

Helga Kristjánsdóttir; Thorvaldsson, Sverrir Kristjan

Working Paper

Icelandic development assistance: A comparative assessment

Working Paper Series, No. W10:05

Provided in Cooperation with:

Institute of Economic Studies (IoES), University of Iceland

Suggested Citation: Helga Kristjánsdóttir; Thorvaldsson, Sverrir Kristjan (2010) : Icelandic development assistance: A comparative assessment, Working Paper Series, No. W10:05, University of Iceland, Institute of Economic Studies (IoES), Reykjavik

This Version is available at:

<https://hdl.handle.net/10419/273274>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

INSTITUTE OF ECONOMIC STUDIES

WORKING PAPER SERIES

W10:05

December 2010

Icelandic Development Assistance
A Comparative Assessment

Helga Kristjansdottir and Sverrir Kristjan Thorvaldsson

Address: Helga Kristjansdottir
University of Iceland
Sæmundargotu 2
101 Reykjavik, Iceland
Iceland
Email: helgagr@hi.is

Icelandic Development Assistance

A Comparative Assessment*

Helga Kristjansdottir and Sverrir Kristjan Thorvaldsson

August 31, 2010

Abstract

This paper seeks to provide a performance-based assessment of the Icelandic authorities' effort in development aid distribution over the past two decades. Both scale and quality issues are studied empirically by means of simple grading systems and then ranked accordingly. We find that although the cumulative scale effort of the Icelandic authorities has been bleak compared with other donors, they have displayed considerable progress through time. Our results indicate that the Icelandic authorities choose a closer donor-recipient relationship by concentrating on bilateral aid distribution rather than multilateral. Finally, we find clear evidence of better aid quality than is apparent among larger donors, and a clear direction of its bilateral aid towards poorer recipients.

*The authors wish to thank Thorvaldur Gylfason for useful comments and suggestions.

1 Introduction

The unequal distribution of economic growth in the world has been apparent for several decades. The Western world, taken to be Europe and North-America, has benefited greatly over the past 300 hundred years from technological innovations, cheap African labor and discoveries of unfettered natural resources in America. Since the end of World War II, more emphasis in the global political sphere has been placed on poverty alleviation in the poorer regions of the world in the name of income convergence. The emphasis and implementation of the so-called "poverty alleviation" through the mechanism of aid has gone through several stages and developments itself though the effort can in most cases not be disputed.

The more detailed aspects of aid are hardly clarified as of yet. Generally, yet imprecisely, we may speak of (1) development aid in the name of poverty alleviation and general social development, (2) foreign aid in the name of political and possibly development aspirations, and (3) humanitarian aid associated mostly with emergency reliefs. However, development aid, according to its definition given earlier, must be based on humanitarian grounds, and responses to unforeseeable crisis such as hurricanes, earthquakes, tsunamis, and more predictable crisis such as droughts and famines, are by all means imperative to future development of affected areas. Furthermore, development aid can easily be used as a disguise to service strategic interests of donors. Transfers of financial resources hardly based on development aspirations, such as U.S. military assistance to Israel, are sometimes mistakenly taken into account when dealing with strict development aid. In this paper, we wish to focus on aid in a strict development sense, though we must put some faith in our data.

The distribution of aid is normally channeled through domestically-regulated government bilateral institutions and inter-governmental multilateral institutions. Private institutions working on development and/or humanitarian projects also receive funding from their respective authorities, as well as char-

ity donations directly from the public. A question remains what to make of aid stemming from private sources. Of course, governments should receive credit for encouraging private charity donations aimed at developing countries, but should they receive credit for not standing especially in the charity organization's way? How should such issues be quantified? In section 5.1 we seek to find answers questions on the quantification of private charity donations using similar methods as the Center for Global Development, denoted hereafter as CGD.

When aid is assumed to be exogenous in the model at hand, its influences on a subset of endogenous economic and socio-economic variables, most notably economic growth, are estimated for significance. Aid's influence on economic growth has met with some ambiguity in the literature, especially when unconditional influences are assumed; see a thorough literary overview in Radelet (2006). A much cited paper in the literature is Burnside and Dollar (2000), where they condition the influences of aid on sound economic policies in the recipient countries. Almost needless to say, aid's effects on economic growth are positively related to that particular condition.

In contrast, at least two non-exhaustive approaches can be applied when development aid is studied as an endogenous variable. One is by literally taking aid as being endogenous and estimating how economic variables or indicators affect aid donations. Another approach is not treating aid donations as endogenous as such, but rather to rank development effort and performances, be it in terms of aid quantity and/or quality with panel and/or cross-section data, of donor countries and agencies for an internationally comparative assessment. Recent works include most notably Easterly and Pfutze (2008) on aid agency performances and the Commitment to Development index CDI (2009), by the CGD on quality-adjusted aid performances by donors. This latter approach of ranking a panel of donor countries in terms of aid effort shall be taken in this paper. The simple goal of this paper is to place Iceland - one of the richest per capita nation in the world, yet unaccounted for

in papers on aid rankings - among the big players in the world of development aid, as perhaps understandably, more emphasis in the current existing literature is given to aggregate economic influences than corrections for population developments. We will deal with this apparent block-out by looking at several indicators of development effort by the Icelandic authorities in an internationally comparative aspect.

The paper is organized as follows: A short literature overview is presented in section 2 and data origin is set out in section 3. In section 4, we turn to quantity matters of aid donations, whereby ranks are presented in section 4.1. Deterministic trends of donations are presented and analyzed in section 4.2 and we narrow our analysis in section 4.3 by looking at donor ratios of bilateral to total aid. In section 5, we turn to matters of aid quality, whereby we extract information the Icelandic authorities' development effort from the Commitment to Development index, CDI, in section 5.1 and present our own quality assessment by looking at a single selectivity factor over a slightly longer era in section 5.2.

2 Literature overview

A pioneering attempt to combine scale and equity into one index began with McGillivray (1989). The definition of equity in this and other cited papers is rather inaccurate. We nonetheless present it as fairness in aid donations such that relatively wealthier recipients do not receive aid ahead of poorer recipients if income per capita is taken to be the yardstick of need. Rao (1997), on the other hand, followed up on McGillivray (1989) by making his index satisfy three attributes of equity: 1) Horizontal equity, such that "total aid should differ proportionally with their [recipient's] populations" 2) Vertical equity, such that "reallocation of aid from a richer recipient to a poorer one raises the value of index". 3) Neutrality, such that "the index must provide comparisons across donors irrespective of the scale of total aid

given by each". On the other hand, Clark (1992) was more concerned with equity issues of donations than its scale. McGillivray and White (1993) then sought to construct an index in a more sophisticated approach of penalizing donors for deviating away from utility-optimizing allocations subjected to recipient's need, development potential, commercial and geopolitical values. None of these works include data or calculations on the historical effort of Icelandic authorities, an exclusion we wish to remedy in forthcoming sections and sections.

On an institutional level, Easterly and Pfutze (2008) sought to rank bilateral and multilateral aid agencies while excluding the Icelandic International Development Agency, ICEIDA. A much more appreciated initiative, however, is the Commitment to Development Index by the CDI (2009). The ambitious CDI initiative is a yearly, static, thorough index originating in 2003 that seeks to provide a general picture of the rich world's effort in development related issues by quality-adjusting aggregate aid statistics of donor countries. Aid in the CDI index is only one of the components of our interest, with the others being trade, investment, migration, security, environment and technology. The CDI index also incorporates multilateral quality-adjusted aid donations and relates them to bilateral donor distributions, so as not to ignore completely a large portion of a donor's total aid budget.

As before, Iceland is not listed on the CDI index despite being and having for some time been one of the richest nations in the world in terms of per capita income. Table 1 shows that Iceland's average rank 1985 to 2007 has been little less than sixth. On the CDI website it even says: "These 22 countries are the richest, most developed countries in the world, leaving out tiny nations such as Iceland and Luxembourg." The balance on country picks is clearly somewhere between per capita income, economy size and data availability, much like the works previously cited. Due to Iceland's limited capacity in maintaining a sustained interaction with the developing world in accord with larger nations, we confine our discussion on aid and not the

other equally important dimensions of development effort as listed by the CDI index.

3 Data definitions, sources and origins

The main data used in this paper stem from the OECD (2010) database where aid is taken to consist of grants and low-interest bearing loans with a grant element of at least 25%, net of principal payments. Income is taken to be Gross National Income (GNI) in accord with the OECD calculations.

Since Iceland is not yet a member of the Development Assistance Committee (DAC), some aggregated and itemized development related data are missing for the country. In section 4.1, OECD data on GNI values are missing for several years, but we use GNI values from Statistics Iceland as supplements for a certain transformation to be explained in section 4.1. Although Iceland began implementing bilateral aid projects around 1970 in cooperation with the Danish International Development Agency (DANIDA), and ICEIDA having been founded in 1981,¹ OECD data on Icelandic aid per income are only reported from year 1997 and onwards, so we employ corresponding data from 1985 to 1997 found in Haralz (1997), Appendix 1. In section 5.2, data on allocations according to income groups of recipients are missing for several years, but we suffice to study only those years where data is available.

The chosen group of donors contains the DAC countries² in addition of Iceland, bar Greece, South-Korea and the Commission of the European Communities. In section 5.1, however, we allow ourselves include Greece as no data is missing. Donors were chosen according to per capita income and data

¹See two general discussions (in Icelandic) on the history of Icelandic development activities in Haralz (1997) and Ingolfsson and Haralz (2003).

²The DAC countries, at the time of this writing, consist of Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, South-Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States and the Commission of the European Communities.

availability. That way, China and Russia are left out, despite being major influences on the international economic playground, while Luxembourg and, of course, Iceland are included.

4 Scale issues

4.1 Aid per income ranks

The common measure on donor effort, albeit in a static manner, is aid donations per unit of income, $\frac{A_{it}}{Y_{it}}$, for donor i . Y_{it} is generally either Gross National Product (GDP) or Gross National Income (GNI) in our case. In this section we will look at a similar measure dynamically through time in a panel context. The time interval from 1985 to 2007 was chosen mainly in light of data availability but we leave out the year 2008 because of the depression and consequently the risk of unreliable data. The year 2008 has further implications for the preceding years under study. When looking at raw OECD data on aid per income in Table 2, we see how Iceland jumps from being ranked 17th in aid generosity in 2007 to the 8th place the following year. The jump, however, was entirely due to sharp decreases in the denominator rather than increases in the numerator, as aid donations were not liable to discretion until 2009. The implication is clear: because of business cycle asymmetries of donor economies³, the raw OECD data provide an imprecise view. Therefore, we correct each entry in the panel by measuring aid per last period's income. The transformation of $\frac{A_{it}}{Y_{it}}$ for donor i at time t is thus

³Several studies have been conducted to test for business cycle correlations, most notably due to the euro circulation. To name only a few, some studies, such as Zervoyianni and Anastasiou (2009) find that correlation has increased, while Camacho et al. (2006) report insignificant results. In any case, a significant break (positive or negative) in business cycle correlation due to the euro circulation would be justified as our approach in this section overlaps with the euro era.

$(1 + g_t)$, resulting in

$$\frac{A_{it}}{Y_{it}}(1 + g_t) = \frac{A_{it}}{Y_{it}} \frac{Y_{it}}{Y_{i,t-1}} = \frac{A_{it}}{Y_{i,t-1}}. \quad (1)$$

Another inconsistency difficulty regards missing values on Icelandic income, GNI, in the OECD database. We circumvent that problem for Iceland by transforming according to GNI data obtained from Statistics Iceland.

Calculating cumulative scores by inverse ranking and estimating trends of per income donations for all donors - both of which we shall be doing - would be straightforward, if not for the fact that ranks during years with high variations in donations are more informative for our study than ranks during years with low variations. The reason is that donors can switch places in ranks because of rounding differences or measurement errors, not because of differing efforts. One way of partially circumventing such a bias is to multiply or weigh each rank by the cross-section variance of donations of each corresponding year, σ_t^2 . That way, ranks in years with low variations are given less weight and the converse is true for years with more variance.

The procedure lists as follows:

1. Transform according to Equation (1);
2. for donor i , inverse rank (i.e. grade) each panel entry $\frac{A_{it}}{Y_{i,t-1}}$ through all donors;⁴
3. weigh each score in the previous item by σ_t^2 .

Each entry in Table 4 is thus Equation (1) multiplied by σ_t^2 , or

$$Rank_t\left(\frac{A_{it}}{Y_{it}}(1 + g_t)\right)\sigma_t^2 = Rank_t\left(\frac{A_{it}}{Y_{it}} \frac{Y_{it}}{Y_{i,t-1}}\right)\sigma_t^2 = Rank_t\left(\frac{A_{it}}{Y_{i,t-1}}\right)\sigma_t^2 \quad (2)$$

⁴In OpenOffice Calc 3.1.1, the rank function assigns equally ranked numbers of a list the higher rank, not the lower or the average. For example, a list of numbers (1,2,3,3,4,5,6) would rank as (7,6,4,4,3,2,1).

where $Rank_t(.)$ gives the rank of a transformed aid donation per income over each cross-section.

As we now have a more informatively weighted score in Table 4, we can extract the cumulative score for each donor. The score in the last column from Table 4 reveals the Icelandic government, during the time period from 1985 to 2007, have cumulatively done worst of all countries under scrutiny. What partially worked against the Icelandic authorities was how their aid per income trend was positive while the variance trend, shown in Figure A, was negative. So the Icelandic authorities, in addition of donating sparsely, were punished for small scale donations at a period of time when they could have scored relatively more than in the latter part of the era.

4.2 Deterministic time trends

We know the cumulative transformed ranks of aid per previous period's income, but it does not convey any information on the "dynamics" of donor generosity during the time interval. In order to get a clearer picture, we model deterministic time trends of $\frac{A_{it}}{Y_{i,t-1}}$ by employing a simple OLS time series regression with constant on each donor,

$$\frac{A_{it}}{Y_{i,t-1}} = \alpha_i + \beta_i t + \epsilon_{it} \quad (3)$$

where t measures time. We follow Rao (1997) by assuming donations are independent across donors for each time period, and we rank trend coefficients significantly different from zero with a confidence level of $\alpha = 10\%$ ⁵; all other coefficients are set to zero. Since we are only interested in the significance of the trend coefficients and not in performing forecasts based on the results, we are free to ignore cases of heteroskedasticity and autocorrelation.

⁵Portugal was the only donor rejected at the $\alpha = 5\%$ significance level yet "accepted" at the $\alpha = 10\%$ level. Knowingly at the risk of being too subjective, we use $\alpha = 10\%$ significance level since Portugal started from a low point and ended at a low point.

We see from Table 5 how five donors display zero progress in generosity. Three of them, Denmark, Sweden and the Netherlands, belong in the upper half in the cumulative aid per income rank in Table 4, while Portugal and Belgium belong below middle. Iceland displays a clear and significant positive trend throughout the era as $\frac{A_{it}}{Y_{i,t-1}}$ was on a steady upward trend, starting from a rather low point. Only Switzerland has a larger trend coefficient. Clearly, although the Icelandic authorities displayed significant progress over the time period, it was not enough to pull the nation up in the cumulative score table, seen in Table 4.

Inconsistencies in donations at the micro level should rightly be penalized, so a possible shortcomings of the preceding "trend-rank" methods is how an increasing variance over time for a donor is ignored in the rank. We suffice, however, to rank the significant time trend coefficients and assume that a donor pulling himself out of a project can weigh himself up perfectly, only if he corrects the pull-out towards the trend in later periods.

4.3 Bilateral vs. multilateral aid

Aid can be distributed either through multilateral aid agencies, whereby donors receive little or no influence over the operation, or through their own bilateral aid agencies, where they receive most or all influence. An assessment of whether one method of distribution is generally more effective than the other would make little sense. However, it can very well be the case that the optimal allocation between bilateral and multilateral aid is not even. Looking from the viewpoint of bilateralism, arguments can be made both for and against.

Bilateralism is consistent with the decentralization argument in political economy, though far from identical to the contrast of central planning, the pure market based solutions. Instead of only "few" central oriented multilateral aid agencies (in a hypothetical world), we have "several" smaller bilateral aid agencies operating mostly independently from each other, resembling the

market system in terms of decentralization.

The downside of decentralization in the aid context is the threat of project proliferation, except in the case of substantial cooperation with multilateral and bilateral aid agencies, possibly at the cost of decentralization. The difference is how the aid system, in its current general form, requires the exemption of its counterpart, the market system. Prices thus fail to signal the true costs and benefits related to development operations and projects, so welfare decreasing project proliferations will not become adjusted.

Project proliferation is not the only downside to the decentralization argument. Donor governments, especially the larger ones, also find themselves in prime position to impose restrictions and conditionals on recipients through their bilateral agencies.⁶ Close examples would be aid tying and premature democratic reforms. Selectivity bias in favor of strategic interests, historical, political, demographic relations is another widely employed method. As (Ram, 2003, p. 97) puts it, citing Cassen (1994):

Japan concentrates its aid in the Asian region; Britain and France give much of their aid to former colonies; political and cultural relations are evident in OPEC's aid allocations; and strategic motives dominate the bilateral aid programs of the United States.

The above discussion centered somewhat on large donor governments with more substantial trade and political relations with the developing world. The smaller donors, however, seem less likely to be subjected to selectivity bias or impose restrictions and conditions on their donations, not because of altruism, but rather capability. Smaller donor's influence on the operations and directions taken within multilateral aid agencies are also less substantial. All of the above suggests that a relatively larger portion of a smaller donor's aid budget should be allocated towards bilateral aid projects where conditions

⁶Fully untied aid per total aid has, however, been on the retreat for the past decade. See Clay et al. (2009).

and restrictions cannot be imposed so easily, rather than towards multilateral agencies where little influence can be exercised.

A first trivial step would be constructing a time series graph of bilateral ratios, defined as bilateral aid per total aid, to see where the Icelandic authorities fit. Such a graph is given in Figure 2, based on data from OECD (2010). We can clearly see in the former part of the era from 1985 to 2008 how the Icelandic authorities allocated a relatively smaller portion of their aid budget to ICEIDA, well below average among donors, but then take a jump around 2003. The reason for the jump makes an international comparison of the Icelandic bilateral ratio somewhat difficult.

Because of Iceland's application to DAC around the mid of current decade, the Icelandic authorities submitted an unofficial "not-for-quotation" report on the itemization and description of Icelandic aid donations. After reviewing the report, the DAC staff concluded that a substantial part of Icelandic multilateral aid was in fact bilateral according to the DAC guidelines. The author of this paper verified the existence and content of the report, but was understandably not allowed to draw any quotes. The source of the miscategorization concerns the development projects administered by the Icelandic Ministry for Foreign Affairs. The staff at the ministry considered the United Nations University Fisheries and Geothermal training programs partially administered in Iceland, the Icelandic Crisis Response Unit (ICRU), as well as its funding to Non-Governmental Organizations (NGO), to be a part of its multilateral aid contributions; see Icelandic Ministry for Foreign Affairs (2006). However, the DAC guidelines are clear on the distinction between bilateral and multilateral aid:

Bilateral transactions are direct transactions between a donor country and a developing country. They also include transactions between national or international non- governmental organizations active in development [...]

Multilateral assistance takes the form of contributions to funds

managed by multilateral agencies [...] Multilateral contributions are those made to a recipient institution which [...] [p]ools contributions so that they lose their identity and become an integral part of its financial assets. If, however, the donor specifies the recipient or other aspects of the disbursement (e.g. purpose, terms, total amount, reuse of any repayments), effectively controlling the disposal of the funds they contributed, then the contribution is considered to be bilateral. (Thioléron et al., 2009, p. 48)

As seen from the quote, only those contributions that are pooled together and lose their identity before the act of eventual distribution can be considered multilateral, all other donations are bilateral. Since the administrative costs associated with the before mentioned training programs along with the ICRU do not exactly lose their identity, and fundings to NGO's fall directly under bilateral aid, Icelandic bilateral aid in proportion to total aid, according to the strict OCED definition, appear to be underestimated pre-2003.

The OECD data for Icelandic aid has been partially revised since this became apparent, but pre-2003 data remain biased. This means we now have at least a partial reason to believe the opposite of what Figure 2 informs us on the pre-2003 era, namely that the Icelandic authorities somewhat shied away from taking more responsibility for the implementation of their development aspirations. In fact, it has been mentioned in (Haralz, 1997, p. 28-9) how the Icelandic authorities in the past have donated little in excess of their "mandatory" donations to multilateral institutions, preferring instead to concentrate on its own bilateral aid projects.

Not having a publicly available source is unfortunate, but we may gain a further perspective on the jump by looking at bilateral ratios obtained from a document posted on the webpage of the Icelandic Ministry for Foreign Affairs (2006). Had there been no misgategorization of development aid by the staff at the ministry, the jump in Figure 2 would have been entirely due to a policy shift from multilateral aid to an almost bilateral aid concentration,

and we would see mostly identical jump in the ministry's own data. Table 6, however, reveals no significant jump. Furthermore, Table 7 reveals directly how Icelandic bilateral aid unallocated by income in 2003 took a familiar jump in level. The jump, again, is due to projects by the Icelandic Ministry for Foreign Affairs now categorized as bilateral by the OECD.

If the 2003-spike is thoroughly explained by means of the DAC "revelation", we must conclude that the Icelandic authorities have indeed followed the more optimal aid path throughout its short lived history as aid donors. In any case, the most recent bilateral ratios are the most significant and happen to be more relevant from a contemporaneous viewpoint.

5 Quality issues

5.1 Iceland and the Commitment to Development Index

Even though Iceland is not included in the aggregation of the Commitment to Development index, it is still included in several of the quality adjustments from the simple OECD definition of Official Development Assistance (ODA) to quality-adjusted pure aid money transfers. The quality adjustments, described in Roodman (2009), include netting out debt forgiveness and debt service charges, discounting tied aid and project proliferation, allocating multilateral quality-adjusted aid to bilaterals and rewarding tax policies supporting private charity giving. This means most of the work has already been done for us and we are not all that constrained from installing Iceland into the aid component's index, if we can only justify how leaving out the last two adjustments wouldn't affect Iceland's rank significantly.

Firstly on multilateral adjustments from (Roodman, 2009, p. 29), as "bilaterals receive credit for the aid programs of multilaterals in proportion to the bilaterals' contributions to those multilaterals during the same year, "we know Iceland's multilateral contribution to be negligible compared to, say, US or UK, even though exact itemized data on Iceland's proportional contribution to multilateral institutions (that is per total contributions to multilaterals from all donors) are difficult to obtain. For example, in 2007, total Icelandic multilateral contribution reached only 0.4% of total contributions from all donors to the International Development Association (IDA) alone. Clearly, the small scale donation can be explained by pointing out Iceland's relative size, but Icelanders have in the past focused their development aid effort in bilateral aid, while skipping most "voluntary" multilateral cooperation, as previously mentioned; see (Haralz, 1997, p. 28-9).

The second missing quality adjustment regards private charitable giving, the incentives and capacity rewarded to private agents by fiscal policy. The

impact on the general index, however, was small, except in the case of US; see (Roodman, 2009, p. 36). So even though the installment of Icelandic quality-adjusted aid - without the two possibly insignificant adjustments previously mentioned - into the final aid component of the CDI index does not reduce inaccuracies in place, it does not inhibit us from interpreting the results with a critical mind.

In the forthcoming "calculations", we utilize available data from an online spreadsheet file published on the CDI webpage; see CGD (2009). Throughout sheets *Aid 2009*⁷ to *Aid 2003*, we gather column ten on Quality-adjusted aid per GNI from the first table into one particular table, likewise with column sixteen where private charitable giving is included in the numerator. Then we install data for both Iceland and Luxembourg from column nine in the second table, in addition of un-adjusted multilateral aid, for each of the aforementioned sheets. We continue to leave out South-Korea since they were only included from post-2007, but we allow Greece since no data are missing for this relatively shorter time interval than in Section 4. Finally, in both tables, we follow Section 4.1 by (1) grading donor's generosity with an inverse rank so the donor with the highest quality adjusted aid per income, with or without private charitable giving, receives the highest rank, (2) compute total scores and (3) rank in descending order. The results are given in Tables 8 and 9 where we see how Iceland places in either 16th or 17th place out of 23 donors, a rather thin confidence interval. We can thus be most certain of Iceland's rank and how marginal the private charitable contribution really is.

Next in line is bilateral aid quality, considering neither multilateral aid nor private charitable giving for any donor, defined by the CDI index as quality-adjusted aid per net aid, which we gather into one Table 10 entirely from column ten in second table for each of the aforementioned sheets. As before,

⁷Indices for all years use data with two year lags, so the CDI initiative began in 2003 with 2001 data. As such, the CDI index does not attempt to pinpoint donor performances in a given year, rather to update annually the most recent statistics and provide the most recent donor comparative assessment.

Iceland, Greece and Luxembourg are included at the expense of South-Korea. We then grade and rank aid quality according to the same procedures from the previous paragraph. The results indicate a favorable outcome for Iceland as it ranks in fourth place out of 23 donors with Ireland topping the list. We reason the high rank of smaller donors by pointing to the same argument from section 4.3, namely how smaller donors skip most quality-adjustments regarding aid tying and other restrictions.

5.2 Need-based aid

One aspect of aid is donating in the first place; another aspect is donating to recipients that are in the most need for aid. Although not an unreasonable assumption in relevant cases, donations and development projects are not evenly distributed in reality; some recipients have more appeal to donors than others and receive more aid, with selectivity being based on, for example, democratic status, geopolitical attributes, cultural and/or historical relations, institutional infrastructure and poverty rates. For example, Alesina and Dollar (2000) find strategic considerations to be anything but a marginal contributor to aid distribution relative to economic needs.

One of the most popular types of selectivity is the income categorization of a country. That is, the lower a country's income, the more deserving it is of receiving aid. While anything but a perfect indicator of aid effectiveness because of rent seeking, corruption, neighborhood effects etc., the effort of relatively larger donations to recipients in the lowest income groups cannot be discredited for the sake of our doings. In this section, we abstract ourselves from comparative quantity and consider comparative selectivity weights of donors, whereby we rank donors according to a rather simple grading system.

OECD data is used where bilateral donations are itemized according to income group in Table 11.

Bilateral donations to each income group are given grades⁸ and then

⁸Although we have opted for an even difference between all consecutive grades, their

assigned weights according to their proportion of total bilateral donations of a donor. In a more formal manner, the score of a donor d at time t is

$$S_{dt} = \sum_c G_c \frac{B_{cdt}}{\sum_c B_{cdt}} = \sum_c G_c \frac{B_{cdt}}{T_{dt}} \quad (4)$$

where G_c refers to the grade given for donating to income category c and $\sum_c B_{cdt} = T_{dt}$ is total bilateral aid for donor d at time t . We only consider years where data is available on Icelandic donations to income groups other than Unallocated by income, that is 1992, 1994 and 1997-2008.

The results are clear from Table 12 as Iceland scores highest of all donor nations. In other words, the results indicate the Icelandic authorities do indeed award development aid to those recipient countries that are in most need of aid, and much less, if anything at all, to recipient countries in Eastern Europe, East Asia or South America that are relatively wealthier and in less need of aid.

scale does reflect a sense of arbitrariness.

6 Conclusions

The results of our study on Icelandic development aid do not show exactly the same bleak picture as is often painted in the media, at least not when the effort of Icelandic authorities are claimed to be lacking behind of the rich Western donor nations. To sum up: (1) Cumulative scores on aid per income from 1985 are low, true enough, but (2) progress clearly has been significant over the time period; (3) Iceland scores below average on the CDI index Aid component, but (4) its aid budget is concentrated mostly through its bilateral aid agency where more accountability *can* be exercised, and (5) its bilateral aid is indeed directed towards the poorer recipients of the world.

Even though the effort of Icelandic authorities has not been sub par in a comparative sense, the question whether the effort was sub par in an absolute sense remains to be answered. In such a case, we must first come to terms with "the" optimal amount of aid per income that would increase the rate of income convergence between the current rich donor nations and the current poor recipient nations. A rather arbitrary benchmark that donations should exceed 0.7% of donor income has been created, though it is not to be taken as some threshold value above which economic growth in the developing world would finally spur. We cannot possibly be certain how much aid it would take to push the developing world into sustainable economic growth, neither can we be certain if more amount of aid is necessary in the first place.

References

- Alesina, A. and D. Dollar (2000, MAR). Who gives foreign aid to whom and why? *Journal of Economic Growth* 5(1), 33–63.
- Burnside, C. and D. Dollar (2000, SEP). Aid, policies, and growth. *American Economic Review* 90(4), 847–868.
- Camacho, M., G. Perez-Quiros, and L. Saiz (2006, SEP-OCT). Are European business cycles close enough to be just one? *Journal of Economic Dynamics & Control* 30(9-10), 1687–1706.
- Cassen, R. (1994, July). Does aid work? Report to an Intergovernmental Task Force, second edition.
- CDI (2009). Commitment to Development Index. http://www.cgdev.org/section/initiatives/_active/cdi/.
- CGD (2009). 2009 spreadsheet. Retrieved 12th of March 2010 from <http://www.cgdev.org/doc/CDI/2009/Index%202009.xls>. Center for Global Development (CGD).
- Clark, D. (1992, SEP). Distributions of Official Development Assistance among Developing-country Aid Recipients. *Developing Economies* 30(3), 189–197.
- Clay, J., E., M. Geddes, and L. Natali (2009). Untying Aid: Is it working? An Evaluation of the Implementation of the Paris Declaration and of the 2001 DAC Recommendation of Untying ODA to the LDCs. Technical report, Danish Institute for International Studies, DIIS, Copenhagen.
- Easterly, W. and T. Pfutze (2008, SPR). Where does the money go? Best and worst practices in foreign aid. *Journal of Economic Perspectives* 22(2), 29–52.

- Haralz, H., J. (1997, April). Um Throunarsamvinnu Islands. Technical report, Icelandic Ministry for Foreign Affairs.
- Icelandic Ministry for Foreign Affairs (2006, oct). Opinber Throunaradstod (ODA). <http://www.utanrikisraduneyti.is/utanrikismal/throunarsamvinna/tolfraedi/>. Retrieved 20th of February 2010.
- Ingolfsson, Orn, H. and J. Haralz, H. (2003). Island og Throunarlondin: Alitsgerd um throunarsamvinnu Islands og thatttoku i starfi althjodastofnana. Technical report, Icelandic International Development Agency.
- McGillivray, M. (1989, APR). The Allocation of Aid among Developing-countries - a Multi-donor Analysis using a Per-capita Aid Index. *World Development* 17(4), 561–568.
- McGillivray, M. and H. White (1993). Aid Principles and Policy: An operational Basis for the Assessment of Donor Performance. Working Papers - Money, Finance & Development 52, Institute of Social Studies.
- OECD (2010). OECD.StatExtracts Database. <http://stats.oecd.org/index.aspx>. Organization for Economic Cooperation and Development (OECD).
- Radelet, S. (2006, July). A primer on foreign aid. Center for Global Development, working paper nr. 92.
- Ram, R. (2003). Roles of bilateral and multilateral aid in economic growth of developing countries. *Kyklos* 56(1), 95–110.
- Rao, J. (1997, JUN). Ranking foreign donors: An index combining the scale and equity of aid giving. *World Development* 25(6), 947–961.
- Roodman, D. (2009, oct). An Index of Donor Performance. Center for Global Development, working paper 67.

Thioléron, E., G. Bonomi, and I. McDonnell (2009). Better Aid: Managing Aid: Practices of DAC Member Countries. Retrieved 3rd of May 2010 from <http://www.oecd.org/dataoecd/32/60/35051857.pdf>.

Zervoyianni, A. and A. Anastasiou (2009). Convergence of shocks and trade in the enlarged European Union. *Journal of International Trade & Economic Development* 18(1), 79–114.

A Tables and figures

Figure 1: Variance trend of transformed aid per income

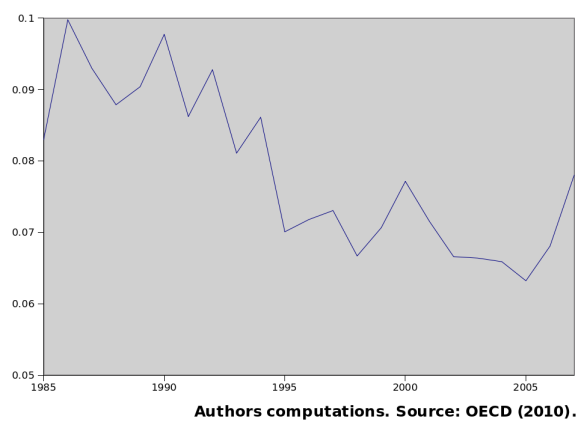


Table 1: GDP per capita rank, annual, current prices and current PPP's in USD

Donor	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average
Australia	10	10	10	8	11	17	16	16	14	14	14	14	13	10	10	13	12	12	8	10	9	8	8	11.609
Austria	8	8	8	6	7	6	5	4	5	5	5	5	7	7	7	8	10	9	9	9	10	9	9	7.2174
Belgium	11	11	11	9	9	9	9	8	10	11	11	11	11	11	13	12	11	10	12	14	14	14	16	11.217
Canada	5	5	5	4	5	5	10	11	9	8	8	9	8	8	6	10	9	11	7	8	7	7	7	7.4783
Denmark	7	6	7	7	8	10	11	9	11	7	7	7	6	6	9	7	8	8	11	11	11	10	11	8.4783
Finland	14	14	13	13	12	13	17	18	18	18	18	19	19	19	18	16	18	17	16	16	16	16	13	16.13
France	16	17	17	16	17	16	15	15	16	16	16	17	17	18	19	19	17	15	18	18	18	18	18	16.913
Germany	12	12	12	11	13	11	7	6	8	9	10	10	12	13	14	15	16	16	15	15	15	15	15	12.261
Iceland	4	4	3	3	4	4	4	5	4	4	6	6	5	4	5	6	7	7	10	6	8	11	12	5.7391
Ireland	21	21	21	20	21	21	21	21	20	20	19	18	18	14	11	9	6	5	4	4	4	4	4	14.217
Italy	17	16	15	14	15	15	14	14	15	15	15	15	15	16	17	18	15	19	19	19	19	20	20	16.391
Japan	15	15	14	12	10	8	6	7	6	10	9	8	9	15	16	17	19	18	17	17	17	17	17	13
Luxembourg	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Netherlands	13	13	16	15	16	14	13	13	12	13	13	12	10	9	8	5	5	6	6	7	6	6	6	10.304
New Zealand	18	18	19	18	19	19	20	20	19	19	20	20	20	21	21	21	21	21	21	21	21	21	21	19.957
Norway	9	9	9	10	14	12	12	10	7	6	4	4	4	5	4	2	2	2	2	2	2	2	2	5.8696
Portugal	22	22	22	21	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21.957
Spain	20	20	20	19	20	20	19	19	21	21	21	21	21	21	20	20	20	20	20	20	20	19	19	20
Sweden	6	7	6	5	6	7	8	12	13	12	12	13	14	12	12	11	13	13	13	12	13	12	10	10.522
Switzerland	2	2	2	22	2	2	2	2	2	3	3	3	3	3	3	4	4	4	5	5	5	5	5	4.0435
United Kingdom	19	19	18	17	18	18	18	17	17	17	17	16	16	17	15	14	14	14	14	13	12	13	14	15.957
United States	3	3	4	2	3	3	3	3	3	2	2	2	2	2	2	3	3	3	3	3	3	3	3	2.7391

Authors computations. Source: OECD (2010)

Table 2: Raw data on aid per income, net disbursements

Donor	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	0.48	0.47	0.34	0.46	0.38	0.34	0.38	0.37	0.35	0.34	0.34	0.27	0.27	0.27	0.26	0.27	0.25	0.26	0.25	0.25	0.25	0.3	0.32	0.32
Austria	0.38	0.21	0.17	0.24	0.23	0.11	0.18	0.11	0.11	0.17	0.27	0.23	0.24	0.22	0.24	0.23	0.34	0.26	0.2	0.23	0.52	0.47	0.5	0.43
Belgium	0.55	0.48	0.48	0.39	0.46	0.46	0.41	0.39	0.39	0.32	0.38	0.34	0.31	0.35	0.3	0.36	0.37	0.43	0.6	0.41	0.53	0.5	0.43	0.48
Canada	0.49	0.48	0.47	0.5	0.44	0.44	0.45	0.46	0.45	0.43	0.38	0.32	0.34	0.3	0.28	0.25	0.22	0.28	0.24	0.27	0.34	0.29	0.29	0.33
Denmark	0.8	0.89	0.88	0.89	0.93	0.94	0.96	1.02	1.03	1.03	0.96	1.04	0.97	0.99	1.01	1.06	1.03	0.96	0.84	0.85	0.81	0.8	0.81	0.82
Finland	0.4	0.46	0.5	0.6	0.64	0.65	0.8	0.64	0.45	0.31	0.31	0.33	0.32	0.31	0.33	0.31	0.32	0.35	0.35	0.37	0.46	0.4	0.39	0.44
France	0.61	0.56	0.6	0.58	0.61	0.6	0.62	0.63	0.63	0.62	0.55	0.48	0.44	0.38	0.38	0.3	0.31	0.37	0.4	0.41	0.47	0.47	0.38	0.39
Germany	0.47	0.43	0.39	0.39	0.41	0.42	0.39	0.37	0.35	0.33	0.31	0.32	0.28	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.36	0.36	0.37	0.38
Iceland	0.05	0.05	0.05	0.05	0.06	0.06	0.07	0.12	0.12	0.1	0.11	0.08	0.1	0.09	0.09	0.1	0.13	0.15	0.17	0.18	0.18	0.27	0.27	0.47
Ireland	0.24	0.28	0.19	0.2	0.17	0.16	0.19	0.16	0.2	0.25	0.29	0.31	0.31	0.3	0.31	0.29	0.33	0.4	0.39	0.39	0.42	0.54	0.55	0.59
Italy	0.26	0.4	0.35	0.39	0.42	0.31	0.3	0.34	0.31	0.27	0.15	0.2	0.11	0.2	0.15	0.13	0.15	0.2	0.17	0.15	0.29	0.2	0.19	0.22
Japan	0.29	0.29	0.31	0.32	0.31	0.31	0.32	0.3	0.27	0.29	0.27	0.2	0.21	0.27	0.27	0.28	0.23	0.23	0.2	0.19	0.28	0.25	0.17	0.19
Luxembourg	0.17	0.16	0.17	0.2	0.19	0.21	0.33	0.26	0.35	0.4	0.36	0.44	0.55	0.65	0.66	0.7	0.77	0.78	0.86	0.79	0.79	0.89	0.92	0.97
Netherlands	0.91	1.01	0.98	0.98	0.94	0.92	0.88	0.86	0.82	0.76	0.81	0.81	0.81	0.8	0.79	0.84	0.82	0.81	0.8	0.73	0.82	0.81	0.81	0.8
New Zealand	0.25	0.3	0.26	0.27	0.22	0.23	0.25	0.26	0.25	0.24	0.23	0.21	0.26	0.27	0.27	0.25	0.25	0.22	0.23	0.23	0.27	0.27	0.27	0.3
Norway	1.01	1.17	1.09	1.13	1.05	1.17	1.13	1.16	1.01	1.05	0.86	0.83	0.84	0.89	0.88	0.76	0.8	0.89	0.92	0.87	0.94	0.89	0.95	0.88
Portugal	0.05	0.08	0.11	0.21	0.25	0.24	0.3	0.35	0.28	0.34	0.25	0.21	0.25	0.24	0.26	0.26	0.25	0.27	0.22	0.63	0.21	0.21	0.22	0.27
Spain	0.1	0.09	0.08	0.07	0.14	0.2	0.24	0.27	0.28	0.28	0.24	0.22	0.24	0.24	0.23	0.22	0.3	0.26	0.23	0.24	0.27	0.32	0.37	0.45
Sweden	0.86	0.85	0.88	0.86	0.96	0.91	0.9	1.03	0.99	0.96	0.77	0.84	0.79	0.72	0.7	0.8	0.77	0.84	0.79	0.78	0.94	1.02	0.93	0.98
Switzerland	0.31	0.3	0.31	0.32	0.3	0.32	0.36	0.45	0.33	0.36	0.34	0.34	0.34	0.32	0.35	0.34	0.34	0.33	0.37	0.4	0.43	0.39	0.38	0.44
United Kingdom	0.33	0.31	0.28	0.32	0.31	0.27	0.32	0.31	0.31	0.31	0.29	0.27	0.26	0.27	0.24	0.32	0.32	0.31	0.34	0.36	0.47	0.51	0.35	0.43
United States	0.24	0.23	0.2	0.21	0.15	0.21	0.2	0.2	0.15	0.14	0.1	0.12	0.09	0.1	0.1	0.1	0.11	0.13	0.15	0.17	0.23	0.18	0.16	0.19

Authors computations. Source: OECD

Table 3: Summary statistics, OECD aid per income data

Donor	Obs	Mean	Var	StDev	Min	Max
Australia	24	0.32458	0.00507	0.07120	0.25	0.48
Austria	24	0.26208	0.01398	0.11825	0.11	0.52
Belgium	24	0.42167	0.00610	0.07811	0.30	0.60
Canada	24	0.36417	0.00829	0.09103	0.22	0.50
Denmark	24	0.93000	0.00767	0.08758	0.80	1.06
Finland	24	0.43500	0.01872	0.13683	0.31	0.80
France	24	0.49125	0.01259	0.11222	0.30	0.63
Germany	24	0.34250	0.00381	0.06173	0.26	0.47
Iceland	24	0.13000	0.00912	0.09551	0.05	0.47
Ireland	24	0.31083	0.01523	0.12339	0.16	0.59
Italy	24	0.24417	0.00848	0.09207	0.11	0.42
Japan	24	0.26042	0.00216	0.04648	0.17	0.32
Luxembourg	24	0.52375	0.07919	0.28141	0.16	0.97
Netherlands	24	0.84667	0.00534	0.07305	0.73	1.01
New Zealand	24	0.25250	0.00055	0.02345	0.21	0.30
Norway	24	0.96542	0.01600	0.12649	0.76	1.17
Portugal	24	0.24833	0.01147	0.10708	0.05	0.63
Spain	24	0.23250	0.00801	0.08950	0.07	0.45
Sweden	24	0.86958	0.00876	0.09360	0.70	1.03
Switzerland	24	0.35292	0.00183	0.04278	0.30	0.45
United Kingdom	24	0.32542	0.00407	0.06379	0.24	0.51
United States	24	0.16083	0.00228	0.04772	0.09	0.24

Source: OECD (2010).

Authors computations.

Table 4: Time-variance weighed aid per income rank, post-transformation

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total sc
Australia	1.33	1.50	1.12	1.32	1.08	1.27	1.12	1.21	1.14	1.21	0.98	0.72	0.73	0.73	0.71	0.62	0.43	0.47	0.66	0.53	0.25	0.54	0.62	20.280
Austria	1.00	0.50	0.46	0.62	0.63	0.20	0.17	0.09	0.08	0.26	0.49	0.57	0.37	0.27	0.35	0.39	1.00	0.40	0.27	0.33	1.01	0.89	1.25	11.58
Belgium	1.41	1.70	1.49	1.05	1.45	1.56	1.21	1.30	1.22	0.95	1.19	1.15	0.95	1.07	0.92	1.31	1.22	1.13	1.13	0.99	1.08	1.02	1.17	27.652
Canada	1.25	1.60	1.39	1.41	1.36	1.47	1.29	1.48	1.38	1.46	1.12	0.79	1.17	0.80	0.85	0.54	0.36	0.73	0.60	0.59	0.57	0.48	0.55	23.228
Denmark	1.58	2.00	1.77	1.67	1.72	1.95	1.81	1.95	1.78	1.81	1.47	1.58	1.61	1.47	1.55	1.70	1.57	1.47	1.39	1.32	1.20	1.23	1.40	36.998
Finland	1.08	1.40	1.58	1.58	1.63	1.76	1.55	1.58	1.30	0.86	0.77	1.08	1.02	0.87	0.99	1.08	0.86	0.93	0.86	0.79	0.89	0.82	1.09	26.362
France	1.49	1.80	1.67	1.49	1.54	1.66	1.47	1.67	1.46	1.55	1.26	1.29	1.24	1.13	1.20	0.93	0.79	1.00	1.00	0.92	0.82	0.95	1.01	29.356
Germany	1.16	1.30	1.30	1.14	1.18	1.37	1.38	1.11	0.97	1.03	0.70	0.86	0.80	0.47	0.49	0.69	0.64	0.60	0.73	0.66	0.63	0.68	0.94	20.855
Iceland	0.08	0.10	0.09	0.09	0.09	0.10	0.09	0.19	0.16	0.09	0.14	0.07	0.15	0.07	0.07	0.08	0.14	0.13	0.20	0.20	0.06	0.34	0.39	3.1118
Ireland	0.42	0.70	0.56	0.26	0.36	0.29	0.34	0.28	0.32	0.43	0.84	0.93	0.88	0.93	1.13	1.00	1.14	1.07	1.06	1.05	0.70	1.16	1.33	17.195
Italy	0.66	1.20	1.21	1.23	1.27	0.98	0.60	0.93	0.65	0.52	0.21	0.22	0.22	0.20	0.21	0.23	0.21	0.20	0.13	0.07	0.51	0.14	0.23	12.018
Japan	0.75	0.90	1.02	0.97	0.99	1.08	0.86	0.74	0.49	0.69	0.56	0.29	0.29	0.53	0.64	0.85	0.29	0.27	0.33	0.26	0.44	0.27	0.16	13.662
Luxembourg	0.33	0.40	0.37	0.35	0.45	0.59	0.95	0.56	1.05	1.38	1.05	1.22	1.32	1.20	1.27	1.47	1.29	1.20	1.33	1.45	1.14	1.29	1.72	23.371
Netherlands	1.74	2.10	1.95	1.85	1.81	2.05	1.72	1.76	1.54	1.64	1.40	1.44	1.46	1.33	1.41	1.62	1.50	1.27	1.20	1.19	1.26	1.36	1.48	36.088
New Zealand	0.50	0.80	0.74	0.70	0.54	0.68	0.52	0.46	0.41	0.34	0.28	0.36	0.58	0.60	0.78	0.46	0.50	0.33	0.53	0.40	0.32	0.41	0.47	11.719
Norway	1.83	2.20	2.05	1.93	1.99	2.15	1.90	2.04	1.70	1.89	1.54	1.51	1.53	1.40	1.48	1.39	1.36	1.40	1.46	1.38	1.39	1.43	1.64	38.598
Portugal	0.17	0.20	0.28	0.53	0.72	0.78	0.78	1.02	0.73	1.12	0.42	0.43	0.51	0.33	0.57	0.77	0.57	0.67	0.40	1.12	0.13	0.20	0.31	12.757
Spain	0.25	0.30	0.19	0.18	0.18	0.39	0.43	0.65	0.57	0.60	0.35	0.50	0.44	0.40	0.28	0.31	0.72	0.53	0.46	0.46	0.38	0.61	0.86	10.041
Sweden	1.66	1.90	1.86	1.76	1.90	1.86	1.64	1.86	1.62	1.72	1.33	1.36	1.39	1.27	1.34	1.54	1.43	1.33	1.26	1.25	1.33	1.50	1.56	35.670
Switzerland	0.83	1.00	0.93	0.79	0.81	1.17	1.03	1.39	0.89	1.29	0.91	1.01	1.10	1.00	1.06	1.23	1.07	0.87	0.93	0.86	0.76	0.75	0.78	22.468
United Kingdom	0.91	1.10	0.84	0.88	0.90	0.88	0.69	0.84	0.81	0.78	0.63	0.65	0.66	0.67	0.42	1.16	0.93	0.80	0.80	0.73	0.95	1.09	0.70	18.796
United States	0.58	0.60	0.65	0.44	0.27	0.49	0.26	0.37	0.24	0.17	0.07	0.14	0.07	0.13	0.14	0.15	0.07	0.07	0.07	0.13	0.19	0.07	0.08	5.463

Authors computations.

Table 5: Deterministic trends

Donor	Slope	Std.error	t-statistic	p-value	Significant slopes	Donor
Australia	-71.987	11.0713	-6.5021	1.9E-06	-71.987	Australia
Austria	31.5752	10.5552	2.99145	0.00696	31.5752	Austria
Belgium	-2.8373	18.4599	-0.1537	0.87931	0	Belgium
Canada	-64.329	7.03512	-9.1439	9.1E-09	-64.329	Canada
Denmark	-8.5758	16.1112	-0.5323	0.60011	0	Denmark
Finland	-27.569	9.72664	-2.8344	0.00993	-27.569	Finland
France	-45.785	7.92788	-5.7752	9.9E-06	-45.785	France
Germany	-63.949	16.0932	-3.9736	0.00069	-63.949	Germany
Iceland	90.7853	10.8022	8.40433	3.7E-08	90.7853	Iceland
Ireland	51.0700	5.77167	8.84839	1.6E-08	51.0700	Ireland
Italy	-49.496	10.8033	-4.5816	0.00016	-49.496	Italy
Japan	-106.04	20.0937	-5.2774	3.1E-05	-106.04	Japan
Luxembourg	23.2797	1.15218	20.2050	3.1E-15	23.2797	Luxembourg
Netherlands	-65.120	12.6413	-5.1514	4.2E-05	-65.120	Netherlands
New Zealand	63.6699	76.4844	0.83246	0.41452	0	New Zealand
Norway	-38.973	7.97092	-4.8893	7.8E-05	-38.973	Norway
Portugal	23.2997	12.4359	1.87359	0.07497	23.2997	Portugal
Spain	68.6691	10.7920	6.36299	2.6E-06	68.6691	Spain
Sweden	-2.8189	17.6935	-0.1593	0.87494	0	Sweden
Switzerland	97.4135	30.6676	3.17643	0.00455	97.4135	Switzerland
United Kingdom	53.1066	20.3193	2.6136	0.01623	53.1066	United Kingdom
United States	-57.895	26.7781	-2.1620	0.04231	-57.895	United States

Source: OECD (2010).
Authors computations.

Table 6: Comparison of Ministry and OECD bilateral ratios in Iceland

Year	1999	2000	2001	2002	2003	2004	2005
Bilateral aid	260.1	425.2	648.3	646.3	752.9	934	928.7
Total aid	583.1	799.3	1102.1	1268.1	1352	1481.6	1711.2
Ministry bilateral ratio	0.45	0.53	0.59	0.51	0.56	0.63	0.54
OECD bilateral ratio	0.48	0.46	0.51	0.38	0.79	0.77	0.74

Sources: OECD (2010) and the Icelandic Ministry for Foreign Affairs (2006).
Authors computations.

Table 7: Iceland bilateral aid itemization

Income category	2002	2003	2004	2005	2006	2007	2008
LDCs, Total	4.29	4.51	4.85	7.52	11.89	11.88	15.91
Other LICs, Total	..	..	..	..	..	..	0.36
LMICs, Total	1.62	2.58	2.92	3.56	4.75	5.87	9.56
UMICs, Total	..	..	..	..	0.16	0.4	0.94
MADCTs, Total	..	..	..	..	..	..	..
Unallocated by income	0.7	8.93	8.98	6.87	8.34	11.34	9.3

Constant prices, 2008 USD in millions. Source: OECD (2010).

Table 8: (Quality-adjusted aid) / GNI

Donor	2001	2002	2003	2004	2005	2006	2007	Total	Rank
Australia	7	6	8	6	6	6	8	47	19
Austria	12	6	11	8	6	6	7	56	15
Belgium	16	16	14	18	18	14	18	114	9
Canada	3	7	8	11	13	11	14	67	12
Denmark	23	23	22	22	22	22	22	156	2
Finland	14	18	18	17	18	15	18	118	7
France	13	14	13	14	14	13	14	95	11
Germany	11	6	11	12	6	6	8	60	13
Greece	2	6	9	6	2	2	2	29	20
Iceland	5	8	2	6	6	14	14	55	17
Ireland	18	19	19	19	19	19	19	132	6
Italy	4	2	2	2	6	2	2	20	22
Japan	6	6	2	2	2	2	1	21	21
Luxembourg	22	23	24	24	24	24	24	165	1
Netherlands	21	20	20	20	22	22	22	147	5
New Zealand	10	2	6	6	11	6	8	49	18
Norway	19	21	22	21	22	21	22	148	4
Portugal	9	13	11	7	6	6	6	58	14
Spain	8	6	6	6	7	9	14	56	15
Sweden	20	22	21	22	22	22	23	152	3
Switzerland	17	14	18	18	14	13	14	108	10
United Kingdom	15	14	19	18	15	19	15	115	8
United States	1	2	2	2	2	2	2	13	23

Source: CGD (2009).

Table 9: (Quality-adjusted aid + charity) / GNI

Donor	2001	2002	2003	2004	2005	2006	2007	Total	Rank
Australia	9	7	11	7	8	7	11	60	14
Austria	12	6	8	7	6	6	7	52	18
Belgium	16	15	15	17	18	15	17	113	7
Canada	5	7	10	11	14	11	14	72	12
Denmark	23	23	22	22	22	22	22	156	2
Finland	14	15	16	15	16	15	18	109	10
France	13	13	11	14	14	12	14	91	11
Germany	11	7	11	12	6	6	9	62	13
Greece	2	6	7	6	2	2	2	27	20
Iceland	4	7	2	6	6	14	14	53	16
Ireland	18	19	19	19	19	19	19	132	6
Italy	3	2	2	2	6	1	2	18	22
Japan	6	6	2	2	2	1	1	20	21
Luxembourg	22	23	24	24	24	24	24	165	1
Netherlands	21	19	21	20	22	22	22	147	5
New Zealand	10	3	6	6	11	7	8	51	19
Norway	20	22	22	21	22	21	22	150	4
Portugal	7	11	10	7	6	6	6	53	16
Spain	8	7	6	6	7	7	14	55	15
Sweden	19	22	21	22	22	22	23	151	3
Switzerland	17	15	18	18	14	14	16	112	8
United Kingdom	15	14	18	16	16	18	15	112	8
United States	1	2	2	2	3	2	2	14	23

Source: CGD (2009).

Table 10: Aid quality

Donor	2001	2002	2003	2004	2005	2006	2007	Total score	Rank
Australia	6	5	4	7	7	6	5	40	19
Austria	3	10	10	4	5	4	4	40	19
Belgium	8	8	6	12	11	11	13	69	14
Canada	10	9	11	16	15	14	16	91	8
Denmark	18	19	21	18	22	22	21	141	2
Finland	14	14	14	15	18	15	18	108	7
France	2	2	3	3	13	16	14	53	16
Germany	4	4	5	5	3	3	3	27	21
Greece	5	15	12	14	9	12	7	74	11
Iceland	22	22	19	19	14	17	17	130	4
Ireland	21	20	22	22	21	20	22	148	1
Italy	1	1	2	1	1	2	2	10	22
Japan	20	21	1	2	2	1	1	48	17
Luxembourg	19	18	19	22	19	20	21	138	3
Netherlands	13	13	13	17	19	19	19	113	6
New Zealand	16	3	8	9	16	9	11	72	12
Norway	12	12	16	13	12	13	12	90	9
Portugal	9	11	15	11	8	10	8	72	12
Spain	11	7	9	8	10	7	6	58	15
Sweden	15	16	18	20	17	18	20	124	5
Switzerland	17	17	17	10	4	8	10	83	10
United Kingdom	19	18	20	21	20	21	15	134	3
United States	7	6	7	6	6	5	9	46	18

Source: CGD (2009).

Table 11: Income group itemization

Income category	Abbrev.	Grade
Least Developed Countries	(LDCs)	5
Other Lower Income Countries	(LICs)	4
Lower to Middle Income Countries	(LMICs)	4
Upper to Middle Income Countries	(UMICs)	3
More Advanced Developing Countries and Territories	(MADCTs)	2
Unallocated by income		1

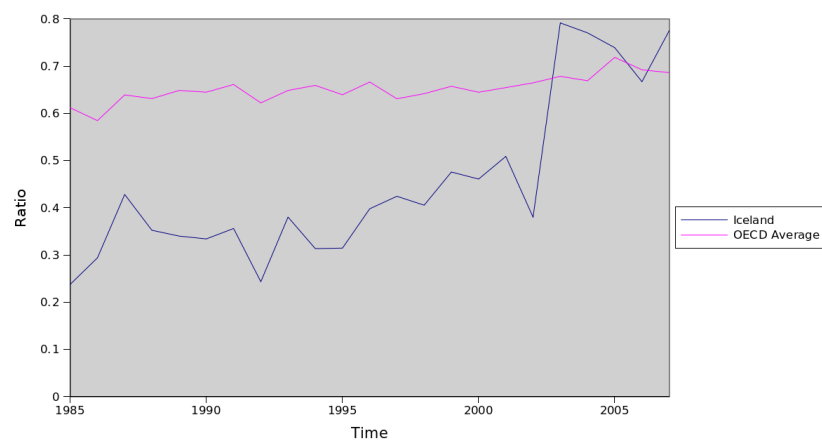
Abbreviations in line with OECD (2010).

Table 12: Selectivity based score

Donor	1992	1994	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total score	Rank
Australia	0.7273	0.7394	0.7542	0.7566	0.7492	0.9852	0.9727	0.7829	0.96	0.9801	0.9698	0.7399	0.9429	0.9683	12.028	11
Austria	1.5405	0.6934	0.6588	0.6656	0.6294	0.6658	0.6502	0.6866	0.6978	0.6477	0.6304	0.6123	0.6618	0.7871	10.227	16
Belgium	0.8069	0.8321	0.8236	0.8238	0.798	0.818	1.0396	0.81	0.9379	1.1047	0.9611	1.0281	1.0707	1.045	12.9	7
Canada	0.7824	0.7471	0.7847	0.7579	0.7457	0.7604	0.7597	0.7353	0.9031	0.8047	0.7617	0.7963	0.8447	1.0551	11.239	15
Denmark	0.865	0.8527	0.811	0.8378	0.8425	1.0447	1.0438	1.0245	1.1122	1.0514	1.0605	1.0639	1.0941	1.0764	13.78	4
Finland	0.8053	0.8086	0.9698	0.9938	0.9318	0.9702	0.9788	0.9906	0.9922	0.964	0.9268	1.0197	1.0527	1.0378	13.442	5
France	0.685	0.6669	0.6519	0.6205	0.6243	0.7558	0.7372	0.7675	0.8055	0.8085	0.7077	0.7152	0.6822	0.8313	10.059	19
Germany	0.6871	0.7358	0.7052	0.7151	0.7117	0.7199	0.7017	0.702	0.7816	0.7319	0.7021	0.7444	0.6793	0.8571	10.175	17
Iceland	1.984	1.7119	1.7924	1.8262	1.9176	2.1341	2.2771	2.2257	2.1359	2.1234	2.1792	1.4683	1.4287	1.0418	26.246	1
Ireland	1.1894	1.1884	0.9126	1.1509	1.1194	1.1562	1.1669	1.1462	1.1319	1.1513	1.1311	1.1411	1.1455	1.1479	15.879	2
Italy	0.712	0.6752	0.8274	0.8907	0.7296	0.8558	0.8873	0.9463	1.152	1.0524	0.8789	0.8808	0.8651	0.8686	12.222	10
Japan	0.6565	0.6836	0.7101	0.6861	0.6711	0.6921	0.6954	0.6933	0.6985	0.704	0.6717	0.7477	0.804	0.9136	10.028	21
Luxembourg	0.7609	0.9315	0.7149	0.7061	0.8514	0.9056	0.9413	0.7576	0.9498	0.9627	0.9732	0.9827	1.0026	0.9998	12.44	9
Netherlands	0.7278	0.7411	0.7237	0.7265	0.6977	0.7785	0.7738	0.803	0.8259	0.8593	0.7965	1.0314	1.0513	1.0648	11.601	13
New Zealand	0.6771	0.6932	0.7257	0.7356	0.7407	0.7771	0.7734	0.9419	0.9427	0.9923	0.944	0.9719	0.9524	0.9874	11.855	11
Norway	0.859	1.0252	1.0121	1.0085	0.9433	0.7685	0.7753	0.8056	0.8116	1.0341	1.0253	0.8355	1.022	1.0731	12.999	6
Portugal	0.9706	0.9524	0.9663	0.9189	0.9453	0.923	0.9225	1.1807	1.4493	1.2154	1.0374	1.0509	0.9949	0.9285	14.456	3
Spain	0.5857	0.5801	0.6959	0.6537	0.6517	0.6357	0.6247	0.6522	0.7964	0.7986	0.8831	0.794	0.8357	0.8501	10.038	20
Sweden	0.8014	0.7482	0.9644	0.7946	0.765	0.7706	0.7793	0.7951	1.038	1.0083	1.0146	0.9738	1.0057	1.044	12.503	8
Switzerland	0.7923	0.7884	0.799	0.7786	0.7212	0.752	0.7526	0.7639	0.9525	0.9532	0.9041	0.9205	0.9644	0.9429	11.786	12
United Kingdom	0.8307	0.7711	0.7532	0.773	0.7583	0.8006	0.8318	0.7145	0.8146	0.843	0.7729	0.8187	0.9183	1.0132	11.414	14
United States	0.5691	0.6468	0.7343	0.6961	0.7351	0.7174	0.7043	0.7139	0.759	0.7309	0.6938	0.7464	0.7499	0.9645	10.161	18

Source: OECD (2010).

Figure 2: Bilateral ratios



Authors computations. Source: OECD (2010).

INSTITUTE OF ECONOMIC STUDIES WORKING PAPERS 1987-2009

Formerly Iceland Economic Papers Series

Editor Sveinn Agnarsson

A complete list of IoES Working Papers and Reprints can be accessed on our World Wide Web site at <http://www.ioes.hi.is>

W10:04 Thorhildur Olafsdottir and Tinna Laufey Asgeirsdottir: Does month of birth affect individual health and educational attainment in Iceland?

W10:03 Gylfi Magnusson: Lessons from a small country in financial crisis or Dr. Minsky and Mr. Ponzi in Iceland

W10:02 Olafur G. Halldorsson and Gylfi Zoega: Iceland's financial crisis in an international perspective.

W10:01 Yu-Fu Chen and Gylfi Zoega: Life-cycle, effort and academic deadwood.

W09:10 Yu-Fu Chen and Gylfi Zoega: Strong hysteresis due to age effects.

W09:09 Yu-Fu Chen and Gylfi Zoega: An essay on the generational effect of employment protection.

W09:08 Anna Gunnthorsdottir, Roumen Vragov and Jianfei Shen: Tacit coordination in contribution-based grouping with two endowment levels.

W09:07 Axel Hall and Gylfi Zoega: Working in spite of high taxes: On the role of culture in explaining high employment in the Nordic countries.

W09:06 Gylfi Zoega: Employment and asset prices.

W09:05 Gylfi Zoega: Market forces and the continent's growth problem.

W09:04 Gylfi Zoega: A double-edged sword: High interest rates in capital-control regimes.

W09:03 Jon Danielsson and Gylfi Zoega: The collapse of a country.

W09:02 Manoj Atolia, Tor Einarsson and Milton Marquis: Understanding liquidity shortages during severe economic downturns.

W09:01 Thorolfur Matthiasson: Spinning out of control: Iceland in crisis.

W08:07 Ragnar Arnason: Natural resource rents: Theoretical clarification.

W08:06 Axel Hall and Gylfi Zoega: Feminism and labour supply in the Nordic countries.

W08:05 Gylfi Zoega: Productivity, wages and relationships.

W08:04 Thrainn Eggertsson: Knowledge and economic progress: The role of social technologies.

W08:03 Thrainn Eggertsson: Genetic technology and the evolution of property rights: The case of Decode Genetics.

W08:02 Tinna Laufey Asgeirsdottir and Gylfi Zoega: Sleeping.

W08:01 Thorvaldur Gylfason: Development and growth in mineral-rich countries.

W07:14 Ragnar Arnason: Fisheries enforcement with a stochastic response function.

W07:13 Thorvaldur Gylfason and Eduard Hochreiter: Growing apart? A tale of two republics: Estonia and Georgia.

- W07:12 Thorolfur Matthiasson: Economic gain from education in Iceland during the period 1985 to 1999.
- W07:11 Alison L. Booth and Gylfi Zoega: Worker heterogeneity, new monopsony and training.
- W07:10 Yu-Fu Chen and Gylfi Zoega: Aging and job security.
- W07:09 Ron Smith and Gylfi Zoega: Keynes, investment, unemployment and expectations.
- W07:08 Thorolfur Matthiasson and Claire W. Armstrong: Effects of foreshortening of transferred quota in an ITQ market.
- W07:07 Helgi Tomasson: Likelihood based surveillance of continuous-time processes.
- W07:06 Helgi Tomasson: Review of Econometric Modeling Approaches in Finance.
- W07:05 Anna Gunnthorsdottir, Roumen Vragov, Kevin McCabe and Stefan Seifert: The meritocracy as a mechanism to overcome social dilemmas.
- W07:04 Gylfi Zoega: Endogenous employment cycles in Euroland.
- W07:03 Thorvaldur Gylfason: The international economics of natural resources and growth.
- W07:02 Helga Kristjansdottir: Talking trade or talking aid? Does investment substitute for aid in the developing countries?
- W07:01 Ali Choudhary, Thorlakur Karlsson and Gylfi Zoega: Testing for customer markets using survey data.
- W06:13 Brynhildur Davidsdottir: Sustainable energy development.
- W06:12 Helga Kristjansdottir: Substitution between inward and outward foreign direct investment.
- W06:11 Helga Kristjansdottir: Evaluation of Icelandic trade flows, the gravity model approach.
- W06:10 Brynhildur Davidsdottir: Capital constraints and the effectiveness of environmental policy.
- W06:09 Gylfi Zoega: Market forces and the continent's growth problem.
- W06:08 Fridrik M Baldursson and Nils-Henrik M von der Fehr: Vertical integration and long-term contracts in risky markets.
- W06:07 Ragnar Arnason: Conflicting uses of marine resources: Can ITQ's promote an efficient solution?
- W06:06 Thorvaldur Gylfason and Gylfi Zoega: A golden rule of depreciation.
- W06:05 Ron Smith and Gylfi Zoega: Global factor, capital adjustment and the natural rate.
- W06:04 Thorolfur Matthiasson: To whom should the rent accrue?
- W06:03 Tryggvi Thor Herbertsson and Gylfi Zoega: Iceland's Currency Dilemma.
- W06:02 Thorolfur Matthiasson: Possible stakeholder conflicts in quota regulated fisheries, contribution to the political economics of fisheries.
- W06:01: Eyjolfur Sigurdsson, Kristin Siggeirsdottir, Halldor Jonsson jr , Vilmundur Gudnason, Thorolfur Matthiasson, Brynjolfur Y Jonsson: Early discharge and home intervention reduces unit costs after total hip replacement: Results of a cost analysis in a randomized study.
- W05:14 Gylfi Zoega and J Michael Orszag: Are Risky Workers More Valuable to Firms?

- W05:13 Friðrik Már Baldursson: Fairness and pressure group competition.
- W05:12 Marias H. Gestsson and Tryggvi Thor Herbertsson: Fiscal Policy as a Stabilizing Tool.
- W05:11 Tryggvi Thor Herbertsson and Gylfi Zoega: On the Adverse Effects of Development Aid.
- W05:10 Thráinn Eggertsson and Tryggvi Thor Herbertsson: Evolution of Financial Institutions: Iceland's Path from Repression to Eruption.
- W05:09 Tryggvi Thor Herbertsson: The Icelandic Pension System in 2004.
- W05:08 Ron Smith and Gylfi Zoega: Unemployment, investment and global expected returns: A panel FAVAR approach.
- W05:07 Gylfi Zoega and Thorlakur Karlsson: Does Wage Compression Explain Rigid Money Wages?
- W05:06 Thorvaldur Gylfason: India and China
- W05:05 Edmund S. Phelps: Can Capitalism Survive?
- W05:04 Thorvaldur Gylfason: Institutions, Human Capital, and Diversification of Rentier Economies
- W05:03 Jón Danielsson and Ásgeir Jónsson: Countercyclical Capital and Currency Dependence
- W05:02 Alison L. Booth and Gylfi Zoega: Worker Heterogeneity, Intra-firm Externalities and Wage Compression
- W05:01 Tryggvi Thor Herbertsson and Martin Paldam: Does development aid help poor countries catch up?
- W04:12 Tryggvi Thor Herbertsson: Personal Pensions and Markets
- W04:11 Fridrik M. Baldursson and Sigurdur Johannesson: Countervailing Power in the Icelandic Cement Industry
- W04:10 Fridrik M. Baldursson: Property by ultimatum: The case of the Reykjavik Savings Bank
- W04:09 Ingólfur Arnarson: Analyzing Behavior of Agents of Economic Processes in Time
- W04:08 Otto Biering Ottosson and Thorolfur Matthiasson: Subsidizing the Icelandic Fisheries
- W04:07 Niels Vestergaard and Ragnar Arnason: On the Relationship between Greenland's Gross Domestic Product and her Fish Exports: Empirical Estimates
- W04:06 Ingolfur Arnarson: Modelling Fishery Management Schemes with an Olympic System Application
- W04:05 Ingolfur Arnarson and Pall Jensson: Adding the Sales Markets Dimension to Bio-Economic Models. The Case of Fishery Management
- W04:04 Edmund S. Phelps: Changing Prospects, Speculative Swings: Structuralist Links through Real Asset Prices and Exchange Rates
- W04:03 Ingolfur Arnarson: Analysing Behavior of Agents of Economic Processes in Time
- W04:02 Ron Smith and Gylfi Zoega: Global Shocks and Unemployment Adjustment

- W04:01 Fridrik M. Baldursson and Nils-Henrik M von der Fehr: Prices vs. quantities: public finance and the choice of regulatory instruments
- W03:07 Sveinn Agnarsson and Ragnar Arnason: The Role of the Fishing Industry in the Icelandic Economy. A historical Examination
- W03:06 Thorolfur Matthiasson: Paying paper by paper, the wage system of Icelandic University teachers explained
- W03:05 Gur Ofur and Ilana Grau: Bringing the Government hospitals into line: The next step of reform in the healthcare sector
- W03:04 Ingolfur Arnarson and Pall Jensson: The Impact of the Cost of the Time Resource on the Efficiency of Economic Processes
- W03:03 Torben M. Andersen and Tryggvi Thor Herbertsson: Measuring Globalization
- W03:02 Tryggvi Thor Herbertsson and J. Michael Orszag: The Early Retirement Burden: Assessing the Costs of the Continued Prevalence of Early Retirement in OECD Countries
- W03:01 Eirik S. Amundsen, Fridrik M. Baldursson and Jørgen Birk Mortensen: Price Volatility and Banking in Green Certificate Markets
- W02:10 Tryggvi Thor Herbertsson and Gylfi Zoega: A Microstate with Scale Economies: The Case of Iceland
- W02:09 Alison, L. Booth and Gylfi Zoega: Is Wage Compression a Necessary Condition for Firm-Financed General Training
- W02:08 Asgeir Jonsson: Exchange rate interventions in centralized labor markets
- W02:07 Alison, L. Booth, Marco Francesconi and Gylfi Zoega: Oligopsony, Institutions and the Efficiency of General Training
- W02:06 Alison L. Booth and Gylfi Zoega: If you're so smart, why aren't you rich? Wage inequality with heterogeneous workers