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Budget Support & Coordination of Foreign Aid

Correlation Studies of Coordination Problems

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Abstract

Coordination failure is stressed as one of the most critical causes to ineffective foreign aid. Budget support is argued to improve and facilitate coordination of foreign aid, why it is an increasingly used disbursement channel. However, there is little empirical studies of budget support and aid effectiveness.

The purpose of this essay is to study if the use of budget support correlates with some characteristics and possible causes to coordination failure in foreign aid. This study brings us closer to determine if budget support improved coordination. The essay examines four hypothesis of how budget support correlates with three different coordination problems. These are: aid fungibility, overlaps and aid predictability. To test the hypothesis, I depict cross-country data from the OECD Creditor Reporting System (online database) and the World Bank (online data, indicators), in scatter plots.

The results do not show strong correlations between budget support and coordination failures. This may indicate that budget support does not reduce these coordination failures. First, I find a weak correlation between the share of budget support, and the proportions of aid and recipient budget. This result indicates that proportions of budgets as a cause to fungibility, is not important to donors in their decisions whether to use budget support or not. Further, no correlation is found between overlaps and budget support. Lastly, there is no indication that aid predictability correlates with budget support.

Keywords: *coordination, budget support, fungibility, predictability, overlaps.*

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List of Abbreviations

CRS	Creditor Reporting System
HIPC	Heavily Indebted Poor Countries
IMF	International Monetary Fund
MDG	Millennium Development Goals
NGO	Non-governmental organization
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
PRSP	Poverty Reduction Strategy Paper
The Paris Declaration	The Paris Declaration of Aid Effectiveness
UNDP	United Nations Development Programme
WB	World Bank

1. Introduction

Many countries have enjoyed remarkable economic growth and their citizens have increased their living standards. However, in the poorest countries, the majority still live in extreme poverty and have not been able to benefit from development, new technologies and globalization. In 2005, about 1.4 billion people lived on less than 1.25 US dollar a day (Shaohua and Ravallion 2008). Academics, politicians and Nobel laureates argue that global poverty alleviation is one of the greatest challenges for our generation. Here follows a quote by Bono (2004, p. XV):

We can't say our generation didn't know how to do it. We can't say our generation couldn't afford to do it. And we can't say our generation didn't have reason to do it. It is up to us.

One potential factor in poverty alleviation, and a part where the surrounding world can make a difference is to make foreign aid more efficient and make it contribute to a sustainable development. A long known cause to inefficiency of aid is coordination failure.

The coordination problem has many dimensions. Collier and Dollar (1999) have studied the allocation of aid between recipient countries. They found that a poverty-efficient allocation of aid could almost double today's poverty alleviation (from 16 to 30 million people annually). This result stresses the need for better allocation and coordination. All in all, there is plenty of reasons to put effort into this, make foreign aid more efficient, and to help millions of people out of extreme poverty.

Coordination of aid is also internationally recognized as an important element of aid effectiveness. It is also a part of The Paris Declaration of Aid Effectiveness (March 2005). However, Aldasoro, Nunnenkamp and Thiele (2006) show that donor specialization, coordination and overlaps in aid has not improved, although it is argued to be on the agenda of major bilateral and multilateral donors.

Fragmentation is recognized as a major impediment of coordination. Donor proliferation has increased continuously since 1975 and today's foreign aid is fragmented to hundreds of

NGO:s, bilateral and multilateral donors in single recipient countries (Archarya, de Lima, Moore 2004). This fragmentation and the huge number of uncoordinated projects creates imperfect information which makes the decision making process of where to allocate aid and domestic resources (recipient) highly suboptimal. A striking example is Iraq which had 4162 developing projects in 2007 (Front and Santiso 2010). These high numbers of projects make it difficult for everyone involved to work efficiently (Stern 2003), and fragmentation is found to have a negative impact on economic growth (Kimura, Sawada and Mori 2007). An increasingly used method to reduce fragmentation is to shift from the traditional disbursement channel, project aid, to budget support.

Budget support is widely seen as reducing fragmentation, improving coordination and being align with much of the new international aid policies of aid effectiveness (see for example Antunes, Carrin and Evans 2008, Vidal and Pillay 2004). However, there is lacking empirical evidence of this, and so far the new policies are based on theories, not empirics.

Purpose

My question is if budget support improves coordination of foreign aid. This essay will empirically look into the relationship of budget support and coordination failures. This study contributes to the literature of aid effectiveness by disaggregating aid modalities, and empirically study budget support. Further, empirical correlations and generalizations are often preliminary stages of theories and policies. The essay also contributes to a policy discussion based on empirical facts and gets us closer to determine if budget support can be a partial solution to the problem of inefficient aid.

More specifically, I study how the use of budget support correlates with three characteristics and causes of coordination failures. These are: aid fungibility, overlap and aid predictability. I specify the question at issue by formulating four hypothesis (presented in section four). These are empirically tested in cross-country studies with data from the OECD Creditor Reporting System and the World Bank.

Another interesting study is to measure long-term development outcomes as a result of aid effectiveness. However, these long-term outcomes of the new practices of aid effectiveness

are most likely not evident today (OECD 2008). Until they are, it becomes more relevant to concentrate on theories of aid effectiveness itself.

Theoretical Framework

The theoretical framework for my essay base on literature of aid effectiveness and the Halonen-Akatwijuka model (2007). The Halonen-Akatwijuka model deals with coordination problem among sectors within a recipient developing country. In this model, coordination failure occurs due to fragmentation in foreign aid which causes incomplete information about other agencies' budgets and plans. The model also analyses how preferences affect the scope of coordination failure and concludes that the coordination problem is greatest when the agents (donor and recipient) have similar preferences. However, the model does not distinguish between different kinds of disbursement of foreign aid. Therefore, this essay will look into coordination problems emphasized in literature of aid effectiveness and the Halonen-Akatwijuka model, specifically for the rising foreign aid disbursement instrument: budget support.

Results

The results are presented in section 5.2. In sum, budget support is not found to correlate with coordination failures. The first result shows a weak correlation between the share of budget support, and proportions between government revenues (not including grants) and aid budget. The second result shows no correlation between budget support, and overlaps in aid between donor and recipient. The third and fourth results indicate that budget support does not increase aid predictability. Neither fluctuations in aid disbursement, or differences between commitment and disbursement, shows any correlation with budget support.

Disposition

The remainder of this paper is organized as follows: section two gives the reader some background information on foreign aid and clarifies the distinction and implications of the main aid disbursement methods. The theoretical framework is presented in section three and looks into aid effectiveness and the Halonen-Akatwijuka model, which is the foundation for the hypothesis that are presented in section four. Section five presents the method, data, results and analysis. Section six concludes the essay and contains a discussion part.

2. Foreign Aid

This section gives the reader a short introduction to different types and purposes of foreign aid. It presents a brief historical overview of theories and practices in foreign aid, and some of its criticism. My intention is that this section will give perspective of today's discussion of aid effectiveness and lead the reader to the theoretical framework which is the following section.

2.1 A Background to Foreign Aid

Different Purposes of Foreign Aid

There are two main types of foreign aid: humanitarian aid and development aid. Humanitarian aid, or humanitarian emergency assistance, aims to relieve acute humanitarian suffering, for example from natural disasters and warfare. Development aid is meant to support other countries' development. However, donors might also have other than these altruistic purposes of giving aid, for example political, economic and military interests.

Because of the wide spectra of purposes of aid, Official Development Assistance (ODA) is widely used when talking about aid. ODA is specifically defined. It includes loans, grants and technical assistance that *promote development and welfare* of the recipient country as the main objective. Loans have to include at least a 25 per cent grant. ODA is flows from the donors' government agencies and can be delivered as multilateral (through international organizations like the UN, WB etcetera) or as bilateral (directly from donor country to recipient) (IMF Glossary, ODA).

However, to "promote development" can have different meanings. This is exemplified by the Millennium Development Goals (MDGs). The MDGs include aspects of poverty reduction, education, gender equality, child mortality, material health, diseases like HIV/AIDs, environmental sustainability and global partnership for development (UN, Millennium Goals). In other words, development represents many different areas. Other common objectives of foreign aid are development towards economic growth, democracy, human rights and security. A common way to measure overall development is the Human Development Index (HDI) which consist of health, education and income variables.

Some Proportions

Foreign aid is significant to many developing countries. Between 1990 and 1995, net aid (excluding technical cooperation) to sub-Saharan Africa constituted 71 per cent of gross investments and 50 per cent of government spending. Corresponding numbers for South Asia were 31 per cent for investments and 20,5 per cent for government spending (O'Connell and Soludo 2001, table 4).

Theories & Policies Over Time

Foreign aid was first extensively used after the second world war in the European Recovery Program (more known as The Marshall Plan), when the US provided technical and economic assistance to reconstruct Europe. Since then, theories of economic growth and foreign aid have replaced one another.

Easterly (2001) discusses what he calls "Panaceas That Failed" and begins with the gap between necessary investments and poor countries' savings, a theory that springs from the Harrod-Domar model of economic growth. Foreign aid was meant to fill this gap and economic growth would then take off. The next trend was to invest in machines which were thought to be a key for growth. Later, education was stressed as an important factor and aid shifted to improve human capital. Further on, population control, government policies and conditional loans were in use. The recipient countries had a varying commitment to the conditional reform packages, and some pretended to adjust to be able to receive money. However, in the end of the 1990s, the poor outcome of the loans was obvious and debt forgiveness and a search for partnership took place (Barkan 2009). The reform packages were in line with the so called Washington Consensus, a free-market, liberal, export oriented ideology which was a major policy foundation both for developed and developing countries around 1980-2008.

Easterly stresses to rethink the whole aid business and to be more scientific in finding methods that work. Other practices and theories in foreign aid are Jefferey Sachs' poverty trap with the "big push", and the MDGs which put the social aspect higher up on the agenda. Other trends are shown in The Paris Declaration on Aid Effectiveness (2005) where ownership is one of the catchwords. As a contrast to the Washington Consensus, the developing country itself shall set the agenda and the priorities for development policies.

Along with The Paris Declaration, there has been a shift towards budget support since it is seen to be more aligned with The Paris Declaration. More of these new trends in section 3.1 of aid effectiveness.

2.2 Project Aid, Program Aid & Budget Support

The way aid is disbursed is an important aspect for many reasons. Research shows that the political environment in the recipient country significantly affects the outcome and the efficiency of aid (Burnside and Dollar 2000). Therefore, the incentives that foreign aid brings about to the recipient government is critical and the method of disbursement is of great importance (Tito Cordella and Giovanni Dell' Ariccia 2003). Aid is heterogeneous and aggregate aid figures neglect these differences, why it is important to study aid modalities separately.

There are different dimensions in aid modalities: the type of finance (loan, grant), procurement conditions (material, money, skills, tied or untied aid), the objective and the disbursement channel (for example budget support or project aid) (Jelovac and Vandeninden 2008). This essay will focus on the disbursement channel.

Here follows a short presentation of the most common disbursement methods and their pros and cons in terms of aid effectiveness. From donor driven project aid, to program aid, and to country driven budget support.

Project Aid

Project aid has been the most common disbursement channel since the 1950's and is so still today (Jelovac and Vandeninden 2008, Halonen-Akatwijuka 2007). Project aid is given for a specific purpose and focus on solving explicit problems in a determined, relatively short time period. Project aid has the advantage of clear focus and deliver expected outputs with high accountability (Antunes, Carrin, Evans 2008). On the other hand, project aid suffers from the risk of poor fit into development strategies and other programs. It is also criticized for not building institutional capacities, rather tending to undermine governmental systems by creating parallel systems, next to domestic institutions (Jelovac, Vandeninden 2008).

Project aid is mostly implemented and controlled by donors, why it is not likely to sustain without donors' support (Jelovac and Vandeninden 2008). Donor driven project aid is also at risk of responding to donors' preferences rather than to national priorities (Antunes, Carrin, Evans 2008). Since project aid is fragmented, and too many donors in one sector creates transaction costs it also decreases aid efficiency (Front and Santiso 2010).

Financial Program Aid

The purpose of program aid is more general than project aid as it is not linked to a specific project. It is transferred from the donor directly to the recipient's government budget. Financial program aid aims to stabilize macroeconomic conditions and balance of payments. It became common during the 1980s when many developing countries had severe economic crises.

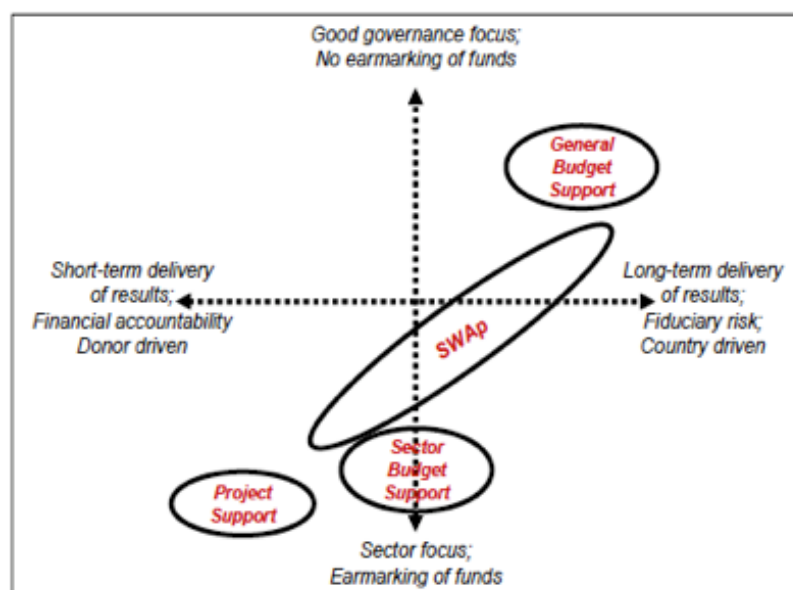
There are different types of financial program aid: balance of payment support, import support, debt relief and budget support (Ouattara 2005). Covering all these is well beyond the scope of this essay. Here follows more details of budget support.

Budget Support

Although project aid is still the most common disbursement channel, there has been a growing focus on budget support since the 1990s, especially for the lowest-income countries (Pillay 2004, Barkan 2009). The Netherlands and the Scandinavian countries give a quarter or more of their aid to Africa through budget support. However, budget support is not a completely new phenomenon. Transfers from the International Monetary Fund (IMF) and the World Bank to the treasuries, also called non-project assistance, was a part of structural adjustments programs during the 1980s and 1990s. The structural adjustment programs were supposed to strength macro-economic policies in the short term, which is different from todays budget support which has a long term development focus (Barkan 2009).

Todays budget support is almost the opposite of project aid. It is a financial contribution to the recipient state budget and is implemented and carried out through domestic institutions with their own national priorities (Cordella and Dell' Ariccia 2003). Budget support has a longer time horizon than project aid and focuses on dialogue and partnership between donor and recipient. Donors and recipients usually negotiate about programs that target the poor and

then commit to budget support (Antunes, Carrin, Evans 2008). However, the guidelines and partnership programs are not easy to enforce or evaluate since recipient governments usually are not fully transparent (Barkan 2009).



(Antunes, Carrin, Evans, WHO, 2008)

Donors' multiple objectives with aid (altruistic, strategic, commercial, etcetera) restrain harmonization and alignment (OECD 2008). Since budget support is likely to be less influenced by donor interests, it can be a way to increase harmonization at a national level of the recipient.

There are a few different types of budget support. Direct budget support is channelled through the country's own financial management, procurement and accountability systems. Direct budget support consists of:

- General budget support which is un-earmarked,
- Sector-wide approaches (SWAp) which funds a single sector policy or expenditure program within the recipient government's leadership.
- Basket funding, program based SWAp.

(Vidal and Pillay 2004)

Budget support is often associated with conditionality (Ouattara 2005). There are two main types of conditions: fiduciary conditionality is the most common and is related to criteria regarding transparency, accountability and good governance. A more controversial type is political conditionality which often deals with sector policies, macro-economic and fiscal

policies. However, conditional budget support is limited by the donors ability to measure and monitor aid.

3. Theoretical Framework:

Aid Effectiveness & The Halonen-Akatwijuka Model

The following theories and models are used as perspectives and approaches and bring up the central aspects relevant to problems of coordination of foreign aid. This is the ground for my empirical studies.

3.1 Aid Effectiveness

Foreign Aid and Growth

This section discusses and brings up some findings of aid's affect on growth and development. There is no consensus regarding the effect foreign aid has on economic growth. Collier and Dollar (2002), Boone (1996) and Easterly (2003) argue that it has been modest, at best. However, recent studies tend toward that aid have a positive impact on growth (Ottara and Strobl 2008). Burnside and Dollar (2000) found that aid has a positive impact on growth when the policy environment in the recipient country is good. However, Hansen and Tarp (2001) found that aid has a positive affect on growth, independently of policy conditions. Similarly to Collier and Dollar, Jelovac and Vandeninden (2008) argue that aid has low impact on development when recipients do not favor development and poverty alleviation.

Some researchers distinguish between development aid and political or strategic aid before analyzing aid effectiveness and its' effect on growth. Andreas Bergh (2010) presents a diagram in which he classifies development promoting factors into those that can be affected in the short term, long term and not at all (geographic). He then splits them into two categories, one than can only be affected by the country itself, and another in which other countries, through development assistance and politics, can influence and promote development. I believe it is good to have this in mind before entering the debate of aid effectiveness. Aid effectiveness is not the final aim, the superior goal is development effectiveness. From the Monterrey Consensus in 2002, an increasingly multidimensional way

of development evolved, where aid is only recognized to be a factor that can catalyze and financially support national policies, but is not the key to development (OECD 2008).

Coordination Problems

This section structures and present some common coordination problems. Coordination of aid exists in mainly two different directions: donor-coordination and donor-recipient coordination. Donor coordination, or donor harmonization, deals with common practices for planning, aid delivery, objectives, requirements on recipient and information sharing and coordination. Donor-recipient coordination is alignment in donor's and recipient's actions. Both these types are presented and discussed in this essay.

Aid in general, and especially project aid, suffers from problems with crowd-out or aid fungibility when donor and recipient have different preferences. Aid fungibility is when the recipient government reallocate their own resources away from the policy objective targeted by the donor and its aid. Then the overall budget for that objective or sector stays the same (in the case of 100 per cent fungibility), with or without aid. The extent to which the recipient government is able to reallocate resources affects the fungibility. Aid fungibility is less likely to occur if the recipient government does not know the size or the target of aid projects. It is also less likely to occur when the aid budget is large compare to the recipient's own budget for that policy objective (Halonen-Akatwijuka 2007). Aid fungibility can decrease efficiency of aid, if recipient diverts aid from investments to less productive consumption (Bulír, Hamann 2007).

Another important determinant of aid effectiveness is the stability of aid flows (Lensink and Morrissey 2000). Aid volatility is argued and empirically shown to have a negative impact on growth and consumption (Arelló, Bulír, Lane, and Lipschits 2008, Lensink and Morrissey 2000, Torsvik 2005). Bulír and Hamann (2008) identify three measures of aid instability: aid's volatility to fiscal revenues, unpredictability of aid disbursement to commitments, and failure to counterbalance fluctuations in aggregate income. A source of aid volatility is conditionality, both bilateral conditionality and the IMF on-track/off-track system (Bulír and Hamann 2008).

In my hypothesis, I will focus on aid predictability but also on the fluctuations in disbursement. Because even if recipients predict fluctuations, poor countries often have

limited means and constrained liquidates to countervail the volatility in aid (Bulír and Hamann 2008).

Bulír and Hamann (2008) find little evidence that volatility of aid disbursement to commitment, has improved recently, even though it is a part of international agreements of effectiveness of aid and the New Aid Paradigm¹. Aid fluctuates more than domestic fiscal revenues, thus contributing to an increased unpredictability and volatility. This of course, makes it difficult to achieve stable and sound macroeconomic and fiscal behavior for developing countries, which has further impact on economic growth. Arellano, Bluír, Lane and Lipschitz (2008) assert that volatility in aid has potentially very large negative effects on welfare. Similarly, Pallage and Robe (2003) show that eliminating aggregated macroeconomic fluctuations in developing countries can gain welfare corresponding to one percent of economic growth forever. Pallage and Robe (2003) also show that the costs of business cycles in developing countries reduce welfare from 10 to 30 times more than in the US. Thus, they conclude that one should take this question much more serious in regard to poor countries.

Researchers argue that scaling up aid before increasing its' effectiveness and aid absorption capacity, can lead to losses of aid efficiency (Bigsten 2006). According to Ouattara and Strobl (2000), the problem of absorption capacity is "the inability of recipient to absorb a large amount of aid". Hopwood (2009) lists reasons of the inability to absorb and implement aid, some of these are: weak political and legal systems, conflicts and instability, and weak civil society. This stresses the importance of building, not subverting, domestic institutions.

Transaction costs of foreign aid refers to costs of preparing and negotiating, monitoring and enforcing agreements. These costs increase if donors use diverse rules, practices and reporting systems (Bigsten 2006). Budget support and recipient ownership is argued to reduce transaction costs in aid, however, according to Bigsten (2006) there is not yet enough empirical evidence of how transaction costs is affected by aid-modality or how coordination affects transaction costs and aid effectiveness.

Another coordination problem arises when donors seek to maximize the impact of their own projects, rather than general development goals. The rational for this is that donors need

¹ More of the New Aid Paradigm on page 17.

visibility of their project to attract funding. Many uncoordinated donors maximize their own projects and strive for visibility. These mixed goals hinder donors from maximizing development goals. Striving for common goals may improve the situation, but is far from solving the problem (Bigsten 2006). Halonen-Akatwijuka shows that incomplete information creates problems with complementary projects, even though preferences are similar.

The opposite problem of donor visibility, is that altruistic donors view foreign aid and development as global public goods. A public good is at risk of being under-provided since investments benefit everyone, irrespectively of who pays for the investment. In this case, if donors do not cooperate and agree on how much aid they should give, their joint effort will provide less than optimal. This is another impetus for international coordination (Torsvik 2005). However, Torsvik (2005) presents a model of donor cooperation in foreign aid which include a trade-off between donor cooperation and recipient's incentives. In the trade-off, donor cooperation makes aid more efficient and increases the amount of aid since it addresses the public good problem. However, recipients tend to respond to increased donor cooperation by reallocating domestic funds away from the poor, since coordinated donors take an increased responsibility of poverty alleviation.

Further, coordination can improve by channeling aid through multilateral aid agencies. However, the share of total aid through multilateral agencies has not increased since 1975, even though the UNDP was created to coordinate aid (Bigsten 2006). The IMF is another multilateral organization that can improve coordination by either taking the lead as a donor, or by its on-track or off-track system. The IMF evaluate a country's path in mainly macro-economic practices. If it concludes that a recipient country is off-track, it can lead to delay or withdrawn of budget support (Bigsten 2006). A related problem is aid proliferation. A solution to this can be for donors too specialize in fewer recipients. Donor specializing in fewer recipient countries and in fewer sectors may reduce fragmentation and transaction costs (Aldrasoro, Nunnenkamp, Thiele 2009). However, donor specialization runs the risk of creating new aid orphans if no other donor is filling the aid gap (Rogerson and Steensen 2009). Specialization is a necessary, but not sufficient condition for increased coordination (Bigsten 2006).

The New Aid Paradigm

In previous sections, historical aid practices and some of today's coordination problems are presented. In this section, new, reversed practices and policies of foreign aid are presented.

A visible way to address policies and practices in coordination is through international meetings and agreements. The new aid strategies, including the Paris Declaration, evolved as a reverse of the negatives from old practices.

- *Ownership.* In the old aid paradigm, donors set the priorities and push it on to recipients. In the new aid paradigm, national priorities and plans are the core, and ownership of policies is important.
- *Harmonization.* With the old practices, aid is uncoordinated. Now, there is at least an ambition to coordinate and share information, promote simplified planning and reporting systems.
- *Alignment.* With uncoordinated and donor driven aid, the aid system runs parallel to the national public system which weakens the national institutions. In the new aid paradigm, aid channels through governments' own systems.
- *Results.* Results are measured and in focus.
- *Mutual accountability.* In the old aid paradigm, donors cannot be held accountable for consequences of their actions and policies, now donor and recipient are said to be mutually accountable.

(OECD 2008, OECD, Paris Declaration on Aid Effectiveness and Accra Agenda for Action.)

The Paris Declaration is an international attempt to increase aid effectiveness. It has been subscribed by more than hundred donors, developing countries and international organizations (Hopwood, 2009). The Paris Declaration summarizes the debate and new practices in aid and is aligned with results from earlier conferences, other strategies and international projects, like the MDGs, Heavily Indebted Poor Countries (HIPC) initiative and the Poverty Reduction Strategy Paper (PRSP). For example, results are measured in terms of MDGs.

Aid effectiveness is often seen as being the Paris Declaration and vice versa. However, a less self-referential definition of aid effectiveness is presented in OECD's evaluation of the Paris Declaration (2008, vii): "Arrangement for the planning, management and deployment of aid that is efficient, reduces transaction costs and is targeted towards development outcomes

including poverty reduction.” It is important to define aid effectiveness to be able to evaluate the Paris Declaration and new practices that aim to improve aid effectiveness.

Along with The Paris Declaration, the PRSP constitutes a great deal of today's aid practices. The PRSP was created in the late 1990s as a part of the structure to the HIPC initiative. Under the HIPC initiative, debt is written off if affected countries use the freed financial resources to combat poverty. The PRSP has five main points:

- Country-driven (local participation)
- Comprehensive (poverty is as a multidimensional problem)
- Results-oriented (concrete and measurable results for the poor)
- Partnership-oriented (leading to better coordination and mutual accountability)
- Long-term (focusing on reforming institutions and building capacity)

(Hopwood 2009)

The results of the PRSP has been modest so far. Reducing poverty is now more prioritized by many governments and official agencies and the PRSP is important when deciding about aid allocation and discussions of aid. The PRSP and the Paris Declaration call attention to donor harmonization and coordination, as well as enhanced aid structures' alignment with national priorities (Hopwood 2009).

Budget Support & The New Aid Paradigm

Budget support is likely to result in more recipient ownership, alignment and harmonization than project aid, why it is argued to be consistent with The Paris Declaration (Antunes, Carrin, Evans 2008). Likewise, Vidal and Pillay (2004) argue that the main objectives when channelling funds through the recipient government's budget are to improve coordination and aid predictability, to increase national ownership, reduce transaction cost and to make disbursement more flexible.

Budget support is also meant to foster good policies and improve dialogue. The cooperation and dialogue base enables donors to influence the total resource allocation. This is in contrast to single projects. Those are prone to aid fungibility, thereby increasing the financial means to other sectors, while the over all budget for the targeted sector stays more or less the same, with or without aid. Another advantage of budget support is the potential for low transaction

costs, although implementation of a new structure and method, always has fixed initial costs why this benefit might not yet be visible.

Cordella and Dell' Ariccia (2003) analyze pros and cons for budget support and project aid. They find that budget support is preferred when preferences of donor and recipient are aligned. However, the recipient's preferences are not entirely observable to the donor. On the other hand, with the new aid paradigm, donors ought to set the agenda. This can make donor's and recipient's preferences, or policies, more aligned, which in this aspect makes budget support preferable.

Since budget support uses the local government system, it can improve and strengthen its institutions, which is yet another motive for the use of budget support. Good institutions and macro economic conditions are found to be an important factor for economic growth. On the other hand, the outcome of budget support is more sensitive to the policy environment than project aid, since it is highly dependent on national institutions. Another problem is that general budget support has not always materialized into goods and services. For example, between 1999 and 2005, only 27 per cent of general budget support to sub-Saharan Africa were translated into actual expenditures of the government budget (Antunes, Carrin, Evans 2008).

An increased use of budget support also changes our ways to evaluate aid. Project based evaluations and result systems are more straightforward, easier to measure and have shorter time periods. Budget support needs a broader evaluation system based on national, sector or program level (Vidal and Pillay 2004). One example is to measure total pro-poor expenditures, both domestic and aid funded. However, the Paris Declaration's focus on measurable results is a difficult part for budget support.

Project aid is likely to be preferred in some cases. When mutually agreed activities take place within national systems, partnership can be used for coordinated project aid. Also when trying new methods in pilot projects, project aid can be efficient (Jelovac, Vandeninden 2008).

3.2 The Halonen-Akatwijuka Model

This section starts with a background and an academic context of the Halonen-Akatwijuka model. Thereafter, a summary of the model is presented.

Context of The Halonen-Akatwijuka Model

The paper by Halonen-Akatwijuka is a background paper for the World Development Report 2004: "Making Services Work for Poor People", by the World Bank. The report examines how the MDGs can be reached by a more efficient use of resources (Stern 2003). In addition to the World Development Report (2004), Halonen-Akatwijuka is cited and used in other literature and studies. For example in the working paper "Less Aid Proliferation and More Donor Coordination", by Aldasoro, Nunnenkamp and Thiele (2009), which shows that donor specialization, coordination failure and overlap have not improved between 1995 and 2006.

Halonen-Akatwijuka treats foreign aid as contributing to a global public good, but in contrast to other literature dealing with the free-riding problem, she assumes a fixed budget of foreign aid, why the free-riding problem is not evident in her model presented in "Coordination Failure in Foreign Aid". Instead, Halonen-Akatwijuka considers her model to be closer to Farrell and Saloner (1985) and other literature on networks. In network models, the consumer's utility depends on the amount of additional consumers using the same product. The consumer's budget is fixed and the consumer will choose between two goods (or technologies etcetera). However, the other consumer's choice (preference) is unknown and coordination failure can occur, which results in a suboptimal equilibrium. In the Halonen-Akatwijuka model, the preference of the other donor is known, but the budget is unknown (although fixed).

As presented earlier, other related literature discuss the fungibility problem. Halonen-Akatwijuka analyses fungibility in the case of incomplete information.

Summary of The Model

Halonen-Akatwijuka analyses allocation of foreign aid between two sectors within a recipient country. Donor fragmentation causes high transaction costs for both donors and the often weak institutions in the recipient country. This leads to imperfect information about future

budgets which affects the overall resource allocation. Donors and recipient will then make allocation decisions with incomplete information and therefore, in most cases, both parties regret their allocation ex post.

The model is set up as a game theory model and deals with coordination failure first between two donors, and second between donor and recipient. Two sectors, health and transportation, exists in the model and three cases are analyzed: similar preferences, different preferences and opposite preferences. In all cases the corresponding agent's budget is unknown. The only case in which the imperfect information does not cause any coordination failure is when the two donors have opposite preferences, then complete specialization occurs in equilibrium. If the donors have, at least to some extent, the same goal, coordination failure will occur. They will either focus too much on their priority sector (often the social sector) and leave other sectors with insufficient funds, or allocate too much to the low-priority sector.

In the allocation game between donor and recipient (called active recipient) they are at first assumed to have similar preferences, where the donor has one priority sector and the recipient values an equal allocation between the two sectors. If there is perfect information and the recipient government has a larger budget than the donor, aid fungibility will occur: the recipient will reallocate the budget so that the donor will not affect the final allocation. In the case of incomplete information, the donor and the recipient will specialize in different sectors and aid is still fungible. There is coordination failure in both equilibriums when they have similar preferences.

In the case where donor and the recipient have different preferences, coordination failure only occurs in one of the two possible equilibriums, that is in the case where the recipient completely specializes in its priority sector. The situation with opposite preferences works the same way as for the donor-donor case. In this case, both agents specialize in their priority sector and no coordination failure occur.

Further, the expected welfare loss is calculated through a description of both the probability and the extent of coordination failure. Halonen-Akatwijuka finds that the more similar preferences the donors have, the larger the welfare loss is. Following The Paris Declaration's policy of national ownership, alignment, and internationally agreed goals such as the MDGs,

preferences realized in development programs are likely to be similar (donor-donor and donor-recipient), and the welfare loss of coordination failure is potentially large.

The case with opposite preferences is not likely to occur with the new policies, why I do not empirically analyze this case. Instead I use the conclusions drawn from the two other cases, in which preferences are similar or different, and coordination failure always occur. In the rare case of opposite preferences, the fragmented and donor-driven project aid (with little information sharing) does not cause coordination problems, and can enjoy the advantage of distinct focus and measurable results, thus delivering the expected outputs with high accountability.

Halonen-Akatwijuka lists three causes to coordination failure: complementary projects, incomplete information, and simultaneous decisions. Discrete investments (project aid) will aggravate the problem. Since budget support causes less fragmentation, it does, in this theoretical framework, cause less incomplete information which, in turn, leads to less coordination failure.

4. Hypothesis

The following hypothesis concern coordination failures that are central in several models and literature in this topic, presented in the previous section of theoretical framework. The first hypothesis concerns donors behavior to avoid fungibility. The second hypothesis regard budget support's effect on overlaps. The last two hypothesis are subjected to budget support's effect on aid predictability.

Hypothesis A) Large aid budgets, in comparison to recipients' government revenues, are negatively correlated with budget support.

According to the Halonen-Akatwijuka model, aid fungibility is greater when the recipient's budget is large compare to the donor's aid budget. With large government revenues in the recipient country, the probability for domestic investments in the health sector, education sector etcetera are greater than with small government revenues. Aid targeted to sectors which have large domestic funds relatively to foreign aid, can by the recipient government be

reallocated to other purposes much easier, and to a greater extent, than if domestic funds are small compare to the aid budget.

Since project aid runs parallel to national systems and does not have a say in the overall spending, it is especially subjected to aid fungibility. Therefore, in countries with large state budgets, the risk of fungibility is greater, thus budget support is preferable (in order to minimize coordination failure). The aim of testing this hypothesis, is to see if donors use budget support to reduce this aspect of fungibility. (It does not investigate if budget support reduce fungibility.)

Hypothesis B) Donors which disburse a high share of aid through budget support have less bilateral overlaps with recipient countries.

According to the Halonen-Akatwijuka model, fragmentation causes incomplete information which causes suboptimal resource allocation within the recipient country. In the case where both donor and recipient government allocate too much resources to one sector, so called under-sharing, the risk of overlaps increases. Furthermore, Halonen-Akatwijuka states complementary projects as a reason to coordination failure, likewise complementary projects increase the risk of overlaps.

Since budget support is likely to decrease fragmentation, reduce the number of complementary projects and make coordination and alignment of aid easier, I expect overlaps between donors and recipient to decrease with budget support. Thus, to find a negative correlation between overlaps and budget support.

Hypothesis C) An in-stable disbursement of foreign aid is negatively correlated with budget support.

As mentioned, the Halonen-Akatwijuka model points out fragmentation as a cause to incomplete information. Since budget support causes less fragmentation than project aid, it is likely to diminish the problem of incomplete information. Furthermore, incomplete information detracts the decision-making process about allocation, causing donors to regret their spending ex post and reallocate resources to the next period. Regretting and reallocating aid, cause fluctuations in aid spending. This is why budget support is likely to negatively correlate with in-stable disbursement of aid, in contrast to the highly fragmented project aid.

The reasoning above is also the foundation for hypothesis D.

Hypothesis D) There are less difference between committed and disbursed aid with a large share of budget support, than with a low share.

If budget support causes less incomplete information than project aid, donors' predictions and the actual resource allocation would be more aligned with extensive use of budget support. Then donors do not regret their spending commitments ex post, and have less reasons not to fulfill their commitments. This is why the disparity between commitments and disbursement is likely to be less distinctive with budget support.

5. Empirics & Analysis

This chapter starts with a presentation and discussion of the general data and method used to test the hypothesis. Further data and method discussions for specific tests are presented in section 5.2 where the empirical results and interpretations are presented. The analysis is presented in the last part of this chapter, section 5.3.

5.1 Data & Method

Data

The 154 recipient countries with available data in the CRS and the WB data base, are used in the following tests. These countries are: least developed countries, low income countries, lower middle income countries and upper middle income countries.² The CRS data base does not include donors that are not DAC members or multilateral organizations in cooperation with DAC.³ Lately, additional countries like China, India and Brazil give foreign aid, these do not report to the CRS and so, are not included in the data used in this essay.

Even though the CRS contains data from as early as 1973, the early data is underreported and sporadic, especially considering budget support. Therefore, I am using a more recent time

² Listed in table 1 in the appendix.

³ See all DAC donors in the appendix.

period, i.e. 2002-2009. Since aid allocation fluctuates year to year, I use averages of total disbursed ODA and disbursed general budget support for these years.⁴ This allows for cross country comparison without year to year fluctuation bias. Constant 2008 US dollars is used since data is from different years.

However, some data is missing even in the time period of 2002-2009. This reduces the number of countries included in the calculations. The missing data can cause some biases. One reason why data is not available can be that some of the countries did not receive aid, why no data is reported to the CRS. It is also possible that some of these countries did receive aid, but not reported to the CRS. If underreporting is not random, but rather, more common to certain types of recipient countries, to certain amounts of aid, or to particular sectors, there are biases.

Method

Here follows a description along with pros and cons of the method used in this essay. To test the hypothesis, the data is put into scatter-plot graphs where linear trend lines are depicted, and the coefficients of determination R^2 are obtained to evaluate the correlations.⁵ This method makes it possible to see correlations between two variables. However, studying the correlation between two variables only, makes it unfeasible to dismiss confound variables. Another disadvantage of the scatter-plot method is that it does not say anything about causalities. One cannot, in all cases be sure of the direction of the correlation. Fore example, it can go in both directions, or in the opposite direction than predicted. However, in combination with theories, one may be able to make plausible statements about the direction of a correlation.

An alternative method with advantage in the aspects of confound variables and causality, is to construct a regression model. Then coordination failure is the dependent variable and for example budget support, aid predictability and fragmentation are explanatory variables. However, coordination failure is difficult to measure and there is uncertainty about the causes of it. I think it is a good start to empirically investigate correlations to be able to construct a

⁴ Aid refers to ODA in all the empirical tests, and budget support refers to general budget support (CRS, Sector 510: VI.1. General Budget Support).

⁵ All relevant equations used for the empirical tests are depicted in table 4 in the appendix.

relevant regression model. However, addressing both these tasks are beyond the scope of this essay.

Another uncertainty of this study, irrespective of the choice of method mentioned above, is that we are likely to be in a transition from project aid to budget support, and from old to new aid practices. This might confound possible connections between budget support in accordance with new aid policies, and coordination failures.

Furthermore, cross-country studies like these neglects country specific characteristics and conditions. However, single country studies are not able to see general patterns that can be of great importance for policy makers.

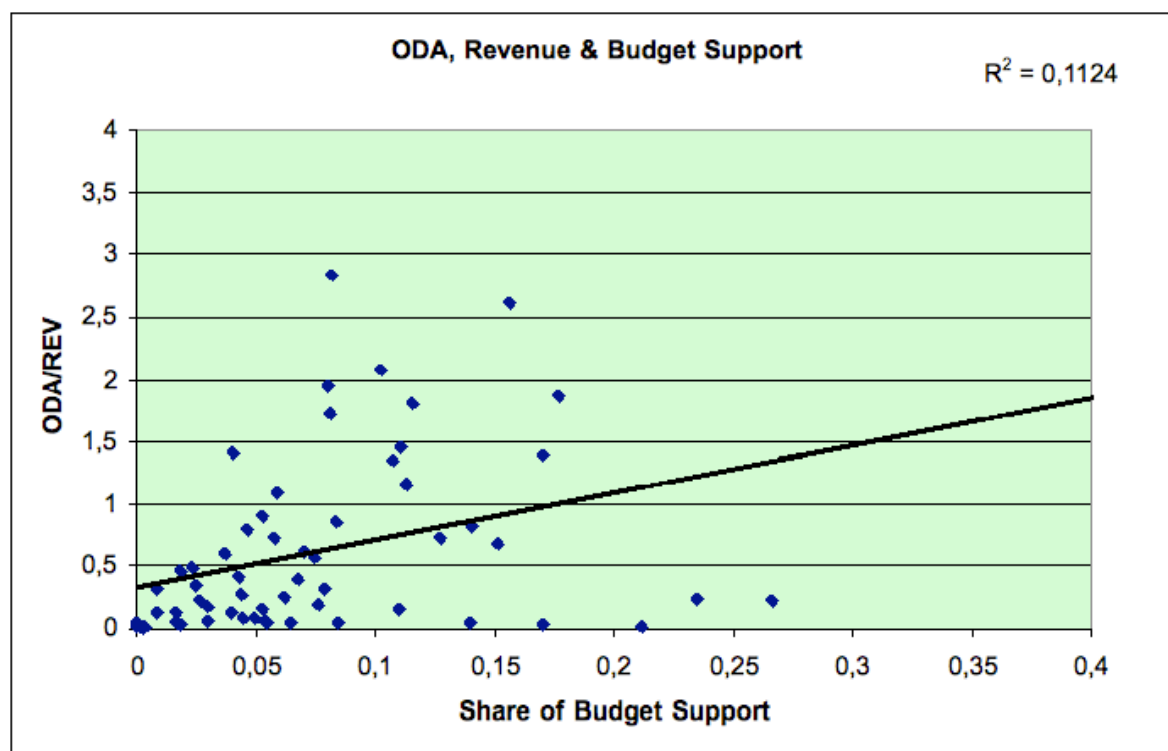
5.2 Results

Here follows the results and interpretations from tests of each hypothesis, along with short discussions of data and methods.

Hypothesis A)

To obtain an indicator of recipient government spending, I use data of government revenues (excluding grants) from the WB online data⁶. The averages of total disbursed ODA 2002-2009, for the 154 countries (OECD-CRS online data base) are divided by corresponding government revenues. This quota constitutes the Y-axis and shows the relations between the aid budget and domestic public budget. The X-axis shows disbursed budget support divided by the total disbursed ODA.

⁶ Data, Indicators, Public Sector



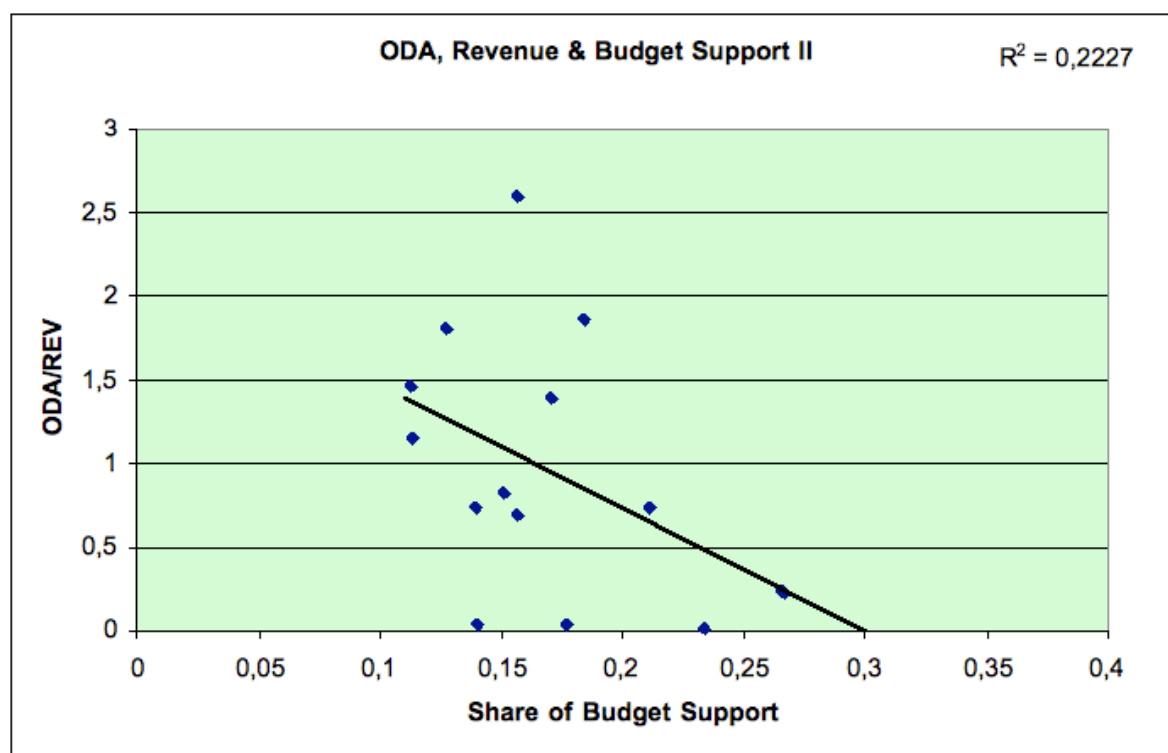
Graph A1: Government Revenue & Budget Support I

The correlation is positive which indicates that the greater aid budget, in comparison to recipient's own budget, the higher share of budget support is used, the opposite of the hypothesis. However, the R^2 value is 0,1124 which indicates a very weak correlation between these parameters. All in all, this correlation study does not support the hypothesis.

As mentioned, budget support is an increasing disbursement channel and policies of The Paris Declaration are not yet commonly practiced. Rather, it is a process and today, donors only give budget support to a few countries, which makes this sort of correlation studies partially problematic. Even if most recipient countries that receive extensive budget support do have great government revenues, it does not show in this graph since there are many other countries with large government revenues that do not receive a substantial share of budget support.

An alternative is therefore be to pick and study this correlation only for countries which do receive a high share of budget support, i.e. are subjected to new practices of foreign aid, including budget support. In the following graph, only the 30 per cent with highest share of budget support out of total ODA, are presented. There is one outlier, Tokelau, that is not depicted in the graph. A linear trend line shows a negative correlation between the share of

government revenue and the share of budget support. The R^2 value is 0.2227 which indicates a stronger, but still weak correlation.



Graph A2: Government Revenue & Budget Support II

Recalling the Halonen-Akatwijuka theory, aid fungibility occurs in cases where recipients have large budgets (compare to the donors' aid budgets). In the cases with large shares of budget support, I find a negative correlations with large recipient revenues. Since general budget support is not, relatively to other aid disbursement methods, attributed to fungibility, the result of A2 may indicate that budget support is used to decrease the magnitude of fungibility, in line with the hypothesis, however, it is not without doubts and hesitation.

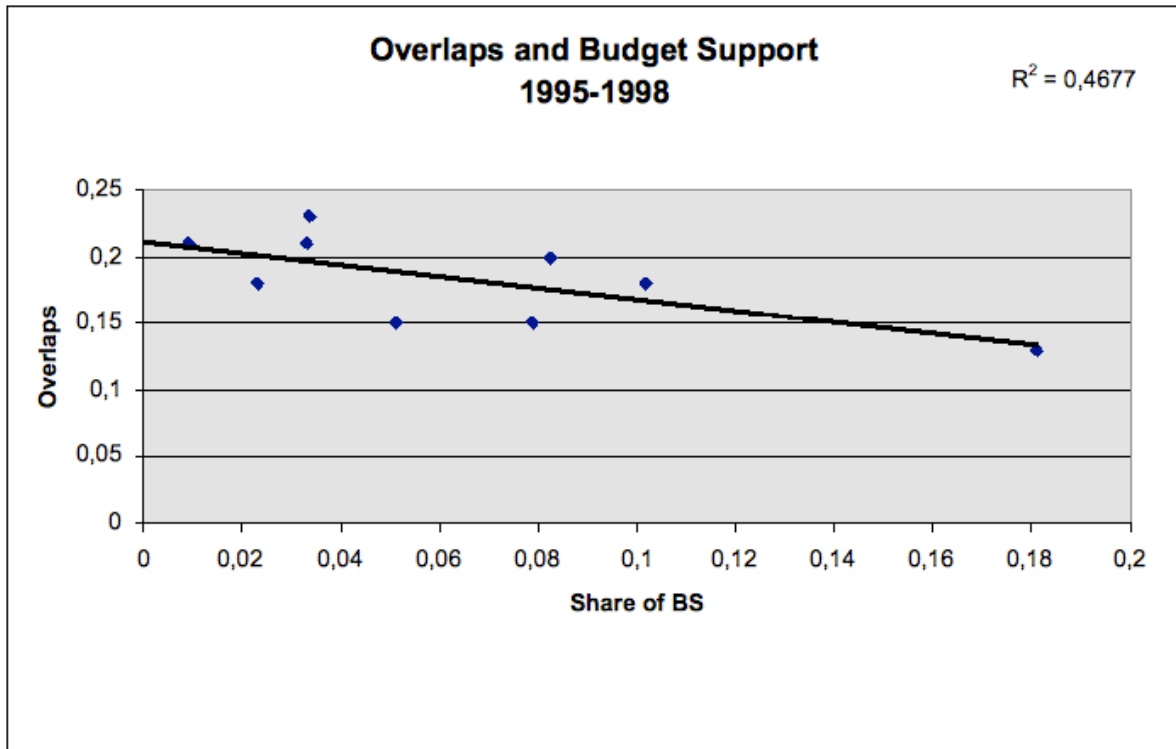
Since budget support is still not very common, it is difficult to know whether donors choose to use budget support specifically to reduce fungibility caused by large domestic investments. The donor's choice of whether to use budget support may depend on the recipient's political stability, quality of institutions and level of corruption. It is likely that political stability, good institutions and low corruption correlate with high government revenues. Consequently, a confounder might be the reason why there is a stronger and negative correlation in graph A2. Further, there is a possibility of a reciprocal connection between budget support and government revenues. If budget support contributes to economic development and

improvement of institutions (including the tax agency) in the recipient country, government revenues are likely to increase. These aspects make it difficult to draw certain conclusions of the correlation.

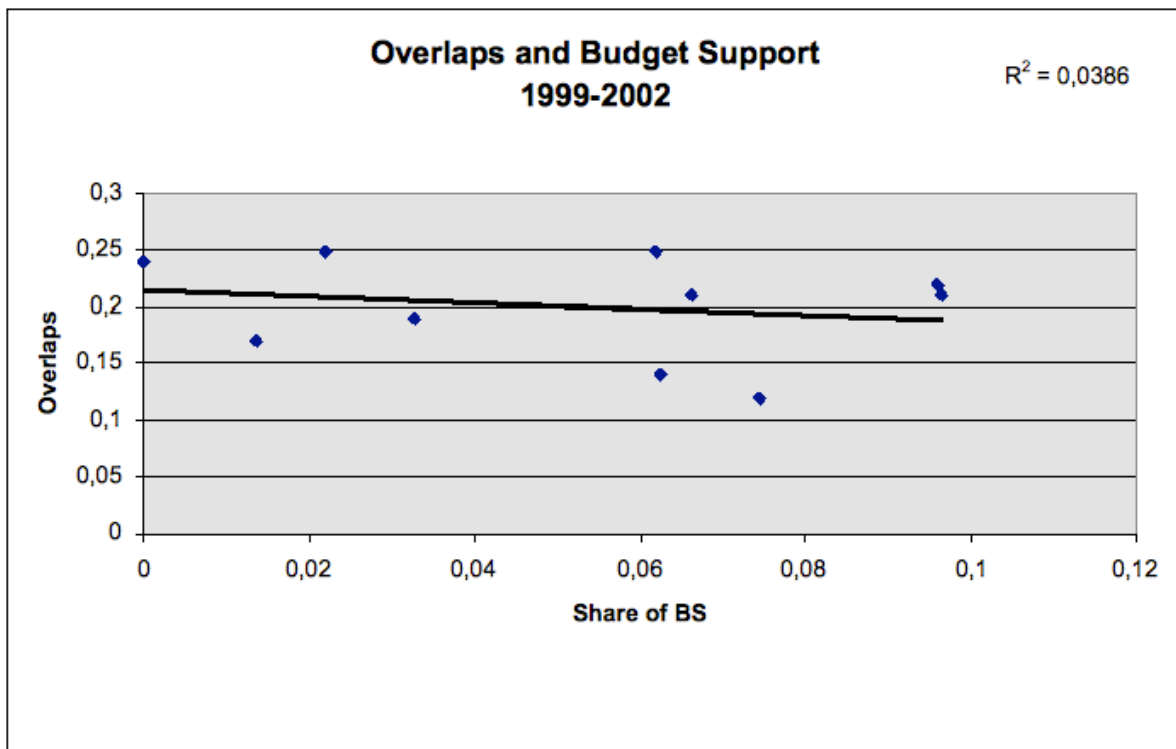
Hypothesis B)

Aldrasoro, Nunnenkamp and Thiele (2009) present a table with the major donors' overlap with the recipient's own development projects. The data is indexed, where 0 reflects no overlap, and 1 reflect complete overlap. The data of overlaps are classified in terms of donors and constitutes the Y-axis in graph B1, B2 and B3. Flows of budget support from donors are divided by total disbursed ODA (from donors) and is shown on the X-axis. The table by Aldrasoro, Nunnenkamp and Thiele (2009) is classified into three time periods: 1995-1998, 1999-2002 and 2003-2006. I use all time periods and create three graphs. This subdivision makes it possible to see if the correlation is stable over time, or if it reflects a coincidence.

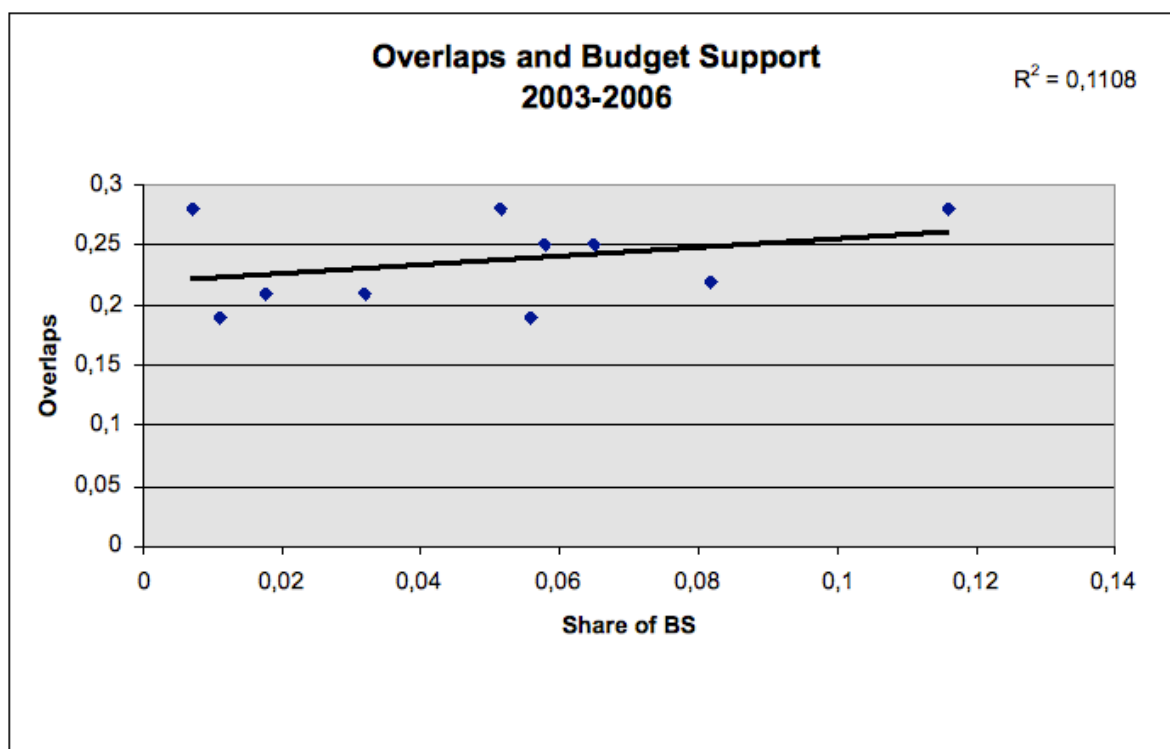
The first time period (1995-1998) shows a downward sloping correlation between overlaps and budget support. This correspond with the hypothesis. The R^2 value of 0,4677 indicates that the correlation is not weak. The second time period (1999-2002) also shows a downwards sloping correlation but with a very low R^2 value of 0,0386. The third graph (2003-2006) shows a positive correlation with a low R^2 value (0,1108). Overall, these graphs do not indicate a correlation between overlaps and budget support and thus the hypothesis cannot be empirically confirmed.



Graph B1: Overlaps and Budget Support 1995-1998



Graph B2: Overlaps and Budget Support 1999-2002



Graph B3: Overlaps and Budget Support 2003-2006

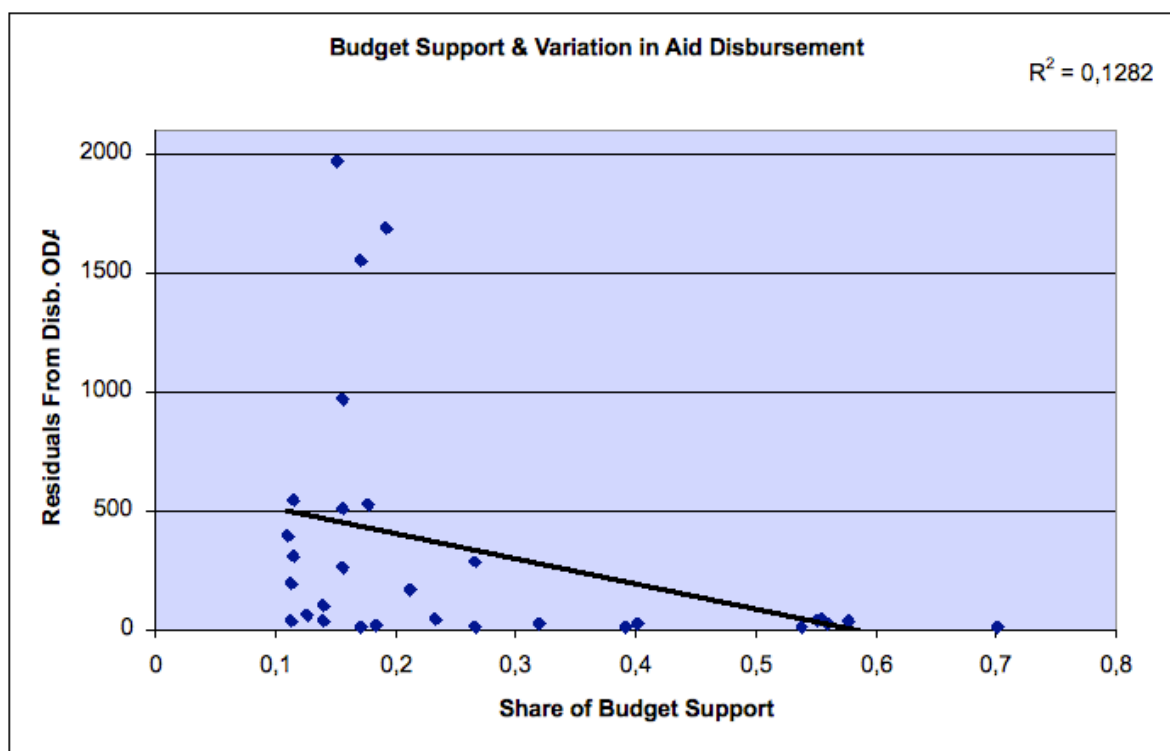
Hypothesis C)

As in graph A2, this correlation is based on countries that have the 30 per cent highest shares of budget support. Aid disbursement over time increase for some countries and decrease for others, why the variation in aid disbursement (2002-2009) is estimated with the residual diffusion from linear trend lines of actual disbursement of aid (2002-2009).⁷ High residual diffusion then correspond to in-stable disbursement. The residual diffusion is shown on the Y-axis.

In cases where data is not available for all years, the residual diffusion is calculated from the years with available data. This means that some countries had eight measurements, where others had as few as three. This may cause some biases as discussed in section 5.1. The X-axis reflects the share of budget support in relation to total disbursed ODA.

Humanitarian aid is subtracted from the data (for both the Y- and the X-axis) so that variation in aid in response to natural disasters and wars do not affect the fluctuation of aid disbursement.

⁷ The linear trend lines are depicted in table 3 in the appendix.



Graph C1: Variation in Aid Disbursement & Budget Support

The graph shows a weak negative linear correlation. The coefficient of correlation (R^2) is 0,1282. A reason that the correlation is not stronger, can be that budget support often is at least fiduciary conditional. That is when budget support is delayed or withdrawn when fiscal policies, transparency and accountability are not fulfilled by the recipient (Antunes, Carrin, Evans 2008). I do not accept hypothesis C.

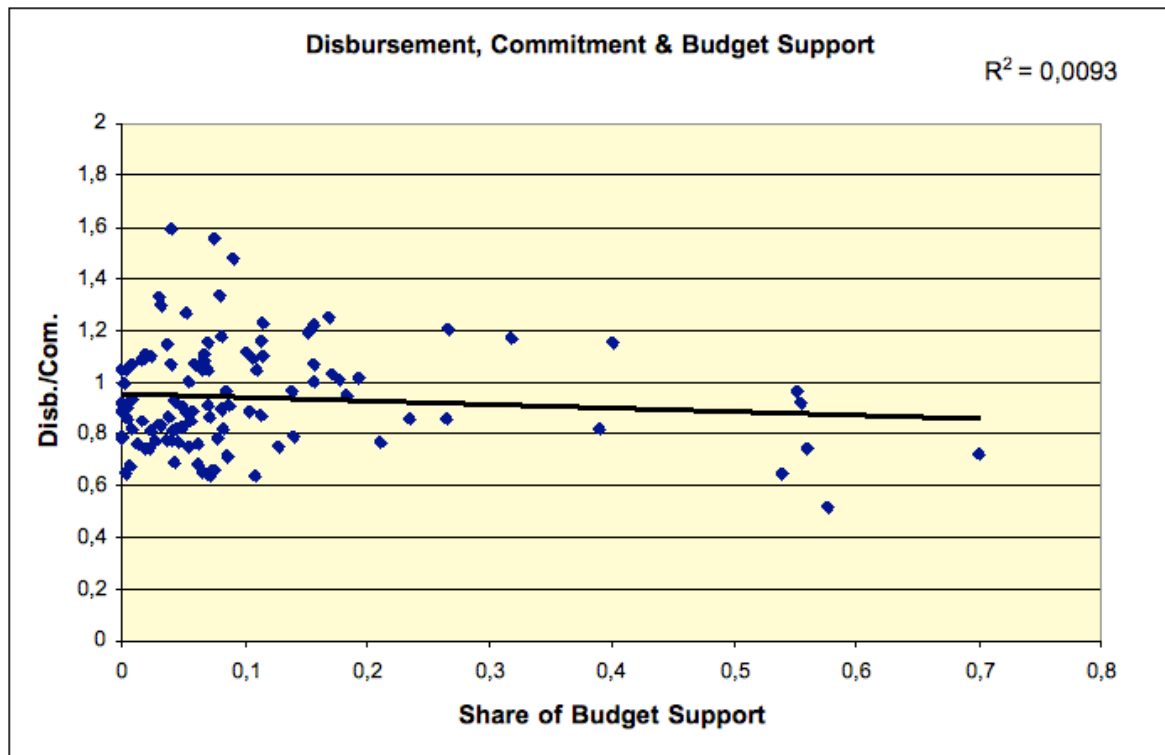
Hypothesis D)

This section constitutes of two parts, the first part shows a graph with aggregated sectors. The second part shows the sectors divided into four categories: social, economic, humanitarian and multi-sector. The data used in these calculations is for 2002-2009, for 154 countries.

Aggregated Sectors

The Y-axis in the graph below shows disbursed ODA divided by committed ODA. As in C1, humanitarian aid has been subtracted from both disbursed and committed aid. A number above 1 at the Y-axis means that more aid is disbursed than what was committed. Numbers below 1 account for lower disbursement than commitment. Budget support as a share of total disbursed ODA is shown on the X-axis.

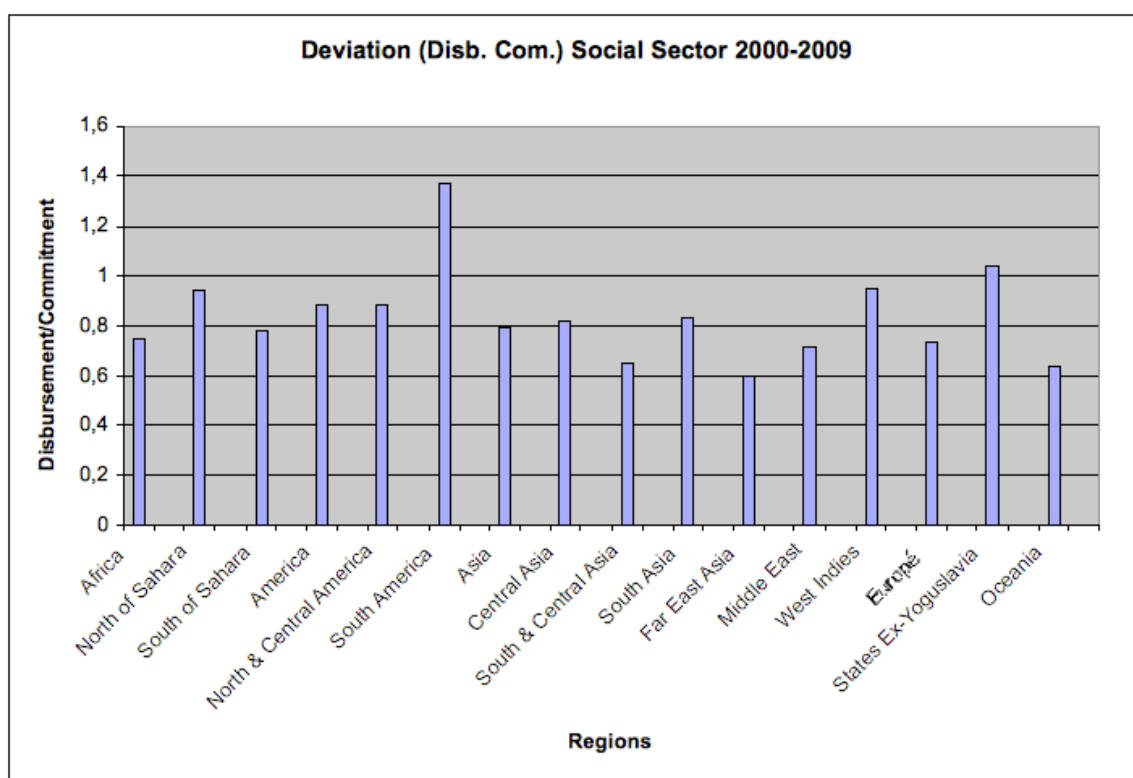
The graph shows a very weak negative linear correlation. The R^2 value is 0,0093. This indicates that the use of budget support does not affect the relationship between disbursed and committed aid.



Graph D1: Disbursement, Commitment & Budget Support

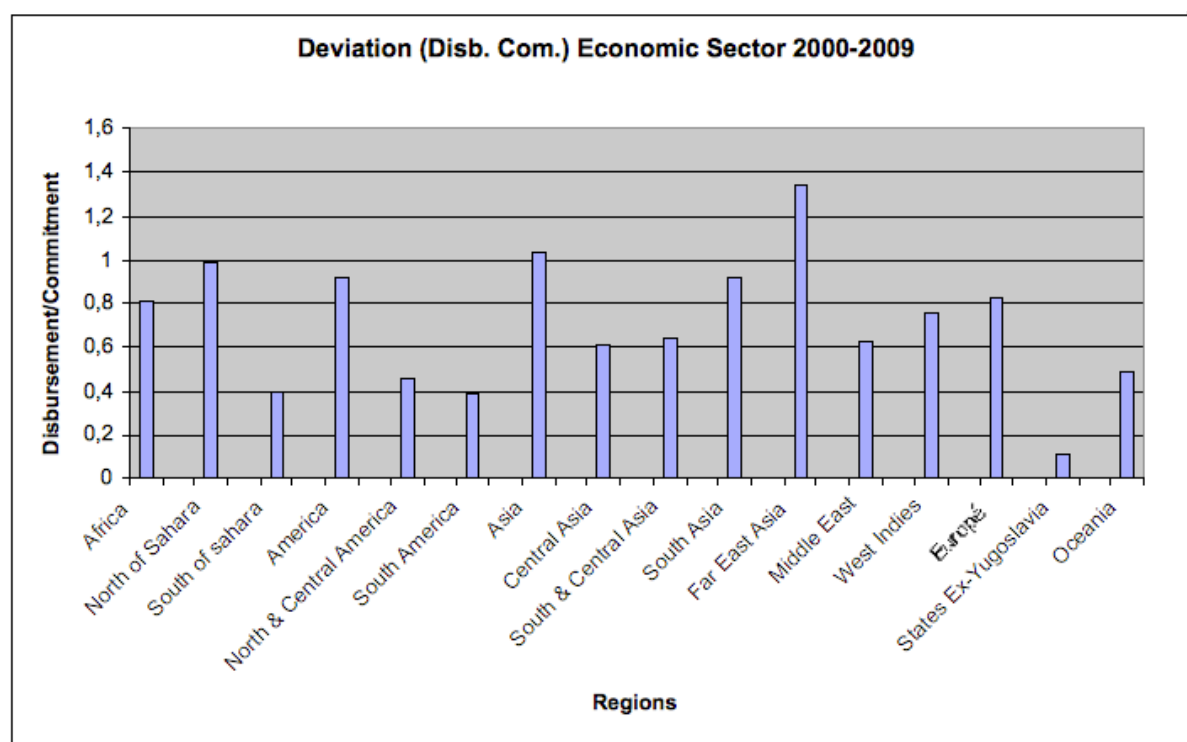
Disaggregated Sectors

Since both the amount, disbursement method and characteristics like fragmentation vary greatly among sectors, the aggregated data above is split up into four broad sectors (one graph each) and into 16 geographical regions. The Y-axis constitutes the share of disbursed ODA over committed ODA, as in D1. The X-axis shows geographical regions.



Graph D2: Deviation (Disb. Com.) Social Sector 2000-2009

Graph D2 shows the social sector which includes education, health, government and civil society (OECD-CRS, online database). The difference between committed and disbursed aid is greatest for Far East Asia where only 60 per cent of committed aid is disbursed. The average disbursement rate is 83.51 per cent.



Graph D3: Deviation (Disb. Com.) Economic Sector 2000-2009

Graph D3 shows the economic sector which include transport and storage, communication, energy, banking and financial service, business and other services (OECD-CRS, online database). The disbursement share vary from as low as about 10 per cent for States Ex-Yugoslavia to 135 per cent for Far East Asia. The average disbursement ratio is 70.59 per cent.

The humanitarian aid sector (graph D4, depicted in the appendix) includes emergency response, reconstruction relief and rehabilitation, disaster prevention and preparedness. This sector has in general much higher disbursement to commitment rate than the other sectors. The average disbursement rate is 104.19 per cent. A possible reason for this is due to the necessity of quick response and immediate disbursement to a sudden need, in these cases there is little time for commitments, pre disbursement.

The last sector (graph D5, depicted in the appendix) is multi sector which is cross-cutting aid to general environmental protection (including environmental policy and regulation) and other multi-sector (for example urban and rural development) (CRS purpose code 2009). The average disbursement is 77.52 per cent.

All in all, the humanitarian sector has the highest disbursement to commitment average, followed by the social sector, the multi-sector and lastly, the economic sector. What is surprising about this result is that the social sector, which is the most fragmented, has a relatively high disbursement ratio compared to the least fragmented, the economic sector. This result questions the assumption that fragmentation causes coordination failures and decreases predictability and effectiveness of aid. There may, however, be an explanation for the sector-wise variation, other than budget supports' effect on coordination of aid. When donors are not pleased with recipient's fulfillments of fiduciary conditions imposed to budget support, they may prefer to withdraw or delay funding from the economic sector, rather than the social sector. The purpose of conditionality is to pressure the receiving government and to foster good policies, not to hurt innocent citizens and reduce their access to social services.

5.3 Analysis

Here follows a discussion where my findings and the problems of fungibility, overlaps, and aid predictability are put into a broader context.

Fungibility

Theories explain fungibility in terms of budgets and relations between donor and recipient. Halonen-Akatwijuka points at an increased risk of fungibility when the recipient's budget is large compared to the donor. My result does not reject that donors may recognize this, and disburse more aid through budget support to these countries, but it does not seem to be a determining factor. One reason why donors may not recognize this, is that uncoordinated bilateral donors may view their *individual* contribution in comparison to the recipient, not the *aggregated* aid budget in comparison to the recipient's budget. More coordinated donors, or large multilateral donors may recognize the proportions to a larger extent.

Studying fungibility is not an easy task. According to Bengtsson (2008), evaluate and determine the actual contribution and use of aid, get more difficult the larger the targeted sector is, which obstructs studies of fungibility. Another problem of evaluating fungibility is that a single measurement and control is not enough to say anything about the contrafactual spending. Maybe the objective, for example a school, that the donor intend to finance, is already planned, financed or even built, before aid commitments are done (Bengtsson 2008).

However, neither the proportion between domestic funds and aid, or decrease cooperation between donor and recipient (see Bigsten 2006), solves the problem of diverting resources away from development promoting, and poverty alleviation aims. The core problem of aid fungibility is that these recipient governments are not poverty averse. That is a problem of priorities and preferences. According to Bigsten (2006), donor-recipient coordination can result in increased fungibility if the recipient does not prioritize poverty alleviation and pro-poor development. However, it may be difficult for donors to observe and affect the recipient's poverty averseness.

Both empirical and theoretical research show that aid efficiency is highly dependent on the recipient government, its' preferences and commitment to development and poverty alleviation (Burnside and Dollar 2000, Jelovac and Vandeninden 2008, Easterly 2003, et al). In what way then, does foreign aid affect these preferences? Conditionality is one way, but it comes at the cost of volatility and low predictability in foreign aid. Furthermore, it is difficult to measure fulfillments of conditions, which is why observable ones, not necessary the most important ones, are in focus. Jelovac and Vandeninden (2008) conclude that conditionality has no affect when recipient's preferences are not aligned with the donor.

The drawbacks of conditionality is why I stress to look for other solutions to the preference-problem. Low commitments to poverty alleviation can be explained by the political environment and poor peoples' low influence and power in society. When poor people have little influence, the leaders are not pressured to fulfill their interests. This relationship may even worsen with foreign aid. When governments get funding from donors, they get relatively less from their taxpayers. This tends to displace accountability, as governments tend to care relatively more about the interest of donors and less about the taxpayers, i.e. their citizens. To affect recipients' preferences toward pro-poor development, it may then be better to focus on and ensure that governments are hold accountable to the people and strengthen the civil society and democratic movements. The demand side of good governance is the citizens, and it is not enough to look at the supply side. One should remember that reducing poverty and allocating resources, including aid, is very much a political task. It changes power structures and the access to government services, resources and influence by different groups in society.

Another perspective of poor governance and weak commitment to pro-poor development is that poverty is the source of bad governance, and that countries with bad governance remain poor, a two-fold causality. In that case, aid can break the viscous circle, but budget support can also sustain bad governance and delay a profound political change. Aid can reduce incentives to create domestic revenue sources and thereby be an obstacle to development of the private sector.

Overlaps

The result that there is no correlation between budget support and overlaps, may depend on biases in the type of countries that receive budget support. However, at first glance it is a surprising result. Overlaps between donor and recipient is a problem of coordination, planning and allocation. If budget support is delivered according with The Paris Declarations, budget support goes through local institutions and after their agenda. That, per se, reduces overlaps between at least that particular donor and the recipient. However, it may be that donors that give extensive budget support also are the most altruistic donors. The rationale is that budget support makes it more difficult to control or influence politics, and to get visibility for specific accomplishments. If so, donors that give the most budget support are more likely to give aid to the poorest countries. The poorest recipients are also the ones receiving large amounts of aid and are the most aid fragmented. Thereby the extent of overlaps in these recipient countries are greater to begin with. A correlation between budget support and overlaps may not be evident even though budget support does reduce overlaps.

Aid Predictability

Predictability of aid depends on both the fluctuations of disbursed aid and of the difference between commitment and disbursement. Since my findings do not support the hypothesis that these aspects are improved with use of budget support, I conclude that budget support in general does not improve aid predictability. It is still possible that budget support is a part of the solution of aid predictability, however, not by it self and not with conditionality.

A possible solution to aid predictability and aid fluctuations, is for a multilateral organization to provide a cushion and to fill some of the gaps. Vidal and Pillay (2004) calls for UNDP to be such a cushion to fluctuations. However, if fluctuations are due to withdraws because of

unfulfilled conditions, such a cushion is counterproductive to the aim of conditionality. Instead, a cushion can be used to fill gaps only for unconditional aid.

However, aid fluctuation is only a part of the total fluctuations that can cause problems with planning, implementation and resource allocation in poor countries. Exchange rates, droughts etcetera play a huge burden to poor and fragile states. World price fluctuations in commodities that constitute exports and imports, are especially severe to developing countries, which often depend on a low number of export commodities (Lensink and Morrissey 2000). To reduce aggregated fluctuations for developing countries, aid can disburse counter to domestic budget fluctuations. Because it is not to stabilize solely the aid budget that is the final goal of aid predictability, but to stabilize the total public budget in the recipient country. That can facilitate planning and efficient resource allocation.

6. Conclusions & Discussion

This paper contributes to the empirical research in the area of aid effectiveness. It investigates the wide-spread assumption that budget support reduces coordination failures in foreign aid, on which much of today's international aid practices are based on. The study can also be used regarding to debt cancellation. Debt cancellation can be comparable to budget support since financial means are transferred through national public systems (Cordella and Dell' Ariccia 2003).

My findings

Overall, my findings show that the use of budget support 2002-2009 has not been a key solution to address characteristics and reasons to coordination failures.

- The tests concerning the first hypothesis indicate that there is a weak correlation between the magnitude of budget support, and the proportions between aid and recipients' government budgets. This result indicates that donors do not take much of this part of the fungibility problem into account when deciding about budget support.
- The results regarding the second hypothesis show no correlation between overlaps and budget support. However, this surprising result may be evident because altruistic donors are likely to use budget support to a greater extent than other donors. Furthermore, altruistic

donors allocate more aid to very poor and aid dependent countries, which in general are more fragmented.

- The test of the third hypothesis shows that there is no significant correlation between fluctuations in aid disbursement and the share of budget support. Consequently, the use of budget support alone, does not seem to reduce fluctuations in aid disbursement. An explanation is that budget support often is subjected to conditionality.
- The tests of the last hypothesis show that the difference between commitment and disbursement of aid is not strongly connected to the share of budget support. However, the sector-wise variation between commitment and disbursement is large and therefore, I do not reject correlations for each and every sector. The fragmented social sector had a relatively high share of disbursement, compared to the less fragmented economic sector which contrast theories. However, this may be explained by sector-wise differences in practices of conditionality.

The results are not in line with the theoretical framework and do not support the assumption that budget support reduce coordination failures. According to Halonen-Akatwijuka, discrete investments (project aid) aggravate the problem of coordination failure. I have not found that the least discrete investments (budget support) diminish coordination failures. However, as discussed in section five, there are some restrictions with the method and data which limits the conclusions of the hypothesis.

Future Research

To reach the goal of efficient foreign aid that reduce poverty, we need to make sure our aid policies work, not just in theory. Therefore, budget support and its effect on aid effectiveness need further empirical research.

Disaggregated data may detect sectors-wise differences in aid effectiveness. Since theories of fungibility and the rationale for hypothesis A, point at the difference in budgets between recipient and donor, an elaboration of this study is to look at aid going to sectors that are intensively funded by domestic means. Along with disaggregated sectors, program based budget support should be used and studied, instead of general budget support. Another elaboration of this study is to compare multilateral agencies and bilateral donors. Do

multilateral agencies cause less coordination failures? For example, one can create a scatter plot of overlaps and donor proliferation.

Further, as mentioned when discussing the choice of method, regression studies may be a good elaboration. For example, overlaps may be better explained by donor proliferation and fragmentation, than by budget support. A future research is to run regression models in which budget support, proliferation and fragmentation are set up as explanatory variables to overlaps or aid predictability. Such regressions are able to determine the proportions between the explanatory variables.

More, studies of budget support and its affect on institutions and private sectors are of great importance for research of aid and economic growth.

Budget Support Is No Panacea

A policy implication appearing from of this study is that budget support, like so many other policies, is no panacea. Budget support cannot by it self, apart from a context of overall effective and coherent policies, solve the coordination problem of foreign aid. Future work on aid effectiveness has to focus on the interplay between different sectors and policies, and their effect on poor peoples' own opportunities to lift their countries out of poverty. I would like to finish with a quote by Professor Muhammad Yunus (2010, p. Xiii):

To me, poor people are like bonsai trees. When you plant the best seed from the tallest tree in a tiny flowerpot, you get a replica of the tallest tree, only inches tall. There is nothing wrong with the seed you planted; only the soil base that you gave it is inadequate. Poor people are bonsai people. There is nothing wrong with their seeds, but the society never gave them the proper base to grow in. All it takes to get poor people out of poverty is for us to create an enabling environment for them. Once the poor can unleash their energy and creativity, poverty will disappear very quickly.

Appendix

Table 1: Countries in graph A1 and D1. Population for samples in graph A2 and C1.

Afghanistan	Guatemala	Palestinian Adm. Areas
Albania	Guinea	Panama
Algeria	Guinea-Bissau	Papua New Guinea
Angola	Guyana	Paraguay
Anguilla	Haiti	Peru
Antigua and Barbuda	Honduras	Philippines
Argentina	India	Rwanda
Armenia	Indonesia	Samoa
Azerbaijan	Iran	Sao Tome & Principe
Bangladesh	Iraq	Saudi Arabia
Barbados	Jamaica	Senegal
Belarus	Jordan	Serbia
Belize	Kazakhstan	Seychelles
Benin	Kenya	Sierra Leone
Bhutan	Kiribati	Solomon Islands
Bolivia	Korea, Dem. Rep.	Somalia
Bosnia-Herzegovina	Kosovo	South Africa
Botswana	Kyrgyz Republic	Sri Lanka
Brazil	Laos	St. Helena
Burkina Faso	Lebanon	St. Kitts-Nevis
Burundi	Lesotho	St. Lucia
Cambodia	Liberia	St. Vincent & Grenadines
Cameroon	Libya	Sudan
Cape Verde	Macedonia, FYR	Suriname
Central African Rep.	Madagascar	Swaziland
Chad	Malawi	Syria

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Chile	Malaysia	Tajikistan
China	Maldives	Tanzania
Colombia	Mali	Thailand
Comoros	Marshall Islands	Timor-Leste
Congo, Dem. Rep.	Mauritania	Togo
Congo, Rep.	Mauritius	Tokelau
Cook Islands	Mayotte	Tonga
Costa Rica	Mexico	Trinidad and Tobago
Cote d'Ivoire	Micronesia, Fed. States	Tunisia
Croatia	Moldova	Turkey
Cuba	Mongolia	Turkmenistan
Djibouti	Montenegro	Turks and Caicos Islands
Dominica	Montserrat	Tuvalu
Dominican Republic	Morocco	Uganda
Ecuador	Mozambique	Ukraine
Egypt	Myanmar	Uruguay
El Salvador	Namibia	Uzbekistan
Equatorial Guinea	Nauru	Vanuatu
Eritrea	Nepal	Venezuela
Ethiopia	Nicaragua	Viet Nam
Fiji	Niger	Wallis & Futuna
Gabon	Nigeria	Yemen
Gambia	Niue	Zambia
Georgia	Oman	Zimbabwe
Ghana	Pakistan	
Grenada	Palau	

Table 2: Overlaps (recipient countries and aid sector):

Country	1995-1998	1999-2002	2003-2006
Denmark	0,18	0,17	0,19
France	0,15	0,14	0,21
Germany	0,21	0,24	0,28
Japan	0,15	0,12	0,19
Netherlands	0,23	0,25	0,25
Norway	0,21	0,25	0,25
Sweden	0,21	0,21	0,28
United Kingdom	0,20	0,22	0,28
United States	0,13	0,19	0,21
EC	0,18	0,21	0,22

(Aldasoro, Nunnenkamp, Thiele 2009, Table 5)

Table 3: Countries in graph A2 and C1. Trend lines for calculations of residuals in graph C1:

Country	Trend Line (Aid disb. 2002-2009)
Tokelau	$y = -1,2241x + 9,8223$
Mauritius	$y = 24,758x - 42,311$
Montserrat	$y = -5,0295x + 50,93$
Micronesia, Fed. States	$y = -1,385x + 77,632$
Marshall Islands	$y = 7,9285x - 7,3549$
Niue	$y = -0,6181x + 8,8705$
Palau	$y = 5,7373x - 11,523$
Grenada	$y = 3,9468x - 3,4637$
Suriname	$y = 25,982x - 47,671$
Dominica	$y = 2,8435x + 6,2363$
Jordan	$y = -29,759x + 849,97$
Moldova	$y = 24,741x + 97,477$
Turkey	$y = 190,04x + 171,56$
Tanzania	$y = 198,67x + 1916,2$
Djibouti	$y = 5,6356x + 72,096$
Burkina Faso	$y = 75,417x + 682,76$
Seychelles	$y = 2,1515x - 3,1163$
Zambia	$y = -0,5519x + 1894,3$

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Country	Trend Line (Aid disb. 2002-2009)
Mozambique	$y = -42,655x + 2317,5$
Sierra Leone	$y = 29,451x + 359,47$
Rwanda	$y = 85,541x + 447,87$
Ghana	$y = 58,868x + 1920,5$
Georgia	$y = 57,639x + 192,34$
Jamaica	$y = 6,3481x + 107,67$
Tajikistan	$y = 16,064x + 137,97$
Niger	$y = 6,8597x + 687,92$
Burundi	$y = 131,11x - 117,76$
Mayotte	Data not available
Guyana	$y = 16,405x + 51,531$
Kyrgyz Republic	$y = 7,3437x + 195,19$
Benin	$y = 54,3x + 384,71$

Table 4: Equations:

Equations Hypothesis A:	Equations Hypothesis C:	Equations Hypothesis D:
Y-axis: (Disb. ODA)/((REV of GDP)xGDP))	Y-axis: - (Disb. ODA - Hum. ODA) - Trend lines (see table 3) - Residuals: $S_e = \sqrt{(\sum e^2)/(n-2)}$ where $e = (Y - Y^*)$	(Disb. Tot. ODA - Disb. Hum. ODA)/(Com. Tot. ODA - Com. Hum. ODA)
X-axis: (Disb. ODA BS)/(Disb. Tot. ODA)		

Table 5: DAC Members and Agencies:

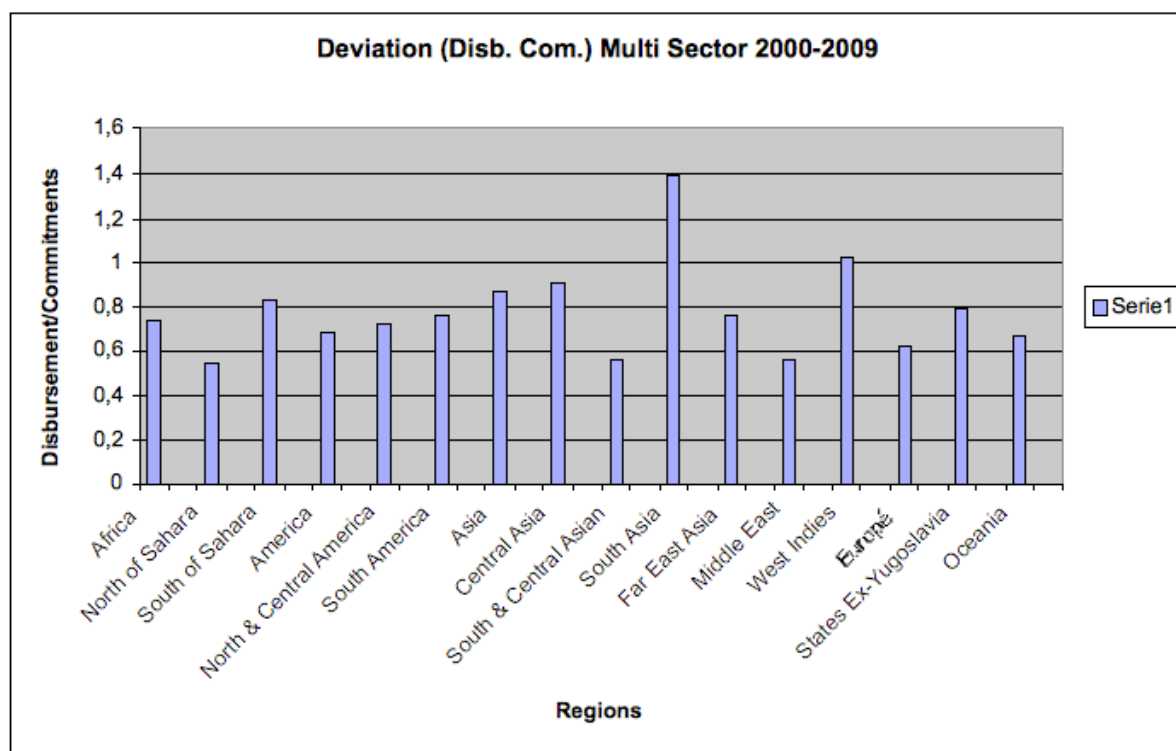
Country	Country	Organization
Australia	Japan	European Communities
Austria	Luxembourg	United Nation
Beligum	Netherlands	World Bank Group
Canada	New Zealand	African Development Bank
Denmark	Norway	African Development Fund
Finland	Portugal	Asian Development Bank
France	Spain	Inter-American Development Bank
Germany	Sweden	International Fund for Agricultural Development

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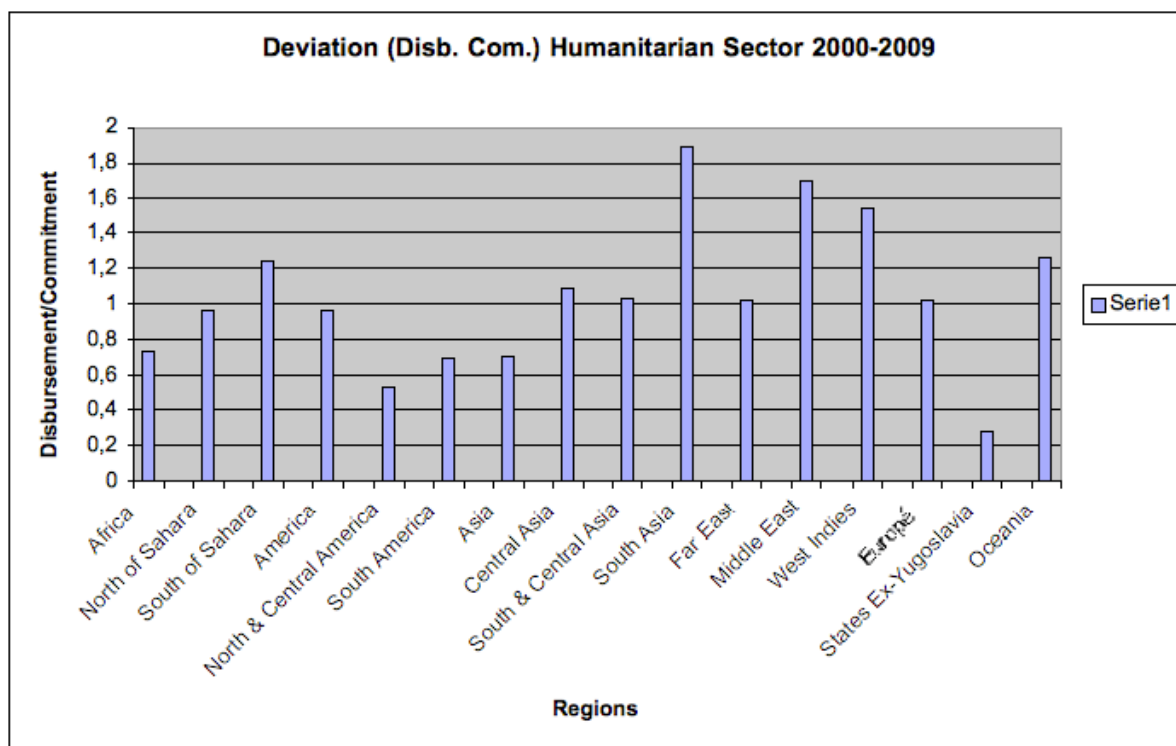
Country	Country	Organization
Greece	Switzerland	
Ireland	United Kingdom	
Italy	United States	

(OECD, DAC, Annex 3. <http://www.oecd.org/dataoecd/14/61/31738599.pdf>, 2010-12-18)

Graph D4: Deviation (Disb. Com.) Multi Sector 2000-2009:



Graph D5: Deviation (Disb. Com.) Humanitarian Sector 2000-2009:



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