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Master's Thesis

Does the EU need to more strongly integrate its development cooperation policy? A study on the coherence of national and supra-national development cooperation policies within the EU.

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Abstract

Policy coherence is one of the crucial challenges today's development cooperation policies are confronted with. Based on the data of the Commitment to Development Index (CDI), this thesis analyses the vertical coherence of national and supra-national development cooperation policies within the EU using two case studies. A newly developed index to evaluate policy coherence for development allows for a systematic and transparent analysis of the policy fields represented by the (sub-) components of the CDI. The results obtained are put in relation with the respective degree of policy integration in these fields, confirming a positive link between policy integration and vertical policy coherence within the EU. Thereby, a number of policy fields are identified in which further policy integration is required to unleash the full potential of development cooperation for both developing countries and the EU.

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List of Abbreviations

| CDI | Commitment to Development Index |
|-----|----------------------------------|
| CFP | Common Fisheries Policy |
| CGD | Center for Global Development |
| D | Federal Republic of Germany |
| DAC | Development Assistance Committee |

| DCPCC | Development Cooperation Policy Coherence Coefficient |
|-------|---|
| EAP | East Asia & the Pacific |
| ECA | Europe & Central Asia |
| EFF | European Fisheries Fund |
| EIB | European Investment Bank |
| EU | European Union |
| GDP | Gross Domestic Product |
| GHG | Greenhouse gas |
| GNI | Gross National Product |
| HDI | Human Development Index |
| IDP | Internally displaced people |
| IMF | International Monetary Fund |
| IPRs | Intellectual property rights |
| LAC | Latin America & the Caribbean |
| MDG | Millennium Development Goal |
| MNA | Middle East & North Africa |
| NGO | Non-government organisation |
| ODA | Official Development Assistance |
| OECD | Organization for Economic Cooperation and Development |
| OEEC | Organization for European Economic Cooperation |
| SAS | South Asia |
| SSA | Sub-Saharan Africa |
| TEU | Treaty on the European Union |
| TFEU | Treaty on the Functioning of the European Union |
| UK | United Kingdom of Great Britain and Northern Ireland |
| UN | United Nations |
| UNHCR | United Nations High Commission for Refugees |
| WTO | World Trade Organization |

1 Introduction

At the beginning of this year, on 9 January 2015, the European Union (EU) launched the European Year for Development. As the President of the European Commission, Jean-Claude Juncker, pointed out during his opening speech in Riga one aim of the European development cooperation is "to strengthen Europe as a global actor" which would benefit all Europeans "in our interdependent world". Global warming and international terrorism are only two out of many examples which highlight that the important challenges of our time can only be dealt with at a global level and in a cooperative manner. Development cooperation is widely seen to be a decisive tool to tackle some of the root causes of these global challenges, amongst others by helping to reduce extreme poverty and thus creating the basis for lasting peace, by fostering sustainable development and by building up global economic and political partnerships between developing and developed countries. Thus, development cooperation is of utmost importance for the EU, its Member States and its citizens: it not only provides the opportunity to tackle today's great challenges in cooperation with partners but also increases the influence of the EU and its Member States in international politics and thus allows them to actively shape the global power architecture. But is the EU prepared to cope with these challenges and thus to seize the associated opportunities?

The Treaty of Lisbon that came into power in December 2009 launched a new institutional setting of the EU which had a decisive impact on its external relations and thus on its development cooperation policy. Not only was the Common Foreign and Security Policy strengthened, e.g. through the addition of the High Representative, but development cooperation was also established as a fundamental component of the Union's external action.

Nonetheless, scholars and professional analysts see major weaknesses in its architecture particularly concerning the role of development cooperation. The European Think Tanks Group which consists of four leading European international cooperation think tanks is among the critics. One of its major criticisms is the lack of cooperation and coordination of the different national and EU policies that affect development issues provided within the framework of the Treaty of Lisbon. (European Think Tanks Group, 2010) (Grimm, et al., 2010) Due to these shortcomings some scholars therefore are convinced that "the future of the [national] development policy will lie in a common and coherent development policy of the EU-countries." (Ihne, et al., 2006) But the question remains whether more centralisation will allow for more coherence between the national and the supra-national development policies within the EU. (Grimm, et al., 2010)

Following the definition by the neo-functionalist Ernst Haas, policy integration can be understood as the shift of formerly national political activities "toward a new and larger centre", in this case the EU. (Haas, 1961) This shift of activities can come in different forms and degrees, be it by transferring exclusive, shared or supporting competences toward the EU or by increasing the coordination of activities at EU level. Going forward, within the context of this thesis this shall simply be referred to as a transfer of competence to the EU level. The question of whether and to which extent the EU should engage in a particular policy area is probably among the most widely (and most emotionally) discussed issues in European political debates. The long ongoing, fundamental debate on deepening and widening of the EU may point out the particular relevance of this topic. After all, the question of the most appropriate level of policy integration is at the core of a principle that guides the EU: subsidiarity. Naturally, this includes the area of development cooperation.

The research question for this Master's thesis is therefore related to the very question of how deeply the EU should integrate in the field of development cooperation policy. It is so by trying to give an answer to whether the political practice in the field of development cooperation shows deficiencies in terms of the coherence of national and supra-national policies. More importantly, it tries to link the question of policy coherence with that of

policy integration. This thesis shall therefore not assess the coherence of different policies at a *specific* administrative level (national *or* supranational), but rather the coherence of a specific policy area at *different* administrative levels (national *and* supra-national).

By analysing different policies influencing the development of developing countries the nature of the relation between policy coherence and policy integration in the field of development cooperation shall be assessed. The hypothesis is that both are positively linked so that a low level of coherence of the policies affecting developing countries could be seen as an indicator that further integration in this policy area is recommended. On the other hand, a high level of policy coherence could then lead to the conclusion that the policy integration has reached a sufficient level and should, according to the principle of subsidiarity which states that tasks should be carried out at the lowest level suitable, not be further increased.

In order to answer this question in chapter 2 the topic of development cooperation shall be introduced. First, the most important key terms of development shall be defined in a brief manner. These key terms build the basis for the further discussion of the historical development of the discipline which in turn allows for a deeper understanding of the current approach to development cooperation. This approach is also reflected in the internationally agreed goals and targets of development cooperation which shall be subsequently introduced. Additionally, the role of development cooperation within the EU shall be briefly discussed. The chapter will conclude with a short discussion of the criticism of the current approach of development cooperation touching upon some of the most important currently debated issues.

Subsequently, chapter 3 shall elaborate on the current debate on policy coherence with a focus on its implications for development cooperation. For this purpose the theoretical distinction between horizontal and vertical policy coherence shall be introduced. Then, the topic of horizontal and vertical policy coherence shall be placed in the context of the EU and its development cooperation policy. Finally, in order to allow for a systematic assessment of the coherence of development cooperation policies within the EU an index assessing government activities in different policy fields concerning their focus on the development of developing countries, the Commitment to Development Index (CDI), shall be introduced.

Building on the basis of the previous two chapters, chapter 4 shall finally provide the assessment of the coherence of national and supra-national development cooperation policies within the EU. Based on the previously introduced CDI, case studies will be presented to examine the national data of the United Kingdom (UK) and Germany (D), in relation to the respective EU data on a number of policies influencing the development of developing countries. For this purpose the Development Cooperation Policy Coherence Coefficient (DCPCC) shall be introduced allowing for a systematic and transparent evaluation. The thesis will conclude with a categorisation of the policy fields which shall provide an overall assessment of the link between policy coherence and policy integration and an answer to the question of whether further integration of development cooperation policies within the EU is advisable.

2 Fundamentals of development cooperation

In the following the fundamentals of development cooperation shall be discussed. First, the most essential definitions of key terms of development cooperation shall be introduced. In a second step, the historical development of the discipline shall be laid out in order to sharpen the understanding of how the current approach to development cooperation was arrived at. Third, the internationally agreed goals and targets of development cooperation shall be briefly discussed. Fourth, the institutional grounds of the EU's development cooperation policy and its stands shall be examined. Last, commonly expressed criticism and currently debated issues shall be pointed out.

2.1 Definition of key terms

The term *development* in the context of development cooperation is a multi-faceted term that describes the societal evolvement of a variety of dimensions from culture, environment and economy to politics, individuals and technology. These dimensions are not independent from each other but on the contrary mutually interdependent. (Ihne, et al., 2006) Even though the concept of development implies a certain progress in the mentioned dimensions it must be distinguished from the term *growth*. This term generally relates to a purely economic progress of a defined entity, e.g. the nation state. It is usually indicated by a percentage of the gross domestic product (GDP) or gross national income (GNI), both of which are measures of the size of a given economy. The *Human Development Index (HDI)* introduced by the United Nations (UN) aims to overcome the one-dimensional approach of economic growth by combining the economic standard of living (GNI per capita) with a health and an education dimension. (United Nations, 2014a)

Just as there is no uniform definition of development, there is no established classification of countries into developing countries and developed countries. The United Nations categorise countries according to their HDI score as low, medium, high and very high. (United Nations, 2014a) The predominant approach, however, is that of the Organization for Economic Cooperation and Development (OECD). Even though it lacks the encompassing, multi-faceted understanding of the concept of development, the approach has nonetheless gained an important standing in the field of development cooperation. It classifies *developing countries* into one of the following four categories according to their GNI per capita: least developed and other low-income countries (less than 1,045 US-\$, e.g. Laos, Somalia), lower middle-income countries (up to 4,125 US-\$, e.g. China, Ukraine) and upper middle-income countries (up to 12,745 US-\$, e.g. Chile, South Africa). (OECD, 2015a) The term *emerging country* can be understood as a subcategory referring only to those developing countries with an advanced level of industrialisation, like China or Brazil. (Ihne, et al., 2006) According to this approach, all countries with a GNI per capita of more than 12,745 US-\$ can then be considered to be *developed countries*.

The classification by the OECD is also one of the defining criteria of the internationally recognised benchmark for development aid of the OECD: the *Official Development Assistance (ODA)*. The ODA represents the benefits for developing countries provided by a specific developed country. In order for these benefits to be internationally recognised as development aid they need to fulfil three criteria. First, they need to be provided to those countries classified as developing countries by the OECD. Second, the benefits must serve the economic development or the improvement of the standard of living in these countries. Third, the benefits must be either grants or concessionary loans. (Klingebiel, 2013) These criteria again show the limited degree to which the OECD follows the multi-faceted understanding of the concept of development. Due to their importance in both literature and international politics they shall nonetheless be applied in this thesis.

2.2 Historical development of the discipline

In section 2.1 both the term "development cooperation" and the term "development aid" (which is used synonymously with the term "development assistance") have been applied. Their meaning is highly intertwined and both terms collectively stand as a symbol for the historical development of the current discipline of development policy.

Development aid as a discipline only emerged in the aftermath of World War II. Before, both short-term emergency aid as well as more longer-term development assistance was provided by developed countries to developing countries in a rather fitful manner and primarily to the countries' respective colonies. (Keeley, 2012) (Ihne, et al., 2006) In 1949, the recently re-elected US-President Truman was the first to officially address the need of development aid for developing countries. Interestingly, his speech coincided with the rise of a number of global institutions like the United Nations, the World Bank, the International Monetary Fund (IMF) or the Organization for European Economic Cooperation (OEEC) which later became the OECD. (Keeley, 2012)

The first years after 1949 were shaped by the decolonisation particularly in Africa and Southeast Asia leading to what later became known as the "glory years for development assistance". (Keeley, 2012) In 1961, the United Nations proclaimed the first United Nations Development Decade. According to Ihne et al., the time since 1961 can then be subdivided into 5 development decades. (Ihne, et al., 2006)

In the first development decade (1961 to 1970) the focus was laid on the promotion of growth in order to overcome the "underdevelopment" of developing countries. (Ihne, et al., 2006) Development aid primarily aimed at improving the industrial infrastructure disregarding the traditionally important agricultural sector. (Keeley, 2012)(Ihne, et al., 2006) The approach followed the idea that economic growth would eventually increase the general standard of living in developing countries. (Keeley, 2012)

The critique on this approach which was particularly displayed in the so called Pearson report in 1969 led to a new strategy following basic human needs in the second development decade (1971 to 1980). As a consequence the direct fight against poverty and for the improvement of the hard living conditions of the people in developing countries became the new priority of development aid. (Hartmann, 2011) However, as Ihne et al. state, this change did not abolish the growth oriented approach but merely added the idea that results of growth should actually reach the people rather than supporting local elites. (Ihne, et al., 2006)

The third development decade (1981 to 1990) is also referred to as the lost decade. (Ihne, et al., 2006) The debt crisis in a number of developing countries which reached its first peak when Mexico defaulted in 1982 again changed the international approach to development aid. Developed countries and international organisations like the Word Bank or the IMF increasingly demanded structural adjustments from developing countries in return for their aid. These measures often came to the detriment of the social situation in the countries concerned which in turn led to increased international criticism. (Keeley, 2012) (Ihne, et al., 2006) Alongside this development, non-government organisations (NGOs) gained ever more importance in the field of development aid. (Keeley, 2012)

The beginning of the fourth development decade (1991 to 2000) was marked by the collapse of the Soviet bloc. Due to the suddenly missing geopolitical motivations for development aid in large parts of the world the ODA decreased by nearly one third within a decade. Additionally, the regional focus was then laid much more on Central and Eastern Europe. (Keeley, 2012) Moreover, the strategy of development aid changed. Based on the so called Brundtland report from 1987 the idea of "sustainable development" that considers the ability of future generations to meet their needs began to prevail. (Hartmann, 2011) It refers to a notion of development that includes not only economic growth but also social/political/cultural and ecological development. The focus therefore shifted from bold structural reforms to a form of development aid that aims at improving the basic conditions for sustainable development like democracy, human rights, good governance and the rule of law (Ihne, et al., 2006)

The last decade that started in 2001 brought two important changes. First, the terror attacks on 9 September 2001 led to the establishment of a new perspective on development by emphasising the causal link between poverty and terrorism and thus of development and global security. This new development has to a certain degree changed the traditionally sceptical view of military instruments within the development community. (Ihne, et al., 2006) Second, a crucial paradigm shift could be observed introducing the notion of "development cooperation" instead of "development aid". This shift symbolises the new understanding of the relationship between developed and developing countries as a partnership on an equal footing with a much more self-confident position of the developing countries. (Keeley, 2012)

2.3 Goals and targets of development cooperation

In this section the two politically most important internationally agreed goals and targets of development cooperation shall be introduced.

The first target was already proposed in the Pearson report in 1969 following years of international discussions on how much ODA developed countries should give. In 1970, the UN General Assembly incorporated this proposal in one of its resolutions demanding donor countries to contribute 0.7 % of their GNI. (Keeley, 2012) Since then this target – though not binding – has become a politically relevant benchmark used as leverage to demand more commitment from developed countries. (Klingebiel, 2013) Nonetheless, there are only a few small countries that actually fulfil the 0.7 % target and based on the data of the past decades this is not expected to change. As shown in Figure 1 most of the members of the OECD Development Assistance Committee (DAC) in 2014 were far from reaching this international target. Figure 2 illustrates that the ODA provided by OECD/DAC members over the

past three decades has been relatively stable – though at a low level – with no indication of a future substantial increase.



Figure 1: OECD/DAC member states and their ODA as per cent of GNI in 2014, (OECD, 2015b).



Figure 2: Average ODA for all OECD/DAC member states as per cent of GNI from 1960 to 2014, (OECD, 2015b).

Second, in connection with the UN Millennium Summit in 2000, the UN General Assembly passed a resolution establishing the eight so called Millennium Development Goals (MDGs). (Andersen, 2011) These goals are listed below: (United Nations, 2015)

- MDG 1 Eradicate extreme poverty and hunger.
- MDG 2 Achieve universal primary education.
- MDG 3 Promote gender equality and empower women.
- MDG 4 Reduce child mortality.
- MDG 5 Improve maternal health.
- MDG 6 Combat HIV/Aids, Malaria and other diseases.
- MDG 7 Ensure environmental sustainability.
- MDG 8 Develop a global partnership for development.

A more extensive list including the MDGs' sub-targets can be found in Appendix 1. However, this enumeration already illustrates that the MDGs try to cover manifold fields of development from economy and education to health and environment while lacking other relevant fields like good governance or security. (Klingebiel, 2013) Set to be reached by this year and to be revised at the 2015 UN Climate Change Conference in Paris, the MDG targets can be considered as ambitious – some would argue over-ambitious. Recent reports by the UN show that in great parts of the world many of the MDG targets will not be achieved. (United Nations, 2014b) Nonetheless, beside the concrete results reached in some areas their contribution can be seen in shifting the development debate "away from how much is being spent on development to how much is being achieved". (The Economist, 2010)

2.4 The EU and development cooperation

Together with its Member States, the EU in 2014 remained the biggest contributor of ODA worldwide. Together they provided for more than half of the global ODA – or 58.2 billion Euros. (European Union, 2015) But how are

the competences concerning development cooperation distributed within the EU, who are the actors and what are the positions of the EU?

Since the Treaty of Lisbon the distribution of competences in the field of development cooperation is clearly defined. Article 4 Paragraph 4 of the Treaty on the Functioning of the European Union (TFEU) states:

"In the areas of development cooperation and humanitarian aid, the Union shall have competence to carry out activities and conduct a common policy; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs." (TFEU, 2012)

Development cooperation therefore falls under the category of shared competences allowing for parallel activities of both the EU and the Member States without restricting the latter. According to Article 210 Paragraph 1 TFEU both should, however, "coordinate their policies on development cooperation and [...] consult each other on their programmes". The European institution to promote this coordination is the European Commission (Directorate-General for International Cooperation and Development – EuropeAid). In the implementation of the Union's activities, the European Commission is supported by the European Investment Bank (EIB) (Article 209 Paragraph 3 TFEU). The European Parliament and the Council, following the ordinary legislative procedure of the EU, "adopt the measures necessary for the implementation" (Article 209 Paragraph 1). (TFEU, 2012)

The primary objective of the EU's development cooperation policy is "the reduction and, in the long term, the eradication of poverty" (Article 208 Paragraph 1 TFEU). In their European Consensus on Development of 2006, the European Parliament, the Council and the European Commission further elaborated on the common objectives, values and principles that drive the EU's development cooperation policy. Additionally, in this document all parties commit to achieving the 0.7 % target of the UN by 2015 (which observably most of the EU Member States have not accomplished).

(European Consensus on Development, 2006) In 2011, the European Commission proposed an Agenda for Change in order to increase the impact of the EU's development policy in terms of poverty-reduction. The agenda sets forth that the EU should concentrate on supporting "human rights, democracy and other key elements of good governance" as well as "inclusive and sustainable growth for human development". (European Commission, 2011)

2.5 Criticism and current debates

Critique on development aid or more recently on development cooperation is not new and there is a wide range of different points of criticism. On the one hand there is fundamental critique of development cooperation as a neo-colonial tool of suppression with a friendly face promoting a global economic system that favours the interests of the rich. (Wolff, 2011) On the other hand development cooperation and the actors involved are criticised for creating a "cartel of good intentions" primarily supporting an allegedly massive development bureaucracy. (Easterly, 2013)

In addition to those points of criticism, one of the most important critiques is that the positive impact of development cooperation on the development of poor countries – and thus its effectiveness – is questioned. (Wolff, 2011) (Klingebiel, 2013) Indeed, Keeley states that there is evidence that on a micro-level development projects do deliver beneficial results. Paradoxically, on a macro-level there is little or no empirical proof that development policies had a systematic impact on the development of developing countries. (Keeley, 2012)

In order to address the challenges development cooperation policies are confronted with, different approaches have been developed over the last years. Janus et al. identify two categories of answers to these challenges. First, there are conceptual approaches that refer to a global cooperation beyond the current state. The key words in this context are *global governance* and particularly *global public goods*. Second, they identify more reformoriented approaches. On the one hand the notion of *Beyond Aid* refers to the transformation of the field of development policy from mere aid to a more encompassing understanding of cooperation in numerous policy fields. On the other hand, proposals seeking to optimise the current system through continuous improvement aim at more *aid effectiveness*. (Janus, et al., 2013)

In the wake of the ongoing political and academic discussions on how to properly address the weaknesses of current development policies, within the EU one of the most intensely debated approaches is that of *policy coherence*. (Hoebink, 2010) In the following chapter 3 this concept shall therefore be discussed in detail.

3 Coherence of development cooperation policies

After discussing the fundamentals of development cooperation the matter of policy coherence shall be addressed. First, the notion of policy coherence shall be briefly discussed in a rather theoretical fashion by introducing the concepts of horizontal and vertical policy coherence. In all theoretical considerations the focus shall be laid on development cooperation. Second, the role of policy coherence for development in the EU shall be described. In a third step, the question of how to systematically assess the coherence of national and supra-national development cooperation policies within the EU shall be discussed. For this purpose the Commitment to Development Index (CDI) shall be introduced.

3.1 Horizontal and vertical policy coherence

The national and international political systems and particularly development policy are characterised by the interdependences of a variety of policy fields and their respective actors that too often do not get the attention they deserve. Discussing policy coherence therefore explicitly acknowledges this reality by analysing the challenges arising due to these interdependencies. (van der Hoeven, 2010)

There are a number of ways to categorise various types of policy coherence. (Hoebink, 2004a) For the purpose of this thesis, only the most widely-used alternative of distinguishing between horizontal and vertical policy coherence shall be introduced at this point. (Carbone, 2008) First, according to Carbone horizontal coherence of development policy refers to the "consistency between aid and non-aid policies" on a given hierarchical level – mostly the nation state – concerning their "combined contribution to development". (Carbone, 2008) This definition follows the idea of the OECD defining policy coherence for development as aiming to "enhance understanding of the development dimensions of member country policies and their impact on developing countries", considering "trade-offs and potential synergies" across different policy fields. (OECD, 2002) Picciotto denominates this element "intra-country coherence" emphasising thereby the horizontal nature of this category. (Picciotto, 2005)

Beside the interaction of different policies, the relevance of conflicting objectives of various stakeholders on a given hierarchical level should be considered. (van der Hoeven, 2010) This element is denominated by Picciotto as "internal coherence" referring to the consistency between objectives of government policies influencing the development of developing countries. (Picciotto, 2005) In this context, giving the example of the influence of European farmers on the EU's agricultural policy which has negative impacts on farmers in developing countries, Hoebink introduces the notion of "intended policy incoherence" by some stakeholders due to conflicting objectives. (Hoebink, 2004a)

Second, vertical policy coherence does not look at the coherence of policies at a specific level of governance (e.g. national *or* supra-national), but rather at the coherence of these policies between different administrative levels (e.g. national *and* supra-national). (Fresco, 2004) In this context Picciotto further distinguishes between "inter-country coherence" aiming at the consistency of policies of different developed countries affecting developing countries, and "donor-recipient coherence" aiming at the consistency of policies adopted by both developing and developed countries. (Picciotto, 2005)

For the EU, Carbone defines vertical policy coherence for development as referring to the

"relationship between the Member States and the EU [and to the] consistency between different policies across various Member States in terms of their contribution to development." (Carbone, 2008) In the following, this definition shall represent the perspective from which this thesis will analyse the coherence of national and supra-national development cooperation policies within the EU.

3.2 Policy coherence for development within the EU

Within the EU – coinciding with the surfacing of the debate on policy coherence in the 1990s – the matter of policy coherence for development was first treated in 1992/1993 with the conclusion of the Treaty of Maastricht. (van der Hoeven, 2010) In Article 208 Paragraph 1 (formerly Article 130v in the Treaty of Maastricht) the TFEU establishes that "the Union shall take account of the objectives of development cooperation in the policies that it implements which are likely to affect developing countries". (TFEU, 2012) However, it was only in 1994 when the European Commission first applied this article establishing the term "coherence" and using it as an argument to reduce beef export subsidies. (Picciotto, 2005)

Article 208 TFEU clearly reveals that the EU has a predominantly horizontal understanding of policy coherence for development hardly taking into account the vertical element of coherence between the EU and its Member States. This is particularly relevant since the Treaty of Maastricht in its Article 130u already clearly defined the EU's development cooperation policy as "complementary" to the Member States' policies. (Treaty of Maastricht, 1992) Complementarity, however, is said to constrain coherence. (Picciotto, 2005) The connection of the principles of coherence and complementarity together with the principle of coordination that was already introduced in the Pearson report in 1969 is known as the trilogy of the "Triple C" of development cooperation. (Hoebink, 2004b) Thus, it is only the coordination principle that adds the vertical perspective to the otherwise horizontal understanding of policy coherence for development within the EU.

Nonetheless, since the conclusion of the Treaty of Maastricht the European Union and particularly the European Commission have more and more increased their efforts related to policy coherence for development. (van der Hoeven, 2010) The biennial EU Report on Policy Coherence for Development published by the European Commission since 2007, the associated Council Conclusions on Policy Coherence for Development and the respective biennial resolutions by the European Parliament adopted since 2010 can be considered as a sign for this increased importance.

In the EU 2013 Report on Policy Coherence for Development the European Commission concludes that the main challenge for the EU in this field was the unanswered question of how to systematically assess policy coherence for development. (European Commission, 2013a) Following a vertical understanding of policy coherence, van der Hoeven suggests an "intertemporal and inter-country" comparison of appropriate indices in order to be able to assess the progress in coherence. (van der Hoeven, 2010) Like Carbone, he advocates the Commitment to Development Index (CDI) developed by the Center for Global Development (CGD), an American think tank established in 2001 that since then has gained a reputation as an independent, practice-oriented institute not only in the United States but also in Europe and beyond. Both argue that the CDI can be seen as a measure for vertical policy coherence in development cooperation. (Carbone, 2008) (van der Hoeven, 2010) In the following, the CDI shall therefore be discussed at length.

3.3 Commitment to Development Index (CDI)

The Commitment to Development Index (CDI) aims to rank countries and their government's performance in different policy fields according to their contribution to the facilitation of the development in developing countries. By doing so, a discussion is being triggered on how different policies affect developing countries in their struggle to develop and how this effect can be quantified. (Roodman, 2013) It therefore contributes to the ongoing educational process of understanding development cooperation in a broader sense beyond mere direct financial help and disaster relief. In the following, the methodology of how the CDI is arrived at and its seven defining components shall be discussed in detail. Additionally, criticism offered against the CDI shall be introduced. Eventually, this approach offers the opportunity to come to a well-founded understanding of the data being used in the following chapter 4 in order to assess the coherence of national and supra-national development cooperation policies within the EU.

3.3.1 Methodology behind the CDI

The methodology to calculate the CDI has been adopted various times since the first round in 2003. Naturally, the methodology presented here will be the most current one applied in 2013, the more so as this methodology was also applied retrospectively to all years since 2003.

The CDI combines the results of the assessment of seven defining components in terms of their influence on facilitating the development of developing countries. The seven components are the following: (Center for Global Development, 2013)

- Aid,
- Trade,
- Finance,
- Migration,
- Environment,
- Security,
- Technology.

Each component is rated following three characteristics. First, the score is given in relation to the performance of the other countries assessed. The standardised average for each component in a given year is defined as 5. Countries performing worse than average consequently reach less than 5 points, while those performing better than average achieve more. Second, the standard deviation of the scores should be the same for each component. This means that for each component countries should be graded following the same distribution in order to avoid shifts in weighting between the different components. Third, due to the combination of the first two characteristics the scores for each component do not necessarily fall within a certain scale, e.g. 0 to 10. Values may very well exceed the "maximum" value of 10 or fall below 0. However, the characteristic persists that components measuring "goods" (such as aid, finance, migration, security and technology) should score lowest – and those measuring "bads" (such as environmental harm and trade barriers) should score highest – if no such "good" – or "bad" – is delivered. (Roodman, 2013)

When it comes to calculating the final CDI score, the scores of the seven components are equally weighted. According to David Roodman, one of the architects and managers of the CDI, the choice of attributing an equal weight to each component follows the simple insight that so far there is no wellfounded knowledge on the relative impact of the various fields compared to each other. The choice of equal weighting therefore seemed to be the least arbitrary. (Roodman, 2013) However, each component again is composed of a number of sub-components. A detailed description of the parameters defining the score of the different components will follow in section 3.3.2. Generally, the weight of these different sub-components within the seven main components may vary. The weight of each sub-component is defined a-priori following the recommendations of experienced experts. (Roodman, 2013) Hence, other than in the case of comparing the relative impact of the different components of the CDI, the architects of the CDI seem to be sufficiently confident to attribute different weights to the sub-components of those very components.

Additionally to the calculation of the impact of countries' policies on the development of all developing countries worldwide, the CDI is also calculated for each of the six world regions defined by the World Bank (cf. Figure 3). These data allow differentiating between various regional focuses of particular countries in their development cooperation efforts. However,

some of the CDI's components, namely finance, environment and technology, are adopted from the global CDI without modification, indicating that the impacts of the policies in question cannot be regionally differentiated. The same holds true for some of the sub-components of the remaining four main components. These cases will be further discussed in section 3.3.2 when the various components are presented in detail.



Figure 3: Six world regions defined by the World Bank, (World Bank, 2011).

The CDI not only evaluates the performance of sovereign, recognised states but also considers Europe as a whole and in particular the European Union acknowledging the increasingly important role of the EU as an international actor. For the purpose of this thesis, the data for the EU will be used. Depending on the nature of these data, they are attained either by simply aggregating the data of EU Member States or by calculating a weighted average of the EU Member States depending on their GDP in purchasing power parity terms. (Roodman, 2013) By doing so, the CGD aims to represent the EU in its calculations of the CDI as if it were one country. Obviously, this is currently not the case. However, the data offer the chance to assess the correlation between the aggregated EU data and the data of its national Member States. It thereby becomes possible to draw conclusions concerning the degree of coherence of national and supra-national policies within the EU.

3.3.2 The seven main components and their relevance for development cooperation

In this section the seven main components shall be examined in more detail indicating the sub-components and parameters that define the main components' score and discussing their relevance for development cooperation.

<u>Aid</u>

The first component – aid – is also the most obvious one since it contains those elements that are generally understood to be defining for a country's contribution to the development of developing countries. The fact that other policies play an equally important role in these efforts – as described in chapter 2 – does not imply that aid itself is in any way less important. On the contrary, countries and their efforts in reaching the Millennium Development Goals are still very much judged based on their aid expenditures. As described in section 2.3, in this context the 0.7 % target of the UN has become a "political mantra" used by aid activists and politicians alike. (Clemens, et al., 2007)

Consequently, aid has become one of the main components of the CDI. It consists of two main parameters: On the one hand, it takes into account the total quality adjusted official aid relative to a country's GNI. The initial point of this parameter is the ODA that is also applied for the calculation of the 0.7 % target. These data reflecting the country's aid quantity, however, are in a next step adjusted following three different quality criteria. First, "tied" or "partially untied" aid is discounted 20 % respectively 10 % in order to reflect the higher project costs in these cases. Second, a "selectivity weight" is introduced in order to take into account that beneficiary countries differ in terms of their appropriateness to receive aid. Third, the problem of project proliferation that "is thought to overburden recipient governments with administrative and reporting responsibilities, and lure the most talented

workers out of government and into the employ of the donors" is addressed by introducing a last discounting factor for each donor-recipient pair. (Roodman, 2013)

On the other hand, not only official government aid but also tax policy induced quality adjusted charitable giving relative to a country's GNI is taken into account. In order to quantify these amounts, both the effect of direct tax incentives for charitable giving and indirect tax effects by lower general tax rates are estimated. (Roodman, 2013)

<u>Trade</u>

"Openness to international trade accelerates development: this is one of the most widely held beliefs in the economics profession." (Dollar, et al., 2004) This quote already indicates the importance of trade for development cooperation and thus the relevance of this component for the CDI. The decisive term in this quote is the word "openness" which relates to the abolishment of both tariffs and so called non-tariff barriers to trade like for instance subsidies or quotas.

For its trade component, the CDI therefore includes three sub-components with different relative weights. First, it assesses countries according to their measures of protection on goods and thus the country's openness to trade with goods. Following the above mentioned rationale, this sub-component is considered to be the most important of the three, accounting for 75 % of the total score of the trade component. The score for this sub-component is given according to the country's aggregate value of measures of protection. This value on the one hand contains both tariffs on agricultural commodities imported from outside the respective country and subsidies for agricultural commodities produced within the respective country. On the other hand, tariffs on all other groups of products are taken into account. In order to include the differences in relative importance of the goods, the tariffs are weighted according to their accumulated value of production for all developing countries. This sub-component therefore allows for differences between the six world regions due to the varying weight of different products in these regions. (Roodman, 2013)

The second sub-component, accounting for 12.5 % of the total score for trade, is related to practical impediments to imports that equally apply to the countries of all world regions. These impediments include the number of documents, the cost and finally the number of days required to import a standardised shipping container. (Roodman, 2013)

The last sub-component, again accounting for 12.5 % of the total score for trade, assesses the existing barriers to imports of services based on surveys of laws and policies. (Roodman, 2013) The relatively low weighting of this sub-component becomes clear when it is compared to the export of services as a share of total exports from developing countries which in 2012 amounted to only 14.1 % while goods made up the remaining 85.9 %. (United Nations Department of Economic and Social Affairs, 2014)

<u>Finance</u>

At first sight, the finance component of the CDI may seem to be directly linked to its aid component, since the latter referred to financial aid by governments and donors given to developing countries. The finance component, however, does not focus on aid but on capital markets and thus on financial investment flows between developed and developing countries. Foreign direct investment (FDI), i.e. "the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor" (OECD, 2008), would be the most important example for this category. FDI is generally seen as a stimulator for economic growth and development mainly due to its capacity to transfer new technologies and ideas to developing countries. (Hermes, et al., 2003) However, the opening of capital market is a double-edged sword since it also opens the way for harmful activities like capital flight from the countries concerned. (Stiglitz, 2000) This ambivalence is reflected by the finance component of the CDI. On the one hand it assesses to which degree the country's policies support sustainable investment in the economies of developing countries. For this purpose a survey was designed that assesses the country's policies in four categories. First, it is evaluated whether a country provides the necessary political risk insurances for private investors, e.g. against the risk of being expropriated by the host country. Second, it assesses the provisions taken by a country to prevent its investors from engaging in corrupt practices. Third, it evaluates whether a country actively supports FDI in developing countries that applies general labour, environment and human rights standards. Fourth, it assesses whether the country's policies have a negative effect on portfolio flows – i.e. the sale or the purchase of financial assets – to or from developing countries. (Roodman, 2013)

On the other hand, the finance component assesses the financial transparency provided by the country concerned. This part refers to fields like bank secrecy, corporate transparency, tax and financial regulations or the ratification and implementation of international financial standards. (Roodman, 2013) The aim of this part is to grasp to which extent a country contributes to the fight against harmful activities in open capital markets like illegal capital flight by providing the regulatory framework to address these challenges.

Both parts, the support for sustainable investment and the financial transparency, receive an equal weight in the final calculation of the score for the finance component. Since the countries are assessed on a global basis, there is no regional differentiation in this component.

Migration

Migration can have an important impact on the development of poor countries. The Harvard economist Dani Rodrik goes as far as to state that relaxing restrictions on the cross-border flows of workers would produce "the largest possible gains for the world economy, and for poor countries in particular" – given that incentives to return to the individual home countries after a limited time are provided. (Rodrik, 2002) Even though obvious political reasons stand in the way of this approach, it nevertheless highlights the relevance of migration from developing to developed countries for the development of the former. Benefits for the developing countries not only derive from the money earned abroad and sent back home but in particular from positive spill-over effects due to the experiences gained in the developed countries. (Rodrik, 2002)

In order to capture the various kinds of migration, the CDI bases the score of its migration component on three sub-components with different weights. The first indicator – amounting to 65 % of the final score – is the weighted gross inflow of immigrants divided by the total population of the receiving country. The weighting is done by introducing a poverty factor which varies according to the standard of living of the sending country. This way a regional differentiation of this sub-component between the six world regions can be achieved. (Roodman, 2013)

The second indicator – amounting to 15 % of the final score – derives from the share of foreign students from non-CDI countries, i.e. those countries that are not assessed in the CDI, compared to the total foreign student population in a country. Hence, it is not the number of students from non-CDI countries compared to the total student population that is taken into account, since many non-policy induced factors might influence this share. Instead, it is evaluated how much effort a country puts into having a high share of students from developing countries within their total foreign student population – no matter how big or small the latter might be. A regional differentiation of this sub-component is not undertaken. (Roodman, 2013)

The third indicator – amounting to the remaining 20 % of the final score – refers to the country's share in shouldering the global refugee burden. It is derived from data of the United Nations High Commission for Refugees (UNHCR). In order to compare the countries' share, the sum of both the

"population of concern to UNHCR", including refugees and other groups like internally displaced people (IDPs), and the number of asylum applicants in a country are put in reference to that country's GDP in purchasing power parity terms. A regional differentiation between the countries of origin of the people taken into account in this indicator is not provided. (Roodman, 2013)

Environment

Environmental degradation and particularly climate change is widely seen as an obstacle for development that has a particular impact on developing countries. (Bauer, 2011) Consequently, environmental sustainability has become one of the eight Millennium Development Goals. Furthermore, environment is one of the pillars of sustainable development. This highlights the particular relevance of environmental issues for development cooperation, ranging from the reduction of greenhouse gas (GHG) emissions to biodiversity.

The CDI tries to represent this link in its environment component. It therefore strives to evaluate the efforts of the developed countries in addressing the environmental challenges that most affect developing countries in three sub-components contributing to a different degree to the final score of the environment component. These three main challenges are considered to be the global climate (60 %), sustainable fisheries (10 %) and biodiversity and the global ecosystem (30 %). Since all these challenges are of global nature, a regional differentiation of these data, again, is not undertaken.

The first sub-component, global climate, combines five indicators of different nature. Three out of these five indicators can be related to human activities and their impact on the global climate which governments can only influence indirectly. These indicators are the GHG emissions per capita including the carbon equivalent of fossil fuel production, the average annual growth rate of GHG emissions per GDP and the consumption of ozonedepleting substances per capita. On the other hand, the remaining two indicators are those that can be directly influenced by governments, namely the level of gasoline taxes and the ratification of the Kyoto protocol. (Roodman, 2013)

The second sub-component, sustainable fisheries, aims at indicating the level of government support for the exploitation of fisheries in waters near developing countries. Its score derives from both the evaluation of fishing subsidies per capita and the ratification of the UN Fisheries Agreement that came into force in December 2001. (Roodman, 2013)

The third sub-component, biodiversity and global ecosystem, on the one hand assesses the degree to which governments fulfil their reporting obligations they have undertaken according to a number of multilateral treaties on biodiversity. On the other hand, it takes into account the value of tropical timber imports per capita, assuming that tropical wood is the most environmentally destructive good imported from developing countries. (Roodman, 2013)

<u>Security</u>

Two ground rules can nowadays be considered as common knowledge in the field of development cooperation. First, there can be no development without security. Peace and stability are an important prerequisite for the sustainable development of countries. (Deutsches Institut für Entwicklungspolitik, 2004) Likewise, however, there can be no long-term security without development. Poverty and inequality can be considered as major sources of violent conflicts. (Deutsches Institut für Entwicklungspolitik, 2004) (Thomas, 2001) Thus, the relevance of efforts by developed countries to contribute to peace and stability for the development of developing countries is undisputed.

The CDI therefore evaluates these efforts following a three-pronged approach. First, the part of the countries' military spending related to peacekeeping and humanitarian interventions and to operations to protect
sea lanes is determined. This sub-component accounts for 50 % of the overall score. In order to be able to rank the different countries, these military expenditures are placed in proportion to the countries' GDP. The higher these military expenditures per GDP are the better is the score for this sub-component. (Roodman, 2013) At first sight this may seem paradoxical, but it appears to be reasonable considering the nature of the military operations taken into account at this stage.

Second, the arms exports from developed countries to developing countries are evaluated, accounting for 25 % of the overall score. Since the negative repercussions of arms exports depend on a number of domestic factors in the recipient country, a few of these are taken into account in the evaluation of this sub-component. First, the level of democratic development of the individual recipient country is considered. Second, a bigger share of military expenditures of the recipient country as a percentage of its GDP negatively influences the score of the sub-component. Last, the recipient's standard of living is included, decreasing a country's score of the subcomponent the lower the recipient country's GDP per capita is. (Roodman, 2013)

Third, countries are evaluated according to their participation in a number of security regimes such as the Nuclear Non-Proliferation Treaty, the Convention on Cluster Munitions or the Rome Statute creating the International Criminal Court. The results of this sub-component, again, account for 25 % of the overall score. A regional differentiation of this subcomponent is not possible due to the global scope of these security regimes. (Roodman, 2013)

Technology

The development since the industrial revolution has shown that technological advances and the resultant increase in productivity are one of the main drivers for economic growth. (Boutellier, et al., 2014) Furthermore, technological progress has a deep impact on the development of society, for instance by allowing information and knowledge to be passed on much easier and faster than before, be it through the internet or mobile technology. Provided that supporting policies are in place in both developed and developing countries, technology can thus have a decisive impact on the development of developing countries. (Archibugi, et al., 2003)

The last component of the CDI thus assesses the policies of developed countries in terms of their support for developing countries to benefit from technological progress. It does so by evaluating two distinct fields. For both sub-components, the data cannot be regionally differentiated.

First, it analyses the government's effort in actively supporting research and development (R&D) in fields relevant for developing countries. Therefore, direct government expenditures for R&D in relation to the country's GDP are taken as a basis, discounting expenditures in those fields that are thought to be of less value for developing countries by up to 50 %. These fields are agriculture, energy, industrial development and military. Additionally, indirect government support for R&D through tax incentives for private R&D is included. This first sub-component is weighted two-thirds in the calculation of the score for the technology component. (Roodman, 2013)

The second sub-component, amounting to one third of the final technology score, measures the support of governments in facilitating the transfer of technological innovations to developing countries. Therefore it evaluates the countries' policies on intellectual property rights (IPRs) that go beyond the current international agreement under the World Trade Organization (WTO) which has been adopted by all CDI countries. The stricter the IPRs established by those policies, the lower the country's score for this subcomponent. (Roodman, 2013)

3.3.3 Criticism

Just as for any other index developed to reduce the complexity of information and to merge this information into a quantified indicator providing specific information, the methodology applied can and should be critically examined. The Commitment to Development Index is primarily criticised for three reasons which shall be briefly introduced here.

First, the approach to apply an equal weighting method on the seven main components of the CDI raises doubts on whether the index complies with scientific standards. To some observers, attributing the same weight to all components from aid to technology seems rather arbitrary. (Sawada, et al., 2004) In his description of the CDI and its methodology, Roodman addresses this criticism admitting that a country's final score is indeed based on the simple average of its component's scores. However, he argues that given the fact that the relative or absolute importance of the components in terms of their contribution to the development of developing countries is to date unknown, attributing the same weight to each component was the least arbitrary assumption one could have made. (Roodman, 2013) In 2006, Chowdhury et al. offered a seemingly contradictory approach. As a response to the criticism on the methodology applied to the CDI, they performed an expert survey on the weight each component should receive. The results, however, were that while four out of then only six components received a statistically different weight in the survey, the differences were too low to have any significant impact on the final CDI score. (Chowdhury, et al., 2006) Applying statistical model selection criteria, Stapleton et al. even found that due to the increase of complexity when components are weighted differently the CDI should in fact stick to the equal weights assumption. (Stapleton, et al., 2008) Thus, the issue remains highly debated. Since no feasible alternative is being offered, for the purpose of this thesis the assumption of equal weighting shall be adopted.

Second, the CDI is criticised for being based merely on the "inputs" of policies rather than on the "outputs". (Sawada, et al., 2004) Again, this criticism is addressed by Roodman by stating that the linkages between input and output of development policies are to date simply not yet sufficiently discovered. According to him, this makes it close to impossible to design an index that properly illustrates the output effectiveness of such a variety of policy fields. (Roodman, 2013) In this view he is supported by Chowdhury et al. stating that even though the observation may be "theoretically correct", the requested adoptions would be "obviously infeasible given the present state of knowledge". (Chowdhury, et al., 2006)

Third, and maybe most importantly, the choice of policy fields included in the CDI is subject of discussion. Criticism regarding the choice of components has in the past already led to a number of changes, either by taking out specific sub-components or by adding new ones. (Roodman, 2013) Sawada et al. state that there are "valid arguments" to exclude a number of components like migration or environment. (Sawada, et al., 2004) However, they do not further elaborate on those arguments so that a discussion about the pros and cons of excluding these components is hardly possible. Furthermore, Chowdhury et al. argue that the components chosen are valid since in their expert survey none of the components received a weight close to zero. (Chowdhury, et al., 2006) Additionally, in section 3.3.2 of this thesis it has been argued that all of the components chosen can be justified due to a clear link to the development of developing countries.

However, this does not mean that the list of components is complete. Here Sawada et al. point out a valid criticism by saying that other categories like the countries' contributions to education and health in developing countries should be explicitly incorporated into the CDI, particularly since both fields are considered prominently in the Millennium Development Goals. (Sawada, et al., 2004) The same holds true for other fields like for instance the countries' contribution to the development of democracy, good governance, the rule of law and other institutions which may be considered as crucial for a sustainable development. However, unlike these allegedly missing components, the currently included components by definition refer to policies that are carried out by developed countries and that have repercussions on the development of developing countries. Again, the CDI is a purely input-based index. Since the allegedly missing components refer to outputs rather than inputs, one might argue that they are already covered by one of the existing components – e.g. by the technology component as in the case of health or by the aid component as in the case of the rule of law. Nevertheless, particularly in the case of the aid component it might be reasonable to further specify the areas the aid is meant to go to. This would also allow for a more detailed cross-country analysis of the political focus of the countries' development aid policies.

4 Application of the Commitment to Development Index

In the following chapter, the CDI shall be applied in order to assess the coherence of national and supra-national development cooperation policies within the EU. First, the methodology applied shall be presented introducing a Development Cooperation Policy Coherence Coefficient (DCPCC). Second, based on the DCPCC the coherence of supra-national and selected national policies in the seven policy fields influencing the development of developing countries shall be assessed. To conclude, the results of this assessment shall be merged in order to come to an overall assessment of development cooperation policy coherence within the EU.

4.1 Assessment methodology

In the course of this thesis, the basis of the assessment of the coherence of development cooperation policies within the EU is the vertical understanding of policy coherence between the Member States and the EU represented by the definition given by Carbone (cf. section 3.1). Thus, in order to assess the vertical coherence of the development cooperation policies, national and supra-national policies in the EU and their contribution to the development of developing countries shall be compared.

In order to make allowance for the limited scope of this thesis, instead of assessing the national policies of all 28 Member States of the EU two specific cases shall be considered: the United Kingdom (UK) and Germany (D). With an estimated ODA of 15 respectively 11 billion Euro in 2015, these two countries account for more than 42% of the collective ODA of the EU. (European Commission, 2013b) The figures underline the importance of the selected countries concerning the development cooperation of the EU and its Member States. These national cases shall therefore be assessed with regard to their coherence with EU policy.

As advocated by van der Hoeven and Carbone, the base of this assessment shall be the scores of the different CDI components and particularly their sub-components for the EU, the UK and Germany. The most recent data currently available are the global and regional CDI scores from 2003 to 2013 – with the methodology of 2013 applied to all years – that are published by the CGD. (Centre for Global Development, 2015) The aggregated EU data and the data of either the UK or Germany allow for an inter-temporal analysis of the coherence of the respective development cooperation policies, both globally and by world region.

In order to provide a systematic and transparent analysis of the coherence of national and supra-national policies, the Development Cooperation Policy Coherence Coefficient (DCPCC) shall be introduced:

$$DCPCC_{X,Y} = \begin{cases} 0.5 * \left[\left(1 - \frac{|\bar{x} - \bar{y}|}{|\bar{x}| + |\bar{y}|} \right) + \left(\frac{1 + Corr(X,Y)}{2} \right) \right], & p < 0.05 \\ 0.5 * \left[\left(1 - \frac{|\bar{x} - \bar{y}|}{|\bar{x}| + |\bar{y}|} \right) + \frac{1}{2} \right], & p \ge 0.05 \end{cases}$$

with

 \bar{x} arithmetic mean value of entity X's CDI scores, \bar{y} arithmetic mean value of entity Y's CDI scores,Corr(X,Y)correlation coefficient between entities X and Y,pp-value of the respective correlation.

The DCPCC is composed of two elements. The first element, represented by the first summand $\left(1 - \frac{|\bar{x}-\bar{y}|}{|\bar{x}|+|\bar{y}|}\right)$, measures the relative difference of the arithmetic mean values of two sets of CDI scores over time. For this thesis, these two sets shall be on the one hand data for the EU and on the other hand data for either the UK or Germany. The value of the first summand varies between 0 and 1 and increases the smaller the relative difference between the values of the two sets becomes.

The second element, represented by the second summand $\left(\frac{1+Corr(X,Y)}{2}\right)$, measures the correlation between the values of the two cases. The correlation coefficient, Corr(X,Y), indicates the degree of linear dependence

between the two cases, ranging from -1 (total negative correlation) to +1 (total positive correlation). If the correlation coefficient is 0, there is no linear correlation between the two variables. Figure 4 illustrates this relation. The value of the second summand therefore again varies between 0 and 1, with 0 indicating a total negative correlation and 1 indicating a total positive correlation.



Figure 4: Values of the correlation coefficient and their meaning, (Stack Exchange, 2015).

However, the correlation coefficient can only be taken into account when the correlation between the two variables is statistically significant. This significance is indicated by the so called p-value. Only if the p-value is lower than the assumed significance level $\alpha = 5\%$, the correlation is considered to be statistically significant. Otherwise, it must be assumed that there is no correlation, i.e. Corr(X, Y) = 0.

Finally, both elements are merged into a single coherence coefficient, the DCPCC, with a value again ranging from 0 to 1. The higher the DCPCC, the higher the degree of coherence between the development cooperation policies of the EU (representing supra-national policies) and the UK or Germany (representing national policies). Figure 5 illustrates the two aspects influencing the DCPCC, the relative difference between the scores of the two cases as well as their correlation. It becomes clear that poor results in both aspects must lead to a low DCPCC score (example a), while a high DCPCC score can only be reached when the scores of the EU and UK/Germany are both correlated and at a similar absolute level (example d).



Figure 5: Example of two cases with altered relative differences and correlation:
a) big relative difference, low correlation; b) small relative difference, low correlation;
c) big relative difference, high correlation; d) small relative difference, high correlation, (Source: own figure).

In the following the seven components and their sub-components shall therefore be analysed by applying the DCPCC to the different policy fields represented by the components. In addition to the aggregate DCPCC scores, the performance in the two main parts of the DCPCC, the relative difference of the average CDI scores and the correlation between the two cases observed, shall be taken into account in order not to lose information in the course of merging these two parts. Furthermore, significant differences between the two cases observed, the EU versus the UK (EU-UK) and the EU versus Germany (EU-D), shall be pointed out. The corresponding data which are based on the CDI scores provided by the CGD (cf. Center for Global Development, 2015) can be found in the appendix. Through this multidimensional analysis a more comprehensive study of the coherence of the national and supra-national development cooperation policies within the EU may be achieved. In a last step, the results obtained shall be incorporated into a summarising analysis of the vertical policy coherence for development within the EU.

4.2 Analysis of the components and their sub-components4.2.1 Aid

Figure 6 shows the global CDI scores of the aid component for the three cases that are analysed in this thesis. It can be seen that the values for the UK remain the highest over the period 2003-2013 while Germany receives the lowest scores. Not surprisingly, the EU is placed in between the two national cases. This can be explained by the simple fact that the EU data for aid are composed exclusively by the national data of the 19 EU Member States assessed by the CGD with the UK and Germany being the two biggest contributors and thus highly influencing the EU data in this field. Since the EU ODA not imputed to Member States (3.7 billion Euros for 2015) is rather insignificant compared to the overall collective ODA (61.7 billion Euro for 2015), this approach is justifiable. (European Commission, 2013c) However, the finding should nonetheless be taken into account when analysing the data.



Figure 6: Global CDI scores of the aid component for the EU, UK and D, (Centre for Global Development, 2015).

Figure 7 shows the results of the DCPCC calculation for the aid component both globally and by world region. Both the level of the global results for EU-UK (DCPCC_{EU,UK}=0.89) and EU-D (DCPCC_{EU,D}=0.86) and their absolute difference (Δ =0.03) suggest a moderate level of vertical policy coherence for development. However, the regional data provide for a more differentiated analysis. It becomes clear, that while globally both the UK and Germany reach a fairly high level of policy coherence with the EU, in distinct regions this is not the case. As described in section 2.4, according to Article 4 Paragraph 4 TFEU the EU only has the competence to carry out parallel activities in addition to those of the Member States. Thus, despite the coordination between the EU and its Member States provided for in Article 210 Paragraph 1 TFEU, the lack of policy integration appears to have an impact on the coherence of the regional focuses of the respective development cooperation activities.



Figure 7: Global and regional DCPCC scores of the aid component for EU-UK and EU-D, (Source: own calculations).

This is particularly true for the UK and its engagement in both Latin America & the Caribbean (LAC) and South Asia (SAS) – though for very different reasons. While the UK's aid for Latin America & the Caribbean is fairly limited reaching an average CDI score of 2.2, the opposite is true for South Asia with an average CDI score of 8.6. The EU data on the other hand do not show the same regional differentiation. This difference can be explained with the UK's colonial past, with only minor British colonies in Latin America & the Caribbean and on the other hand India and Pakistan being the most important examples of former British colonial dominance in South Asia. Interestingly, however, with 0.85 the correlation coefficient between the EU and the UK for South Asia is among the highest. This underlines the importance of the two-tier analysis applied in the DCPCC.

The two regions with the highest DCPCC score for both EU-UK and EU-D are the Middle East & North Africa (MNA) (DCPCC_{EU,UK}=0.95, DCPCC_{EU,D}=0.97) and Europe & Central Asia (ECA) (DCPCC_{EU,UK}=0.95, DCPCC_{EU,D}=0.98). In both regions the EU and Germany also receive their highest average global CDI scores, while the UK only scores higher in South Asia. It is striking that the two regions to a great extent coincide with the countries involved in the common European Neighbourhood Policy (ENP) while others like Romania or Hungary are even EU Member States. However, a direct causal link between the ENP and the high DCPCC scores for the aid component in the two regions cannot be verified within the scope of this thesis. At most, an indirect influence of the common approach towards the respective countries on the national development aid can be assumed.

4.2.2 Trade

Trade policy is one of the oldest and most integrated policy fields within the EU. (Gstöhl, 2013) According to Article 3 Paragraph 1 TFEU the EU has exclusive competence in both the customs union and the common commercial policy. (TFEU, 2012) This common approach towards trade policy is expected to be reflected in the DCPCC scores for this component. Figure 8 shows the result of the calculations of the global and regional DCPCC scores for the trade component and its respective sub-components both for EU-UK and for EU-D. In the following, the data and their most outstanding features shall be discussed.

First, the DCPCC scores for the most important sub-component, measured protection on goods, show an outstandingly high degree of vertical policy coherence not only globally but also in almost all of the six world regions. This is true for both evaluated pairs, EU-UK and EU-D. In all but one cases they reach the highest possible DCPCC scores of 0.99 or 1. The only exceptions are the regional data for Middle East & North Africa (MNA) where

the two pairs only score 0.75. In both cases, this exception is due to a statistically insignificant correlation of the respective two data sets leading to a correlation coefficient of 0. However, the average CDI score for the measured protection on goods for this region remains the same for the EU, the UK and Germany (CDI=6.2). The data for this region may therefore be treated as an exception to the rule.



Figure 8: Global and regional DCPCC scores of the trade component and its subcomponents for EU-UK and EU-D, (Source: own calculations).

For the second sub-component, the impediments to imports, there are no regionally differentiated data available. Additionally, since this subcomponent reflects primarily local conditions for imports that may very well vary from EU Member State to Member State (such as the cost and the number of days required to import a standardised container), the DCPCC scores are expected to be rather low. In fact, in this case a significant difference between the two pairs, EU-UK and EU-D, can be observed. While EU-D despite a relatively low coherence coefficient of 0.67 still reaches a global DCPCC score of 0.91, with a DCPCC score of only 0.52 the data for EU-UK show a clear deficit in vertical policy coherence. This rather low value can be explained with a negative (and statistically highly significant) correlation coefficient of -0.9 which confirms the low level of vertical policy coherence in this field. The third sub-component of trade, services trade restrictions, is ambivalent. The global DCPCC scores for both EU-UK and EU-D (0.72 and 0.75) can be considered as moderate bearing in mind the current allocation of competences in the EU. In both cases the score is not primarily due to a big relative difference in the respective CDI scores but due to a correlation coefficient of 0.

However, the interpretation of these data is ambiguous. On the one hand, the correlation coefficient is only 0 because both national cases, the UK and Germany, have a constant CDI score over the time period 2003 to 2013 which mathematically must lead to the observed results. However, Figure 9 shows that the data of the national cases and the EU data are actually rather coherent with the only exception of the years 2011 and 2012. The – mathematically correct – conclusion that the correlation coefficient is 0 is therefore problematic considering its implications for the DCPCC scores.

On the other hand, it must be taken into account that the allocation of competences changed in the period under observation (2003 to 2013). The EU has gained exclusive competence not just concerning the trade of goods but also concerning the trade of services (except transport), commercial aspects of intellectual property rights and foreign direct investment only since the Treaty of Lisbon came into force in 2009. Before, under the Treaty of Nice, some "politically sensitive" services such as cultural, educational or social services were excluded from the EU's competences. (Gstöhl, 2013) However, as illustrated in Figure 9 this modification of the allocation of competences is not reflected in the CDI scores since none of the scores change before 2011.

In order to allow for a more sound assessment of this particular third subcomponent more extensive research will be required. Unfortunately this indepth analysis of a single sub-component exceeds the scope of this thesis. In the following, the results of the calculation of these particular DCPCC scores should therefore be treated with due caution. Despite its lower scores in the two less important sub-components, the overall trade component also reaches outstandingly high DCPCC scores of 0.99 or 1 both globally and in almost all regions. Again, only the data for the Middle East & North Africa (MNA) constitute an exception for both EU-UK and EU-D – even though with scores of 0.94 for EU-UK and 0.9 for EU-D the difference is not as significant as in the case of the measured protection on goods due to higher correlation coefficients. Despite this exception the overall data underline the high level of vertical policy coherence for development cooperation in one of the most deeply integrated policy fields of the EU.



Figure 9: Global CDI scores in the field of services trade restrictions for the EU, UK and D, (Centre for Global Development, 2015).

4.2.3 Finance

Unlike the trade component, the finance component may at first seem to cover a policy field that according to the Treaty of Lisbon is not a competence of the EU. In the Articles 3 to 4 of the Treaty on the Functioning of the European Union financial policy is neither listed as exclusive nor as shared competence, nor is it mentioned in Article 6 TFEU as a policy field in which the Union has supporting competence. (TFEU, 2012) However, according to Article 3 Paragraph 1e TFEU in combination with Article 206 TFEU the EU even has exclusive competence in an important field at the interface between financial and trade policy: foreign direct investment (FDI). This goes far beyond the competence of the EU on foreign direct investment granted by Article 73c of the Treaty of Maastricht. (Treaty of Maastricht, 1992) As described in section 3.2 the score of the first sub-component of the CDI's finance component is to a large extent based on the provisions taken to support sustainable investment in developing countries. Regulations and international agreements on FDI are seen as a crucial way to ensure this goal. In 2010, the European Commission therefore laid out its approach towards a common European international investment policy building up on hundreds of bilateral investment treaties concluded by Member States before the Treaty of Lisbon came into force. (European Commission, 2010)

Figure 10 shows the results of the calculation of the DCPCC scores for the finance component and its two sub-components. It stands out that for both EU-UK and EU-D the scores of the second sub-component (financial transparency) are significantly lower than for the first sub-component (investment support) or the overall DCPCC scores. In the following the data shall be interpreted in more detail.



Figure 10: Global DCPCC scores of the finance component and its sub-components for EU-UK and EU-D, (Source: own calculations).

The first sub-component on investment support reaches relatively high DCPCC scores of 0.95 for EU-UK and 0.93 for EU-D. In both cases it is not only the high correlation coefficients of 0.97 for EU-UK and 0.88 for EU-D but also moderate differences of the average CDI scores ranging from 4.5 for the EU to 5.3 for Germany and 5.4 for the UK that contribute to these fairly high scores. Nonetheless, it is interesting to observe that the CDI data do not show any significant trend of convergence after the coming into force of the Treaty of Lisbon in 2009 (cf. Figure 11). This may, however, derive from the fact that most of the old bilateral investment treaties of the Member States are still in place. Chaisse states that the transition phase between the old national and the new EU agreements will be between 10 to 20 years. (Chaisse, 2012) When analysing the data it therefore must be assumed that the higher competences of the EU in the field of foreign direct investment under the Treaty of Lisbon only have a minor effect – if at all. Thus, the relatively high degree of vertical policy coherence for the sub-component on investment support cannot be causally linked to the high level of policy integration in this field.



Figure 11: Global CDI scores in the field of investment support for the EU, UK and D, (Centre for Global Development, 2015).

The second sub-component on financial transparency is a field that falls under the regulatory competence of both the EU and its Member States. In some areas like corporate transparency the EU has introduced several corresponding regulations in the context of the single market. However, as the development after the emergence of the current crisis in 2008 has shown, the EU often either lacks common policies (e.g. in the field of tax regulation) or only recently introduced more integrated policies (e.g. with the banking union). The DCPCC data clearly show this deficiency in two ways. First, the results for both EU-UK (DCPCC_{EU,UK}=0.73) and EU-D (DCPCC_{EU,D}=0.6) are at a fairly moderate level. The reservation must be made, however, that this is partly caused by a correlation coefficient of 0 due to the constant nature of the national data. As in the case of service trade restrictions (cf. section 4.2.2) these results should therefore be treated with caution. However, additionally, in the case of Germany the average CDI score of 2.8 is almost 50% lower than for the EU with its average of 5.6. This already points to the second indication of a lack of coherence which is the large difference in the DCPCC scores for the two cases, EU-UK and EU-D.

Despite these shortcomings in the second sub-component the overall DCPCC performance in the finance component is nonetheless rather strong. Scores of 0.97 for EU-UK and 0.92 for EU-D with high correlation coefficients and moderate relative differences of the respective average CDI scores should not, however, lead policy makers to put aside efforts to stabilise the data on investment support under the new competences of the EU and, more importantly, to increase policy coherence in the field of financial transparency.

4.2.4 Migration

In the field of migration the results of the calculation of the DCPCC scores illustrated in Figure 12 require an elaborate and careful analysis since they contain a number of irregularities. Indeed, in some cases a simple look at the final results may very well lead to wrong or incomplete assumptions concerning the vertical policy coherence within the EU in this field.

First, as can be seen in Figure 12, the global results for the most important sub-component in this field, the immigration flows relative to the population of the receiving country, show great deficiencies in policy coherence for both EU-UK and EU-D. With a DCPCC score of only 0.57 the vertical policy coherence between the EU and Germany is outstandingly low and in particular due to a considerable negative correlation coefficient of -0.67. In the case of EU-UK there is no significant correlation of the CDI data leading to a DCPCC score of 0.73.

However, the picture changes when looking at the results for the different world regions. On the one hand, the DCPCC results in some regions are significantly higher reaching levels of up to 0.97. These scores come with a much bigger, in many cases even total positive correlation. On the other hand, for half of the world regions (MNA, SAS and EAP) significant differences of the DCPCC scores between the two cases, EU-UK and EU-D, can be observed. Additionally, the relative differences of the average CDI scores between the EU, the UK and Germany come to light more clearly, highlighting the different regional focuses of the UK (on South Asia) and Germany (on Europe & Central Asia).



Figure 12: Global and regional DCPCC scores of the migration component and its subcomponents for EU-UK and EU-D, (Source: own calculations).

All in all, despite a number of high DCPCC scores in several world regions, the data show significant deficiencies of vertical policy coherence within the EU in the field of immigration flows. This can be seen as the result of the immigration policies of the EU and its Member States. With the Treaty of Amsterdam that came into force in 1999 the EU obtained a number of competences in the field of asylum and immigration (cf. Article 73i et seqq. of the Treaty of Amsterdam). (Treaty of Amsterdam, 1997) Under the Treaty of Lisbon these competences were even further extended. (Angenendt, et al., 2009) In the field of labour migration, however, the Member States were not willing to give up their sovereign right to decide who and how many migrant labourers could come to their respective countries (cf. Article 79 Paragraph 5 TFEU). (TFEU, 2012) Thus, in the sense of the first sub-component the immigration policies within the EU cannot be considered as integrated. This can explain both the differences between the regional data of the national cases, the UK and Germany, and the lack of coherence when it comes to the overall relative immigration flows within the EU.

The second sub-component of migration, the share of foreign students from non-CDI countries, covers a field on which the EU has little influence. Not only has every Member State its individual immigration and visa regulations for students from outside the EU. The share of foreign students from non-CDI countries also highly depends on the conditions at the respective universities and on other national or local regulations such as special fees and scholarships for non-EU citizens or the amount of money a foreign student is allowed to earn during his or her stay. Considering these conditions, the results obtained by calculating the DCPCC scores for EU-UK (DCPCC_{EU,UK}=0.94) and EU-D (DCPCC_{EU,D}=0.89) are rather positive. However, looking at the underlying data, again, relevant differences between the two national cases, the UK and Germany, can be detected. While the UK only reaches an average CDI score of 4.6, Germany receives a 33 % higher score of 6.1. Furthermore, the UK data are much more correlated with the EU data than the data for Germany, EU-UK reaching a correlation coefficient of 0.89 compared to 0.7 for EU-D. This shows again that an in-depth interpretation of the DCPCC scores is needed in order not to draw premature conclusions.

The same holds true for the third sub-component of migration, the country's share of the global refugee burden. Again, the DCPCC scores for

both EU-UK (DCPCC_{EU,UK}=0.91) and EU-D (DCPCC_{EU,D}=0.84) may suggest moderate to high vertical policy coherence in this field. However, further analysis of the underlying data suggests differently. In the case of the UK, on the one hand the relative difference of the average CDI scores between the EU and the UK is practically zero, massively contributing to the high DCPCC score. On the other hand, with 0.67 the correlation coefficient for EU-UK is rather low. This alone would not be that striking if it was not for the second case, the policy coherence of the EU and Germany. The data show that contrary to the case of the UK the correlation coefficient is extremely high reaching a value of 0.98. On the other hand and again contrary to the case of the UK, Germany reaches an average CDI score that is almost 88 % higher than that of the EU.

These findings, putting into perspective the rather high DCPCC scores for this sub-component, do not come as a surprise considering the allocation of competences within the EU in this field. The current political discussion on how to distribute the refugees that try to reach Europe mainly through the Balkans and across the Mediterranean illustrates the weak common European approach. It is only now that the European Commission, supported by Germany and fiercely opposed by the British government, proposed a provisional quota system on an emergency basis according to Article 78 Paragraph 3 TFEU in order to share the burden among the Member States and to relieve other countries like Italy and Greece. (European Commission, 2015) Previous agreements on the topic of asylum such as the so called Dublin agreements were based on Article 78 Paragraph 2 TFEU which does not, however, cover the question of a fair distribution of refugees. (TFEU, 2012) Thus, in this field the degree of policy integration within the EU is limited.

The lack of policy coherence is also reflected by the overall data on migration. As a result the global DCPCC scores only reach 0.73 points for EU-UK and even lower 0.69 points for EU-D. Both scores are mainly due to a non-significant correlation between national and supra-national data leading to correlation coefficients of 0. Again, the scores for the different world regions are generally higher than the global ones. However, as in the case of the immigration flows, there are significant differences between the two cases, EU-UK and EU-D, and the average values of the CDI with Germany receiving much higher scores than the UK. This confirms the rather low overall score of policy coherence in a policy field that is characterised by fairly low policy integration within the EU.

4.2.5 Environment

According to Article 4 Paragraph 1e of the Treaty on the Functioning of the European Union, environment is one of the competences that the EU shares with its Member States allowing Member States to act on fields where the EU has not yet acted. (TFEU, 2012) The results obtained from the calculation of the DCPCC scores and illustrated in Figure 13 should therefore be viewed in this light – though, as described in section 3.3.2, some other policy fields also play into the different sub-components.



Figure 13: Global DCPCC scores of the environment component and its subcomponents for EU-UK and EU-D, (Source: own calculations).

The global climate stands as one example for a sub-component in which different policy fields come into play. As described in section 3.3.2, not only the emission of greenhouse gases (GHG) and ozone-depleting substances or the ratification of the Kyoto protocol influence this sub-component's CDI score but also gasoline taxes. Since generally the EU has no competence in tax matters, the gasoline taxes are no exception. They fully remain under the competence of the Member States. However, in all other fields the policies of the EU are rather integrated as the common climate targets of the EU (e.g. minus 40% GHG emissions by 2030 compared to 1990) and the fact that the EU as a whole is a party to the Kyoto protocol clearly show. Correspondingly, the DCPCC scores for global climate are fairly high with DCPCC_{EU,UK}=0.91 and DCPCC_{EU,D}=0.98. The moderate differences between the national cases, UK and Germany, can to a great extent be explained by differences of the gasoline tax levels and the individual national targets for the reduction of GHG emissions within the framework of the common European agenda (cf. (European Commission, 2014a)).

The second sub-component, sustainable fisheries, covers a policy field that is highly integrated under the rule of the Common Fisheries Policy (CFP) of the EU. The legal basis for this common policy is Article 4 Paragraph 1d TFEU in combination with Article 38 et seqq. TFEU. (TFEU, 2012) Great part of the CFP is the distribution of subsidies to the fishing industry by means of the European Fisheries Fund (EFF). (European Commission, 2014b) As described in section 3.3.2, in addition to the ratification of the UN Fisheries Agreement to which the EU, again, is a party, the amount of subsidies given to the fishing industries determines a country's CDI score for this sub-component. Thus, it is not surprising that both the UK and Germany, again, reach fairly high DCPCC scores of 0.94 each. The differences in the respective CDI scores between the national cases (the UK and Germany) and the EU which prevent even higher scores can be explained with the fact that the UK and Germany are by far not the most important recipients of these EU subsidies (Spain receiving the biggest amount). (TFEU, 2012) Accordingly, this is reflected in their respective national CDI score and thus in the DCPCC.

The third sub-component, biodiversity and global ecosystem, again is characterised by high DCPCC scores of 0.96 for both EU-UK and EU-D. The results are influenced by both low relative differences between the national and the EU data and high correlation coefficients for EU-UK and EU-D. This coincides with a high level of policy integration in the fields concerned. Here, in addition to the environmental policy (Article 191 et seqq. TFEU), trade policy plays a role since part of the CDI score in this field is based on the provisions of tropical timber imports. Again, as laid out in section 4.2.2, this is a highly integrated policy field with exclusive competences for the EU which is reflected in the corresponding CDI data and thus in the DCPCC scores.

To sum up, the numerous policies covered in the environment component are – with the exception of gasoline taxes – characterised by a fairly high degree of policy integration within the EU. In most fields the EU has either shared competence or even exclusive competence regarding the policies in question. The overall results of the DCPCC calculation (DCPCC_{EU,UK}=0.95 and DCPCC_{EU,D}=0.98) confirm the high level of vertical policy coherence for development in the field of environment for both EU-UK and EU-D. With low relative differences between the national and EU average CDI scores and high correlation coefficients for both cases, these values stand on a solid basis.

4.2.6 Security

Security has always been one of the most sensitive policy fields for the sovereign nation states since it touches upon the very heart of their sovereignty and thus upon their fundamental interests. It therefore is a particularly delicate matter. Consequently, the field of security policy is one of the least integrated policies within the EU. Certainly, the Common Foreign and Security Policy (CFSP) introduced with the Treaty of Maastricht in 1992 and further strengthened with the Treaty of Lisbon in 2009 can be considered as a step towards a more integrated security policy. However, the CFSP in its essence remains fairly intergovernmental. (Radtke, 2012) National competences remain predominant since the CFSP is only agreed upon by unanimity (cf. Article 31 Treaty on the European Union (TEU)) and does not prevent the Member States from carrying out their national foreign and security policies. (TEU, 2012)

The lack of policy integration is clearly shown in the results of the calculation of the DCPCC scores for the security component (cf. Figure 14). It becomes clear that national security policies remain predominant. A coherent approach within the EU cannot be detected. On the contrary, the data show clear indications for major vertical policy incoherences between the EU and its Member States as well as between the Member States themselves. As a first sign for low policy coherence in the field of security policy the fact shall be mentioned that across the world regions a high number of observed cases receive a correlation coefficient of 0 because no statistically significant correlation could be detected.



Figure 14: Global and regional DCPCC scores of the security component and its subcomponents for EU-UK and EU-D, (Source: own calculations).

For the first sub-component, the military spending related to peacekeeping and humanitarian interventions relative to the country's GDP, at a first glance the global data may not show such a low level of policy coherence considering that it reflects a purely national decision. The global DCPCC scores for both EU-UK (DCPCC_{EU,UK}=0.86) and EU-D (DCPCC_{EU,D}=0.87) are not only fairly high but also at a similar level. However, this picture changes when looking at the underlying data in more detail. Then the national differences become apparent with the UK reaching an outstanding average CDI score of 10 points while Germany only receives a substandard

average score of 3.9 points. The bigger relative difference of the respective CDI scores in the case of EU-UK compared to EU-D is compensated with a higher correlation coefficient which in turn leads to rather similar DCPCC scores. Similar observations can be made in almost all world regions with the exception of Sub-Saharan Africa (SSA) where EU-UK receives a high negative correlation coefficient of -0.93 which in turn leads to an outstandingly low DCPCC score (DCPCC_{EU,UK, SSA}=0.32) and an even bigger discrepancy with the case of EU-D.

The arms exports, which constitute the second sub-component, confirm this judgement. Due to the arms export control carried out by the national governments this policy, again, can be considered as not integrated. As illustrated in Figure 14, the DCPCC scores for EU-UK and EU-D vary within a wide range of values between 0.25 and 0.92 depending on the world region. Additionally, the DCPCC scores not only depend on the world regions but also on the observed case. At this point striking differences between EU-UK and EU-D must be noted. These differences can be found both concerning the relative differences between the average CDI scores of the UK and Germany and their respective correlation coefficients with the EU. The only exceptions are the arms exports to South Asia (SAS). Here both EU-UK and EU-D receive a DCPCC score of 0.85 with similar average CDI scores and similar correlation coefficients. With view to the data for the other world regions as well as the global data, these results, however, must be considered rather as the exception to the rule.

The last sub-component, the participation in security regimes, somewhat sticks out compared to the other data on security. With 0.74 the DCPCC scores for both EU-UK and EU-D reach moderate heights due to comparatively low relative differences of the average national CDI scores compared to the EU scores. However, the correlation between the national and the EU data is statistically insignificant (cf. Figure 15). Thus, even though the average CDI scores of the national cases and the EU are similar (as are those of most other non-European CDI-countries such as Japan, Canada or

Australia), the time of ratification may very well differ between the national cases. This also affects the EU data since they are composed out of the national data of its Member States (the EU itself is not party to the security regimes in question).



Figure 15: Global CDI scores for the participation in security regimes for the EU, UK and D, (Centre for Global Development, 2015).

The data therefore, again, clearly show a lack of policy coherence within the EU that derives from different individual policies of the Member States. These findings are confirmed by the overall data for the security component, showing again vast differences between the national cases and the EU average both in terms of their absolute commitment to development and its development over the observation period as well as concerning their regional focuses.

4.2.7 Technology

Comparable to the field of development cooperation mentioned in Article 4 Paragraph 4 TFEU (cf. section 2.4), the EU only has concurrent competences in the field of technology and research. Article 4 Paragraph 3 TFEU clearly states that the EU has competence to carry out activities without, however, preventing the Member States to do the same. (TFEU, 2012) Thus, both national and supra-national policies for the promotion of research and development are pursued in parallel. However, Article 181 Paragraph 1 TFEU states that the EU and the Member States "shall coordinate their research and technological development activities so as to ensure that national policies and Union policy are mutually consistent". (TFEU, 2012)

The data on the first sub-component, government R&D, show that Article 181 Paragraph 1 TFEU expresses the good intention to effectively coordinate the different policies rather than the actual reality (cf. Figure 16). While EU-D reaches a fairly high DCPCC score of 0.97, the case of EU-UK scores rather poorly with DCPCC_{EU,UK}=0.74 due to a statistically insignificant correlation of the EU and UK data. A high degree of policy coherence, however, cannot be assumed when one of the two cases observed shows such shortcomings. Thus, the case of the UK confirms a lack of vertical policy coherence for development between the EU and its Member States in the field of government R&D leading to the conclusion that the coordination claimed in the Treaties does not live up to its expectations.



Figure 16: Global DCPCC scores of the technology component and its sub-components for EU-UK and EU-D, (Source: own calculations).

The second sub-component, the governmental support for the transfer of technological innovations reflected in its policy on intellectual property rights (IPRs), paints a different picture. In this field the DCPCC scores for both EU-UK (DCPCC_{EU,UK}=0.97) and EU-D (DCPCC_{EU,D}=0.95) are fairly high, primarily due to high correlation coefficients but also thanks to moderate

relative differences between the national and EU data. As mentioned in section 4.2.2 the conclusion of international agreements concerning commercial aspects of international property rights is part of the EU's competence since 2003 (cf. Article 133 Paragraph 5 of the Treaty of Nice). Figure 17 illustrates how the CDI scores of the EU, the UK and Germany started to converge in 2005/2006 and thus only a few years after the Treaty of Nice came into force. Hence, the conclusion that the high level of vertical policy coherence for development calculated for the field of IPRs is at least partly due to the introduction of a higher degree of policy integration with the Treaty of Nice suggests itself.



Figure 17: Global CDI scores for the sub-component of IPRs for the EU, UK and D, (Centre for Global Development, 2015).

Due to their lesser weight the higher DCPCC scores for IPRs do not result in higher DCPCC scores for the overall technology component. However, it is interesting to observe that the merging of data leads to the overall DCPCC scores being inverted compared to the DCPCC scores for government R&D. Contrary to the first sub-component, the overall DCPCC score for EU-UK (DCPCC_{EU,UK}=0.93) is significantly higher than for EU-D (DCPCC_{EU,D}=0.73) due to a statistically insignificant correlation of the data for the EU and Germany. However, since this is the result of the merging of two separate scores for policy fields that are not directly linked to each other, no major importance should be attached to this circumstance.

4.3 Summarising analysis

In the previous sections different results of the Development Cooperation Policy Coherence Coefficient (DCPCC) in a number of different policy fields have been discussed. The data show that there are significant differences of vertical coherence of development related policies within the EU which can be linked to the degree to which the respective policy fields are competence of the EU. In order to provide for an all-encompassing view on the findings discussed in the previous sections, the policies under observation shall be categorised into three groups according to their level of policy integration. For an overview of the DCPCC scores for the seven main components and their sub-components, please refer to Appendix 9. The previous assessment has revealed the difficulties of interpreting the overall DCPCC scores for the seven main components due to the merging of data of generally non-related sub-components. Thus, in the following only the sub-components shall be considered (with the obvious exception of the aid component).

First, all sub-components representing policies with a high or very high level of policy integration within the EU show particularly high DCPCC scores for both observed cases, EU-UK and EU-D. Namely, these sub-components are:

- Trade-1: measured protection,
- Finance-1: investment support,
- Environment-1: global climate,
- Environment-2: sustainable fisheries,
- Environment-3: biodiversity & global ecosystem,
- Technology-2: intellectual property rights (IPRs).

All these policies are characterised by a high degree of policy coherence. In most cases there are clear indications that this policy coherence can be causally linked to the high level of policy integration in the respective fields. However, in other fields this link is not verifiable. As discussed in section 4.2.3, the field of investment support falls under this category. Even though both a high level of policy integration and the corresponding DCPCC scores come together, a causal link cannot be established. However, this does not weaken the overall conclusion that a high level of policy integration generally has a positive effect on the vertical coherence of the national and supranational development cooperation policies within the EU.

Second, those (sub-) components representing policy fields with a moderate level of policy integration within the EU receive DCPCC scores that vary from fairly high to rather low. These (sub-) components are:

- Aid,
- Trade-3: services trade restrictions,
- Finance-2: financial transparency,
- Technology-1: government R&D.

The policy fields of this intermediary category are characterised by the ambivalence that may arise either when national and supra-national policies are carried out in parallel without properly coordinating these activities (as is the case for aid and government R&D) or when the formal (partial) integration of policies is not implemented in practice or does not yet show the anticipated impact (as is the case for services trade restrictions and the financial transparency). Unlike the highly integrated policy fields of the first category, the results not only show a generally lower degree of policy coherence but also less stable and reliable performances across the cases observed.

Last, there are those sub-components that fall under the category of policy fields with a low or even very low level of policy integration and a low degree of vertical policy coherence. These sub-components are:

- Trade-2: impediments to imports,
- Migration-1: immigration flow,
- Migration-2: foreign students,

- Migration-3: refugee burden sharing,
- Security-1: Military spending,
- Security-2: Arms exports,
- Security-3: Participation in security regimes.

When it comes to drawing a conclusion for this category of subcomponents, the sub-component of the impediments to imports, even though equally characterised by a low level of policy integration and poor DCPCC scores, must be seen somewhat separate from the other six sub-components. As described in section 4.2.2, it is primarily characterised by practical, local conditions for imports that can hardly be equalised within the EU. The impact of more policy integration in this field is therefore questionable.

In all other sub-components, however, the low degree of vertical policy coherence can be linked to the lack of policy integration in these particular fields. It is striking to see that all six sub-components are related to two main policy fields, migration and security, which both may be considered as "identity-sensitive" for nation states. While migration in political discussions by some is referred to as a potential threat to the "national culture", guaranteeing the internal and external security of the state and its citizens has always been considered as one of the principal responsibilities of the nation state. It therefore must be expected that initiatives to further integrate these policy fields within the EU will be confronted with major resistance from multiple interest groups within the Member States. Hence, it is not surprising that it is precisely those "identity-sensitive" policy fields in which little policy integration within the EU and consequently low vertical policy coherence for development can be observed. Nonetheless, the results of this thesis suggest that further integration of these policy fields would lead to a more coherent development cooperation policy of the EU and its Member States. The identity sensitivity of these fields should therefore not be used as an excuse for policy makers' inaction.

To summarise, the three categories which consolidate sub-components with a similar level of policy integration underline the general positive link between policy integration and vertical policy coherence. Deeper integration and thus the transfer of competences from national to EU level in the policy fields of the second and third category may therefore generally allow for more coherence of the European development cooperation policies.

5 Conclusion

Many still regard development cooperation primarily as charity in the form of food and shelter for "under-developed" countries that are far away, not connected to our lives in Europe and characterised by corruption and mismanagement. With this line of reasoning development cooperation is almost considered a luxury expenditure that can only be made after satisfying the domestic needs. This view, however, is very short-sighted and does not do justice to the complex and multidimensional environment development cooperation is acting in and to the important contribution it is making to the European position in a globalised world.

This is not to say that development cooperation cannot or should not be criticised. There are numerous shortcomings of the way development cooperation is currently carried out. Among the current debates the matter of aid effectiveness and hence the question of whether the efforts in the field of development cooperation produce the expected results is particularly prominent. In this context policy coherence plays an outstanding role since it is one of the fundamental requirements for an effective development policy. Due to its complex political architecture, to focus on policy coherence is even more crucial for the EU.

This thesis therefore tried to answer the question whether further policy integration within the EU will increase its level of policy coherence and thus improve the EU's overall effectiveness in the field of development cooperation. In order to do so, first the policy field of development cooperation was introduced. An emphasis was placed on the historical development of the discipline illustrating a clear development towards a more comprehensive, all-encompassing understanding of development cooperation that goes beyond mere aid. Modern development cooperation embraces numerous policy fields which influence the development of development and hence to improve the economic, social and environmental conditions in these countries. To a certain extent this modern approach is reflected in the UN Millennium Development Goals. The EU also embarked upon this path setting good governance and sustainable growth for human development together with poverty reduction as priorities for its development cooperation policy.

In a next step the matter of policy (in)coherence as one of the major points of criticism of development cooperation in general and for the EU in particular was introduced. In order to clarify the focus of this thesis the distinction between horizontal and vertical policy coherence for development was established – horizontal policy coherence referring to aid and non-aid policies on a given hierarchical level and vertical policy coherence meaning the consistency between different policies across given hierarchical levels. For this thesis the vertical understanding of policy coherence was adopted since the question of policy integration is about the relationship of different hierarchical levels. However, it also became clear that the EU so far has a rather horizontal understanding of policy coherence for development.

In order to be able to assess the vertical policy coherence for development within the EU the Center for Global Development's Commitment to Development Index (CDI) was introduced. The index assesses the commitment of different countries to the development of developing countries in seven main policy fields: aid, trade, finance, migration, environment, security and technology. Each of the components in turn consists of a number of sub-components which were discussed in detail. Despite some criticism of the CDI, following the appraisal by leading scholars in the field of European development cooperation the CDI was chosen to be applied for the assessment of the coherence of national and supra-national policies within the EU.

On the basis of the CDI the Development Cooperation Policy Coherence Coefficient (DCPCC) was introduced allowing for a two-tiered assessment of the coherence between national and supra-national policies within the EU. This was achieved by combining the relative difference of the averages of any two CDI scores over a given time period for a given sub-component with their respective correlation coefficient into one index that ranges between 0 and 1. Within the scope of this thesis the cases of the UK and Germany were assessed in relation to the EU. The results of these two cases, EU-UK and EU-D, were compared both concerning their DCPCC scores and their performance in the two defining elements, relative difference of CDI scores and correlation. Thereby an assessment of the vertical policy coherence for all seventeen sub-components of the CDI was obtained.

These sub-components could then be assigned to three categories according to their level of policy integration. As a result, a clear positive relation between policy integration and policy coherence could be found. This finding leads to the conclusion that further integration in those fields represented by the sub-components of the second category (moderate policy integration) and particularly those of the third category (low or very low policy integration) has the potential to significantly increase the vertical policy coherence in these particular policy fields. This would in turn improve the overall effectiveness of European development cooperation policies. However, this is not to leave out the political challenges associated with further policy integration within the EU particularly in the fields of migration and security which fall under the third category and which both can be considered as identity-sensitive for the EU Member States. Nonetheless, the results of this thesis suggest that more policy integration would indeed strengthen the position of the EU as a global actor and thereby benefit not only the EU but also its Member States.

In the course of the analysis a few challenges arose which might point to shortcomings of the DCPCC. These challenges have to do with the way how the two elements, the relative difference of the CDI scores and their correlation, are merged into the single DCPCC. Under the current construction a fairly high DCPCC score can be reached even if the performance in one of these two elements is rather poor. However, this circumstance could only be changed with a significantly more complex index
that responds to a critically low performance in one of the two elements. Additionally, the threshold at which this response should be activated would have to be selected in a rather arbitrary manner. Thus, as a remedy for this shortcoming the way of a more extensive individual analysis of each subcomponent was chosen.

The same holds true for the analysis of the differences between the two national cases observed. For those sub-components showing great differences between the UK and Germany – either in their respective DCPCC scores or in one of the two DCPCC elements – a direct application of the DCPCC to these two cases may have been suitable to replace the more elaborate analysis undertaken in the course of this thesis by providing more plain results.

Finally, as pointed out in the respective sections of the thesis in a limited number of the sub-components – particularly in the cases of services trade restrictions and financial transparency – more extensive research will be required to verify the assumed positive link between policy integration and policy coherence. None of these cases, however, shows signs for a negative link of these two properties.

To sum up, this thesis found that an increase in policy integration might foster vertical policy coherence for development by analysing CDI data of two distinct national cases and the EU. To verify these findings more extensive research including data for more EU Member States and taking into account the mentioned shortcomings of this thesis will be required. The results obtained within the scope of this thesis, however, confirm that further policy integration will be required within the EU – particularly in the fields of migration and security – if the claim to strengthen the EU as a global actor made by the President of the European Commission, Jean-Claude Juncker, is to become reality.

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Appendix

<u>Appendix 1:</u> The Millennium Development Goals (MDGs) and their sub-targets Source: (United Nations, 2015)

- MDG 1 Eradicate extreme poverty and hunger:
 - Target 1.A Halve, between 1990 and 2015, the proportion of people whose income is less than 1.25 US-\$ a day.
 - Target 1.B Achieve full and productive employment and decent work for all, including women and young people.
 - Target 1.C Halve, between 1990 and 2015, the proportion of people who suffer from hunger.
- MDG 2 Achieve universal primary education:
 - Target 2.A Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
- MDG 3 Promote gender equality and empower women:
 - Target 3.A Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.
- MDG 4 Reduce child mortality:
 - Target 4.A Reduce by two thirds, between 1990 and 2015, the under-five mortality rate.
- MDG 5 Improve maternal health:
 - Target 5.A Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.
 - Target 5.B Achieve, by 2015, universal access to reproductive health.
- MDG 6 Combat HIV/Aids, Malaria and other diseases:
 - Target 6.A Have halted by 2015 and begun to reverse the spread of HIV/AIDS.

- Target 6.B Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.
- Target 6.C Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.
- MDG 7 Ensure environmental sustainability:
 - Target 7.A Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.
 - Target 7.B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.
 - Target 7.C Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.
 - Target 7.D Achieve, by 2020, a significant improvement in the lives of at least 100 million slum dwellers.

• MDG 8 – Develop a global partnership for development:

- Target 8.A Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.
- Target 8.B Address the special needs of least developed countries.
- Target 8.C Address the special needs of landlocked developing countries and small island developing States.
- Target 8.D Deal comprehensively with the debt problems of developing countries.
- Target 8.E In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.
- Target 8.F In cooperation with the private sector, make available benefits of new technologies, especially information and communications.

<u>Appendix 2:</u> Data for the aid component

Source: (Center for Global Development, 2015) and own calculations

| | DCPCC | DCPCC | Δ | | | | | |
|---------------|-------|-------|-------|----------------|----------------|---------------|-------------|------------|
| Aid (overall) | EU-UK | EU-D | UK-D | CDI average EU | CDI average UK | CDI average D | CORR(EU,UK) | CORR(EU,D) |
| World | 0,89 | 0,86 | 0,03 | 4,5 | 5,4 | 3,5 | 0,73 | 0,69 |
| LAC | 0,80 | 0,91 | -0,12 | 3,8 | 2,2 | 4,2 | 0,73 | 0,74 |
| SSA | 0,89 | 0,86 | 0,03 | 4,4 | 5,7 | 3,3 | 0,80 | 0,73 |
| MNA | 0,95 | 0,98 | -0,03 | 6,8 | 6,8 | 6,9 | 0,81 | 0,91 |
| SAS | 0,79 | 0,99 | -0,20 | 4,2 | 8,6 | 4,2 | 0,85 | 0,94 |
| EAP | 0,88 | 0,95 | -0,07 | 3,4 | 3,0 | 3,8 | 0,66 | 0,89 |
| ECA | 0,95 | 0,97 | -0,02 | 7,2 | 6,0 | 8,0 | 0,98 | 0,99 |

| | DCPCC | DCPCC | Δ | CDI average | CDI average | CDI average | | |
|-----------------------------|-------|-------|-------|-------------|-------------|-------------|-------------|------------|
| Trade (overall) | EU-UK | EU-D | UK-D | EU | UK | D | CORR(EU,UK) | CORR(EU,D) |
| World | 0,99 | 0,99 | 0,00 | 5,2 | 5,3 | 5,2 | 0,98 | 0,97 |
| LAC | 0,99 | 1,00 | 0,00 | 5,4 | 5,6 | 5,4 | 1,00 | 0,99 |
| SSA | 0,99 | 1,00 | -0,01 | 5,1 | 5,3 | 5,1 | 1,00 | 1,00 |
| MNA | 0,94 | 0,90 | 0,04 | 6,0 | 6,1 | 6,0 | 0,78 | 0,61 |
| SAS | 0,99 | 1,00 | -0,01 | 4,9 | 5,0 | 4,9 | 1,00 | 1,00 |
| EAP | 0,99 | 1,00 | -0,01 | 5,2 | 5,3 | 5,2 | 0,98 | 0,99 |
| ECA | 0,99 | 1,00 | -0,01 | 5,9 | 6,0 | 5,9 | 0,98 | 0,99 |
| | | | | | | | | |
| Measured protection | | | | | | | | |
| World | 1,00 | 1,00 | 0,00 | 5,1 | 5,1 | 5,1 | 0,99 | 0,99 |
| LAC | 1,00 | 1,00 | 0,00 | 5,4 | 5,4 | 5,4 | 0,99 | 0,99 |
| SSA | 1,00 | 1,00 | 0,00 | 5,0 | 5,0 | 5,0 | 0,99 | 0,99 |
| MNA | 0,75 | 0,75 | 0,00 | 6,2 | 6,2 | 6,2 | 0,00 | 0,00 |
| SAS | 1,00 | 1,00 | 0,00 | 4,6 | 4,7 | 4,6 | 1,00 | 1,00 |
| EAP | 0,99 | 1,00 | 0,00 | 5,1 | 5,1 | 5,1 | 0,98 | 0,99 |
| ECA | 0,99 | 1,00 | 0,00 | 6,0 | 6,1 | 6,0 | 0,98 | 0,98 |
| | | | | | | | | |
| Impediments to imports | | | | | | | | |
| World | 0,52 | 0,91 | -0,39 | 5,8 | 5,9 | 5,9 | -0,90 | 0,67 |
| | | | | | | | | |
| Services trade restrictions | | | | | | | | |
| World | 0,72 | 0,75 | -0,03 | 5,2 | 6,0 | 5,2 | 0,00 | 0,00 |

Appendix 3: Data for the trade component Source: (Center for Global Development, 2015) and own calculations

| Finance (overall) | DCPCC EU-UK | DCPCC EU-D | Δ UK-D | CDI average EU | CDI average UK | CDI average D | CORR(EU,UK) | CORR(EU,D) |
|------------------------|----------------|---------------|-----------|-------------------|-------------------|------------------|-------------|------------|
| World | 0,97 | 0,92 | 0,05 | 4,9 | 5,5 | 4,0 | 0,99 | 0,90 |
| Investment support | | | | | | | | |
| World | 0,95 | 0,93 | 0,02 | 4,5 | 5,4 | 5,3 | 0,97 | 0,88 |
| Financial transparency | | | | | | | | |
| World | 0,73 | 0,60 | 0,14 | 5,3 | 5,6 | 2,8 | 0,00 | 0,00 |

<u>Appendix 4:</u> Data for the finance component Source: (Center for Global Development, 2015) and own calculations

| | DCPCC | DCPCC | Δ | CDI average | CDI average | CDI average | | |
|------------------------|-------|-------|-------|-------------|-------------|-------------|-------------|------------|
| Migration (overall) | EU-UK | EU-D | UK-D | EU | UK | D | CORR(EU,UK) | CORR(EU,D) |
| World | 0,73 | 0,69 | 0,04 | 5,5 | 5,1 | 6,9 | 0,00 | 0,00 |
| LAC | 0,93 | 0,91 | 0,02 | 2,9 | 2,3 | 3,8 | 0,96 | 0,91 |
| SSA | 0,99 | 0,89 | 0,10 | 2,8 | 2,7 | 3,9 | 0,98 | 0,89 |
| MNA | 0,94 | 0,89 | 0,04 | 2,9 | 2,3 | 4,0 | 0,96 | 0,90 |
| SAS | 0,86 | 0,88 | -0,02 | 2,8 | 3,8 | 4,0 | 0,72 | 0,84 |
| EAP | 0,98 | 0,87 | 0,11 | 2,7 | 3,0 | 4,1 | 0,99 | 0,87 |
| ECA | 0,91 | 0,62 | 0,29 | 3,3 | 2,6 | 5,7 | 0,88 | 0,00 |
| | | | | | | | | |
| Immigration flow | | | | | | | | |
| World | 0,73 | 0,57 | 0,16 | 5,2 | 4,9 | 5,4 | 0,00 | -0,67 |
| LAC | 0,80 | 0,85 | -0,05 | 1,2 | 0,5 | 0,7 | 0,98 | 0,99 |
| SSA | 0,97 | 0,96 | 0,02 | 1,0 | 1,2 | 0,9 | 1,00 | 1,00 |
| MNA | 0,82 | 0,95 | -0,13 | 1,2 | 0,6 | 1,0 | 1,00 | 0,99 |
| SAS | 0,75 | 0,94 | -0,19 | 1,1 | 2,8 | 0,9 | 0,85 | 0,99 |
| EAP | 0,88 | 0,97 | -0,08 | 0,9 | 1,5 | 1,1 | 0,99 | 1,00 |
| ECA | 0,83 | 0,80 | 0,02 | 1,9 | 0,9 | 3,5 | 0,97 | 0,83 |
| Eoroign students | | | | | | | | |
| Foreign students | 0.04 | 0.00 | 0.04 | F 4 | 1.0 | 6.4 | 0.00 | 0.70 |
| World | 0,94 | 0,89 | 0,04 | 5,4 | 4,6 | 6,1 | 0,89 | 0,70 |
| Refugee burden sharing | | | | | | | | |
| World | 0,91 | 0,84 | 0,07 | 6,5 | 6,4 | 12,2 | 0,67 | 0,98 |

Appendix 5: Data for the migration component Source: (Center for Global Development, 2015) and own calculations

| | | _ | | | | | | |
|-------------------------|-------|-------|-------|-------------|-------------|-------------|-------------|-----------|
| | DCPCC | DCPCC | Δ | CDI average | CDI average | CDI average | | |
| Environment (overall) | EU-UK | EU-D | UK-D | EU | UK | D | CORR(EU,UK) | CORR(EU,D |
| World | 0,95 | 0,98 | -0,03 | 6,2 | 6,9 | 6,5 | 0,90 | 0,95 |
| Global climate | | | | | | | | |
| World | 0,91 | 0,98 | -0,07 | 6,8 | 7,6 | 6,8 | 0,74 | 0,94 |
| Sustainable fisheries | | | | | | | | |
| World | 0,94 | 0,94 | 0,00 | 7,6 | 9,4 | 9,5 | 0,96 | 0,96 |
| Biodiversity and global | | | | | | | | |
| ecosystem | | | | | | | | |
| World | 0,96 | 0,96 | 0,00 | 4,5 | 4,9 | 4,9 | 0,93 | 0,94 |

<u>Appendix 6:</u> Data for the environment component Source: (Center for Global Development, 2015) and own calculations

| | DCPCC | DCPCC | Δ | CDI average | CDI average | CDI average | | |
|--------------------|-------|-------|-------|-------------|-------------|-------------|-------------|------------|
| Security (overall) | EU-UK | EU-D | UK-D | EU | UK | D | CORR(EU,UK) | CORR(EU,D) |
| World | 0,93 | 0,86 | 0,07 | 5,4 | 6,5 | 3,8 | 0,88 | 0,79 |
| LAC | 0,92 | 0,86 | 0,06 | 4,2 | 4,6 | 3,3 | 0,80 | 0,66 |
| SSA | 0,63 | 0,69 | -0,06 | 4,9 | 7,9 | 3,9 | 0,00 | 0,00 |
| MNA | 0,81 | 0,72 | 0,10 | 4,1 | 2,1 | 3,6 | 0,89 | 0,00 |
| SAS | 0,86 | 0,68 | 0,18 | 5,2 | 6,8 | 4,0 | 0,69 | 0,00 |
| EAP | 0,54 | 0,64 | -0,10 | 3,0 | 1,2 | 1,9 | 0,00 | 0,00 |
| ECA | 0,83 | 0,25 | 0,58 | 6,1 | 9,6 | -0,8 | 0,77 | 0,00 |
| | | | | | | | | |
| Military spending | | | | | | | | |
| World | 0,86 | 0,87 | -0,02 | 5,8 | 10,0 | 3,9 | 0,97 | 0,88 |
| LAC | 0,86 | 0,92 | -0,06 | 3,9 | 6,5 | 3,1 | 0,95 | 0,94 |
| SSA | 0,32 | 0,93 | -0,62 | 4,4 | 10,3 | 3,8 | -0,93 | 0,88 |
| MNA | 0,97 | 0,70 | 0,26 | 2,6 | 2,4 | 1,0 | 0,95 | 0,68 |
| SAS | 0,86 | 0,85 | 0,00 | 5,1 | 8,9 | 3,4 | 0,97 | 0,81 |
| EAP | 0,86 | 0,90 | -0,04 | 1,8 | 2,8 | 1,4 | 0,86 | 0,85 |
| ECA | 0,86 | 0,89 | -0,03 | 8,8 | 15,1 | 5,9 | 0,97 | 0,94 |
| | | | | | | | | |
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| | | | | | | | | |

Appendix 7: Data for the security component Source: (Center for Global Development, 2015) and own calculations

| Arms export | | | | | | | | |
|---------------------------|------|------|-------|-----|------|-------|------|------|
| World | 0,41 | 0,75 | -0,34 | 5,0 | 0,9 | 2,2 | 0,00 | 0,76 |
| LAC | 0,38 | 0,77 | -0,40 | 3,9 | 0,6 | 2,3 | 0,00 | 0,61 |
| SSA | 0,92 | 0,60 | 0,31 | 5,6 | 6,1 | 3,1 | 0,75 | 0,00 |
| MNA | 0,44 | 0,92 | -0,49 | 6,0 | -1,2 | 7,3 | 0,74 | 0,90 |
| SAS | 0,85 | 0,85 | 0,00 | 5,6 | 4,3 | 4,1 | 0,66 | 0,72 |
| EAP | 0,25 | 0,25 | 0,00 | 3,2 | -5,6 | -0,1 | 0,00 | 0,00 |
| ECA | 0,56 | 0,43 | 0,12 | 1,4 | 3,3 | -20,0 | 0,00 | 0,73 |
| Participation in security | | | | | | | | |
| regimes | | | | | | | | |
| World | 0,74 | 0,74 | 0,00 | 5,2 | 4,9 | 5,0 | 0,00 | 0,00 |

| Technology (overall) | DCPCC EU-UK | DCPCC EU-D | Δ UK-D | CDI average EU | CDI average UK | CDI average D | CORR(EU,UK) | CORR(EU,D) |
|----------------------|----------------|---------------|-----------|-------------------|-------------------|------------------|-------------|------------|
| World | 0,93 | 0,73 | 0,20 | 4,8 | 4,5 | 4,5 | 0,78 | 0,00 |
| Government R&D | | | | | | | | |
| World | 0,74 | 0,97 | -0,23 | 4,8 | 4,6 | 4,7 | 0,00 | 0,87 |
| IPRs | | | | | | | | |
| World | 0,97 | 0,95 | 0,02 | 5,0 | 4,5 | 4,2 | 1,00 | 0,97 |

<u>Appendix 8:</u> Data for the technology component Source: (Center for Global Development, 2015) and own calculations

| | woi | RLD | LAC | | SS | Α | SSA MN | | SAS | | EAP | | ECA | |
|---------------|-------|------|-------|------|-------|------|--------|------|-------|------|-------|------|-------|------|
| | EU-UK | EU-D | EU-UK | EU-D | EU-UK | EU-D | EU-UK | EU-D | EU-UK | EU-D | EU-UK | EU-D | EU-UK | EU-D |
| AID | 0,89 | 0,86 | 0,80 | 0,91 | 0,89 | 0,86 | 0,95 | 0,98 | 0,79 | 0,99 | 0,88 | 0,95 | 0,95 | 0,97 |
| TRADE | 0,99 | 0,99 | 0,99 | 1,00 | 0,99 | 1,00 | 0,94 | 0,90 | 0,99 | 1,00 | 0,99 | 1,00 | 0,99 | 1,00 |
| Trade-1 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 0,75 | 0,75 | 1,00 | 1,00 | 0,99 | 1,00 | 0,99 | 1,00 |
| Trade-2 | 0,52 | 0,91 | | | | | | | | | | | | |
| Trade-3 | 0,72 | 0,75 | | | | | | | | | | | | |
| FINANCE | 0,97 | 0,92 | | | | | | | | | | | | |
| Finance-1 | 0,95 | 0,93 | | | | | | | | | | | | |
| Finance-2 | 0,73 | 0,60 | | | | | | | | | | | | |
| MIGRATION | 0,73 | 0,69 | 0,93 | 0,91 | 0,99 | 0,89 | 0,94 | 0,89 | 0,86 | 0,88 | 0,98 | 0,87 | 0,91 | 0,62 |
| Migration-1 | 0,73 | 0,57 | 0,80 | 0,85 | 0,97 | 0,96 | 0,82 | 0,95 | 0,75 | 0,94 | 0,88 | 0,97 | 0,83 | 0,80 |
| Migration-2 | 0,94 | 0,89 | | | | | | | | | | | | |
| Migration-3 | 0,91 | 0,84 | | | | | | | | | | | | |
| ENVIRONMENT | 0,95 | 0,98 | | | | | | | | | | | | |
| Environment-1 | 0,91 | 0,98 | | | | | | | | | | | | |
| Environment-2 | 0,94 | 0,94 | | | | | | | | | | | | |
| Environment-3 | 0,96 | 0,96 | | | | | | | | | | | | |
| SECURITY | 0,93 | 0,86 | 0,92 | 0,86 | 0,63 | 0,69 | 0,81 | 0,72 | 0,86 | 0,68 | 0,54 | 0,64 | 0,83 | 0,25 |
| Security-1 | 0,86 | 0,87 | 0,86 | 0,92 | 0,32 | 0,93 | 0,97 | 0,70 | 0,86 | 0,85 | 0,86 | 0,90 | 0,86 | 0,89 |
| Security-2 | 0,41 | 0,75 | 0,38 | 0,77 | 0,92 | 0,60 | 0,44 | 0,92 | 0,85 | 0,85 | 0,25 | 0,25 | 0,56 | 0,43 |
| Security-3 | 0,74 | 0,74 | | | | | | | | | | | | |
| TECHNOLOGY | 0,93 | 0,73 | | | | | | | | | | | | |
| Technology-1 | 0,74 | 0,97 | | | | | | | | | | | | |
| Technology-2 | 0,97 | 0,95 | | | | | | | | | | | | |

<u>Appendix 9:</u> Overview of the DCPCC scores for the seven main components and their sub-components Source: own calculations