercially viable on market or Arrangement terms shall not be eligible for tied aid. This applies to public as well as to private projects. In order to test aid eligibility of a project it has to “pass” the two **key tests**.

The first key test assesses whether a project is financially non-viable. Financially viable are those projects which have the capacity to generate a cash flow sufficient to cover the project's operating costs and additionally service the capital employed. (Article 37)

The second key test regards the commercial viability, the availability of funding for the project, and assesses whether a project can be financed on market or Arrangement terms in order to answer the question whether a project should be financed with aid¹² not.

Both key tests serve to evaluate projects and determine whether they should be financed with aid¹³ or with export credits on market or Arrangement terms. The *ex ante* guidance was developed to give practical guidance to export credit and aid agencies to anticipate the eligibility of projects. It contains the body of experience of past consultation processes.

There are exemptions from the country and project eligibility. The criteria do not apply to tied aid with a concessionality level of 80 % or more (except for associated financing packages), as well as LDCs as defined by the UN. Tied aid (if not part of an associated financing package) for projects with a volume of less than SDR 2 million, so called de minimis projects, is exempted from the project eligibility criteria.

5.3.2. **Minimum concessionality level**

The Arrangement defines minimum concessionality levels for tied aid. The minimum concessionality is set at 35 % of the contract value and 50 % if the recipient country is a

¹² The term “aid” in this context refers to the Participants understanding of aid and does not stand for ODA.

¹³ The Participants' term „aid“ does not equal the DAC's term „aid“ which is ODA.

LDC. The framework provides for two exceptions: transactions where technical assistance is the only component funded by tied ODA up to a certain amount, and small projects (defined as capital projects of less than SDR one million) funded completely by ODA grants. Tied aid (except as part of an associated financing package) with a concessionality level of 80 % or more is exempted from country and project eligibility criteria. (Article 39) The calculation of the concessionality level is described in Section 3.3.

5.3.3. Notification, matching, and consultation

With the aim of creating transparency the Participants designed common procedures for strict notification of all export credits and trade-related aid offers i.e., tied aid credits, as well as the provision of relevant information. Further, the Participants established two mechanisms to limit excessive competition among exporting countries – matching and consultation. (Grath 2012: 125) “Any deviation from agreed practices (as set in the Arrangement) automatically leads to a matching procedure, where other agencies [ECAs] are free to give the same terms to their exporters competing for the same business.” (original annotation; Grath 2012: 126) Prior to matching, the Participant has to notify all other participants the selected terms and conditions. Participants to the Arrangement are allowed to match the identical financial terms and conditions offered by another Participant or a non-Participant. If another Participant challenges the justification of the financial terms and conditions offered on reasonable grounds a special consultation process may be started, culminating in a special consultation meeting. Special consultations are organized and mediated by the Secretariat.

Apart from the common procedures there are special procedures - **prior and prompt notification** - for trade-related aid including tied aid. Offers, including associated financing packages, that are subject to prior notification (30 working days) are trade-related tied aid with a value of more than SDR 2 million, as well as trade-related tied aid with a value of less than SDR 2 million and a concessionality level of less than 50 %. Prompt notification (2 working days) is provided for tied aid offers of a value of more than SDR 2 million and a minimum concessionality level of 80 %, and de minimis offers (SDR < 2 million) with a concessionality level of more than 50 %.

In addition **special consultation processes for tied aid** are set by Arrangement terms. If a Participant suspects that a tied aid offer has been made based on trade, rather than aid motivation, it may request a full **Aid Quality Assessment**. Furthermore a consultation

process may be initiated, that involves face-to-face consultations, in order to discuss country and project eligibility for the tied aid offer. There is the possibility that an aid offer may be justified even if the stated requirements are not met.

Within the scope of the consultation a Participant may request the following project information:

- “the assessment of a detailed feasibility study/project appraisal;
- whether there is a competing offer with non-concessional or aid financing;
- the expectation of the project generating or saving foreign currency;
- whether there is co-operation with multilateral organisations such as the World Bank;
- the presence of International Competitive Bidding (ICB), in particular if the donor country's supplier is the lowest evaluated bid;
- the environmental implications;
- any private sector participation; (...)” (Article 52)

If the parties involved in the consultation process disagree other Participants may be asked for their judgment. If a Participant can justify his or her offer on grounds of aid and receives sufficient support by other Participants the regulations on country and project eligibility may not need to be respected. (Article 39) The Arrangement is not legally binding and therefore does not inhibit a notifying Participant from going on with the initial offer. Nevertheless, the Participant is encouraged to reconsider the aid offer in case where the offer does not gain support by other Participants. If the Participant proceeds with the offer, the donor shall write a letter to the Secretariat-General of the OECD summarizing the outcome of the consultation and explaining its decision. The Arrangement further states that “(t)he Participants expect that such an occurrence will be unusual and infrequent”. (Article 53)

5.3.4. Concessional level of tied aid credits

The Participants calculate the concessional level¹⁴ of tied aid credits as well as associated financing packages using the same method as the DAC for calculating its grant element. The only difference concerns the discount rate used in the calculation. The Participants use the DDR which is calculated as the average CIRR plus a margin which is based on the repayment term.

¹⁴ The Participants use the starting point of the credit for calculating the concessional level.

Table 7: Margin for calculating the Differential Discount Rate (DDR)

Repayment Term	Margin
< 15 years	0.75
15 – 19 years	1.00
20 to 29 years	1.15
> 30 years	1.25

Source: (Article 40)

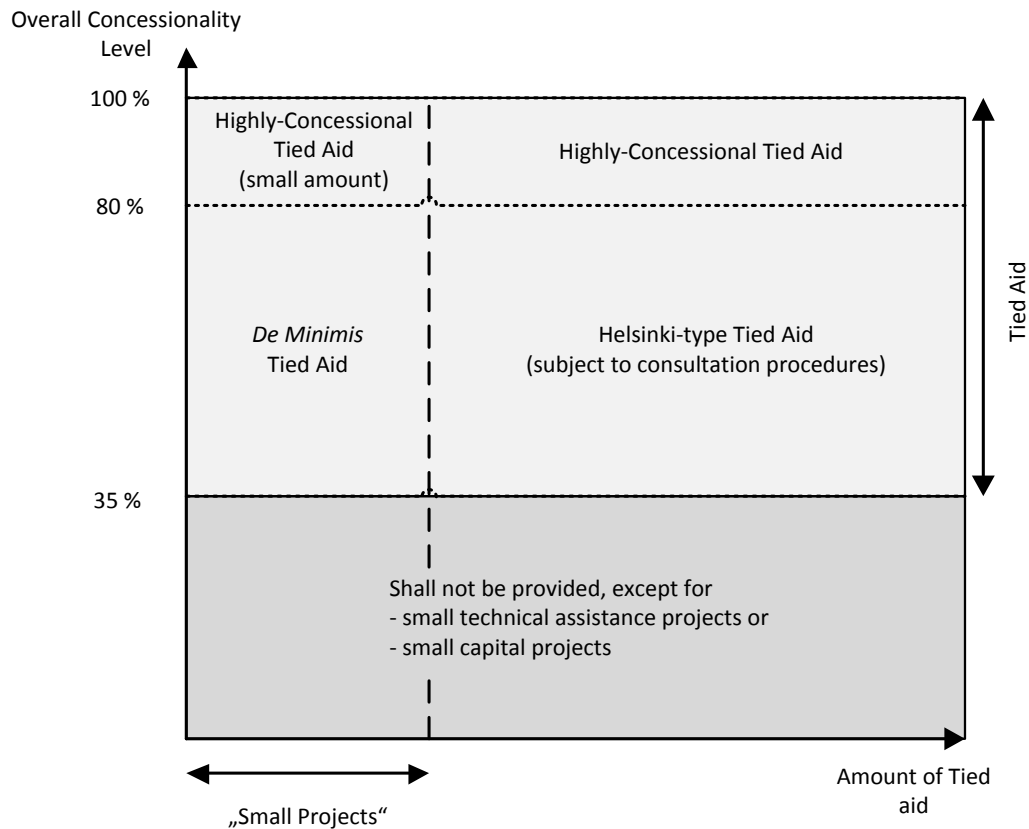
The next step is an assessment (Chapter 7) of the terms and conditions presented based on economic theory and recent research findings.

6. Statistics on tied aid credits

Apart from looking at the conceptual framework of tied aid credits, this thesis focuses on the empirical level of tied aid credits by analyzing quantitative data on the instrument. As from the introduction of the Helsinki tied aid disciplines in 1992 the Participants conduct a semi-annual review of notifications. The following chapter is almost exclusively based on Participants' records monitoring tied aid notifications provided in document TD/PG(2006)23. The data corresponds to the time span from 1991 to July 2006. More recent data is not available for public purposes due to restricted access to Participants' documents. Additionally, the DAC databases were consulted with the aim of identifying data on tied aid credits. Given the short time span a comprehensive quantitative analysis of tied aid credits is not feasible. Therefore this chapter provides a descriptive analysis of quantitative data on tied aid credits. For future quantitative research more data is needed.

In order to get a better understanding of the different forms of notifications monitored, which is needed for the following analysis, Figure 5 below classifies tied aid according to the overall concessionality level (OCL) and amount.

Figure 5: Classification of tied aid based on the Overall Concessional Level (OCL) and amount



Source: TD/PG(2006)23

Note: The classification does not apply to tied aid for LDCs except for the minimum OCL (50 %).

Figure 5 above summarizes different forms of tied aid which are defined by the Arrangement terms. Financing arrangements with an OCL of less than 35 % and less than 50 % for LDCs are not conform to Arrangement terms except small technical assistance projects or small capital projects. (See Section 5.3.2) De minimis tied aid is in conformity with the minimum concessional levels for tied aid but it is not subject to consultation procedures. (Fritz 2013: 102ff) Helsinki-type tied aid, on the other hand, is subject to consultation procedures as explained in chapter 5.3.3 and corresponds to an OCL between 35 % (50 % for LDCs) and 79 %. Tied aid with a concessional level of 80 % and more is called highly-concessional tied aid.

6.1. Introduction to the DAC statistical concept

Since tied aid credits are also a form of development finance and their subsidy element is ODA eligible, I investigated how they are reflected in the statistics published by the DAC. In order to understand the DAC statistics and interpret the data well, context information was needed. Further information was collected through interviews. Chapter 6.2 addresses the problems of statistical recording of aid in depth. An introduction to the DAC's recording practices of aid and other developmentally relevant flows is provided in the following paragraphs.

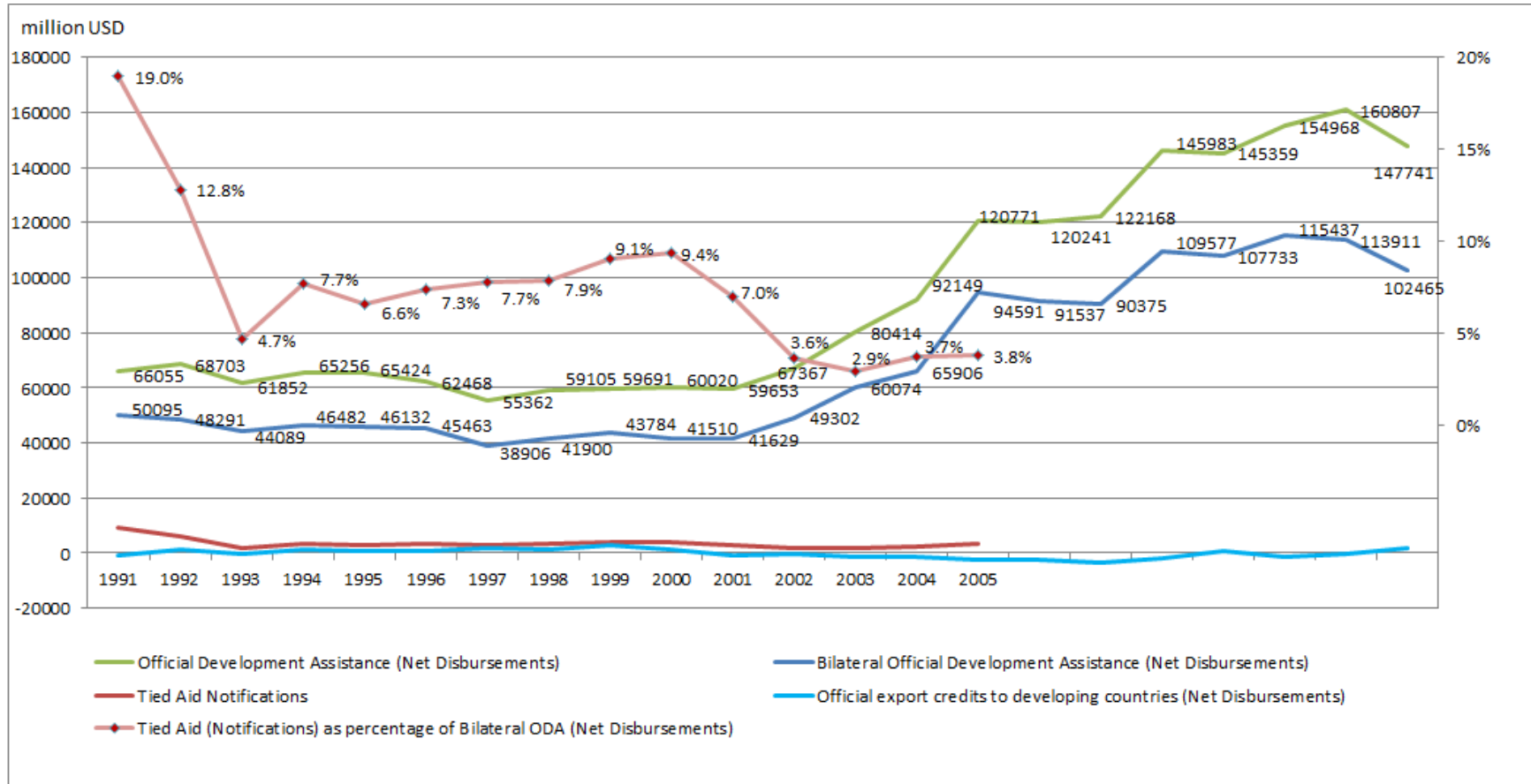
The DAC statistics record flows to developing countries in different categories. Credits are categorized according to the grant element, motivational objective, and tying status. The DAC distinguishes credits according to their motivation, whether a credit is aid or trade motivated. Credits that have as a main motivation "contribution to development" qualify as ODA. Export credits per definition are not ODA eligible, but a developmentally motivated subsidy to an export credit can be reported as ODA. In order to be ODA eligible loans additionally have to pass two tests. They require a grant element of at least 25 % (calculated at a discount rate of 10 %) and to be concessional in character. The second test is rather vague and leaves room for interpretation. So far the DAC has not agreed on an operationalization of the term "concessional in character" and has not determined any measurable criteria. (Interview) Aid is recorded according to its tying status (tied, untied, or partially untied). The following analysis looks exclusively at tied aid and the recording of export credits. "Partially untied" refers to a selection of countries eligible to enter competitive bidding. "Untied" refers to procurement which is not limited to certain countries and subject to ICB. This can be achieved through publishing an offer on an internationally recognized bulletin board. The problematic issue regarding "untied aid" as well as a discussion about the ODA criteria "concessional in character" will be picked up at the end of this chapter with the help of a recent example of the ODA statistics.

The DAC statistics further distinguish between commitments and disbursements. A commitment is "a firm written obligation by a government or official agency (...) to provide resources of a specified amount under specified financial terms and conditions and for specified purposes for the benefit of a recipient country or a multilateral agency". (OECD stats 2013a) On the other hand, disbursements represent actual flows of resources e.g., to a recipient country or agency. The ODA/GNI ratio of a donor is calculated based on disbursements. (Interview) A loan may be disbursed in several tranches and consequently each tranche is listed in the ODA statistics according to the year of disbursement.

6.2. Evolution of quantitative importance of tied aid

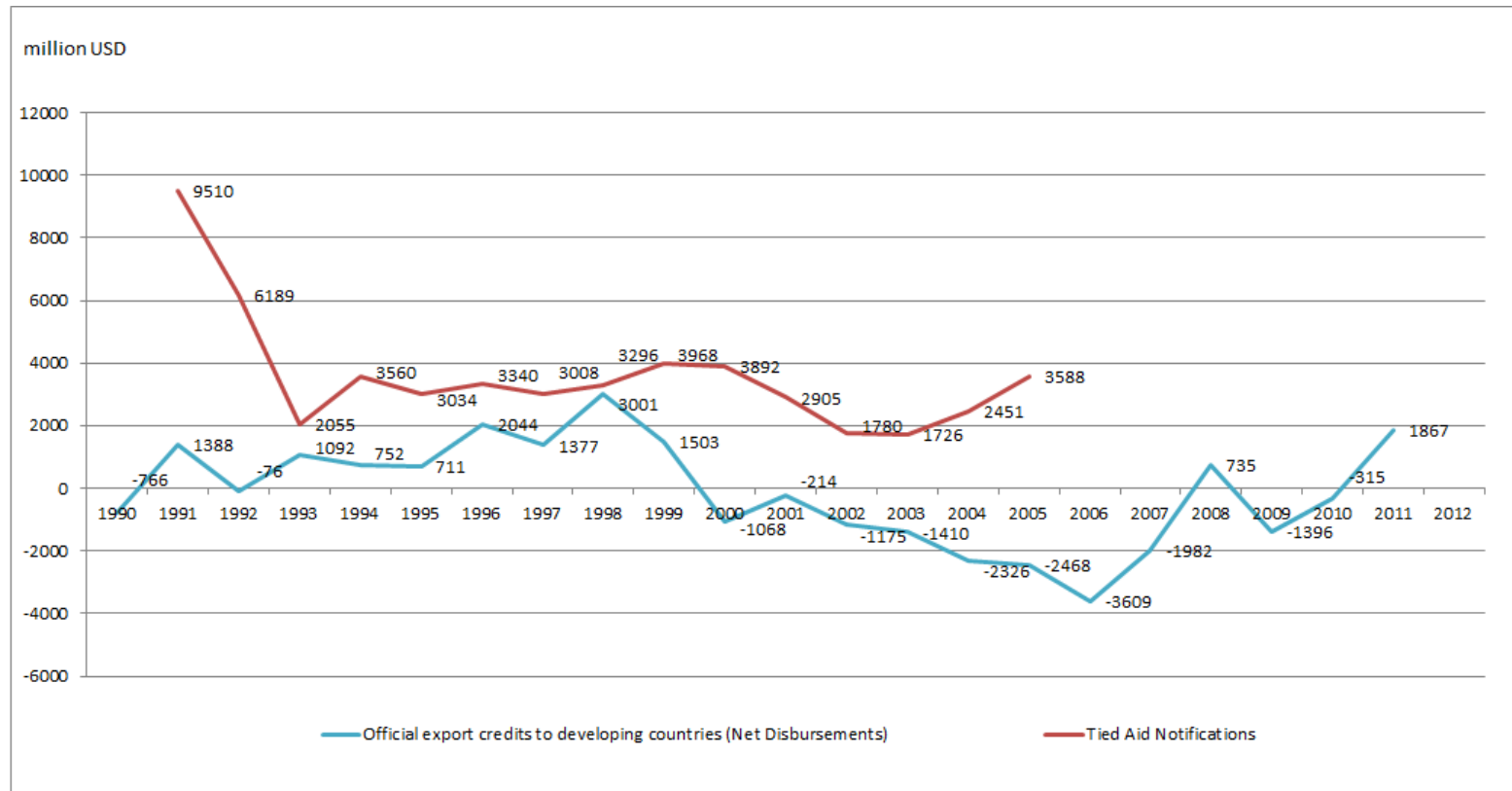
After this overview on statistical recording of the DAC and the Participants, the following pages look at the importance of tied aid credits as an instrument of development finance. The first two figures of this chapter show the quantitative importance of tied aid credits as well as the DAC category “officially supported export credits” and compare their volume with total and bilateral ODA from a bird’s eye view. Additional information is needed in order to read and interpret the figures. The evolution of the quantitative importance of tied aid credits cannot be identified properly for two reasons. First, OECD members restrict comprehensive access to data on officially supported export credits. The DAC’s Creditor Reporting System (CRS) database records ODA flows as well as OOFs to developing countries. Access to data on OOFs including officially supported export credits is restricted. Data is published in aggregate form only. (DCD/DAC(2007)39/FINAL: 5f) Second, the descriptions provided by the DAC to read and interpret properly the statistics on ODA and OOFs to developing countries are lacking for most categories. The latter argument explains why misinterpretation constitutes a serious problem for anyone attempting to work with the statistics. Expert support is inevitable in order to interpret the statistics accurately. Based on the limited data, Figure 6 and Figure 7 show the volume and quantitative importance of tied aid credits compared to total ODA.

Figure 6: Quantitative evolution of tied aid and export credits compared to ODA



Source: OECD stats (2013b), TD/PG(2006)23, TD/CONSENSUS(97)57

Note: Participants' data on tied aid credits (notifications) is available for the years 1991 to 2005. The DAC category "Official export credits to developing countries" (code 265) is only available as net disbursements. The category applies to export credits from official ECAs to developing countries. (DCD/DAC(2010)40/REV1: 30)

Figure 7: Evolution of tied aid and official export credits to developing countries

Source: OECD stats (2013b), TD/PG(2006)23 and TD/CONSENSUS(97)57

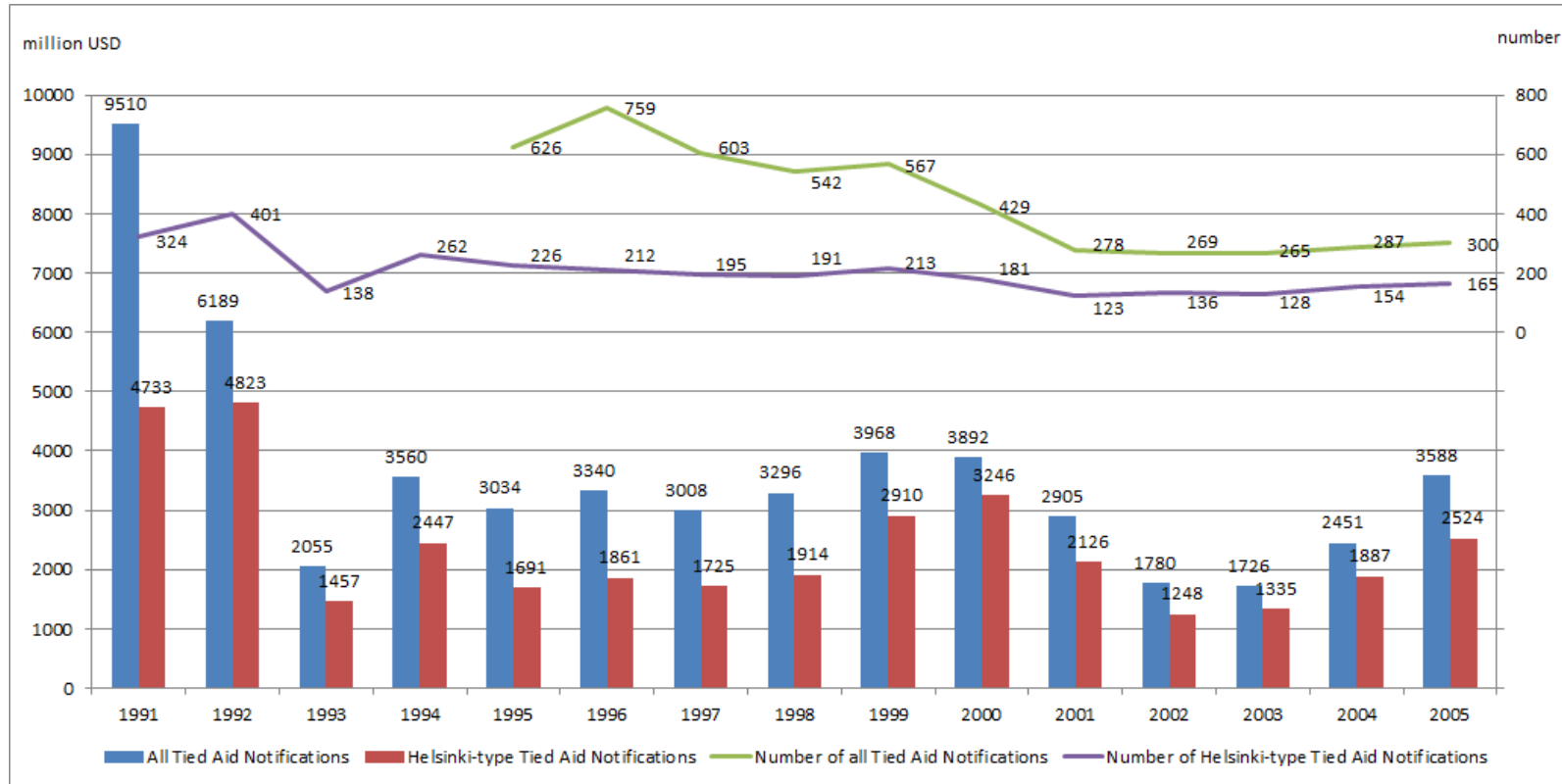
Note: Participants' data on tied aid credits (notifications) is available for the years 1991 to 2005. The DAC category "Official export credits to developing countries" (code 265) is only available as net disbursements. The category applies to export credits from official ECAs to developing countries. (DCD/DAC(2010)40/REV1: 30

Figure 6 and Figure 7 above compare the volume of tied aid notifications with ODA. They have to be interpreted with great caution, though, especially the volume of tied aid (notifications) as percentage of “Bilateral ODA (Net Disbursements)”. First of all, the data presented is calculated using three different sources: Participants’ semi-annual reports, DAC statistics, and historical exchange rates databases. Participants report the tied aid notifications. The amount notified as tied aid corresponds to the nominal value of the loan. The notification of a credit represents an offer. Not all notifications necessarily lead to the finalization of a contract and consequently a resource flow. With regard to the category “Official export credits to developing countries (Net Disbursements)”, the category does not include the concessional element. (DCD/DAC(2007)39/FINAL: 25) In the case of officially supported export credits which are classified by the DAC as associated financing, the concessional element is reported as ODA grant and the non-concessional element as OOF. These facts explain why the Participants’ statistical recording of tied aid does not match the DAC statistics. Further the Participants use SDR to notify loans, the DAC uses USD. All data is based on current prices. Therefore the data includes a positive trend which has to be taken into account when analyzing the figures. Additionally, it has to be highlighted that data on ODA includes the concessional element of a tied aid credit (if it was reported). Nevertheless, considering the facts mentioned above Figure 6 and Figure 7 provide a rough comparison between the amount of tied aid as recorded by the Participants and total ODA reported to the DAC.

Figure 6 and Figure 7 show that in more recent years tied aid constitutes a small fraction relative to ODA or rather compared to ODA. Looking at the volume of tied aid (notifications) expressed as percentage of total bilateral ODA (net disbursements) in a given year, it becomes visible that tied aid has lost its importance over the years. This is almost exclusively explained by the increase of bilateral ODA as from 2002. In 1991, prior to the inception of the Helsinki rules, tied aid (notification) amounted to 19 % of the volume of bilateral ODA. Tied aid (notification) experienced a sharp fall as percentage of bilateral ODA in the following two years. From 1994 to 2001 the volume of tied aid compared to bilateral ODA remained fairly stable.

The following figures will focus on the different forms of tied aid as described at the beginning of the chapter. They are entirely based on the Participants’ statistical review of tied aid. Figure 8 below shows the volume of total tied aid and Helsinki-type tied aid notifications. The figure reveals a sharp decrease in the volume of tied aid notifications in the first years of the 1990s. After a 2-year transition period, following the inception of the Helsinki disciplines in 1992, the volume of Helsinki-type tied aid remained fairly stable. Additionally Figure 9 focuses on the effect of the introduction of the Helsinki criteria.

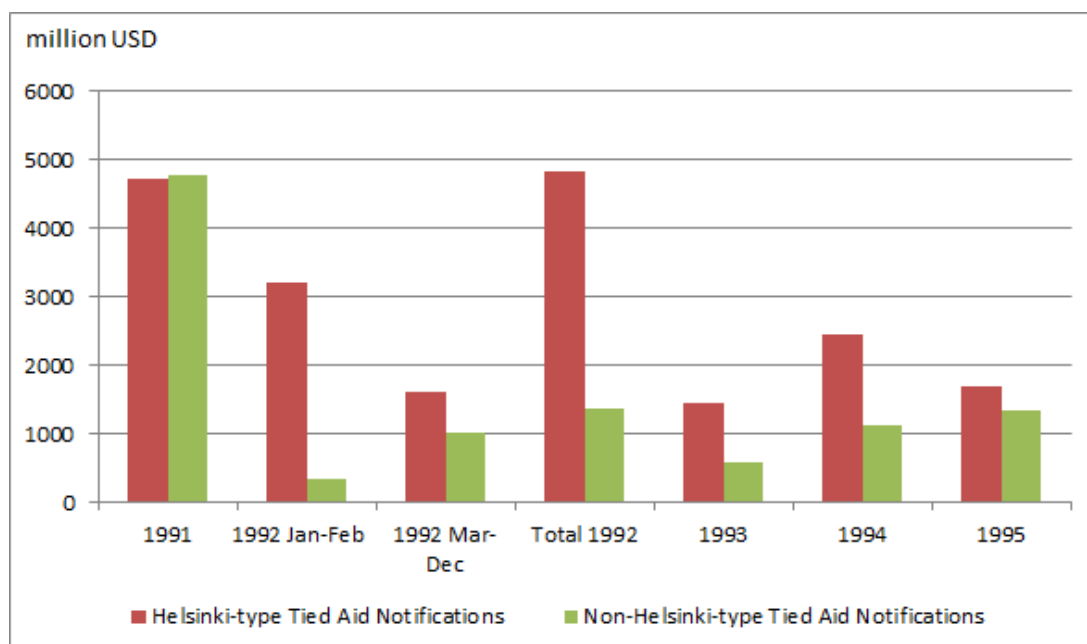
Figure 8: Overview of the volume and number of tied aid notifications



Source: TD/PG(2006)23

Note: Data for the number of tied aid notifications is not available for the years 1991 to 1994. The category “All tied aid notification” includes Helsinki-type tied aid notifications.

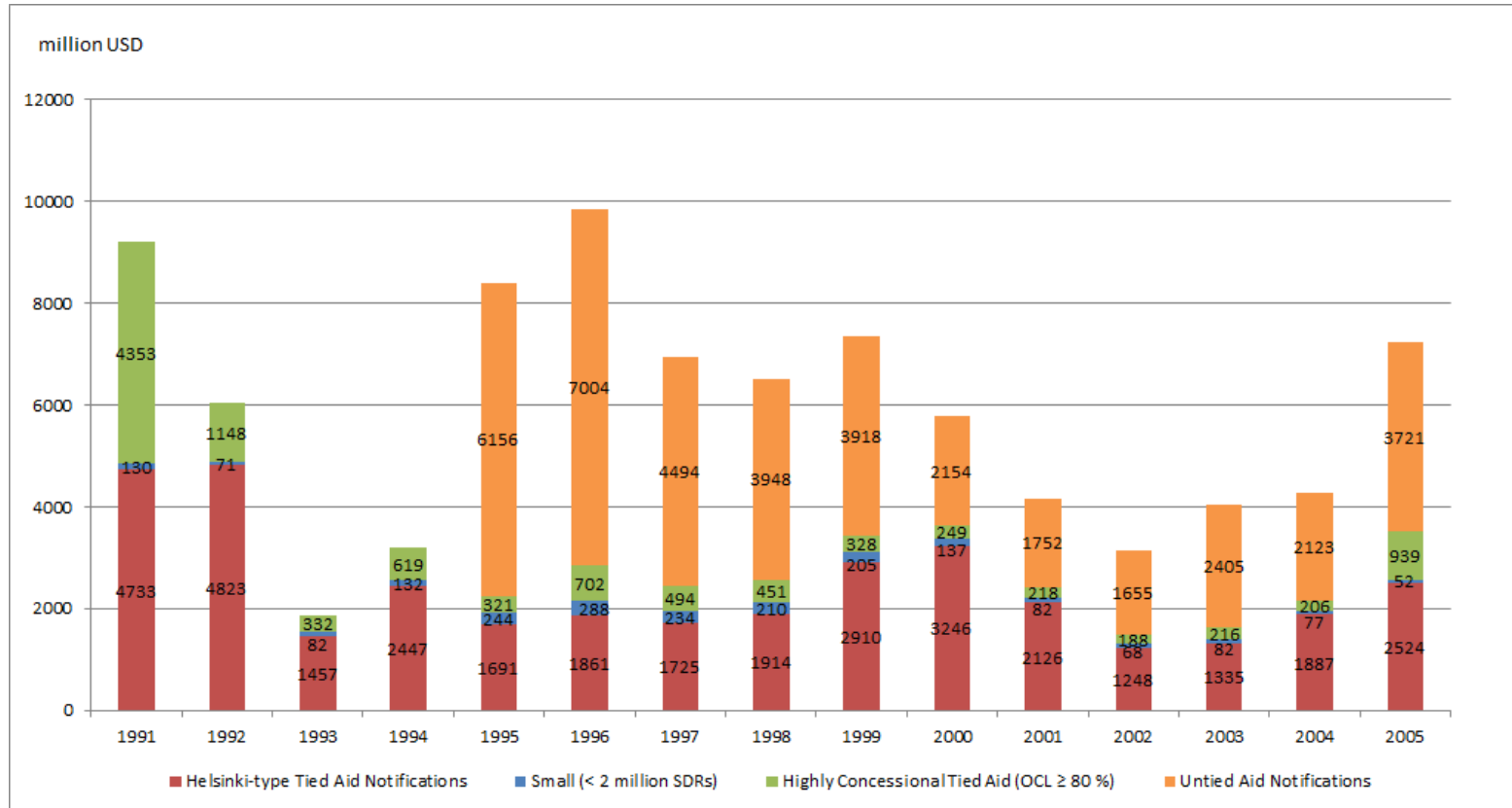
Figure 9: Overview of the volume of tied aid and Helsinki-type tied aid (1991-1995)



Source: TD/PG(2006)23

Figure 9 demonstrates the sharp drop of tied aid not being in conformity with the Helsinki criteria in 1992. 57 % of total tied aid in 1992 was notified in the first two month prior to the introduction of the Helsinki Package. Fritz (2013) describes in her thesis the evolution of the Arrangement and the adoption of the Helsinki Package.

The Participants differentiate between different forms of tied aid based on the Arrangement terms. This differentiation is demonstrated in Figure 5 above. Figure 10 below gives an overview of the volume and composition of different forms of tied aid and untied aid notifications.

Figure 10: Composition of tied aid and untied aid notifications

Source: TD/PG(2006)23

Note: Data for untied aid notifications is available as from the year 1995. The category highly-concessional tied aid (OCL ≥ 80 %) includes tied aid for ships for the years 1992-1994.

The aim of the Figure 10 is to demonstrate the absolute volumes of different forms of tied and untied aid. Figure 10 clearly shows that the greatest part of aid is attributed to untied aid notifications. 42 %¹⁵ of all aid notified falls under the category tied aid.

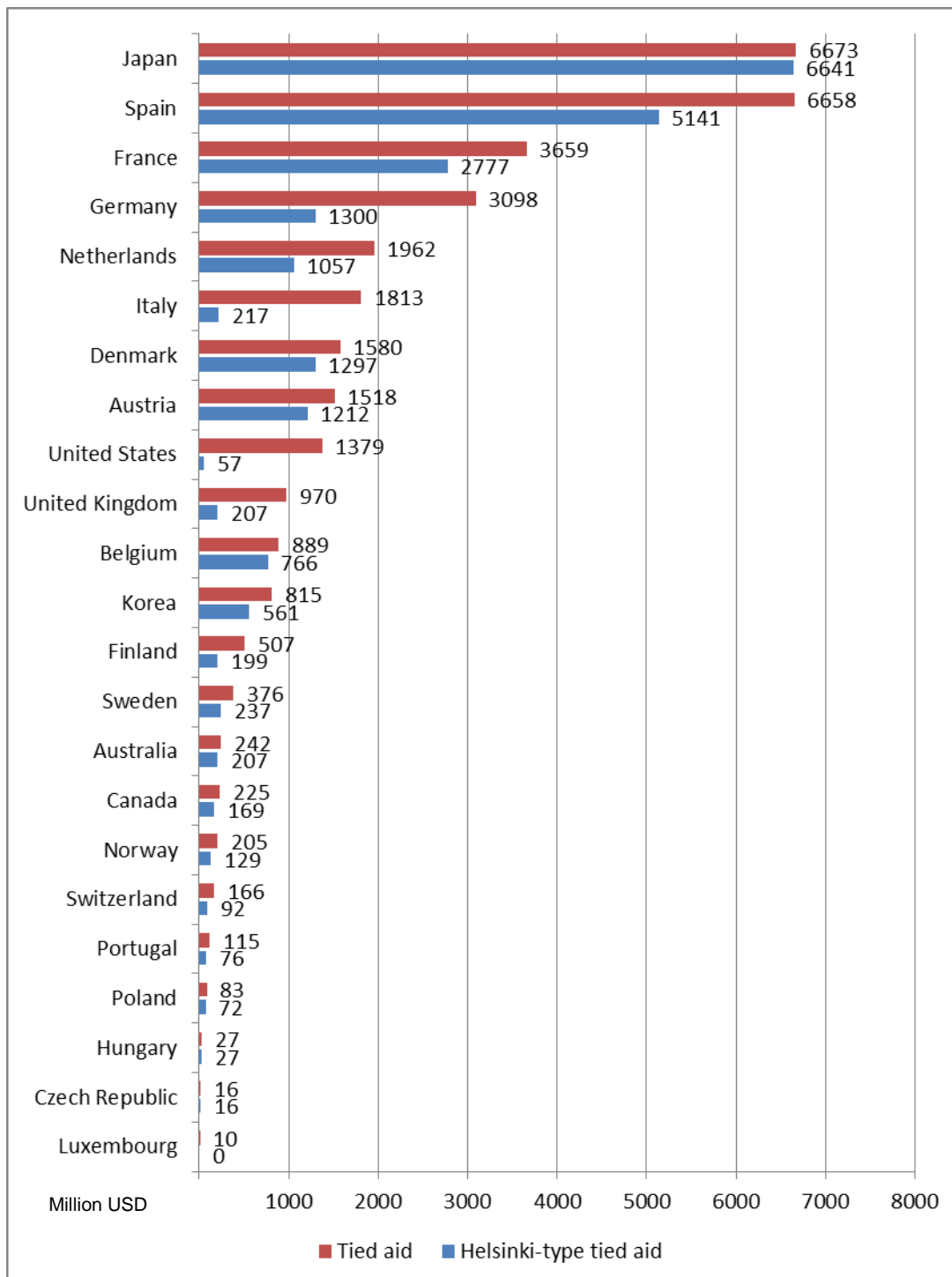
Looking at Figure 10 above, only few trends are observable. Given the short period of data, reliable trends are difficult to observe. Helsinki-type tied aid as already stated remained fairly stable as from 1993 on. The use of highly-concessional tied aid dropped sharply in the year 1992 and remained at a fairly stable level until 1999. The years 2000 to 2004 show an even lower level of highly-concessional tied aid. In 2005 a comparably high amount of highly-concessional tied aid was notified. Small projects (SDR < 2 million), of which most part is attributable to de minimis tied aid, experienced a downward trend starting in 1996. Furthermore Figure 10 clearly demonstrates a downward trend for untied aid notifications until 2002 and a subsequent increase in the years 2003 to 2005. Due to lack of data for years after 2005 it is unclear whether increased volumes for untied aid, Helsinki-type tied aid and highly-concessional tied aid in 2005 represent an outlier or mark the start of a new upward trend.

6.3. Donors

After the brief overview on the different forms of tied and untied aid, the following figures show the donor's side. Figure 11 shows all donors according to the accumulated volume of Helsinki-type tied aid as well as total tied aid notifications (1995-2005).

¹⁵ The calculation is based on notifications during the period from 1995 to 2005.

Figure 11: Donors according to the volume of Helsinki-type tied aid and tied aid (1995-2005)



Source: TD/PG(2006)23, TD/CONSENSUS(97)57

Note: The data represents the tied aid (notifications) from 1995 to 2005. USD-based calculation.

Figure 11 shows that in the period from 1995 to 2005 the five donors notifying the largest amount of tied aid were Japan, Spain, France, Germany, and the Netherlands. Additionally Figure 11 identifies those donors having high volumes of Helsinki-type tied aid.

Table 8 lists the donors' share of Helsinki-type tied aid as percentage of total tied aid. The table shows that Germany and Italy have low shares of Helsinki-type tied aid given their large volume of total tied aid. This means that the other share of tied aid should include small projects or highly-concessional tied aid. (See Figure 5, page 48)

Table 8: Relative shares of de minimis, highly-concessional, and Helsinki-type tied aid of total tied aid (1995-2005)

percentage of Donor country	de minimis tied aid	highly-concessional tied aid	Helsinki-type tied aid
Australia	14.56%	-	85.44%
Austria	12.71%	4.45%	79.86%
Belgium	6.44%	0.33%	86.13%
Canada	24.84%	-	75.16%
Czech Republic	0.00%	-	100.00%
Denmark	6.60%	-	82.08%
Finland	9.01%	18.80%	39.31%
France	4.64%	3.06%	75.90%
Germany	0.10%	25.60%	41.96%
Hungary	0.00%	-	100.00%
Italy	1.68%	74.83%	11.95%
Japan	0.48%	-	99.52%
Korea	0.73%	5.58%	68.79%
Luxembourg	0.00%	-	0.00%
Netherlands	7.42%	0.66%	53.84%
Norway	12.97%	-	63.14%
Poland	13.39%	-	86.61%
Portugal	3.10%	5.80%	65.87%
Spain	4.02%	4.93%	77.22%
Sweden	14.14%	4.93%	63.09%
Switzerland	44.59%	-	55.41%
United Kingdom	0.00%	40.65%	21.30%
United States	0.00%	78.18%	4.14%

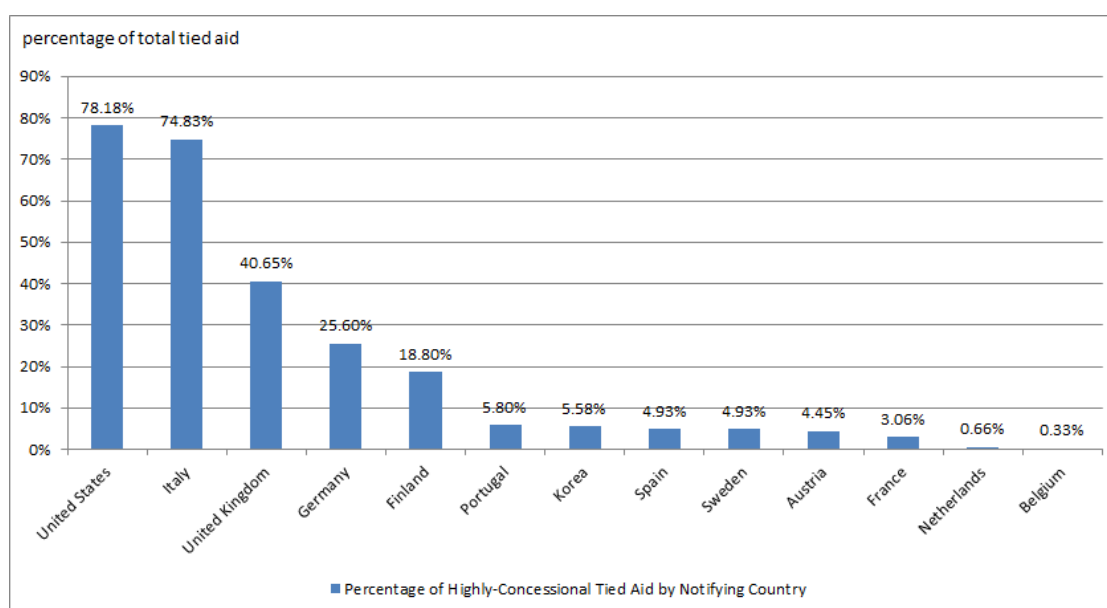
Source: TD/PG(2006)23

Note: The calculation is USD-based and presents values for the time period 1995-2005. The percentage values do not necessarily add up to 100 % because tied aid (notifications) additionally include tied aid for LDCs and other small (SDR < 2 million) tied aid.

Table 8 shows that in the cases of the United States, Italy, and also to some extent the United Kingdom and Germany most of their non-Helsinki-type tied aid is explained by highly-concessional (OCL > 80 %) tied aid notifications. Switzerland and Canada notify a fairly

small volume of tied aid but have comparably high shares of de minimis tied aid. The countries United Kingdom, Netherlands, Finland, and Germany have large shares of tied aid which is not attributable to neither Helsinki-type tied aid, de minimis tied aid, nor highly-concessional tied aid. There is no detailed country data available for categories such as tied aid for LDCs and other forms of small (SDR < 2 million) tied aid which is not de minimis tied aid.

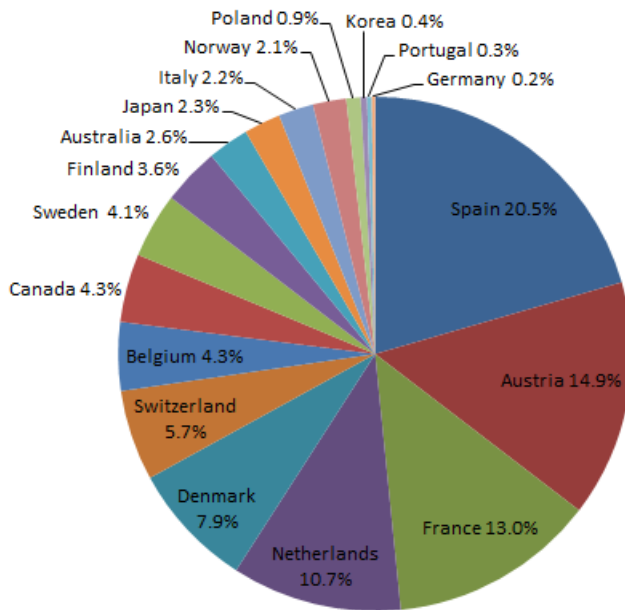
Figure 12: Relative share of highly-concessional tied aid of total tied aid by notifying country (1995 - 2005)



Source: TD/PG(2006)23

Note: USD-based calculation.

Figure 13: Relative shares of the cumulated volume of de minimis tied aid by notifying country

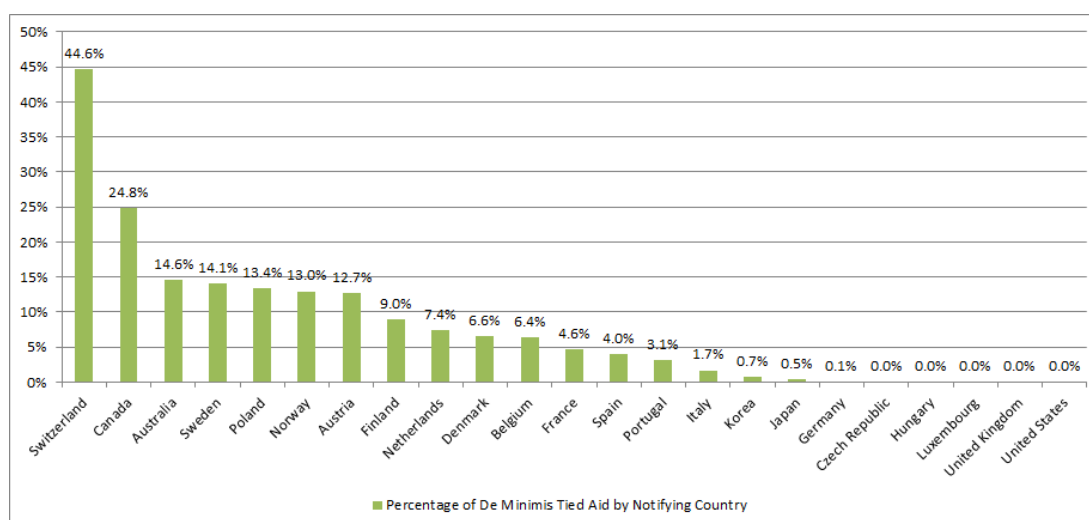


Source: TD/PG(2006)23

Note: Luxembourg, United Kingdom, Czech Republic, Hungary, and the United States did not notify de minimis tied aid. The data presents the volume of de minimis tied aid (notifications) from 1995 to June 2006; SDR-based calculation.

Figure 13 demonstrates that a group of three countries, Spain, Austria, and France, is responsible for almost half of all de minimis tied aid (1995-June 2006). When looking at the relative share of de minimis tied aid to total aid on a country level, Figure 14 shows that those countries with a great share of de minimis tied aid have a small absolute volume of total tied aid.

Figure 14: Relative share of de minimis tied aid of the countries' cumulative tied aid



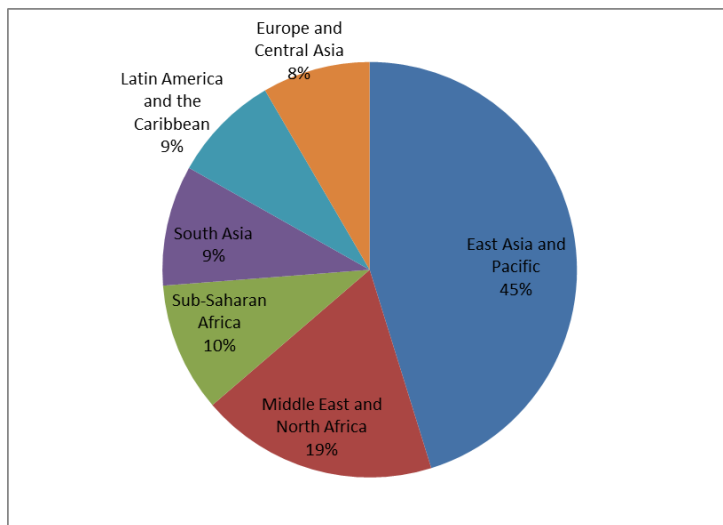
Source: TD/PG(2006)23

Note: The data presents the volume of de minimis tied aid and total tied aid from 1995 to 2005; USD-based calculation.

6.4. Recipient countries and regions

The figures above have focused on donor's use of different forms of tied aid. The following figures provide an overview of the recipient countries. The first two figures show the distribution of tied aid and Helsinki-type tied aid notifications according to the beneficiary region. This section further provides more detailed information on the recipient countries.

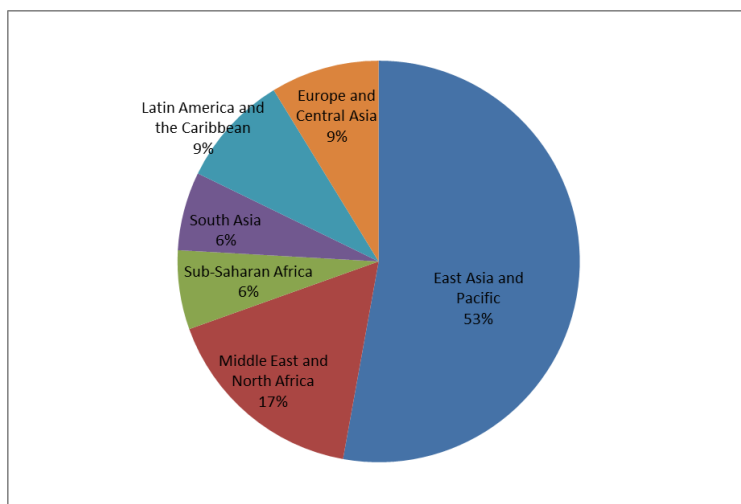
Figure 15: Recipient regions of total tied aid notifications



Source: TD/PG(2006)23

Note: The data represents the total tied aid from 1995 to June 2006; SDR-based calculation.

Figure 16: Recipient regions of total Helsinki-type tied aid notifications



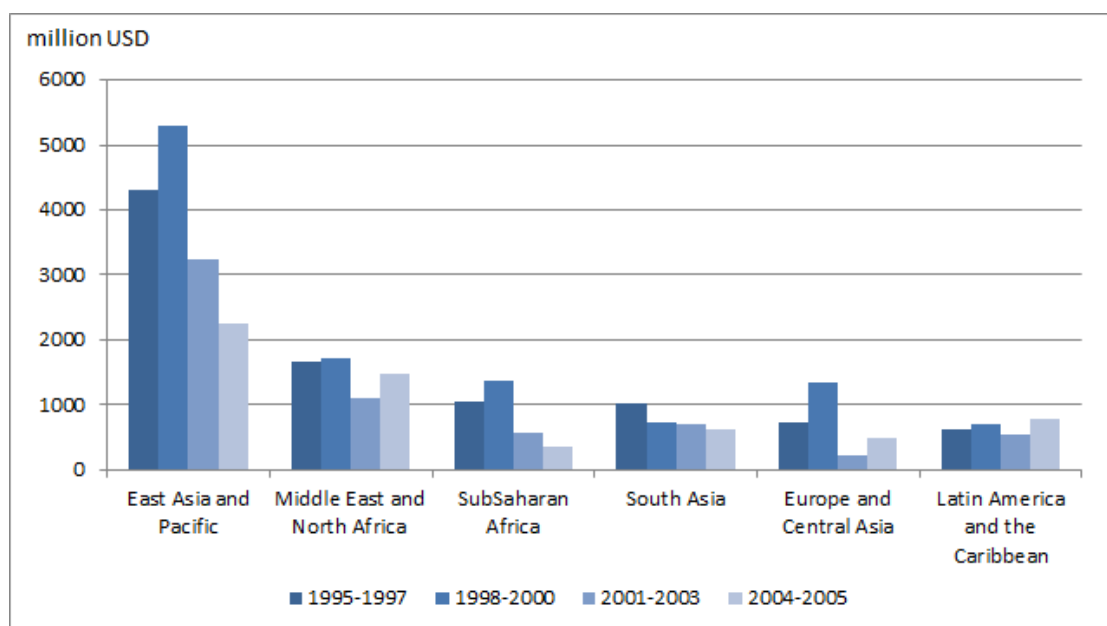
Source: TD/PG(2006)23

Note: The data represents the total Helsinki-type tied aid from 1995 to June 2006; SDR-based calculation.

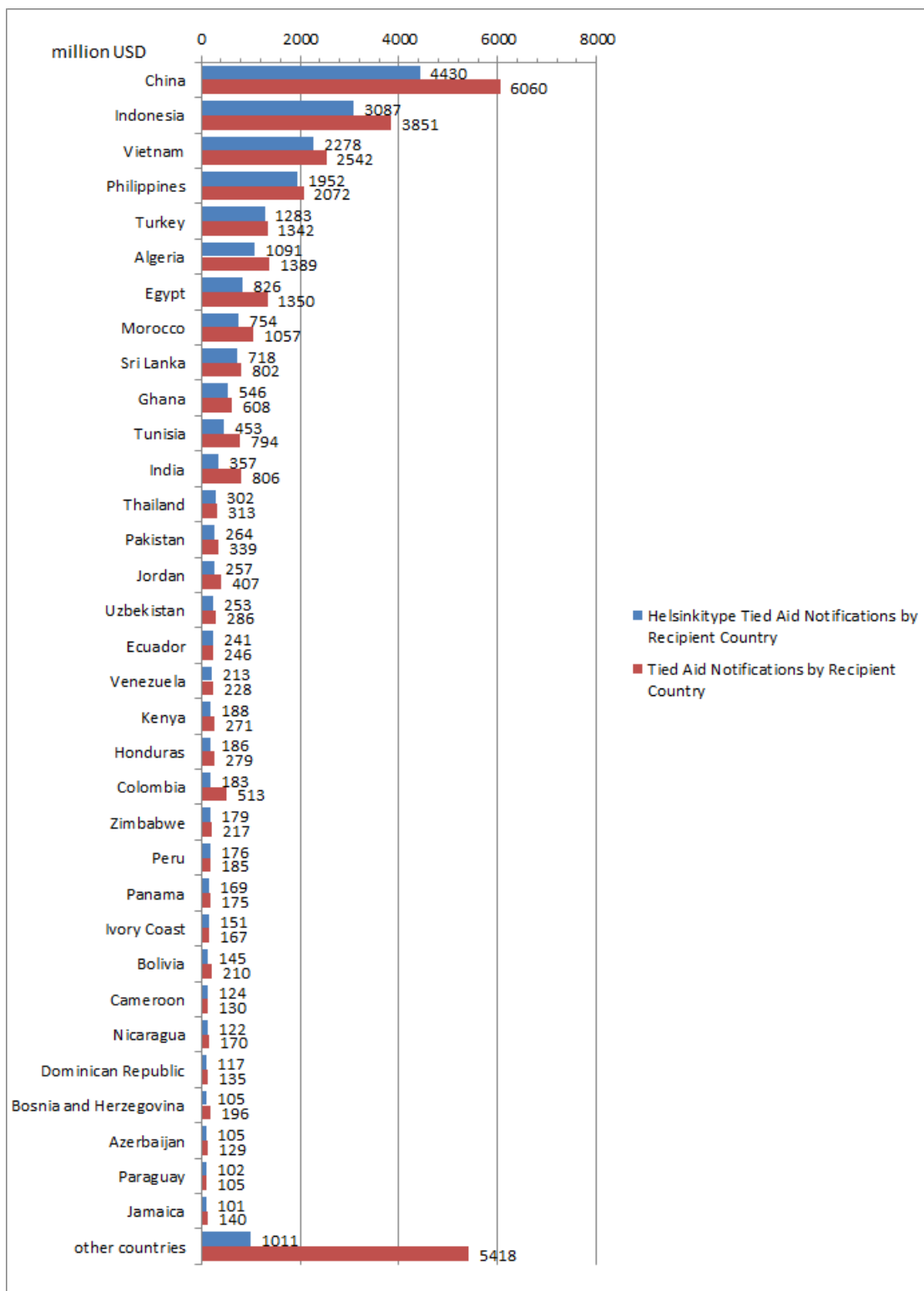
The two figures above demonstrate that 45 % of tied aid and more than half (53 %) of Helsinki-type tied aid goes to the region East Asia and the Pacific.

Figure 17 takes a look at absolute changes in the geographic distribution of tied aid over time. It demonstrates that tied aid fell sharply in the East Asia and Pacific region having an exceptionally high peak in the year 2000 of USD 2675 million.

Figure 17: Geographic distribution of the volume of tied aid by recipient region according to time periods



Source: TD/PG(2006)23

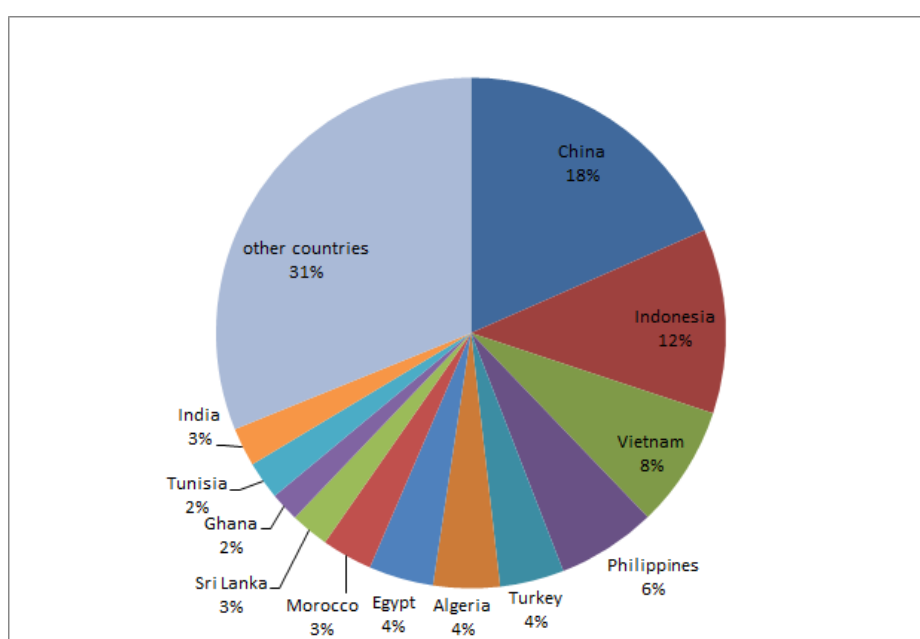
Figure 18: Absolute Helsinki-type tied aid and total tied aid by recipient country

Source: TD/PG(2006)23

Note: The data represents notifications from 1995 to 2005.

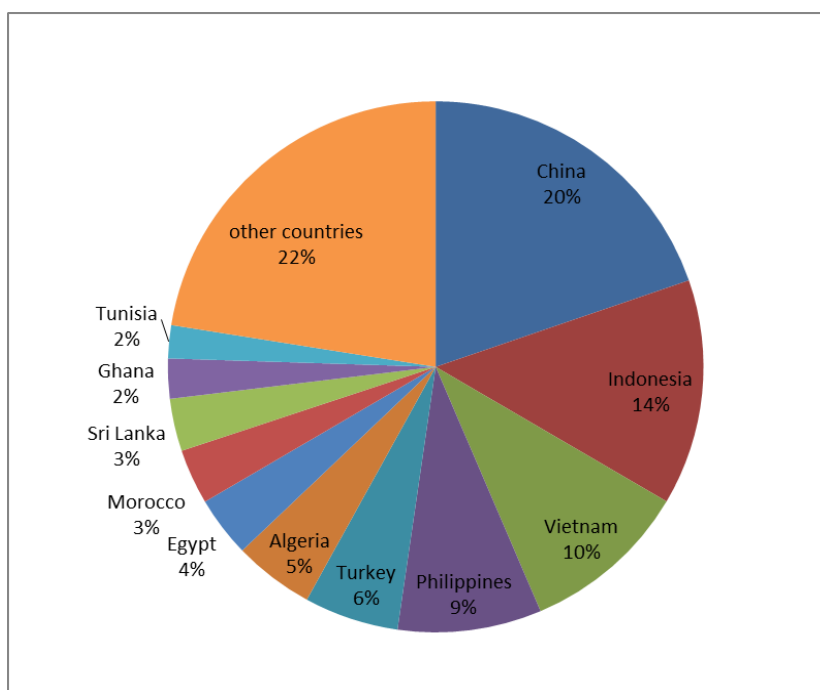
Figure 18 above clearly demonstrates that the largest share of tied aid and Helsinki-type tied aid goes to a small selection of countries. Only four countries, China, Indonesia, Vietnam, and the Philippines, received roughly half of all Helsinki-type tied aid. Between 1995 and 2005 China received 20 % of all Helsinki-type tied aid, Indonesia 14 %, Vietnam 10 %, and the Philippines 9 %. In contrast, Sub-Saharan Africa, as a region, only accounts for a share of 6 % of total Helsinki-type tied aid and 10 % of total tied aid. According to World Bank (2013a) estimates China, Indonesia, and the Philippines were lower middle income countries in 2005. Vietnam was categorized as a low income country in 2005.

Figure 19: Distribution of total tied aid by recipient country



Source: TD/PG(2006)23

Note: The data represents notifications from 1995 to 2005. The category “other countries” includes of all countries receiving less than 1% of total tied aid. USD-based calculation.

Figure 20: Distribution of Helsinki-type tied aid by recipient country

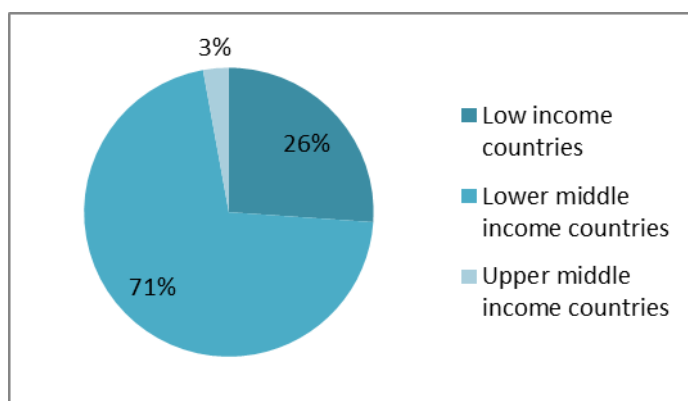
Source: TD/PG(2006)23

Note: The data represents notifications from 1995 to 2005. The category “other countries” includes of all countries receiving less than 2 % of total tied aid. USD-based calculation.

The following figures look at the distribution of tied aid, Helsinki-type tied aid, and non-Helsinki-type tied aid according to World Bank Analytical classification. The classification lists countries according to their GNI per capita (USD) in four categories: low income, lower middle income, upper middle income, and high income countries.

Figure 21 shows that 71 % of total tied aid notified goes to lower middle income countries, and 26 % to low middle income countries. Lower middle income countries receive 76 % of total Helsinki-type tied aid. (See Figure 22) In contrast low income countries receive 36 % of non-Helsinki-type tied aid. (See Figure 23) Upper middle income countries are not eligible for tied aid. Note that changes in the classification during the observed period are the reason why the figures display tied aid for upper middle income countries. Some countries, e.g. Turkey, had received the status of an upper middle income country by 2005.

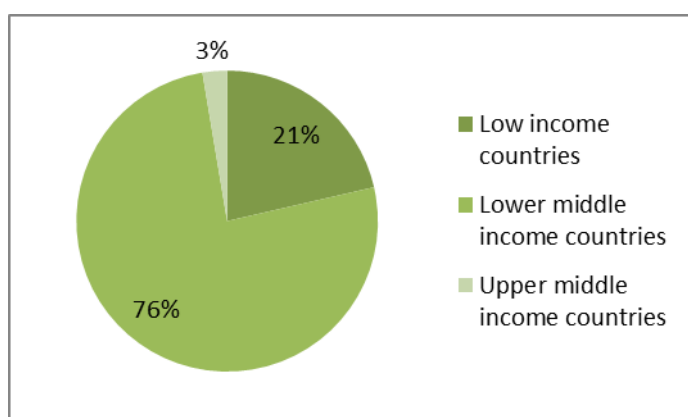
Figure 21: Total tied aid according to World Bank Analytical classification



Source: TD/PG(2006)23, Word Bank (2013)

Note: The data represents the cumulative volume of tied aid (notifications) from 1995 to June 2006. Recipient countries were classified according to World Bank estimates of 2005. Changes in the classification are the reason why the figure displays tied aid of upper middle income countries.

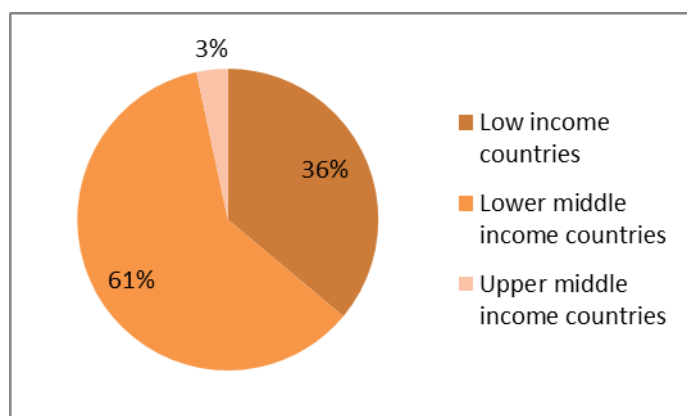
Figure 22: Helsinki-type tied aid according to World Bank Analytical classification



Source: TD/PG(2006)23, Word Bank (2013)

Note: The data represents the cumulative volume of Helsinki-type tied aid (notifications) from 1995 to June 2006. Recipient countries were classified according to World Bank estimates of 2005. Changes in the classification are the reason why the figure displays tied aid of upper middle income countries.

Figure 23: Non-Helsinki-type tied aid according to World Bank Analytical classification

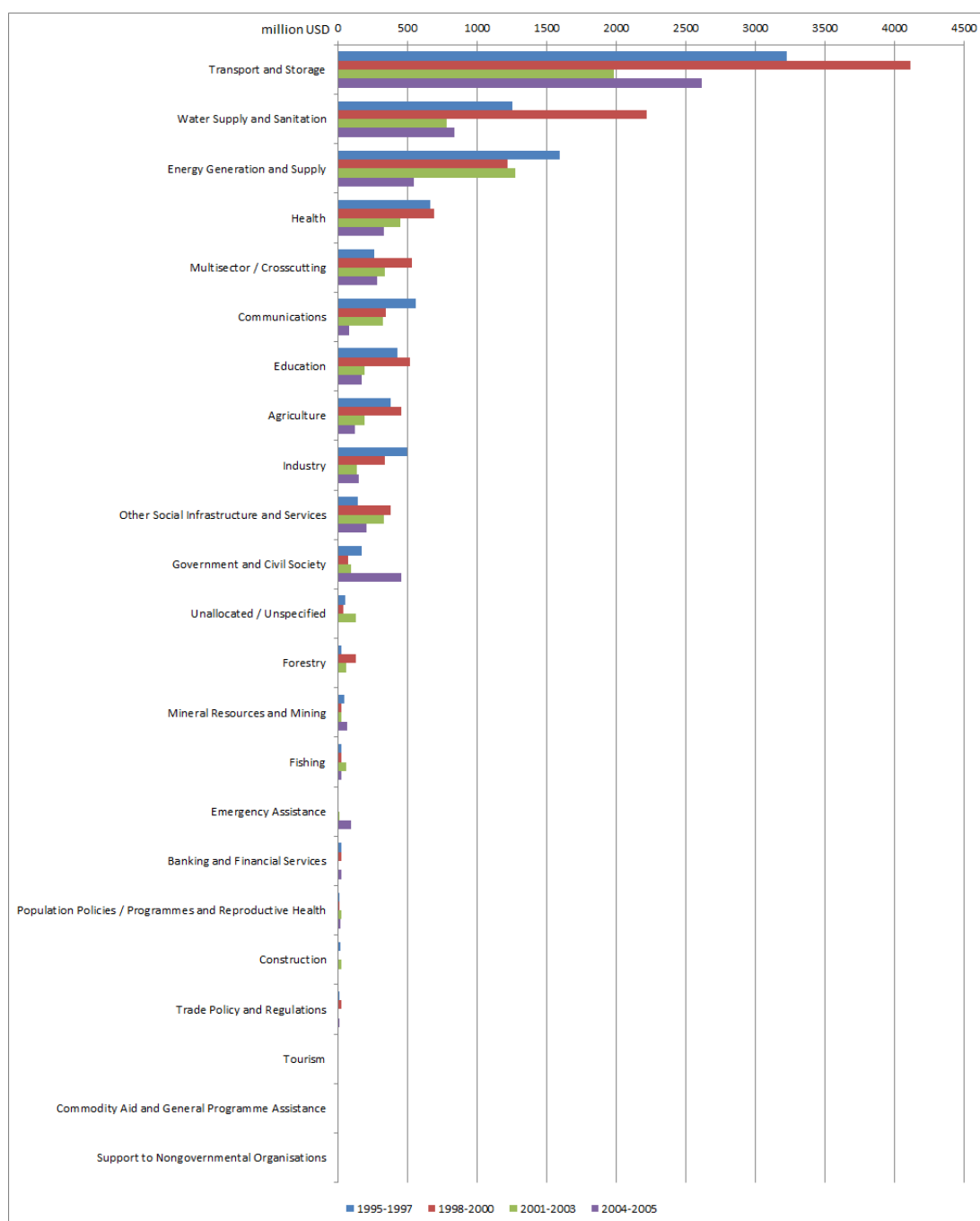


Source: TD/PG(2006)23, Word Bank (2013)

Note: The data represents the cumulative volume of non-Helsinki-type tied aid (notifications) from 1995 to June 2006. Recipient countries were classified according to World Bank estimates of 2005. Changes in the classification are the reason why the figure displays tied aid of upper middle income countries.

6.5. Sectors

Apart from the distribution of tied aid according to donor and recipient country or region the Participants further record tied aid notifications according to sectors.

Figure 24: Total tied aid by sector

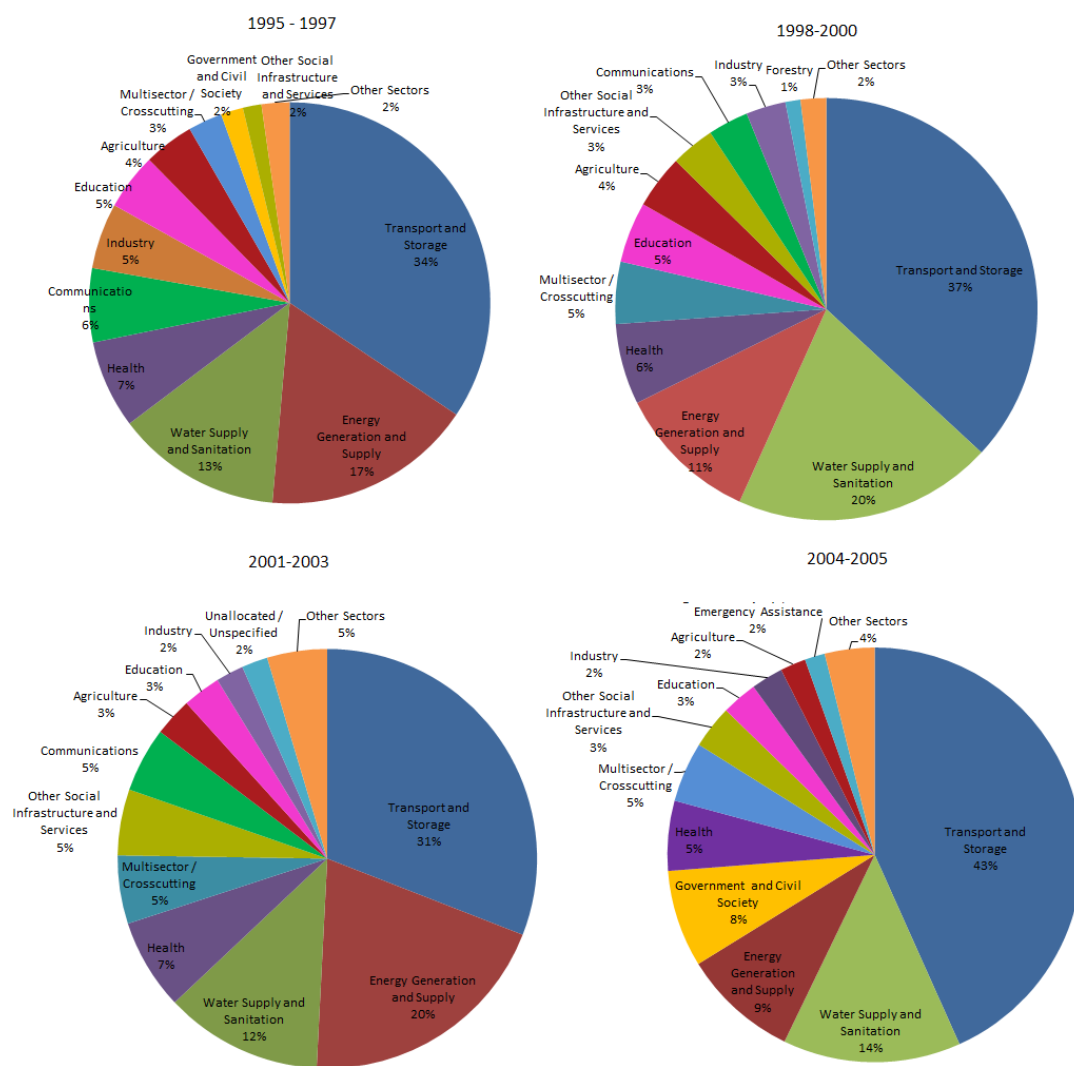
Source: TD/PG(2006)23

Note: The data represents the cumulative volume of tied aid (notifications) from 1995 to 2005.

A large share of tied aid is fuelled into the sectors transportation and storage, water supply and sanitation, and energy generation and supply. It is very likely that projects in these sectors are large high-capital projects and infrastructure projects. Between 1995 and 2005 35 % of tied aid was issued for projects in the sector Transport and Storage. The sector

Water Supply and Sanitation accounts for 16 % and Energy Generation and Supply for 15 %. The sectors Health and Education have shares of 7 % and 4 % respectively.

Figure 25: Sectoral distribution of tied aid - changes over time



Source: TD/PG(2006)23

Note: The data represents the volume of tied aid (notifications, USD).

Figure 25 above shows that the largest sector is Transport and Storage, before Energy Generation and Supply and Water Supply and Sanitation. These three sectors account for roughly two thirds of the volume (USD) of tied aid notifications and Figure 25 demonstrates that their sectoral distribution appears persistent over time.

Differences in the distribution are very susceptible to outliers. Since data is only available for the period 1995-2005, conclusions about sectoral changes have to be drawn with caution.

The most notable change is the large share (8 %) of the sector Government and Civil Society in the time period 2004-2005, which had only passed the 2 % mark in the time period 1995-1997. Further the sector Transport and Storage increased its share to 43 % in the period 2004-2005.

Looking at the sectoral distribution of tied aid the question arises whether specific forms of tied aid show a similar or divergent distribution. The Participants do not provide comprehensive data to answer that question in detail.

Table 9: Volumes of Helsinki-type and non-Helsinki-type tied aid, de minimis, highly-concessional, and other non-Helsinki-type tied aid

Notifications (1995-2005)	Helsinki-type tied aid			Non-Helsinki-type tied aid		
	Volume (USD)	average volume (million USD)	number	Volume (USD)	average volume (million USD)	number
Education	902.2	8.8	102	400.5	2.9	138
Health	1601.1	6.8	237	534.8	2.0	264
Population policies / programmes and reproductive health	25.8	12.9	2	33.9	2.3	15
Water supply and sanitation	3861.1	8.2	473	1225.2	3.6	343
Government and civil society	88.3	6.8	13	701.9	10.8	65
Other social infrastructure and services	573.4	8.1	71	472.4	3.2	147
Transport and storage	8689.1	23.5	369	3248.9	6.4	505
Communications	812.5	8.2	99	494.5	2.7	181
Energy generation and supply	3100.7	11.5	269	1532.6	3.8	399
Banking and financial services	19.0	3.8	5	57.7	2.3	25
Agriculture	787.7	8.0	99	359.0	1.9	185
Forestry	157.7	17.5	9	51.5	1.8	28
Fishing	87.2	5.8	15	47.9	1.9	25
Industry	456.7	7.1	64	668.0	1.4	476
Mineral resources and mining	116.4	9.0	13	46.1	1.4	33
Construction	2.6	2.6	1	45.5	2.5	18
Trade policy and regulations	10.3	10.3	1	35.2	11.7	3
Tourism	2.9	2.9	1	1.5	0.4	4
Multisector / Crosscutting	921.0	12.8	72	487.6	4.0	123
Commodity aid and general programme assistance	0.0	-	0	3.9	1.9	2
Emergency assistance	105.5	52.8	2	0.3	0.3	1
Support to nongovernmental organisations	0.0	-	0	2.0	1.0	2
Unallocated / Unspecified	146.2	20.9	7	68.9	3.6	19
All sectors	22467.8	-	1924	10519.9		3001

Source: TD/PG(2006)23

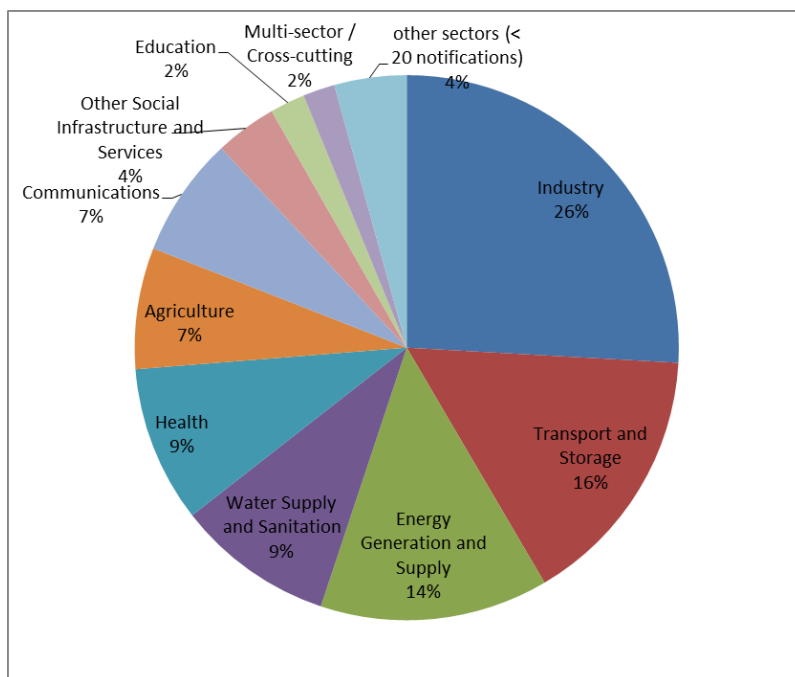
Note: Non-Helsinki-type tied aid includes de minimis and highly-concessional tied aid, as well as other small projects (SDR < 2 million) tied aid.

Looking at the average volume of Helsinki-type tied aid notifications in Table 9, the sector Emergency Assistance, accounting for only two notifications, accounts for the largest average volume (USD 52.8 million). Notifications of the sector Transport and Storage have an average volume of USD 23.5 million. The sectors Forestry and Population Policies /

Programmes and Reproductive Health account for only small numbers of projects but their average volume of notification is USD 12.9 million and USD 17.5 million respectively. Data on average volumes is less susceptible to outliers the higher the number of notifications is. Therefore, when looking only at sectors with a high number of notifications, apart from the sector Transport and Storage, also Multisector / Crosscutting (USD 12.8 million) and Energy Generation and Supply (USD 11.5 8 million) show high average volumes. The sectors Education, Communications, Water Supply and Sanitation, Other Social Infrastructure and Services, and Agriculture all have average volumes between USD 8 and 9 million. The sector Health accounts for a high number of notifications (237) and an average volume of USD 6.8 million.

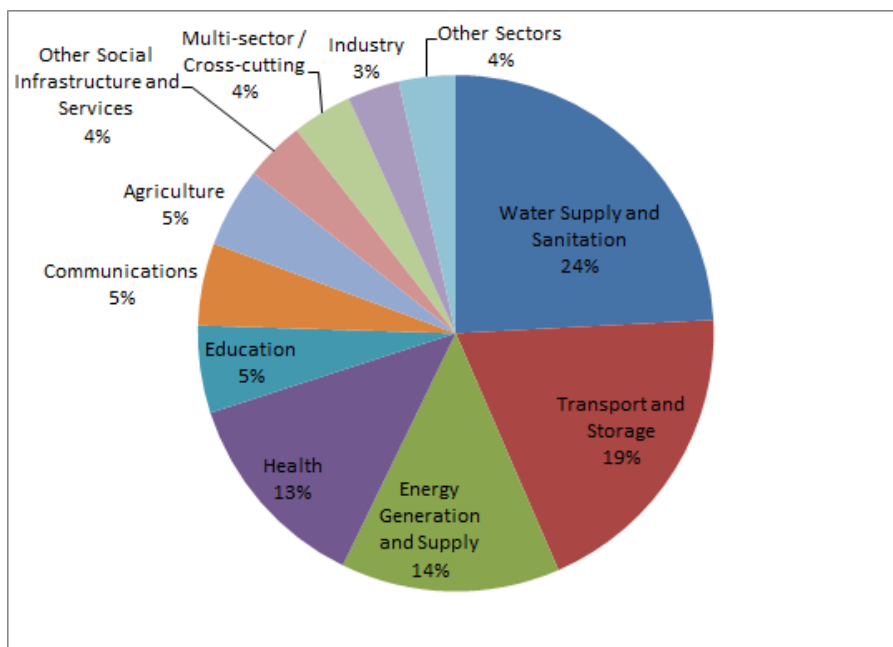
When looking at the absolute volume of non-Helsinki-type tied aid¹⁶ the three largest sectors are Transport and Storage (USD 3248.9), Energy Generation and Supply (USD 1532.6), and Water Supply and Sanitation (USD 1225.2). The sectors Trade Policy and Regulations, Government and Civil Society, and Transport and Storage have the highest average volumes of non-Helsinki-type tied aid. The sector Trade Policy and Regulations accounts for only three notifications of non-Helsinki-type tied aid, of which two are highly-concessional tied aid notifications. 43 % of non-Helsinki-type tied aid notifications of the sector Government and Civil Society are attributable to highly-concessional tied aid notifications. In the case of Transport and Storage 48 % of all non-Helsinki-type tied aid notifications are de minimis tied aid notifications. Sectors having a large share of de minimis projects are the following: Industry, Transport and Storage, and Energy Generation and Supply.

¹⁶ Non-Helsinki-type tied aid is calculated as the difference between tied aid and Helsinki-type tied aid.

Figure 26: Share of de minimis tied aid by sector

Source: TD/PG(2006)23

Note: The data represents the number of notifications of de minimis tied aid from 1995 to June 2006.

Figure 27: Share of Helsinki-type tied aid by sector

Source: TD/PG(2006)23

Note: The data represents the number of notifications of Helsinki-type tied aid 1995 to June 2006

Comparing Figure 26 and Figure 27, it becomes visible that a quarter of all de minimis tied aid notifications were made in the sector Industry. This sector only accounts for 3 % of all Helsinki-tied aid notifications. This leads to the question whether this difference is a consequence of the nature of the projects or of different procedures for de minimis tied aid. De minimis tied aid is in conformity with the minimum concessionality levels for tied aid but it is not subject to consultation procedures. Whether this form of tied aid is also subject to Helsinki criteria is discussed by Fritz (2013).

6.6. Summary of the findings of the statistical data

The following paragraphs summarize the findings drawn from the statistical data. The data above is almost exclusively based on Participants semi-annual review of notifications. The data covers a period from 1991 to 2005 but note that not all data is available for the entire period. Due to limited access to Participant's data there is no available data as from 2006 onwards.

The most obvious question regards the importance of tied aid as a form of development finance. From a bird's eye view, the quantitative importance of tied aid credits compared to the volume of total bilateral ODA is declining. This is largely explained by the absolute increase of bilateral ODA. In 1991, prior to the inception of the Helsinki rules, tied aid, expressed as percentage of the volume of bilateral ODA, accounted for roughly one fifth. The relative importance of tied aid experienced a sharp decline in 1992 and 1993. In the period from 1994 to 2001 the relative volume of tied aid remained fairly stable. As from 2002 tied aid constitutes a small fraction (less than 4 %) relative to bilateral ODA. Looking at the volume of tied aid expressed as percentage of total bilateral ODA in a given year it becomes visible that tied aid has lost its relative importance over the years.

When looking at tied aid notifications and more particularly at Helsinki-type tied aid notifications one sees that the overall number of notifications has declined over the years. The volumes experienced a sharp decline after the inception of the Helsinki rules. However, neither a clear upward, nor a downward trend can be observed for the following years up to 2005.

Other forms of tied aid, such as small projects (SDR < 2 million), of which most part is attributed to de minimis tied aid notifications, have experienced a downward trend since its peak in 1996. The use of highly-concessional tied aid (OCL > 80 %) dropped sharply in the year 1992 and remained fairly stable until 1999. In the period from 2000 to 2004 highly-

concessional tied aid remained at an even lower level. In 2005 a comparably high amount of highly-concessional tied aid was notified.

In the next step, the focus was put on the donor's side. Donors with a largest volume of tied aid (1995-2005) are Japan, Spain, France, Germany, and the Netherlands. Germany and Italy have low shares of Helsinki-type tied aid given their comparatively large volumes of total tied aid. The United States, Italy, and also to some extent the United Kingdom and Germany have high shares of highly-concessional tied aid (OCL > 80 %). Switzerland and Canada notify a small volume of tied aid but have comparably high shares of de minimis tied aid. When looking at the biggest donors of de minimis tied aid Spain, Austria, and France account for almost half of the volume of total de minimis tied aid.

When looking at the recipients' side the region East Asia and the Pacific receives 45 % of total tied aid and 53 % of Helsinki-type tied aid. On a country level, China is by far the largest recipient of tied aid, receiving 18 % of all tied aid and 20 % of Helsinki-type tied aid. China is followed by Indonesia, Vietnam, the Philippines, and Turkey. 69 % of all tied aid goes to only 12 countries. In case of Helsinki-type tied aid 10 countries receive roughly three quarters the volume.

Looking at the distribution of tied aid according to the World Bank Analytical classification, we see that 71 % of all tied aid goes to lower middle income countries, and 26 % to low income countries. Lower middle income countries receive a share of 76 % of Helsinki-type tied aid. 36 % of non-Helsinki-type tied aid goes to low income countries and 61 % to lower middle income countries.

Referring to the sectoral distribution, the statistical data shows that the largest sector is Transport and Storage with a share of 36 % of total tied aid, followed by Water Supply and Sanitation (15 %) and Energy Generation and Supply (14 %). The large average volume of notifications leads to the assumption that projects in these sectors are large high-capital projects and infrastructure projects. Further, these three sectors account for roughly two thirds of the volume (USD) of tied aid notifications and Figure 25 demonstrates that their sectoral distribution appears persistent over time. It is likely that projects in these three sectors generate revenue. Sectors, which typically receive more grants, such as health or education, appear to receive comparably small shares of tied aid. Further the question arises whether sectors with large shares of tied aid match those sectors in donor countries that are strong in exports, e.g., about 40 % of the sector Transport and Storage is attributable to the subsector Rail Transport. It is generally acknowledged that European companies are market leaders in this field. If this assumption holds true, the hypothesis is supported that the

selection of projects financed by tied aid credits is donor driven. The sectors Health accounts for 6 % and Education for 4 % of the volume of tied aid. When looking at highly-concessional tied aid I find that most notifications are attributed to the sectors Water Supply and Sanitation (91), Transport and Storage (59), and Energy Generation and Supply (58). Health accounts for 33 and Education for 32 notifications. The distribution changes when looking at the de minimis tied aid. 26 % of all de minimis tied aid notifications (number) were made in the sector Industry.

6.1. Reading and interpreting the DAC statistics

The analysis of the statistical records has shown that tied aid credits are reported differently by the Participants and the DAC and that detailed data is not available. The aim of reviewing the DAC statistics was to understand how the DAC reports grants to export credits and gain more information e.g., on the concessional level of credits. The following paragraphs show that the field of tied aid credits is highly intransparent.

First, the DAC collects data on financial commitments and disbursements, pledges are not covered in the statistical collection. Data users often mix up commitments and pledges. The DAC statistical directives define the term **commitment** as a binding (contractual) obligation to provide a specified financial volume for a specified undertaking (project or activity), whereas **pledges** are political promises of a more general nature, usually made at high-level international meetings. **Disbursements** represent the actual transfer of resources (cash flow in a given period). (Interview)

The DAC publishes quantitative but also descriptive data on ODA and other resource flows. It records four different flows of resources to developing countries, of which ODA is one – the one most closely defined and monitored. (Interview) This distinction is made based on the sector-source of funds (official or private) and whether they are extended at concessional or non-concessional terms.

Table 10: Main types of resource flows

	concessional	non-concessional
official	ODA	OOFs
private	private charitable flows (from NGOs, foundations etc.)	private flows at market terms

Source: (Interview)

The typology demonstrates that ODA is one of four resource flows to developing countries captured in DAC statistics. Within the DAC context, “aid” is often used as a synonym for ODA or a concessional flow.¹⁷ In contrast, the Participants use the term “aid” to describe an official subsidy to a credit. This leads to different interpretations of the term “tied aid credit”. DAC Statistics uses the term “tied aid credits” to describe tied ODA loans (“aid” being understood as a synonym for ODA). The DAC makes a distinction between tied ODA loans and official export credits, because export credits, by definition in the statistical directives, are excluded from ODA. (Interview) The Participants, on the other hand, use the term “tied aid credits” to describe tied credits with a concessional element (subsidy). The Participants’ concept therefore includes export credits.

This leads to the question how the DAC statistics record financing that is subject to the Arrangement’s tied aid disciplines? Export credits (i.e., credits extended by export credit agencies under an export-promotion framework), by definition in the statistical directives, are excluded from being classified as ODA. They are understood as being extended with a primarily commercial – not developmental – motive and therefore are recorded in the OOFs category. (DCD/DAC(2010)40/REV1: 9; 12) However, any government subsidies to these credits for developmental purposes (financially non-viable projects) can be reported as ODA grant. (Interview)

In order for a loan to qualify as ODA, the following criteria must apply. Promotion of the economic development and welfare of developing countries must be the main objective. DAC statisticians refer to this criterion as “motivational test”. (Interview) And flows must be concessional in character. (See Section 3.2) Both criteria are fairly vague. The “concessional in character” requirement of the ODA definition is not underpinned by additional detailed criteria and therefore leaves wide room for interpretation.

¹⁷ “Official aid” is a synonym for ODA and “private aid” for charitable giving by NGOs, foundations or private companies. (Interview)

This leads to the question what criteria determine whether a credit is granted based on developmental or commercial motives. According to DAC representatives, the motivation is derived from the institutional and legal framework of the credit. (Interview) Whether an ECA or a bilateral DFI (development bank or a comparable institution) issues a credit gives an indication of the underlying motivation. The motivation is assumed to be a commercial rather than a developmental one for export credits. Official ECAs have a distinct mandate, often backed by a detailed legal framework, to promote national exports. (Interview)

Development finance institutions (DFIs), such as bilateral development banks, on the other hand, operate based on a mandate to promote development in recipient countries and often have mechanisms for development results management in place. Therefore, loans extended by DFIs can be reported as ODA loans, provided they meet the other criteria for ODA, including on concessionality. (See Section 3.2) Although bilateral DFIs act upon the mandate to promote development, they also operate in a commercial environment and often with market-like instruments. (Interview) Therefore it is reasonable to assume that they also support the interests of the national economy. This can be seen as a secondary objective or side benefit.

The DAC records gross disbursements of loans and repayments of principal. The difference gives net disbursements, which is the basis for calculating the ODA/GNI ratio (UN ODA target of 0.7 % of GNI). (World Bank 2013b) Interest payments are recorded as well, but separately – they do not enter the ODA/GNI calculation. (Interview)

There are many different forms of debt instruments that receive government support, which often takes the form of an official guarantee. However, guarantees are contingent liabilities and therefore not covered in DAC statistics, which is a flow-based system at present. But guarantees can be developmentally motivated and are deemed relevant in promoting development in many contexts, therefore the DAC is elaborating options for valorizing guarantees in order to incorporate them in a new statistical measurement framework post 2015. (Interview)

6.2. Problems of statistical recording of aid

This section on problems of statistical recording of aid will address three issues. The first issue focuses on the tying status of credits and whether a loan is in effect tied or untied. The second issue relates to the motivation of a credit and its subsequent statistical recording. The third issue addresses the question whether a loan is considered “concessional in

character” or not. Related to that is the problem of a low grant element (measure of concessionality in an aid loan). I analyze these aspects using a recent example from ODA statistics. The following example is relevant in a broader context and demonstrates that the analysis of “tied aid credits”, as the Participants define it, is too narrow. The existence of instruments, that fall under the definition of ODA, having similar financial terms as “tied aid credits” give rise to the questions (a) whether the Arrangement is effective in monitoring “de facto” tied aid credits and (b) whether all ODA flows reported by DAC members are credible.

6.2.1. The tying status of ODA¹⁸ and “de facto” tying

The DAC and the Participants distinguish tied from untied aid. As already stated, this differentiation is important because DAC member countries have committed to untie their aid. As already stated the tying status is published only for ODA¹⁹. Box 3 and Box 4 briefly present the definitions of untied and tied aid.

Box 3: Untied aid

Untied ODA is defined as “loans or grants which are freely and fully available to finance procurement from substantially all developing countries and from OECD countries”. (DAC 1987: Article 5)

The definitions of tied and untied aid are rather general and difficult to apply in practice, because there are only few additional, detailed criteria (on what types of aid are considered as tied or untied by their nature) that would help operationalize the rules. In practice, some donors use the timely publishing of an untied aid offer on an international bulletin board in English language as a criterion for untied aid. Reasons why DAC members have not been able or willing to agree on a more detailed definition of untied aid and more guidance for operationalization of existing rules, is that for some DAC members this is a highly political issue related to international pledges to untie aid. Since some types of ODA simply cannot be untied e.g., in-donor-country costs for asylum seekers, there is an on-going discussion whether or not such types should be excluded from tying status reporting and from the coverage of the untying ratio published by the OECD in the Development Co-operation Report. With no final consensus on this issue, the existing definition cannot be amended and, given the lack of operational guidance, too much room is left for interpretation and thus differing reporting practices. (Interview)

¹⁸ Of the four main types of flows (Figure 5) the tying status is only recorded on ODA (commitments).

¹⁹ There is a reporting obligation for tying status only for ODA and excluding technical cooperation.

Box 4: Tied aid

Tied aid is defined as “loans or grants which are either in effect tied to procurement of goods and services from the donor country or which are subject to procurement modalities implying limited geographic procurement eligibility”. (DAC 1987: Article 5) The DAC Guiding Principles for Associated Financing and Tied and Partially Untied Official Development Assistance (1987) further define “in effect tied” as a formal or informal understanding between the recipient and the donor country that leads to tying of aid, or practices involved in the transaction which result in tying. If a financing practice is under suspicion of being tied to procurement the donor country shall present evidence in support that such practice is untied. (DAC 1987: Article 6)

The definitions of untied and tied ODA are rather general and practical guidance is scarce. For example, the DAC states that if a credit is under suspicion of being tied the donor shall present evidence in support that such practice is untied. The DAC does not provide details on the form of evidence that should be provided, nor on the process of how to challenge aid that is suspected of being tied.

DAC members are obliged to report the tying status for ODA (commitments). In practice, the de facto tying status of a concessional credit may not be transparent. Credits reported as untied may be in effect tied to donor country procurement. How can aid reported as untied be in effect tied? For example, some “hidden” contract terms could favor national exporters even in ICB processes. Furthermore, publication of offers in less common donor languages can de facto exclude a wide range of potential bidders.

Apart from issuing biased tender documents in order to favor national exporters, donors may prefer to finance projects in certain sectors where national businesses have a competitive advantage and are likely to win the contract. In this case we would not speak of manipulation leading to market distortion. But donors may have a preference for financing certain sectors and projects. Taken to the extreme this could lead to distortion of aid allocation. Recipient countries and donors need to identify sectors and projects with the highest potential to enhance development for priority funding by ODA. In extreme cases donors can limit their support to sectors that are most attractive to their national exporters, while recipient countries will aim at their national development and sector priorities.

There is reason for doubt that all ODA loans reported as untied are in fact untied. However, if those loans are in some form tied to procurement from the donor country, this would require them to comply with Arrangement terms. Further, if de facto tying would be uncovered,

donors would suffer political damage by losing credibility and missing their targets for untying of ODA. (Interview)

6.2.2. Reporting of credits according to their motivation

DAC statistics distinguish ODA loans from commercial credits based on their primary motivation (developmental versus commercial). Export credits are understood as commercially motivated, since their main objective is export promotion, and thus are excluded from ODA by definition. Loans with a primarily developmental objective are ODA eligible, if they meet the other criteria for ODA.

As already stated, export credits are not ODA eligible, but the concessionality element (i.e., a subsidy to lower the lending costs) to an export credit can be ODA eligible. In DAC statistics this is recorded as an ODA grant in an associated financing package, with the loan component of the package being recorded as official export credit in the Other Official Flow (OOFs) category. (Interview) The ODA eligible subsidy to an export credit can derive from an interest rate subsidy, grace periods, long maturity, coverage of credit fees, premium charges, or part of principal payment. Unfortunately detailed data such as the maturity of the loan or the concessionality level of OOFs are not publicly available. The DAC only publishes aggregate data on OOFs. This makes in-depth analyses impossible for external researchers.

6.2.3. The term “concessional in character” in the ODA definition

The last issue to address regards the interpretation of the term “concessional in character” which is part of the ODA definition (See 3.2). The question is whether all ODA loans meet the criteria of “concessional in character”. Before I discuss this issue, I take a closer look at the concept of ODA.

“The ODA concept was developed within a measurement system based on actual cross-border transfers of resources.” (DAC 2012a: 8) Some experts use a more restrictive understanding of ODA. ODA should represent a budgetary effort by the donor country. Using the more restrictive concept, if the concessional element of a credit is the result of a budgetary effort of the donor country this element may qualify as ODA. In contrast, if solely the favorable interest rate of a donor country is passed on to the developing country no budgetary effort is necessary. According to the restrictive concept of ODA, the latter flow is would not qualify as ODA. Nevertheless, also these non-concessional credits can be developmentally relevant.

The DAC currently discusses whether certain ODA loans are “concessional in character”. Particularly France and Germany issue ODA loans that have a low concessionality level, close to the 25 % grant element margin. (See Table 11) Richard Manning, the former DAC chair, recently stated that “(t)he OECD is now quietly allowing large volumes of loans to be counted as ODA even though they do not meet any reasonable definition of being “concessional in character”, which is the basis of the OECD’s definition of aid”. (Manning 2013) The DAC measures concessionality using a universal 10 % discount rate. (See Section 3.3) A 25 % grant element calculated at this fixed discount rate makes even loans with a very low concessionality level eligible as ODA. “In an era of low interest rates this can be reached by loans made with no government subsidy whatsoever.” (Manning 2013) Richard Manning (2013) explains that in the past donor countries “used to respect the overall intention by refraining from making loans that only narrowly met the metric.” (Manning 2013) A possible reason why some donors have become impudent in their ODA reporting practices by applying a broad interpretation of “concessional in character” is that donors have pledged to achieve the ODA target of 0.7 % of GNI by the year 2015 and national budgets currently suffer from austerity. Therefore there is an incentive to report low-concessional loans as ODA loans. This reporting practice is only effective as long as more ODA loans are disbursed than repaid. DAC members have agreed to revise the ODA concept by 2015. (DAC 2012a: 8) I assume that members that are currently applying a broad definition of “concessional in character” speculate that the new definition will leave uncovered future reflows stemming from repayments of ODA loans. The current DAC definition for the ODA criterion “concessional in character” leaves ample room for interpretation and thus allows for reporting of credits as ODA that some DAC members and stakeholders consider as non-concessional. The defined grant element of 25 % is not effective in measuring concessionality under the current capital market conditions. (Interview) Further, it is not appropriate to use the uniform 10 % discount rate in times when donor countries are able to borrow capital at very low interest rates. Richard Manning (2013) requests the OECD to “put in place a definition of concessionality that reflects the real cost of capital and requires real fiscal effort.”

Table 11 below presents recent data published by the DAC. Based on these data one can question whether all of the recorded ODA loans are “concessional in character” and consequently also question the motivation for these credits and whether all ODA loans reported as untied are in effect untied.

Table 11: Selected parameters of ODA loans (commitments)

		Australia	Belgium	Finland	France	Germany	Italy	Japan	Korea	Portugal	Spain	Total DAC
Loan share of total ODA (%)		1,2	0,3	0,0	27,4	17,4	3,3	43,4	54,7	45,8	1,2	11,8
Terms of bilateral loans	Average maturity (years)	40,0	30,0	3,1	16,5	16,1	32,4	32,0	41,3	31,6	12,0	26,6
	Average grace period (years)	10,0	11,0	3,1	6,8	5,4	17,9	8,8	13,7	12,8	1,0	8,1
	Average interest rate (per cent)	0,0	1,6	0,0	3,3	2,1	0,0	0,7	0,1	1,8	1,5	1,4
	Grant element (per cent)	87,4	70,4	30,2	42,5	47,3	88,2	75,0	88,9	70,5	36,7	64,3
Terms of the bilateral loan with the lowest grant element	Maturity (years)	40,0	30,0	3,1	25,0	8,0	21,0	18,1	35,0	31,1	12,0	22,2
	Grace period (years)	10,0	11,0	3,1	6,0	3,0	10,1	0,1	11,1	22,1	1,0	4,4
	Interest rate (per cent)	0,0	2,0	0,0	5,0	3,4	0,2	2,5	0,1	3,3	1,5	1,7
	Grant element (per cent)	87,4	66,9	30,2	25,0	26,0	75,5	40,3	85,1	61,5	36,7	52,6
	Concessionality level	80,4	53,8	13,3	7,1	- 1,7	57,0	5,0	70,7	34,6	11,8	..
Volume of loans below 50% grant element (USD million)		-	-	1	2 167	2 053	-	240	-	-	56	4 518

Source: DAC 2011

Note: The data does not include debt reorganization and equities. The concessionality level uses discount rates calculated on the basis of CIRR. The grant element for ODA loans uses a flat discount rate of 10 %.

The table is published by the DAC Statistics on resource flows to developing countries and shows commitments of ODA loans according to country. Note that some countries do not give ODA loans and are therefore not listed in the table.

As already stated, export credits by definition do not fall under the category ODA loans. Assuming that some ODA loans are also commercially motivated the data in Table 11 appears relevant in the context of this thesis. Two countries, France and Germany, are selected because of their large amount of ODA loans with a grant element of less than 50 %. They attract attention in respect of high average interest rates combined with a comparably low grant element. Looking at the terms of the bilateral loan with the lowest grant element it becomes clearer that donors issue loans with a grant element that barely meets the ODA criterion. Keeping in mind that the grant element is calculated using a fixed 10 % discount rate²⁰, there is reason for doubt whether these loans are concessional in character. In the German example, the concessionality level calculated on the basis of CIRR is even negative. According to the DAC homepage, “(t)he Secretariat is investigating with France

²⁰ The Participants, on the other hand, uses a more accurate discount rate based on the respective CIRR.

and Germany whether all the loans included in their ODA figures are concessional in character". (OECD 2013d) The example above highlights that certain flows are eligible as ODA but do not translate into a real fiscal effort of donor governments. It demonstrates that ODA figures are the result of what is reported as ODA by donors. When looking at the figures and tables on ODA loans, the motivation to promote development on concessional terms is not visible.

7. Assessment

7.1. Economic assessment of tied aid credits

Economic theory justifies the use of subsidies in case of externalities. Tied aid credits are a consumer subsidy. But because financing is tied to the procurement from the donor country the consumer may have the possibility to choose among a limited circle of providers. The issue of subsidy incidence relates to the questions whether the consumer receives the intended benefit from the subsidy and if the exporter is able to receive a larger benefit because of tying.

According to Raynauld (1992: 15), “(i)t is generally recognized that debtor countries do not always fully benefit from the subsidizing of financing operations, since part or even all of the subsidy may be recovered by the exporter in the form of higher prices”. A case study from Ghana by Osei (2003: 16) found that “there is a significant mark-up on the prices of the tied funded inputs”. If the consumer benefits from the subsidy is difficult to assess when price transparency for the traded goods or services is insufficient.

Targeting consumer subsidies is considered to be more efficient in reaching intended beneficiaries. (Greene 2012: 227) Further if the size of the subsidy is variable and depending on the assessed need, it reduces the overall spending on the subsidy. Tied aid credits as defined by Arrangement terms are a targeted subsidy. First, because country eligibility of tied aid is determined by GNI per capita. Further, LDCs are granted even higher subsidies. If this circle of eligible countries is drawn tight enough has to be reviewed. The assessment of the statistical records answers this question partly. The subsidy is efficiently used when the beneficiaries coincided with the countries in need of the subsidy.

But apart from the country level, one has to ask the question, is the designed subsidy program effective in supporting those consumers in need of the subsidy? Is a broad number of people benefitting from the subsidy? The latter question can only be answered on the level of individual projects. Greene (2012: 232) provides an example of a costly hospital in the capital city crowding out expenditures for local health centers benefiting a larger amount of the population.

Subsidy programs are to be designed minimizing economic distortions, e.g., consumer choice distortion. This can be achieved by providing subsidies that apply to a broad category of goods. Tied aid, on the other hand, is likely to lead to economic distortions. If a subsidy is

tied to procurement of a limited range of national products consumer choice distortion is likely. (Greene 2012: 229) The Arrangement responds to this problem through the process of “matching”. In theory all suppliers are allowed to offer at the same financial terms, meaning that they can subsidize equally. This mechanism is intended to impede market distortion, but further serves to limit consumer choice distortion. Nevertheless, the matching process does not increase the number of offers. The question whether the “matching” process is effective can only be answered by empirical evaluation. Nevertheless, untied procurement is preferable because it enhances competition.

Further subsidy programs are to be designed not to create new constituencies. “(G)overnments must watch that the creation of programs does not create new constituencies for their preservation, for example, workers and managers at state enterprises who are keen to keep their jobs.” (Greene 2012: 228) Since consumer subsidies lead to an increase in demand it is likely that also the supplier’s side lobbies for the subsidy. Therefore, it is interesting to look at who is arguing for the subsidy. Tied aid credits are a consumer subsidy, but when looking at the evolution of the Arrangement, consumers, meaning developing countries, were not included in the process of establishment. (Fritz 2013: 167ff) This leads to the conclusion that the existence of tied aid credits has been producer driven. Further, Greene (2012: 228) addresses general issues in subsidy design and points out that increasing transparency and controllability are two concerns to be considered when designing subsidy programs. Greene (2012: 228) states that financing subsidies through regular budget appropriations instead of tax expenditures or quasi-fiscal operations enhances transparency and controllability.

Viewed from a different angle, by adding a concessional element to a credit, the credit, to the extent of the concessional element, becomes an instrument for global redistribution, from donor to developing countries. But the acceptance of the subsidy is tied to the condition that (parts of) the resources granted are transferred to the exporter.

Section 4.3 concludes that the type of project itself and its particular circumstances determine whether a loan or a grant is more conducive to finance development projects. Therefore donors should provide loans and grants as well as the combination of the two i.e., concessional loans. By providing tied aid credits in line with the Arrangement donor governments may step in to finance financially non-viable projects. Financial viability expresses a projects potential to generate sufficient financial returns to make it attractive enough for commercial financing. Projects may not generate enough or any resources. In the latter situation, a grant is more efficient. But if the project generates enough revenue to repay part of the investment a concessional loan is preferable. In this situation a grant is not

needed in order to facilitate the project. From the perspective of efficient resource allocation, concessional loans are conducive to finance development projects. However, since the degree of financial viability relates to the type of good or project financed, the subsidy to a loan, the concessionality level, should vary according to the project. Certain investments e.g., social infrastructure investments, may take decades until projects experience an economic return. Therefore, such projects should be financed by grants. Projects in the field of primary education, and to a certain extent secondary education, primary (basic) and public health services, as well as basic infrastructure (roads, clean water and sewage services) are likely to have a high degree of financial non-viability. Therefore financing with highly-concessional loans or grants is appropriate. The Arrangement sets a minimum concessionality level according to the recipient countries at 35 % and 50 % in case of LDCs. This can be interpreted as a simple way of differentiating based on the financial and commercial viability of a project under the assumption that projects in poorer countries face a higher degree of financial and commercial non-viability. Morrissey (original emphasis; 1996: 170f) states that "(d)eveloping countries need to invest in physical (and human) infrastructure and, when they face a savings gap, aid is justified (and preferable to commercial loans even if tied)".

7.2. Identification of good development projects

Section 4.1.3 identified goods or sectors that should be financed or produced publicly. They are classical sectors for market intervention. But the scarcity of resources leads to the fundamental question how to allocate these resources and which projects should be given priority. Therefore projects should be selected on grounds of their net present value calculated using reliable cost-benefit-analysis. The Arrangements requirements do not include a cost-benefit-analysis.

Poor countries do not have satisfactory access to financial markets but they "have a stock of good-quality development investments, the best of which also offer the highest returns". (Klein, Hardford 2005: 64) Klein and Hardford (2005: 65) argue that using loans or subsidized loans to finance investment projects is therefore justified. On the other side, there is uncertainty and incomplete information. Thus identifying the best projects with the highest returns is a challenge for donor countries. (Klein, Hardford 2005: 64)

It is reasonable to assume that agencies carrying a development mandate have greater competence in identifying projects with impact on development. ECAs are driven by

commercial interests and therefore will favor projects that are commercially attractive for exporters. Promising projects for exporters are more likely found in higher low-income countries and middle income countries. Poor developing countries, on the other hand, offer a lot of projects with developmental quality that lack financing.

7.3. Tying of concessional loans

Sheppard et al. (2009: 566) concludes that “the existence of ties reduces the ability of the third world nation [recipient country] to choose the best price and most appropriate equipment”. The gold standard, ICB, aims at enhancing competition and calls for tenders facilitating comparison between offers and prices. Good preparation of calls for tenders for ICB and the subsequent evaluation of tenders are needed to select the best offer. These processes also include know-how and administrative capacities. Developing countries may lack these capacities. In the case of tied aid, competition for “contracts is limited, usually to a few donor firms, whereas [de facto] untied aid can in principle be sourced on the world market where competition is more intense.” (Morrissey 1996: 163) Many authors (Raffer 1998, Morrissey 1996, Sheppard et al. 2009, Petermann 2013, Raynauld 1992) address the problem of overpricing in tied aid projects. Petermann (2013: 106) concludes that “(t)aking severe data shortages into account, experts have proposed an average [overpricing] of at least 10 to 20 percent.” Limiting procurement to certain donor country’s firms leads to de facto “oligopolization” of the import market. (Petermann 2013: 106) Furthermore, if contracts are awarded directly by a recipient country, competition may be even further limited.

Additionally tied aid limits the choice between products and technology supplied. “(T)he equipment available under the tied aid agreement may not be particularly appropriate.” (Sheppard et al. 2009: 566; also Morrissey 1996: 163) Jepma (1991: 16) finds that “goods and services offered are of low priority to the recipient, excessively capital-intensive, highly dependent on Western technologies, and import-oriented”. Annex IX of the Arrangement provides a Checklist of Developmental Quality of Aid-Financed Projects including the DAC Principles for Project Appraisal. According to those, a technical feasibility study should answer whether a project uses “technologies and standards which are appropriate to the circumstances of the [recipient] country”. (DAC 1992: 37) Nevertheless, the effective use of the checklist and the implementation of the principles depend on donor and recipient country. Nuscheler (2005: 443f) states that it is questionable to measure the quality of aid according to the tying status, the quality of the projects is important.

7.4. Assessment of the Arrangement terms

The Arrangement regulates terms and conditions for official support for export credits and tied aid. “Goods and services exported to the most developed OECD countries on credit periods less than two years (consumer goods, raw materials, and certain lighter capital goods) can (...) be covered by the private sector (...), while government-supported insurance is usually only allowed for longer periods or for covering other countries where the private insurance market generally is less competitive.” (Grath 2012: 118) This timeframe is also reflected in the Arrangement terms (Section 5.2.1). The Arrangement limits official support to projects where market failure occurs. The framework applies to export credits with a maturity of more than two years. Therefore the intervention in the market and the provision of credits by government or its executing entities is justified.

Regarding the duration of the credit the Participants follow the principle by which the “repayment terms do not exceed the useful life of the good” (Arrangement: Article 10.) Applying this principle to an investment appears reasonable because revenue generated by the investment should be used for repayment of the credits. The life of the good represents the maximum duration of the credit. As explained in Section 4.3.2 some goods such as social infrastructure, may take decades to generate economic return to investment. Therefore, those goods should be financed by grants rather than loans. Long repayment periods, on the other hand, can create a problem of ownership and accountability because of changing political leadership.

The Arrangement regulates that official support for local costs is limited to 30% of the contract value (See Section 5.2.1) and by that limits the amount that can be spend in the recipient country. Local procurement supports the private sector in the recipient country. Since tied aid credits are also used as an instrument of development finance, in order to be developmentally sound local procurement should be maximized. Sheppard et al. (2009: 566) state that in case of tied aid the recipient “country must rely more in the secondary long-term impact of foreign aid on development, and less on the immediate impact of the money lent”. Imports from donor countries may represent essential inputs for an investment. If substitutes are not domestically available recipient countries are dependent on imports anyway. (Sheppard et al. 2009: 566) In conclusion, it is questionable whether this limit is appropriate. The limit can be interpreted as a mechanism which favors donor countries exporters.

The minimum interest rate applied to official financing support for loans is the Commercial Interest Reference Rate (CIRR), which should represent market interest rates. Whether

interest rates for tied aid credits are appropriate has to be studied empirically. Additionally according to Arrangement terms, appropriate credit risk premiums shall be charged. In practice, credit risk premiums for some high-risk developing countries may not fully cover credit risk. (Interview) In cases where there is no functioning credit market e.g. LDCs, the calculation of premiums is problematic.

7.5. Appropriateness of eligibility criteria

The Arrangement sets rules for limiting eligibility of tied aid to certain countries. It is reasonable to assume that richer countries have enough resources and sufficient access to financial markets to finance projects. As already stated, the country eligibility criterion can be interpreted as a targeted subsidy strategy. Only lower middle and low income countries are eligible for tied aid. This is a very rough form of targeting and does not take into account regional differences within countries. The country-eligibility criterion is a weak targeting strategy because it can be interpreted as a strategy to exclude richer countries rather than defining an intended target group of beneficiaries. The Participants do not define who the intended beneficiaries of tied aid credits are. A reasonable explanation is that the original purpose of the Arrangement was not to provide financing for developing countries, but to limit market distortions following an export credit race among industrialized countries. (Fritz 2013: 78ff)

The Participants have agreed on a targeting strategy for tied aid credits based on project characteristics. Only financially and commercially non-viable projects are eligible for tied aid. The so called two key tests assess whether projects (1) have the capacity to generate sufficient cash flow to cover the project's operating costs and additionally service the capital employed (financially viability) and (2) are able to access financing for the project at market or Arrangement terms (commercial viability).

The first key test on financial viability is grounded in economic reasoning. As described in chapter 4 certain goods, either public goods, or goods with public-good characteristics "lack capacity with appropriate pricing determined on market principles". (TAD/PG(2013)1: 21) Consequently these groups of goods are not produced in a socially desired quantity, if left to the market. In this case market intervention is justified. The second key test on commercial viability assesses whether a project can be financed on market or Arrangement terms. Financial non-viability most likely leads to commercial non-viability. But even if a project is financially viable it can lack access to financing on market terms. Consequently market

intervention is justified. Concessional financing by donors should only be provided for those projects that would otherwise not attract financing.

The two criteria financial and commercial non-viability can be interpreted as needs-oriented targeting strategy justified on economic grounds. According to the Arrangement terms, the key tests do not apply for tied aid with a concessionality level of 80 % or more, except for associated financing packages. Highly-concessional loans and grants are therefore not subject to the eligibility criteria. Furthermore, the key tests are an instrument to identify market distortions and consequently enhance transparency. Therefore, there is no reason why highly-concessional tied aid should not be subject to the two key tests.

The country and project criteria are specific but not easily measurable. Consultation procedures are intended to discuss eligibility of projects. The Participants have responded to this problem by establishing the *ex ante* guidance, giving guidance to potential exporters and financial institutions on whether a project is likely to be eligible for tied aid, or not.

7.6. Appropriateness of minimum concessionality levels

The Arrangement defines a minimum concessionality level for tied aid of 35 % and 50 % if the recipient country is a Least Developed Country (LDC). The required higher minimum concessionality level for LDCs is based on the assumption that projects in poor countries lack commercial viability to a greater extent and have a higher need of external resources. Consequently the higher required concessionality level appears reasonable. The concessionality thresholds are not based on the project need of financing. Financially non-viable projects are investments that do not generate enough revenues. The answer to the question, how much resources are additionally needed, is determined by each project and its circumstances. Therefore it is economically reasonable that the concessionality level should vary according to the project, sector, and country. But as stated above it is reasonable to assume that projects in LDCs generally have a greater need of additional resources. The Arrangement terms set no explicit rules for maximum concessionality levels e.g., depending on the degree of financial viability. Implicitly, official support is limited to 85 % of the contract value because the Arrangement terms require a down payment of at least 15 %. Empirical research is needed to show if national programs apply additional criteria and if concessionality levels vary according to sector, country, or project.

7.7. Incoherences between the Participants and the DAC

This thesis finds incoherences in wording and measures between the Participants and the DAC. The Participants' mandate is to "provide the institutional framework for an orderly market for officially supported export credits". (OECD 2013c) The DAC's mandate is "promote development co-operation and other policies so as to contribute to sustainable development". (DAC 2013) Hence their policy goals are different or even conflicting.

This difference is further expressed in the divergent understanding of the term "tied aid". "Tied aid" as defined by the Participants does not express the same as the term "tied aid" used by the DAC. The Participants refer to "tied aid" in conformity with the Arrangement terms. The DAC uses the term "tied aid" as an equivalent to "tied ODA".

The most noticeable difference between the Participant and the DAC is the discount rate used to express the softness of a loan. Both, the Participants and the DAC, use the same method of calculation. But the Participants apply a market-based discount rate (DDR) for calculating the concessionality level of a loan, the DAC, on the other hand, applies a uniform discount rate of 10 % to calculate the grant element. As for the calculation of the grant element, in times when donor countries are able to borrow capital at very low interest rates, it is not appropriate to use the uniform 10 % discount rate. The DAC should apply a grant element that represents the real costs to the donor making funds available. The grant element and the concessionality level are an expression of the softness of the credit, which is determined by interest rate, grace periods, maturity, coverage of part of principal payment and the discount rate applied. The softness of a loan should ideally be expressed as the difference between cost of lending based on market terms and concessional terms, under the assumption that the cost at market terms are easily determined. Raynauld (1992: 14) adds that "subsidies represent a cost to the creditor country in terms of physical or financial resources, while for the debtor countries they constitute, other things being equal, a benefit received. It should be pointed out, however, that the cost to the lender is usually not equal to the benefit received by the borrower." Concessionality therefore can be measured at two points of measurement, the donor's side as well as the recipient's standpoint. Looking at the method of calculating the grant element or concessionality level from the borrower's perspective, the analysis showed that the method used by the Participants and the DAC to calculate the softness of a loan overestimates the concessionality level. A measure of softness, from the borrower's perspective, should reflect the opportunity cost of market-based financing. Otherwise, the mere inclusion of the interest rate of the credit generates concessionality.

Section 3.2 showed that in order for a loan to qualify as ODA loan, its primary motivation must be developmental. Export credits are therefore excluded from ODA by definition. A tied ODA loan and an export credit may finance a similar project, with the same concessionality level and similar financial terms. Given the DAC statistical directives, they are reported in two different categories in the DAC statistics depending on the motivation of the flow. It is questionable whether the motivational test is effective in indicating if a credit was truly granted to promote economic development and welfare in the recipient country, because no matter what the main motivation for a tied credit is, it supports commercial interests of the extending country as well. Additionally I argue that the DAC is inconsistent in assessing whether a flow is aid or trade motivated. An officially supported export credit is per definition commercially motivated. I argue that it is inconsistent to accept that a subsidy to a credit is developmentally motivated when the credit is not, and that the motivation criterion is being undermined. Therefore, associated financing packages as defined by the DAC should be treated as one single flow and be categorized as either developmentally- or commercially-oriented.

Among others, the criteria for a flow to be ODA eligible is a minimum grant element of 25 % and additionally concessionality in character. The example in Section 3.3 showed that the calculated grant element translates into very low concessionality levels, especially in times when donor countries are able to borrow capital at very low interest rates. It is questionable whether those loans are “concessional in character”. Since the Arrangement allows concessionality levels for tied aid at a minimum of 35 % and 50 % for LDCs it provides stricter rules for concessional export credits than the DAC for ODA loans. The term “concessionality” is therefore given more emphasis by the Participants than by the DAC. This appears to be the result of different political objectives in the two groups. The Participants intended to lower the volume of tied aid credits by making them more expensive through higher minimum concessionality levels, the DAC members’ objective, on the other hand, appears to be a high ODA/GNI ratio.

Apart from the problem of low concessionality discussed, I underline that donors’ reporting on the tying status of ODA is based on rather weak practical guidance on how to apply the definition of “untied aid”. This leads to the assumption that some ODA loans reported as untied are in effect tied. Apart from that, the Arrangement sets out rules for tied aid that are more restrictive than those for untied aid. Given that the Arrangement terms for tied aid are to a great extent based on economic theory and consequently achieve legitimacy, I argue that a stricter monitoring of the tying status in order to raise standards for aid is needed. The

monitoring of the tying status of aid requires the development and agreement of more detailed criteria for untied aid.

Section 6.2.1 further concluded that there is reason for doubt that all ODA loans reported as untied are de facto untied. However, if those loans are in some form tied to procurement from the donor country, this would require them to comply with Arrangement terms. Untied loans with a minimum grant element as low as 25 % currently comply with the DAC criteria to qualify for ODA eligibility.

When looking at the ODA tables it becomes clear that more transparency and disaggregated data is needed for researchers to facilitate proper analysis of ODA and other financial flows to developing countries. The current practice of publishing loans lacks transparency because the DAC does not publish details on the financial terms of ODA loans. The grant element of an ODA loan for example can range between 25 % and 99 %. Currently DAC statistics do not provide sufficient data to calculate the fiscal effort by donor countries in a given year. Given that ODA should represent a budgetary effort and thus spending from taxpayers' money, civil society should have comprehensive access to data on official flows in order to evaluate them properly.

Finally the example in Table 11 (page 86) demonstrates that “tied aid credits” as defined by the Participants is too narrow to analyze the field of tied aid. I argue that the focus should be put on the financial terms of a financing instrument. Whether a credit is reported as tied or untied is just one aspect when evaluating an instrument of development finance. As for the DAC, I argue that the motivational test, which looks at the institutional and legal framework, is not sufficient in assessing whether a credit has development as its main objective.

7.8. Assessment of the statistical data

Chapter 6 presents statistical data on tied aid. Looking at the recipient side of tied aid raises the question whether tied aid credits are directed to countries that are in need of concessional financing or most attractive for lending. I argue that countries that are rapidly developing are more attractive lenders. Between 1995 and 2005 71 % of the volume of tied aid (notifications) went to lower middle income countries²¹ and 3 % to countries that were classified as upper middle income countries by 2005. China is by far the largest recipient of tied aid receiving 18 % of all tied aid and 20 % of Helsinki-type tied aid. According to the

²¹ The respective data uses classification data of 2005.

World Bank Analytical Classifications, China classifies as an upper middle income country since 2010. The analyzed data demonstrates that tied aid credits (notifications) go to few countries. Lower middle income countries received the greatest share of tied aid. This may be partly explained because tied aid credits to LDCs as defined by the UN require a higher concessionality level of 50 % or more and are therefore more expensive for donors. This leads to the assumption that exports to rapidly developing lower middle income countries are more attractive. A possible reason is that tied aid credits are used as an instrument to enhance entry in new evolving markets. Tied aid credit programs aim at directly linking donor countries' products and businesses with new markets. Further economically developing countries carry a lower risk of payment default. On the other hand, poorer developing countries face greater difficulty in accessing financial markets and have less repayment capacity.

Section 4.1.3 identifies goods and sectors that should be financed or produced publicly and concludes that the answer to whether a project should be financed on concessional or on market terms is determined by the project characteristics and circumstances. With respect to the sectoral distribution the statistical data showed that the largest sector is Transport and Storage with a share of 36 % of total tied aid, followed by Water Supply and Sanitation (15 %) and Energy Generation and Supply (14 %). The sector Health accounts for 6 % and Education for 4 % of the total volume of tied aid. All of the named sectors are reflected in the list of sectors that have been identified as classical sectors for market intervention by governments. The same holds for highly-concessional tied aid. I find that most notifications (number) are attributed to listed sectors. But when looking at the distribution of de minimis tied aid 26 % of notifications (number) were recorded in the sector Industry. I argue that projects in the sector Industry are more likely to be commercially viable. De minimis notifications are exempted from prior notification. Fritz (original emphasis; 2013: 102) finds that de minimis offers "are exempted from the administrative requirements of the Helsinki Package – essentially the consultation procedure -, but should nonetheless be administered "in the spirit" of the Arrangement". Looking at the great difference in the sectoral distribution between tied aid larger than SDR 2 million and de minimis tied aid leads to the assumption that requirements of the Helsinki criteria are loosely applied to de minimis tied aid.

8. Conclusion

Tied aid credits are a bilateral instrument for financing development. “Bilateral lending is often criticized, because it serves the interest of the lender more than those of the borrower.” (Sheppard et al. 2009: 560) This thesis analyzed to which extent tied aid credits are conducive to development and to which extent the regulatory framework, the Arrangement on officially supported export credits, addresses developing countries’ needs.

Providing loans for investment projects that would otherwise not attract resources is economically justified. But according to economic theory financing should not be tied to the procurement from the donor country. On the contrary a financing package should be untied. Untied procurement is preferable because it does not constrain consumer choice or distort markets. Goods or services can in principle be sourced on the world market where competition is more intense and where producers compete on price and quality. From a developing countries’ perspective tied aid limits the options available to a country to choose the best price and most appropriate technology or product. Additionally, the Arrangement currently limits local procurement to 30 % of the contract value. But for instruments in order to be developmentally sound local procurement from the recipient country should be maximized.

The analysis of the statistical data concluded that within the given framework richer developing countries benefit more from tied aid than poor developing countries. The analysis demonstrated that only 5 recipient countries accounted for almost half of the volume of total tied aid. Therefore it is questionable whether tied aid credits benefit those countries most in need of external financing. Looking at the statistical data I conclude that with the exception of de minimis tied aid, projects financed by tied aid are in conformity with the sectors that have been identified as classical sectors for market intervention by governments. Overall the instrument tied aid credits have lost their importance compared to total bilateral ODA.

Within the scope of this thesis, transparency of donor countries in reporting tied aid credits was reviewed. Both, the Participants and the DAC record data on tied aid credits. Detailed and recent information on export credits and particularly tied aid credits is not publicly available to a sufficient extent. Additionally, when analyzing the statistical data on ODA and OOFs provided by the DAC, detailed and comprehensible descriptions of statistical categories are hardly available for users of the DAC databases. This lack of detailed and recent data and information on tied aid credits can be interpreted as lack of transparency. DAC members have the power to decide on the scope of information made publicly

available. The restrictions on data access exclude civil society from critically analyzing these flows. External revision is limited to data provided for public purposes. This limits any research conducted on this topic and leaves analyses to those who own the data – the OECD bodies. As for the Participants, the situation is similar. Access to recent data on tied aid is restricted. Only certain historical data is made available to external researchers.

Within the scope of the OECD the Participants establish the rules for officially supported export credits, collect the data, and analyze the data. The same holds for the DAC which has a monopoly for comprehensively assessing ODA and other flows to developing countries. There is no separation of competences between the bodies establishing the rules and evaluating the implementation of the rules.

ECAs, DFIs, or similar institutions extend credits to developing countries. They use the creditworthiness of the donor country to borrow capital at (currently very) low interest rates and pass them on to developing countries in form of concessional credits. Additionally official support may include a fiscal effort by the donor country. Since credits are guaranteed by donor countries' taxpayers and possibly include a subsidy (fiscal effort), civil society should have comprehensive access to data on official flows in order to be able to evaluate them properly. This would enhance controllability of the national programs. According to Manning (2013), "(p)ublic resources, including aid, are a scarce commodity and need to be used effectively. So transparency, accountability and better evaluation in respect of all public spending - including, but certainly not limited to, aid - are vital."

This thesis addressed the conceptual framework of tied aid credits. Many questions regarding the national implementation of the Arrangement terms, which leave room for the program designs and individual contracts, and the actual use of the instrument have to be answered on the country level. And finally, I highlight that further research is needed to answer the question whether tied aid credits are effective for development. I conclude that developmental effectiveness depends on the recipient countries' capabilities to formulate invitations to tender and assess offers, as well as their degree of power in shaping bilateral contracts in their interest and ownership in projects are essential for the developmental outcome.

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Annex

List of interviews

Name	Institution/ Position	Date
John Evans	Trade Union Advisory Committee to the OECD (TUAC) (General Secretary)	02.07.2012
Kamran Kazamzadeh	Austrian Permanent Mission to the OECD (Wirtschafts- und Finanzattaché)	29.06.2012
Frans Lammersen	OECD Development Directorate (DCD/DAC) (former Chairman of the Participants Consultation Group and Vice Chairman of the Participants to the Arrangement on Officially Supported Export Credits)	03.07.2012
Silvia Maca and Christoph Kreutler	Federal Ministry of Finance (Ausfuhrfinanzierung, Internationale Ausfuhrförderungspolitik, Risikocontrolling Ausfuhrförderung)	22.06.2012
Bill Nicol	OECD Development Directorate (DCD/DAC) (Senior Counsellor)	05.07.2012
Marielies Rehor	Bundesministerium für auswärtige Angelegenheiten / Federal Ministry for European and International Affairs (former Head of the Finance Division, Department for Development Co-operation)	01.08.2012
Francois De Ricoflis	Export Credit Division (Head of the Working Party on Export Credits and Credit Guarantees (ECG) and the Participants to the Arrangement on Officially Supported Export Credits -the Participants)	20.07.2012
Steve Tvardek	Export Credits Division, Trade and Agriculture Directorate (Head of Division)	04.07.2012
Consultation Meetings		
Michael Obrovsky	Austrian Research Foundation for International Development (ÖFSE)	June 2012
Hedwig Riegler	DAC Working Party on Statistical Aspects (WP-STAT)	April and May 2013
Klaus Steiner	Austrian Federal Ministry for European and International Affairs (BmeiA)	May 2012

Coding of OECD Documents

Code	Corresponding body
DAC/FA	Development Assistance Committee - Working Party on Financial Aspects of Development Assistance
DCD/DAC/STAT	Development Assistance Committee - DAC Working Party on Development Finance Statistics
TD/CONSENSUS, TD/PG, TAD/PG	Trade Directorate - Participants Group

English Abstract

Bilateral lending and tied aid credits in particular are often criticized because the instrument serves the interest of the lender more than those of the borrower. This topic lies between two policy fields: export promotion and development cooperation. Per definition, export credits are not eligible for official development assistance (ODA) but government subsidies to these credits for developmental purposes can be reported as ODA grant. By means of economic theory, the thesis assesses and critically discusses whether tied aid credits are conducive to finance development and to which extent the regulatory framework, the Arrangement on Officially Supported Export Credits, reflects developing countries' needs. The analysis finds that providing concessional loans for good development projects that would otherwise not be financed are economically justified. Financing should not be tied to procurement from the donor country and in order to be developmentally sound procurement from the recipient country should be maximized. In a second step, statistical data is analyzed to demonstrate the importance of tied aid credits as an instrument of development finance, further leading to a discussion of the reporting practices of tied aid credits. The analysis finds that few countries benefit from the instrument. Therefore it is questionable whether tied aid credits benefit those countries most in need of external financing. Overall, the analysis was limited by insufficient access to comprehensive data, which is vital for in depth evaluation, transparency, and accountability.

German Abstract

Bilaterale Kreditvergabe und insbesondere staatlich gestützte Kredite, die an Lieferungen bzw. Leistungen des Geberlandes gebunden sind (engl. *tied aid credits*), stehen unter der Kritik eher den Interessen der Geberländer, als jenen der Empfängerländer zu nützen. Das untersuchte Finanzierungsinstrument liegt zwischen den Politikfeldern Exportförderung und Entwicklungszusammenarbeit. Per definitionem sind zwar staatlich gestützte Exportkredite nicht als öffentliche Entwicklungshilfe (ODA) anrechenbar. Stützungsleistungen der öffentlichen Hand, sofern sie entwicklungspolitisch motiviert sind, können jedoch als ODA gemeldet werden. Die Arbeit analysiert anhand von ökonomischer Theorie und diskutiert kritisch die entwicklungspolitische Angemessenheit von *tied aid credits* als Instrument der Entwicklungsfinanzierung. Dabei werden auch die im regulativen Rahmen, dem Arrangement on Officially Supported Export Credits, festgelegten Finanzierungsbedingungen überprüft. Die Analyse kommt zum Ergebnis, dass die Vergabe von gestützten Krediten dann angemessen ist, wenn gute Entwicklungsprojekte anderweitig nicht finanziert werden. Die Gebundenheit der Finanzierung an Lieferungen bzw. Leistungen des Geberlandes ist ökonomisch jedoch nicht sinnvoll. Entwicklungspolitisch motivierte Projekte sollten lokale Beschaffung maximieren. Der zweite Teil dieser Arbeit geht durch die Analyse statistischer Daten auf die quantitative Bedeutung des Instruments ein und mündet in einer Diskussion über die Meldepraxis von *tied aid credits*. Da nur wenige Empfängerländer von dem Instrument profitieren, ist es fraglich, ob es jenen Ländern mit einem begründeten Bedarf an externen Finanzierungsmitteln zu Gute kommt. Alles in allem wurde die Analyse des Instruments stark durch den begrenzten Zugang zu umfassenden Daten, der für eine tiefergehende Analyse, Transparenz und Rechenschaft gegenüber der Öffentlichkeit, wesentlich ist, eingeschränkt.

Curriculum Vitae

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