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ECFIN Economic Brief

Economic cycles and development aid: What is the evidence from the past?

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Summary

This Economic Brief looks at past evidence as to what extent donors' economic cycles have an effect on their aid budgets. It generally finds only a weak correlation of economic growth and aid of OECD donors between 1971 and 2008, and aid was reduced in only about half of all episodes of deep or protracted recessions. The effect usually comes with a time-lag as aid commitments respond faster than aid disbursements. Cuts in aid disbursements might therefore be felt more strongly only in 2010 rather than in 2009, which might somewhat mitigate the negative effects if a strong global recovery in 2010 improved developing countries' growth perspectives and reduced their dependency on aid inflows.

Nevertheless, inferring from the past evidence to the current and future evolution of aid has its limitations. The depth and global synchronicity of the crisis as well as a substantial deterioration of donor countries' fiscal positions make this situation exceptional. It will therefore be important to remain vigilant to make sure that the crisis does not result in a shortfall of ODA relative to the political commitments made by the international community to support the efforts to attain the Millennium Development Goals.

Introduction

As a consequence of the global financial and economic crisis, there is a widespread concern that official development aid (ODA) will suffer from cuts as public finance in donor countries is becoming increasingly strained. The general expectation is that, due to revenue shortfalls resulting from lower growth than expected and higher expenditure to support the financial sector and to stabilise the economy, there will be a search for compensatory measures to cut back other expenditure. External policies are usually less of a political and budgetary priority in times of economic difficulties – also because of their limited impact on domestic growth and employment where development aid is untied - and therefore among those budget lines that are more susceptible to seeing a reduction. Evidence on whether these concerns are justified is politically important since the - correct or incorrect - belief that economic downturns always lead to lower aid budgets could become a self-fulfilling prophecy as governments might be more willing to reduce aid if they believe that their peers are doing the same, thus expecting only a collective blame rather than becoming exposed individually. After providing some general background, this ECFIN Economic Brief looks at past evidence on whether donors' economic cycles actually have an effect on their aid budgets and identifies some policy implications.

General background

Already in the last years, the trajectory of scaling-up of ODA was significantly lower than what donor governments promised some years ago. In 2005, the EU and the G8 made commitments that imply an ODA level of USD 121 billion in 2010, expressed in 2004 dollars, or an increase of USD 20 billion from the 2008 level. For the EU-15 Member States meeting their self-set targets of 0.51% ODA/GNI in 2010 and of 0.7% ODA/GNI in 2015 remains a substantial budgetary challenge. In current prices, aid figures for the EU show an increase from EUR 46 billion in 2007 (0.37% of GNI) to EUR 49 billion in 2008 (0.40% of GNI). The prospect of aid promises to the developing countries being kept might thus deteriorate further in the current economic environment. Indeed, some countries worst hit by the current crisis, notably Ireland, have already announced reductions in their aid budgets.

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Moreover, development aid budgets oriented at a fixed target ratio of ODA relative to gross national income (GNI) could be lower in absolute terms because of lower nominal economic growth and depreciating exchange rates. Comparing for example the Commission's projections available in early 2008 and in early 2009 for the EU GNI in the year 2009 show a reduction of -5.7% due to both lower real growth and less inflation than previously expected. Similarly, the Commission's projections available in early 2008 and in early 2009 assumed a 23% lower value of the British pound relative to the euro for the year 2009, thus implying lower aid if expressed in euro even if the amount in national currency was stable. The World Bank (2009, p.120) calculated that currency movements relative to the US dollar, which is the currency most frequently used as a reference for international aid commitments, could reduce aid in 2009 by between USD 3 billion and USD 5 billion. However, these exchange rate effects might be merely statistical where aid recipients' currencies depreciated to the same extent. Furthermore, many donors are still aiming to increase their aid budgets to higher ODA/GNI ratios in line with commitments so that these exchange rate effects might not be dominating.

The economic literature provides no clear results on the link between donors' economic cycles and their aid budgets. In contrast to aid volatility, which focuses at aid inflows into recipient countries that may fluctuate for a number of reasons (e.g. aid selectivity or conditionality), the issue has received only limited attention in the empirical literature. Pallage and Robe (2001) analysed the correlation between foreign aid to Africa and the business cycle of donors between 1969 and 1992. They found some pro-cyclicality of aid commitments for most donor countries, but no clear pattern of pro-cyclicality of donors' aid disbursements. Business cycles and aid disbursements were essentially uncorrelated in eight donor countries, seven donors disbursed pro-cyclically, and two donors appeared to spend in a counter-cyclical manner. Desai and Kharas (2008) observe that global ODA between 1960 and 2007 is approximately 5 times more volatile than national income, and for the US the volatility is about 8 times higher. Mold et al. (2008) find a rather ambiguous relationship between economic growth in donor countries and their aid flows. While GDP and aid flows tend to move together over long periods, there are instances in which aid disbursements have become 'decoupled' from economic growth in the OECD countries. Notably in the 1990s, coinciding with the end of the Cold War, aid budgets contracted for almost 8 years. They conclude that, "*unless the raison d'être of aid is questioned, aid flows tend to be quite resilient to mild recessions*." Similarly, the World Bank (2009, p.118) summarises the evidence that "*aid is not procyclical with respect to donor output in a mild, short-duration crisis*."

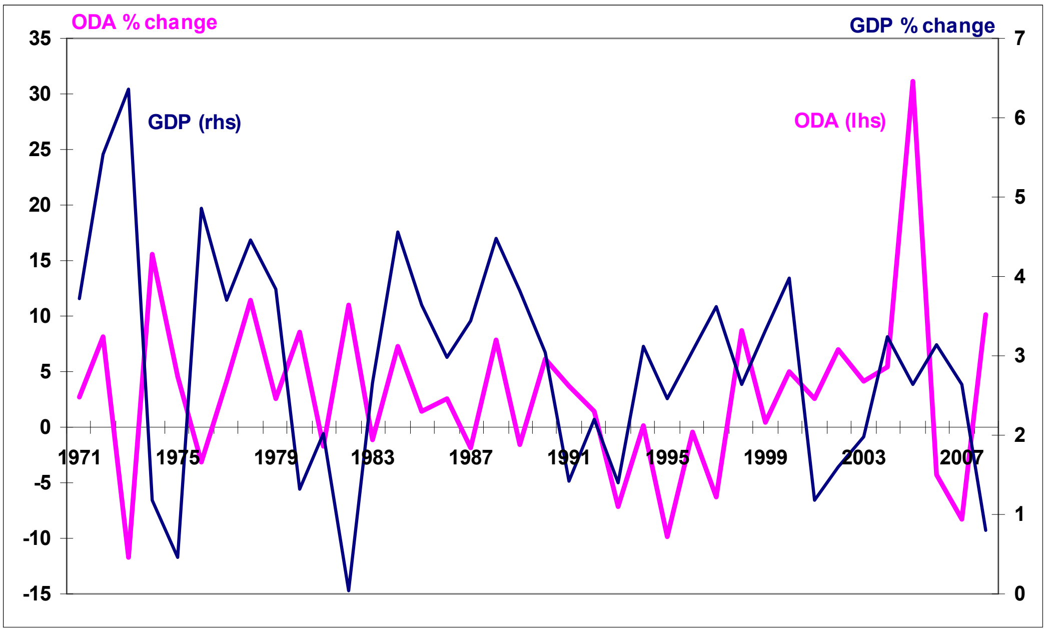
A related strand of the literature applies econometric methods to identify the main determinants of donors' aid levels defined as aid over GDP, including the output gap and the fiscal situation. Faini (2006) finds that a donor's fiscal position has a statistically significant effect on its foreign aid: a 10% increase in the public debt-to-GDP ratio is associated with a lower ODA/GDP ratio of 0.012% in the short run and of 0.023% in the long run. However, the other two determinants of output gap and political orientation are not statistically significant. On the other hand, Bertoli et al. (2008), using models with a longer list of determinants, get significant results for fiscal indicators and the output gap, although with the wrong signs for budget deficits. Based on a similar econometric model, Allen and Giovanetti (2009) predict a fall in ODA by USD 22 billion in 2009 relative to 2008. Interestingly, the coefficient of the output gap is statistically insignificant while the cube of this variable is highly significant which the authors interpret as a more than proportional impact of cycles on aid allocations.

What is the historical evidence?

In view of the ambiguity of the literature, analysing in further detail the empirical variation of development aid and output over a longer time period might allow some clearer views. The OECD Development Assistance Committee (DAC) provides the longest time series (for most countries from 1970 onwards) of data on Official Development Assistance (ODA) by its members in constant US dollar. It should be expected that different aid categories (e.g. project aid, budget support, debt relief, technical assistance) perform differently over donors' economic cycles, but consistent and longer time series for these categories are not available.

Aggregate data for OECD donors do not provide any clear results. Comparing the change in net aid disbursements of OECD/DAC donors and the annual average change in real GDP in the OECD gives a mixed picture (Figure 1). While there are some episodes with a parallel movement (1977/78, 1984-89, 1993-96), there are others where they seem to run in opposite directions (1973/74, 1982/83, 2008) or without any relationship (after 1996). The steepest persistent decline in the history of development aid in the 1990s is also associated to the end of the Cold War as finance to support allies in the East-West confrontation in the developing world was no longer necessary. The correlation between the two time series is slightly negative (-24%), but it would be difficult to give a negative correlation coefficient any meaningful interpretation since a deliberate counter-cyclical policy of aid budgets is hardly ever heard of. There is also little indication of some kind of asymmetry, which could explain the weak correlation, in the sense that aid would decline sharply in episodes of a growth slowdown in the OECD (1974/75, 1980-82, 1991-93, 2001-03), then followed by an only gradual increase in ODA in better economic times. However, the unclear results could partly arise from the aggregation of countries undergoing sometimes common and sometimes country-specific shocks so that a look at country-specific data could be more enlightening.

Figure 1: Annual percentage change of net disbursements of ODA (in constant US dollar) from OECD DAC donors and of real GDP in the OECD, 1971-2008



Source: OECD Development Assistance Committee (DAC)

Data on aid disbursements at country level show a somewhat stronger correlation for some countries, but can still not provide fully clear results (Figure 2). The highest (both positive and negative) correlation coefficients are for the new EU Member States and some smaller donors (Greece, Iceland, Korea), for which data are only available from the 1990s onwards. In this short period, several of these countries were scaling-up development aid in line with their recent commitments; a direct causality between growth and aid might therefore be difficult to establish. However, some pro-cyclicality appears for Northern European countries (Denmark, Finland, Norway) and some counter-cyclicality for some non-European donors (US, Australia).

Figure 2: Coefficients of correlation of annual percentage change in constant prices of net disbursements in ODA and of real GDP, 1971-2008

Note: Data time series on aid disbursements start in the following years: Greece 1996, Portugal 1980, Spain 1980, Czech Republic 1998, Hungary 2003, Iceland 1997, Korea 1990, Poland 1998, Slovak Republic 1999, Turkey 1991.
Source: Own calculations based on OECD Development Assistance Committee (DAC) for ODA and AMECO database for GDP growth

As budget planning processes might be too sluggish to respond immediately to economic cycles, the adjustment of aid budgets can be expected to have some time lag. In view of the long preparations which a budget requires from the initial proposal by the government until the final adoption by the parliament, a swift reaction of aid budgets to the ups and downs of economic activity is unlikely.

In addition, multi-annual programming and a stronger focus of recent development financing on programmes and projects with visible results, notably in health, education or infrastructure, might make it difficult to abandon these at short notice. The relation between growth and aid might thus take one or two years and could also show some differences between commitments and disbursements. Indeed, correlating the changes in net disbursements of aid with a one-year time-lag on GDP growth shows some pro-cyclicality, although it is still low on aggregate across all donors (14%). Looking at the results for commitments and disbursements together (Table 1), there are indeed some indications that aid commitments respond to growth in the same year and aid disbursements with a lag of one or two years.

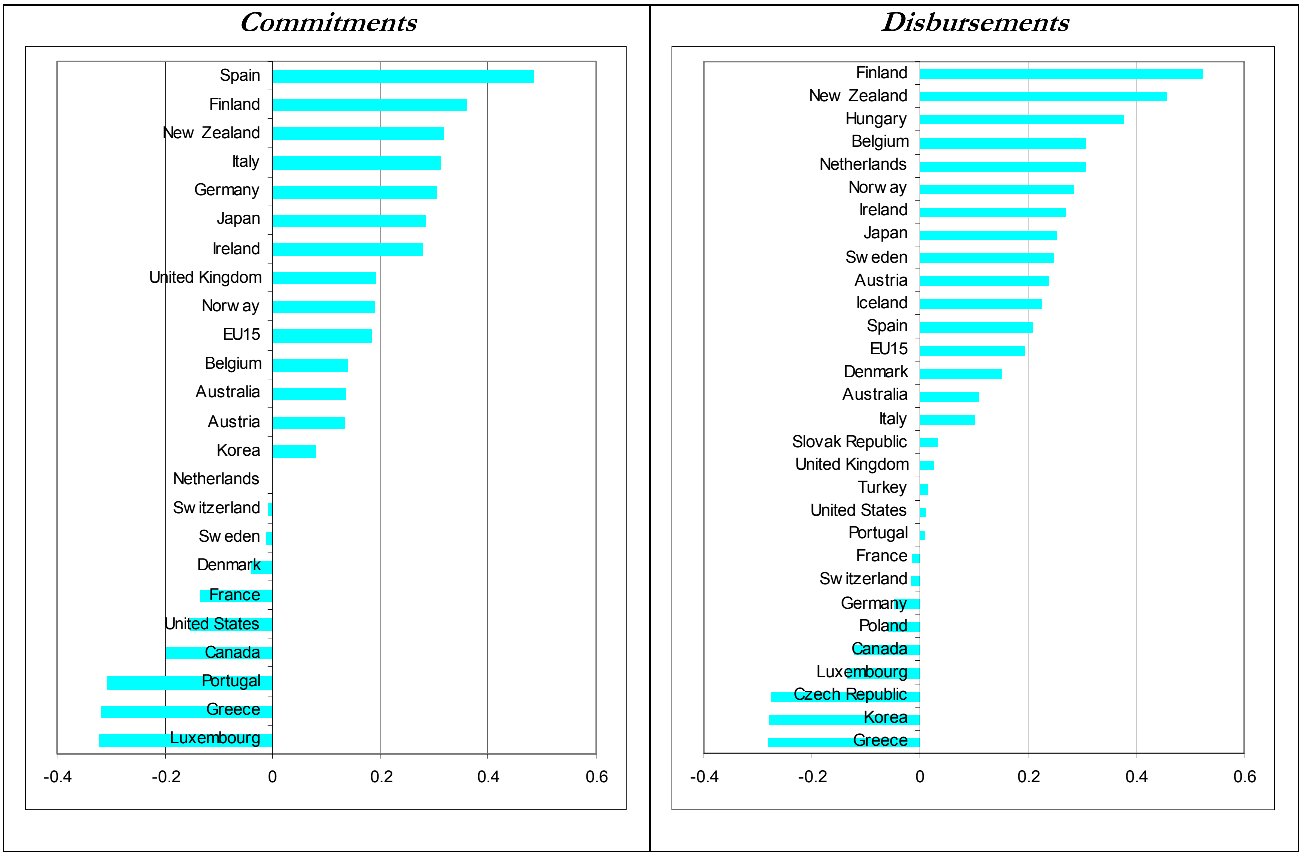
Table 1: Correlation coefficient of changes in ODA and GDP in the OECD, 1971-2008 (in constant prices)

	disburse-ments	**commit-ments***
no lag	**-0.24**	**0.13**
one year lag	**0.14**	**0.02**
two years lag	**0.12**	**-0.10**

* At the time of writing, data for commitments were only available until 2007.
Source: Own calculations based on OECD Development Assistance Committee (DAC)

Correlation coefficients for individual donor countries lagged by one year confirm the presence of some delayed pro-cyclicality (Figure 3). This seems to be particularly the case for Finland and New Zealand, but also for other countries having coefficients of 25% and higher regarding commitments (Spain, Italy, Germany, Japan, Ireland) or regarding disbursements (Belgium, Netherlands, Norway, Ireland, Japan). Again, in several cases such as Greece, Spain, Portugal, Korea and new Member States the figures are difficult to interpret because aid data, if any, are often only available from the 1990s onwards and therefore too short to be clearly more than random effects.

Figure 3: One-year lagged coefficients of correlation of annual percentage change in constant prices of ODA (1972-2008) and of real GDP (1971-2007)



Note: Data on aid commitments are only available until 2007and start in the following years: Greece 1996, Luxembourg 1991, New Zealand 1972, Portugal 1989, Spain 1991, Korea 1990. Data time series on aid disbursements start in the following years: Greece 1996, Portugal 1980, Spain 1980, Czech Republic 1998, Hungary 2003, Iceland 1997, Korea 1990, Poland 1998, Slovak Republic 1999, Turkey 1991.
Source: Own calculations based on OECD Development Assistance Committee (DAC) for ODA and AMECO database for GDP growth.

In view of the global economic situation in 2008/2009, a closer look at episodes of serious economic downturns might be a more relevant reference. In this vein, Roodman (2008) maintains that "*after each previous financial crisis in a donor country since 1970, the country's aid has declined*." He refers to four cases, notably Japan after its real estate and stock bubble burst in 1990, and to Finland, Norway, and Sweden after their shared crisis in 1991. Roodman finds that aid fell considerably in the Nordic countries after 1991 and took 6 and 9 years in Norway and Sweden, respectively, to recover to their pre-crisis levels; aid from Finland and Japan has still not recovered to pre-crisis levels.

However, more complete data including all donor countries show that only half of them reacted to deep economic recessions by cuts in aid budgets (Table 2). Out of a total of 16 cases where donors' GDP growth was below -2%, eight of them cut their aid disbursements in the year of the downturn (n), 6 countries in the year following the downturn (n+1) and nine countries two years later (n+2). Only in Finland (1992) and Sweden (1993) were these cuts consistent across most of the years whereas in the other cases they seem to be more volatile over time. The data for aid commitments show similar patterns, although with less (i.e. five) countries still reducing aid commitments - compared to disbursements - two years after the recession.

Table 2: Episodes of real GDP growth below -2% and percentage changes in aid disbursements and aid commitments in the year (n) of the downturn and the years (n+1; n+2) following the downturn

	GDP	disbursements			commitments		
		n	n+1	n+2	n	n+1	n+2
Australia 1982	-2.4	37.6	-11.5	-0.1	5.4	-9.5	22.1
Canada 1982	-2.9	-4.5	13.2	15.7	-9.9	16.6	33.4
Canada 1991	-2.1	0.6	0.6	0.4	-4.7	8.4	-6.2
Finland 1991	-6.2	13.9	-24.1	-30.7	13.1	-33.1	-40.9
Finland 1992	-3.7	-24.1	-30.7	-26.3	-33.1	-40.9	-5.3
Iceland 1992	-3.4	-41.1	61.4	-13.6	n.a.	n.a.	n.a.
Ireland 2008	-2.3	6.4	n.a.	n.a.	n.a.	n.a.	n.a.
Italy 1975	-2.1	-27.4	34.3	-21.8	-55.4	15.9	26.6
Japan 1998	-2.0	23.0	0.8	7.0	-3.0	-5.6	1.0
Korea 1998	-6.9	37.1	47.4	-36.8	80.8	-3.5	-17.0
New Zealand 1977	-3.9	-13.5	-14.9	9.2	-25.8	5.4	-4.4
Portugal 1993	-0.7	-10.8	24.2	-25.8	42.0	48.1	-48.4
Sweden 1993	-2.1	-6.2	-0.8	-16.3	-3.4	-6.3	3.2
Switzerland 1975	-7.3	23.7	2.2	1.6	33.5	11.0	63.6
United Kingdom 1980	-2.1	-34.5	22.8	-12.0	-24.6	-17.1	10.0
United States 1982	-2.0	33.7	-5.2	3.9	7.7	10.6	6.7

Note: ***n*** is the year when real GDP growth was below -2%
Source: Own calculations based on OECD Development Assistance Committee (DAC)

Similarly, episodes of protracted recessions resulted in lower aid budgets in only about half of the cases, some of which with longer-lasting effects on aid levels (Table 3). From the twelve episodes of negative real GDP growth in two consecutive years,[1] seven countries reacted with reductions in aid commitments in the first year (n) of the recession (among which Sweden 1991 and Japan 1998 only marginally).

Compared to pre-crisis levels of aid commitments (in year n-1), there was a persistently lower level of aid commitments in five cases, one of which was more than half (Finland 1991-93) and three almost a third lower still four years after the first year of the crisis (n+4). In line with the above findings of correlations, the number of episodes with reductions in aid disbursements is somewhat lower, in particular in the year of the crisis itself when only three donors reduced their aid disbursements.

[1] For two further episodes of Iceland 1991/92 and Portugal 1983/84 there were no data on aid commitments available.

Table 3: Episodes of negative real GDP growth in two consecutive years and levels of aid commitments compared to the year before the recession (year n-1 = 100)

	n-1	n	n+1	n+2	n+3	n+4
Denmark 74/75	100	110	100	93	107	183
Denmark 80/81	100	101	94	113	103	124
Finland 91-93	100	113	76	45	42	45
Japan 98/99	100	97	92	93	88	69
Netherlands 81/82	100	89	80	77	87	77
New Zealand 77-79	100	74	78	75	86	69
New Zealand 90-91	100	66	116	107	98	101
Sweden 91-93	100	99	106	102	96	99
Switzerland 75/76	100	134	148	243	130	222
United Kingdom 74/75	100	131	133	123	102	178
United Kingdom 80/81	100	75	63	69	62	68
United States 74/75	100	76	82	127	107	110

Note: ***n*** is the first year when real GDP growth was negative
Source: Own calculations based on OECD Development Assistance Committee (DAC)

Policy implications

The evidence presented above points to some limited pro-cyclicality of development aid, but not consistently across all donor countries. Correlations of changes in growth and aid as well as episodes of deep or protracted recessions confirm that in the past some donor countries reacted with a reduction in their aid budgets, but this was not consistently observed across all countries. However, some of the results might be strongly influenced by the decline of aid in the 1990s when the Cold War had ended – and with it the need to support allied governments – and several important donors had a period of weak growth in the first years of the 1990s, including the Nordic countries in the aftermath of a financial and economic crisis. Overall, the effect usually comes with a time-lag as commitments typically respond faster than disbursements. In the current global economic situation one should therefore expect that, if at all, aid commitments might decline first in 2009 and aid disbursements would follow in 2010. In a benign scenario, the effects of declining aid disbursements might thus have an impact only when a global recovery is already under way, perhaps mitigating some of the adverse effects of a decrease in aid flows on developing countries.

These results are not fully surprising as changes to development aid budgets are political decisions and will ultimately depend on a number of political factors. Most important among these factors are the geopolitical situation, the political weight of the foreign affairs or development minister in a government, and the general public support for development aid. As for the latter, Zimmerman (2008) concludes from a recent French opinion poll that "*voters continue to strongly support aid to developing countries*". In a poll of late October 2008, 76% of the French interviewees agreed that "*Europe should maintain or increase its aid to developing countries in the context of the financial crisis*". The European Commission (2009) found in a survey carried out in May/June 2009 that 88% of EU citizens consider development aid important, which is only 3 percentage points lower than the response to the same question asked in winter 2004. In the same survey 72% of the respondents believed that, given the current economic situation, the EU should at least honour its commitments of increasing the level of development aid. Similarly, Paxton and Knack (2008) found in a survey only a small effect of satisfaction with the own financial situation of respondents on their support for development aid. Zimmerman (2008) advises politicians envisaging cuts in aid budgets to take into account the well-organised global civil society and the higher needs of developing countries in crisis so that the effects of aid reductions might be more visible to citizens than in the past.

Still, inferring from the past evidence to the current and future evolution of aid will have its limitations. Given the depth and global synchronicity of the 2008/2009 crisis without precedent in the history of development aid, it remains difficult to draw clear conclusions from past evidence. Financial sector bail-outs and fiscal stimulus programmes have led to a substantial deterioration of donor countries' fiscal positions which, in view of the evidence presented by Faini (2006) and others, may also have a more negative impact on aid budgets than in past recessions. On the other hand, donors have taken historically unique commitments for scaling up aid.

In addition to dealing with the causes and symptoms of the financial crisis and the slowdown of their economies, advanced countries are under pressure to keep their aid promises. A reduction in development aid would come at a time when public finance in many developing countries is already under stress as a consequence of measures to mitigate the impact of high food and energy prices in 2008, increasing risks to macroeconomic stability and weakening growth perspectives as a consequence of lower exports and often weakening terms of trade. Continuity and predictability in donors' support would now be even more required to ease financing gaps and to avoid a reduction in expenditure which would have adverse effects on recent progress in reducing poverty. A reduction in aid flows could also deteriorate the atmosphere in various international fora, including the international negotiations on climate change, where delegates from developing countries are often comparing the amounts available for ODA (about USD 120 billion in 2008) to those provided by the leading economies to bail out the financial sector and to provide a fiscal stimulus to their economies. These considerations might have motivated recent international efforts, including by the EU and the G-20, to accelerate and increase the support to developing countries in coping with the crisis through both bilateral and multilateral channels.

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