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Aid Effectiveness and Selectivity

Integrating Multiple Objectives into Aid Allocations

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Abstract

This paper surveys recent research on aid and growth. It also provides an overview of research on inter-recipient aid allocation. The overall focus of the paper is on the relevance of these issues for poverty-efficient aid, defined as a pattern of inter-recipient aid allocation which maximises poverty reduction. It identifies a range of poverty-reducing criteria on which aid allocation or selectivity might be based, calling for a broader selectivity framework. The paper argues that this framework should be built on a recognition that the effectiveness of aid in increasing growth, and by implication in reducing poverty, is contingent on a range of factors in addition to the quality of recipient country policy regimes. These factors include political stability, democracy, post conflict reconstruction, and economic vulnerability.

Keywords: aid, growth, policy, selectivity, poverty reduction, post-conflict, democracy, political stability, economic vulnerability

JEL classification: F35, E61, I31, I32, O19, H53

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1 Introduction

Research on development aid has largely focussed on the effectiveness of transfers in promoting growth or on their allocation among developing countries. Rarely if ever did these research areas intersect, in that studies seeking to explain observed or prescribe optimal inter-country aid allocations did not take into account effectiveness issues and vice versa. Collier and Dollar (2002*),* in a move broadly consistent with the International Development Association's (IDA's) long-standing approach to its country allocation system, changed this state of affairs with their 'aid selectivity' approach to inter-country aid allocation. Collier–Dollar, building on the empirical work of Burnside and Dollar (1997, 2000), which concluded that the effectiveness of aid in promoting growth depended on the policy regimes of recipient countries, derived 'poverty efficient' inter-recipient aid allocations. According to the prescriptive Collier–Dollar selectivity approach, optimal aid allocation favours countries with high levels of poverty, low per capita incomes and sound policy regimes. Such allocations are considered poverty efficient by maximizing the number of people pulled out of poverty. Countries with unsound policies regimes receive less aid in the Collier–Dollar selectivity approach as these regimes lessen aid's impact on growth and thus poverty reduction.

The Collier and Dollar and Burnside and Dollar research has spawned a number of subsequent academic studies. All agree with the fundamental thrust of this research: that aid is effective in promoting growth and, by implication, in poverty reduction. This has proved to be a particularly robust conclusion, drawn by practically all subsequent empirical studies of aid and growth.[1] The well-known macro–micro paradox of aid is dead and buried. These studies are yet to provide such clarity over the relevance of recipient country policies for effectiveness, with many failing to produce similar empirical results to those reported in Burnside and Dollar, although there is acceptance among researchers that better policies, however defined, should in all probability result in more effective aid.[2] There are, however, many other areas of aid research in which there is far more clarity. These areas have been the subject of extensive research conducted over many decades and include studies on public sector aspects of aid (including fungibility), *ex post* and *ex ante* conditionality (including structural adjustment), aid and the real exchange rate, the determinants of inter-country aid allocation and non-governmental organization (NGO) effectiveness. In some instances these agreements have been reached following the availability of better data sets and application of more rigorous research methods. There are also a number of new areas of research that have emerged. These include aid and conflict prevention, aid and growth in post-conflict scenarios, aid and governance and allocating aid via non-traditional channels.

This paper surveys research on aid effectiveness and aid allocation. It updates and extends the coverage of Beynon (2001, 2002), by looking *inter alia* at more recent

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1 See Hansen and Tarp (2000a, 2000b), Dalgaard and Hansen (2001), Guillamont and Chauvet (2001), Hudson and Mosley (2001), Lensink and Morrissey (2000), Lensink and White (2001), Lu and Ram (2001), Dalgaard *et al.* (2002) and Gounder (2001, 2002).

2 See Robinson and Tarp (2000), Beynon (2001, 2002), Morrissey (2002) and Collier (2002).

research on the contribution of aid to growth and the determinants of observed inter-country aid allocations. The overall focus is on the relevance of these issues for poverty-efficient aid, defined as a pattern of inter-recipient aid allocation which maximizes poverty reduction. It identifies a range of poverty-reducing criteria on which aid allocation or selectivity might be based. The paper is built on the recognition of two key points. The first is that effectiveness of aid in promoting growth is in theory contingent on a range of factors in addition to policy, such as conflict reduction, vulnerability mitigation, political stability and governance. The second recognition is that, more importantly, the ultimate objective of aid is poverty reduction or, more broadly, the promotion of human well-being. This is made very clear in the adoption of the Millennium Development Goals, which identify poverty reduction as the ultimate objective of development efforts. Fuelling growth is one of a number means by which this objective can be achieved.

The paper is structured as follows. Section 2 looks at new directions in research on aid and growth, highlighting work on the relevance of shocks, structural vulnerability, post-conflict scenarios, democracy, political instability and absorptive capacity. Section 3 looks at the criteria that donors employ in allocating aid among developing countries, as evident from what donors themselves claim but also from the results of empirical research on the determinants of aid allocation. The underlying question addressed in this section concerns the extent to which the broad adoption of a policy of selectivity is possible given current allocative priorities. Section 4 attempts to establish a broader concept of selectivity, by distilling various strands of argument presented in the preceding sections, and in doing so looks at a variety of channels through which aid might reduce poverty, and on which poverty efficient allocations might therefore be based.

2 Aid and growth: new directions

While the research effort on aid, growth and policy is ongoing, a number of new directions on aid effectiveness have emerged. The focus remains on aid and growth, but a number of factors in addition to policy are also taken into account.

Trade shocks and aid effectiveness have been analyzed in Collier and Dehn (2001). Developing countries can be highly shock prone, and trade shocks can have substantial adverse consequences for growth.[3] Shocks are defined in terms of changes in export prices and classified in terms of negative and positive shock episodes. Two shock variables are defined, for positive and negative episodes respectively.[4] The hypothesis is that aid can potentially cushion the adverse growth effects of negative export price shocks in two ways: persistently high levels of aid can provide a buffer by reducing the

3 See Collier, Gunning and Associates (1999) and Dehn (2001) for further details.

4 Collier and Dehn obtain these variables from a model forecasting export prices based on index values outlined in Dehn (2000). In this model the change in each country's export price index is regressed against a constant, a linear time trend, the change in the index lagged one period and the level of the price index lagged two periods. The residuals from this regression are then normalized. The shock variable defined as those values that exceed a critical value associated with the 2.5 per cent most extreme observations in the tails of the residual distribution.

proportionate change in foreign currency inflows and counter-cyclical changes in aid can reduce the absolute change in these currency inflows. These effects are modelled by inserting two additional variables into the standard Burnside–Dollar aid–growth model: the initial level of aid and the change in aid between negative shock episodes of a duration of four years, both interacting with a negative shock variable. Results obtained from estimating this model indicated that the coefficients of the negative shock variable and its interaction with changes in aid were highly statistically significant. Increased aid does appear to mitigate the adverse growth effects of trade shocks, therefore. More precisely, a 40 per cent negative price shock appears to reduce growth by 1.38 per cent unless this is mitigated by an increase in aid. The change in the amount of aid required to provide such mitigation during the four year episode is 0.81 per cent of GDP per year.

Structural vulnerability in recipient countries and its impact on aid effectiveness is analysed in Guillaumont and Chauvet (2001). They too propose and empirically estimate an augmented Burnside–Dollar type aid-growth model. Structural vulnerability is a function of the size of shocks faced by countries, but also of their exposure or susceptibility to these shocks. Two types of shocks are identified: trade and climatic (due to events such as droughts, floods, cyclones and earthquakes). Trade shocks were classified twofold, into long term and short term, respectively measured by the trend in the terms of trade and in an index of the instability of real export values. Climatic shocks were measured or proxied statistically by an index of agricultural value-added instability. These variables measure the size of their respective shocks. Country shock exposure to climatic factors was measured by weighting the agricultural value-added instability index with the agricultural share of GDP. Exposure to trade shocks was estimated by adding the logarithm of population, as a separate variable, to the growth model, on the assumed grounds that big countries are most vulnerable to trade shocks than small ones. These vulnerability variables were aggregated, to form a weighted index, and this index was then inserted into the aid–growth model both as a variable in its own right, but also through its interaction with aid. Results obtained by empirical estimation indicated that vulnerability and the interaction between aid and vulnerability did impact on growth, both with highly statistically significant coefficients. In particular, it was found that the impact of aid on growth was higher when vulnerability was high.

Political instability and aid effectiveness has been analyzed by further augmenting the aid–growth model with an index of political instability (Chauvet and Guillaumont 2002). This index is the weighted sum of coups d'état and regime changes, and is intended to measure instability of political elites or institutions. This variable directly influences growth, but also via interaction with the level of aid. As in Guillaumont and Chauvet (2001), vulnerability also influences growth in these ways in this model. The results showed a highly significant and negative coefficient for the aid–political instability interaction term. Hence, it was concluded that aid effectiveness is negatively influenced by political instability, which also seemed to reduce growth directly, although this result appears less robust than that for the interaction term. The aid–vulnerability link was found to be positive and significant, hence confirming the result of Guillaumont and Chauvet (2001).

The impact of aid on growth in post-conflict scenarios is examined in Collier and Hoeffler (2002). They note that the economic circumstances of post-conflict countries can be distinctive in many respects: the need to restore infrastructure combined with a collapse of domestic revenue can make aid unusually productive and growth can be supra-normal (Collier 1999). Offsetting this though is what Collier and Hoeffler

describe as a 'persistent high-corruption equilibrium' (Tirole 1992). Collier and Hoeffler empirically tested whether aid is more effective in post-conflict scenarios by a series of augmentations to the Burnside–Dollar aid–growth model. Based on a range of estimates, the results showed that aid is more than twice as productive in post-conflict episodes, for given policies; that there is a temporary growth spurt of approximately two percentage points higher than otherwise during these episodes; and that in the absence of aid there would be no growth spurt.

The effect of democracy on the aid–growth nexus is examined in Svensson (1999). Democratic institutions (such as political parties, elected representatives, free speech and the right to organize) should provide a recurrent and institutionalized check on government power, encouraging governments to use aid productively and preventing them from using it unproductively. Thus it is hypothesized that aid will have a greater impact on growth the greater the degree of democracy. The degree of democracy is measured using indicators of political and civil rights from Freedom House and formed into an index. In this aid–growth model, democracy impacts directly on growth and also via its interaction with aid. Thus the democracy index appears twice, alone and as part of an interaction term. Results obtained from estimating this model indicated that while democracy had no significant direct impact on growth, the coefficient attached to interaction between aid and democracy was almost without exception significant and positive. Svensson concluded, therefore, that the growth impact of aid was conditional upon the degree of democracy.[5] Kosack (2003) also drew this conclusion, but in the context of the impact of aid on the quality of life, the latter measured by the Human Development Index.

Aid 'transmission mechanisms', channels through which aid can potentially contribute to growth, are the focus of Gomanee *et al.* (2002a). Aid can effect growth directly, but also through its impact on investment, imports, public sector fiscal aggregates and government policy. Conscious recognition of these mechanisms has important implications for modelling the aid–growth relationship in order to avoid double-counting the impacts of aid. Gomanee *et al*. tested for the presence of the aid-investment-growth mechanism, finding strong evidence that it existed. Morrissey (2002) suggested, on the basis of this result, that government policies can play an important role in enhancing aid effectiveness through seeking to improve the productivity of investment. This also applies to the other mechanisms. For example, policies aimed at improving the productivity of government expenditure should improve aid's impact on growth provided the aid–fiscal aggregates mechanism exists. This research is linked with the extensive and long-standing literature on aid and public sector fiscal behaviour, which generally finds that aid is associated with increases in government expenditure categories, including pro-poor expenditures, the fungibility problem notwithstanding. Gomanee *et al.* (2002b) look at aid and pro-poor expenditure directly, using the above-mentioned transmissions mechanisms approach, finding that aid is associated with increases in these expenditures and in turn improvements in welfare.[6]

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5 An alternative interpretation is that the impact of democracy on growth is contingent on the level of aid. This points to a more general interpretation problem regarding the aid interaction terms used in the aid–growth literature in general.

6 The relevant literature is surveyed in McGillivray and Morrissey (2001a). Recent studies falling within this literature include Feyzioglu *et al.* (1998), Franco-Rodriguez *et al.* (1998), McGillivray and

Diminishing returns to aid effectiveness have been examined closely by most recent aid–growth studies, through the inclusion of an aid-squared term in their models. This tests for non-linearity in the aid–growth relationship, with aid being positively related to growth up to a certain level of aid and negatively related thereafter. The coefficient on the aid-squared term is consistently negative and significant, indicating that there are diminishing returns to aid effectiveness. This is a seemingly highly robust finding, with almost all studies reporting such a relationship, with negative returns setting-in when the aid inflow reaches anywhere between 15 and 45 per cent of GDP. This has been interpreted as indicating limited aid absorptive capacities, with recipient governments being limited in the amounts of aid they can use effectively (Clemens and Radelet 2003).[7]

3 Aid allocation: policy and practice

Emanating from influential empirical research conducted in the late 1970s and early 1980s, there is a widespread belief that donors pursue political, economic and strategic interests in inter-country aid allocation, especially bilateral aid allocation of the larger donors, and that developmental or humanitarian concerns, including the reduction of poverty, receive a relatively low or even zero weight in this process.[8] The pursuit of these interests, together with the presence of a bureaucratic inertia, is of concern as it effectively constrains the adoption of a selectivity policy, or basing aid allocations on developmental criteria in general.

How significant is this concern? There are grounds for suggesting it is not terribly significant, although evidence is mixed. A simple inspection of aid statistics reveals a slight upward trend, over recent years, in shares of official development assistance (ODA) going to the least developed, low income and sub-Saharan Africa countries. Although weak evidence, this is consistent with the emerging view that since the end of the Cold War there has been a shift in allocative behaviour, away from non-developmental criteria.

More important is evidence regarding donor intent. Increased aid to poor countries might not result from donors consciously giving preference to these countries because they are poor. Empirical studies of revealed donor motives offer insight to this issue. Indeed, some relatively recent studies have shown that the empirical methods of the late

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Ahmed (1999), Swaroop *et al.* (2000), McGillivray and Morrissey (2001b) McGillivray (2000) and Mavrotas (2002).

7 Among the studies reporting diminishing returns are Collier and Dollar (2002), Collier and Hoeffler (2002), Hansen and Tarp (2000a, 2000b), Dalgaard and Hansen (2001), Hudson and Mosley (2001), Lensink and White (2001) and Dalgaard *et al.* (2002). Heller and Gupta (2002) provide a useful discussion of this issue, along with the related problem of Dutch Disease. Note though that Gomanee *et al.* (2003), using a general technique specifically designed to detect threshold effects, struggle to find evidence of such returns and therefore question the inferences drawn by previous studies.

8 See McKinlay and Little (1977, 1978a, 1978b, 1979) and Maizels and Nissanke (1984). McKinlay and Little (1979: 243) concluded that there are 'no grounds for asserting that humanitarian criteria have any significant direct influence' on aid US allocation. Maizels and Nissanke (1984: 891) concluded that US, British, French, German and Japanese 'bilateral aid allocations are made ... solely ... in support of donors' perceived foreign economic, political and security interests'.

1970s and early 1980s research do not yield robust results, owing to the separate estimation of recipient need and donor interest models and the implicit, questionable assumption that *either* recipient needs *or* donor interests determine aid allocation. Some of these more recent studies have initially replicated the results of these studies, but corrected for this and other methodological flaws, showing that both recipient need and donor self interest were relevant to inter-recipient aid allocation during the 1970s and early 1980s. Even US per capita aid allocation, often thought to be the least developmental, has been shown to favour poorer countries during the early 1980s.[9] These results have been confirmed by practically all subsequent research, including analytically and econometrically more rigorous studies, not only for the major bilateral donors but for many smaller ones as well.[10]

Added to these results are signals from donors themselves that developmental criteria are receiving a higher priority in aid allocation. A recent survey of 10 donors, conducted by the UK Department for International Development (DFID) indicated that increased emphasis is being given to 'selectivity', defined broadly not only in the Collier–Dollar (2002) sense, but also to encompass broader developmental concerns, such as governance, program implementation and absorptive capacity (DFID 2002). Among the more pro-active donors in this regard are the United Kingdom, and in particular, the Netherlands (DFID 2003; Droeze 2002). Perhaps the best known donor initiative is the US's Millennium Challenge Account (MCA), which aims to allocate aid to a relatively narrow range of recipients on the basis of various indicators of need, performance and governance.[11] The DFID survey does however note that 'politics continues to play a significant role in priority setting' (DFID 2002: 5), implying that this sets a limit to how much donors can respond to purely developmental issues. There are also the efforts of multilateral agencies, which have a clearer developmental focus in allocating aid. The IDA and the African Development Fund, in particular, utilize enhanced performance-based allocation frameworks in determining aid levels allocated to recipient countries.

While both actual initiatives or statements of intent from donors and the results of the empirical studies are on balance encouraging, it should be emphasized that in most instances non-developmental criteria, especially trade promotion, remain a priority for many donors. One should also note the results of studies that have tested for specific relationships in the allocation of aid. Based on these studies, there is mixed evidence regarding whether donors reward countries for their observance of civil and political liberties or for having low levels of corruption, some evidence of a bias in per capita aid against larger countries, no evidence that donors base allocation decisions on trade shocks, little evidence that the quality of recipient policies matter for the allocation

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9 See McGillivray and White (1993) and McGillivray (2002). This conclusion was based on the coefficient attached to income per capita, a commonly agreed although far from perfect indicator of need, being significant and negative in a combined recipient need–donor interest aid allocation model.

10 These studies include those based on cross-section and, more recently, time series data. The former studies include McGillivray and Ozcowski (1991, 1992), Gounder (1994), Trumball and Wall (1994), Wall (1995), Tarp *et al.* (1999), Alesina and Dollar (2000) and Berthemely and Tichet (2002). Those based on time series data include Gounder (1999), Gounder and Sen (1999) and Feeny and McGillivray (2002a, 2002b).

11 Radelet (2002), Birdsall *et al.* (2002b), Kaufman and Kraay (2002) and Clemens and Radelet (2003) are among the studies comprising the very rapidly growing literature on the MCA. Birdsall *et al.* and Kaufman and Kraay look at governance and other indicators and how the MCA might use them.

among African countries, and evidence that donors have not responded appropriately to post-conflict situations in the allocation of aid among countries.[12]

4 Aid selectivity: towards a broader concept?

A number of key points emerge from the preceding discussion. Regarding effectiveness, aid fundamentally works, but it is clear that its impact differs across countries depending on the conditions they face. It is agreed that policies do or at least potentially matter for the effectiveness of aid, although there is ambiguity over whether this has been correctly observed from empirical estimates of aid-growth models. Aid seems to work better in post conflict situations, in structurally vulnerable countries (including those undergoing trade shocks), in politically stable regimes and in countries with good governance records, although there would appear to be diminishing returns to its impact on growth. Aid is also associated with increased public expenditures, including those which are pro-poor, the fungibility problem notwithstanding.

Regarding aid allocations, they have been based on developmental criteria, although not to the extent than most observers from the development community would want. Donors are giving more emphasis to developmental criteria than previously, including selectivity in manners broadly consistent with Collier–Dollar model, although political factors constrain a fuller embracing of such criteria. There is evidence that biases favouring small countries persists, but little evidence that aid allocations are based on the specific criteria of governance, shocks and post-conflict scenarios.

What does this mean for poverty-efficient allocations? Two points are worth emphasizing. The first is an obvious one and concerns bilateral development assistance programs: donor governments need to continue their efforts to base aid more on developmental criteria and less on political self-interests. This is not as great a task as some might assume, given that most have pursued the former criteria for longer and to a greater degree than commonly asserted. The second concerns the channels through which aid contributes to poverty reduction. It must be recognized that aid can reduce poverty through its impact on growth, but that its effectiveness in promoting growth varies according to a range of factors. It must also be recognized that aid can reduce poverty through other channels. A channel, for which there is empirical support based on the literature identified above, is aid's impact on pro-poor public expenditure (there will of course be others).

Thus there appears to be a reasonable case for augmenting and extending the Collier–Dollar selectivity model, just as the Burnside–Dollar growth model has been augmented in analyzing aid and growth. Donors are well positioned to do this, and to some extent have begun to do so through their own allocation initiatives. The essence of the augmentation would appear to be relatively straightforward and emanates directly from

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12 For results on aid and governance and aid and corruption, Svensson (1999) and Alesina and Weder (2002), respectively. Arvin (1998) and Arvin and Drewes (2001) investigate the large country bias, updating the findings of earlier studies such as Isenman (1976) and Dowling and Hiemenz (1985). Collier and Dehn (2001) and Collier and Hoeffler (2002) look at aid allocation and shocks and aid allocation and post conflict scenarios, respectively. Birdsall *et al.* (2002a) look at aid allocation among African countries and policy.

the findings of the aid–growth studies discussed above. Aid should not only be allocated to countries with low per capita incomes and large numbers of people living in poverty and with good policies, but also to poor countries in post-conflict scenarios, to those which are structurally vulnerable, to those which have democratic and politically stable regimes, and those with broader good governance records. Based on the evidence discussed above, this should lead to a greater impact on growth and in turn poverty reduction. Indicators used in the above discussed studies provide the information on which such an allocation can be based.[13] Attaching weightings to these indicators, as is required in a selectivity formula, should in principal be based on scientific empirical research, however donors will in practice assign weightings based on field experience, anecdotal evidence, intuition and political considerations.

The extension to the Collier–Dollar selectivity approach is more fundamental. Based on the recognition that there are many other determinants of poverty, it would at minimum involve giving additional preference to those recipients who can translate aid into increased pro-poor public expenditure or, more simply, those governments with high levels of pro-poor expenditure on the assumption that the aid–pro-poor public expenditure elasticity is the same across all countries (Collier and Dollar adopt a similar assumption regarding an income-poverty reduction elasticity). A way of formally incorporating the relevant variables and parameters into the Collier–Dollar selectivity model would need to be found. In absence of this donors could simply add some indicator of pro-poor expenditure to a more general selectivity formula.

There is, however, the issue of diminishing returns to aid, presumably resulting from limited aid absorptive capacities. This is a potentially serious issue if selectivity results in significantly increased aid to individual countries. A potential solution to this problem is also a suggested solution to a possible consequence of basing aid allocation on policy regimes, that being the denial of aid per se to countries with bad policies, and possibly with high poverty incidence. Suggested by Collier (2002), it involves by-passing recipient country governments and allocating aid via in-country 'independent service authorities' (ISAs), which could include NGOs. This could be done with countries with policies so bad that aid will be ineffective in any developmental sense, but with other countries at levels of aid where diminishing returns are thought to set in. Not only could this see aid being allocated to, and poverty being reduced in, countries with bad policies, but it could also relax possible absorptive capacity constraints. More generally, it would seem reasonable to assume that a broadening of the selectivity concept, and allocating aid in non-traditional manners, such as through ISAs would see more aid go to the very poorest countries. This would garner broader support for a policy of selectivity among donors and the international development community in general.

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[13] Kaufman and Kraay (2002), Kraay (2002), Birdsall *et al.* (2002b), DFID (2003) and IDA (2001), among many other sources, provide a range of additional indicators and discussions of their use.

References

Alesina, A. and D. Dollar (2000), 'Who Gives Foreign Aid to Whom and Why?' *Journal of Economic Growth*, 5, 1: 33–63.

Alesina, A. and B. Weder (2002), 'Do Corrupt Governments Receive Less Foreign Aid?', *American Economic Review*, 92, 4: 1,126–37.

Arvin, B. M. and T. Drewes (2001), 'Are there Biases in German Bilateral Aid Allocations?' *Applied Economics Letters*, 8: 173–7.

Arvin, M. (1998), 'Biases in the Allocation of Canadian Official Development Assistance', *Applied Economics Letters*, 5: 773–5.

Berthelemy, J. C. and A. Tichit (2002), 'Econometric Explanation of Bilateral Donor Aid Allocation Decisions', paper presented at UNU/WIDER Project Meeting on the Sustainability of External Development Financing, August, UNU/WIDER, Helsinki.

Beynon, J. (2001), 'Policy Implications for Aid Allocations of Recent Research on Aid Effectiveness and Selectivity', paper presented at the Joint Development Centre/DAC Experts Seminar on Aid Effectiveness, Selectivity and Poor Performers, January, OECD, Paris.

Beynon, J. (2002), 'Policy Implications for Aid Allocations of Recent Research on Aid Effectiveness and Selectivity', in B. Mak Arvin (ed.), *New Perspectives on Foreign Aid and Economic Development*, Praeger, Westport.

Birdsall, N., S. Claessens and I. Diwan (2002a), *Policy Selectivity Forgone: Debt and Donor Behaviour in Africa*, Centre for Global Development Working Paper No. 17, Centre for Global Development, Washington DC.

Birdsall, N., R. Levine, S. Lucas and S. Shah (2002b), 'On Eligibility Criteria for the Millennium Challenge Account', mimeo, Centre for Global Development, Washington DC.

Burnside, C. and D. Dollar (1997), *Aid, Policies and Growth*, Policy Research Working Paper No. 1777, World Bank, Washington DC.

Burnside, C. and D. Dollar (2000), 'Aid, Policies and Growth', *American Economic Review*, 90, 4: 847–68.

Chauvet, L. and P. Guillaumont (2002), 'Aid and Growth Revisited: Policy, Economic Vulnerability and Political Instability', paper present at the Annual Bank Conference or Development Economics on Towards Pro-poor Policies, June, Oslo.

Clemens, M. and S. Radelet (2003), *The Millennium Challenge Account: How Much is too Much, How Long is Long Enough?* Centre for Global Development Working Paper No. 23, Centre for Global Development, Washington DC.

Collier, P. (1999), 'On the Economic Consequences of Civil War', *Oxford Economic Papers*, 51: 168–83.

Collier, P., J. Gunning and Associates (1999), *Trade Shocks in Developing Countries*, Oxford University Press, Oxford.

Collier, P. (2002), *Making Aid Smart: Institutional Incentives Facing Donor Organizations and their Implications for Aid Effectiveness,* Forum Series on the Roles of Institutions in Promoting Growth, USAID and IRIS, Washington DC.

Collier, P. and J. Dehn (2001), *Aid, Shocks, and Growth*, World Bank Policy Research Working Paper No. 2688, World Bank, Washington DC.

Collier, P. and D. Dollar (2002), 'Aid Allocation and Poverty Reduction', *European Economic Review*, 26: 1,475–1,500.

Collier, P. and A. Hoeffler (2002), *Aid, Policy, and Growth in Post-Conflict Societies*, Policy Research Working Paper No. 2902, World Bank, Washington DC.

Dalgaard, C. and H. Hansen (2001), 'On Aid, Growth and Good Policies', *Journal of Development Studies*, 37, 6: 17–35.

Dalgaard, C., H. Hansen and F. Tarp (2002), *On the Empirics of Foreign Aid and Growth*, CREDIT Research Paper, Centre for Research in Economic Development and International Trade, University of Nottingham, Nottingham.

Dehn, J (2000), *Commodity Price Uncertainty in Developing Countries*, World Bank Policy Research Working Paper No. 2426, World Bank, Washington DC.

Dehn, J. (2001), 'Commodity Price Uncertainty and Shocks: Implications for Economic Growth', paper presented at Royal Economic Society Annual Conference, April, University of Durham.

DFID (2002), 'Results of the Survey of Bilateral Donors', mimeo, Department for International Development, London.

DFID (2003), *Strategic Review of Resource Allocation Priorities*, Department for International Development Discussion Paper, DFID, London.

Dowling, J. M. and V. Hiemenz (1985), 'Biases in the Allocation of Foreign Aid: Some New Evidence', *World Development*, 3, 6: 535–41.

Droeze, F. H. (2002), 'Selectivity and Allocation Policies for Dutch Bilateral Aid', mimeo, Policy Planning Unit, Ministry of Foreign Affairs, Government of the Netherlands.

Feeny, S. and M. McGillivray (2002a), 'An Inter-temporal Model of Aid Allocation to Papua New Guinea', in B. Mak Arvin (ed.), *New Perspectives on Foreign Aid and Economic Development*, Praeger, Westport.

Feeny, S. and M. McGillivray (2002b), *Modelling Inter-temporal Aid Allocation*, CREDIT Research Paper No. 02/10, Centre for Research in Economic Development and International Trade, University of Nottingham, Nottingham.

Feyzioglu, T., V. Swaroop and M. Zhu (1998), 'A Panel Data Analysis of the Fungibility of Foreign Aid', *World Bank Economic Review*, 12, 1: 29–58.

Franco-Rodriguez, S., M. McGillivray and O. Morrissey (1998), 'Aid and the Public Sector in Pakistan: Evidence with Endogenous Aid', *World Development*, 26: 1,241–50.

Gomanee, K., S. Girma and O. Morrissey (2002a), *Aid and Growth in Sub-Saharan Africa: Accounting for Transmission Mechanisms*, CREDIT Research Paper 02/05,

Centre for Research in Economic Development and International Trade, University of Nottingham, Nottingham.

Gomanee, K., O. Morrissey, P. Mosley and A. Verschoor (2002b), 'Aid, Pro-poor Government Expenditure and Welfare', mimeo, University of Nottingham, Nottingham.

Gomanee, K, S. Girma and O. Morrissey (2003), 'Searching for Aid Threshold Effects: Aid, Growth and the Welfare of the Poor', mimeo, University of Nottingham, Nottingham.

Gounder, R. (1994), 'Empirical Results of Aid Motivations: Australia's Bilateral Aid Program', *World Development*, 22, 1: 99–113.

Gounder, R. (1999), 'Modelling of Aid Motivation Using Time Series Data: The Case of Papua New Guinea', *Oxford Development Studies*, 27, 2: 233–50.

Gounder, R. (2001), 'Aid–Growth Nexus: Empirical Evidence from Fiji', *Applied Economics*, 33: 1,009–19.

Gounder, R. (2002), 'Empirical Evidence of the Relationship between Foreign Aid and Economic Growth: The Case of the Solomon Islands', in B. Mak Arvin (ed.), *New Perspectives on Foreign Aid and Economic Development*, Praeger, Westport.

Gounder, R. and K. Sen (1999), 'What Motivates Foreign Aid: A Case Study of Australia's Aid to Indonesia', *Journal of Developing Areas*, 33: 379–94.

Guillaumont, P. and L. Chauvet (2001), 'Aid and Performance: A Reassessment', *Journal of Development Studies*, 37, 6: 66–87.

Hansen, H. and F. Tarp (2000a), 'Aid Effectiveness Disputed', *Journal of International Development*, 12: 375–98.

Hansen, H. and F. Tarp (2000b), 'Aid and Growth Regressions', *Journal of Development Economics*, 64: 547–70.

Heller, P. and S. Gupta (2002), 'More Aid – Making it Work for the Poor', *World Economics*, 3, 4: 131–46.

Hudson, J. and P. Mosley (2001), 'Aid, Policies and Growth: In Search of the Holy Grail', *Journal of International Development*, 13: 1,023–38.

IDA (2001), *Adapting IDA's Performance-based Allocations to Post-conflict Countries*, IDA Technical Paper, International Development Association, Washington DC.

Isenman, P. (1976), 'Biases in Aid Allocations Against Poorer and Larger Countries', *World Development*, 4, 8: 631–41.

Kaufman, D. and A. Kraay (2002), 'Governance Indicators, Aid Allocation and the Millennium Challenge Account', mimeo, World Bank, Washington DC.

Kraay, A (2002), *Growth without Governance*, Policy Research Working Paper No. 2928, World Bank, Washington DC.

Kosack, S. (2003), 'Effective Aid: How Democracy Allows Development Aid to Improve the Quality of Life', *World Development*, 31, 1: 1–22.

Lensink, R. and O. Morrissey (2000), 'Aid Instability as a Measure of Uncertainty and the Positive Impact of Aid on Growth', *Journal of Development Studies*, 36, 3: 31–49.

Lensink, R. and H. White (2001), 'Are There Negative Returns to Aid?' *Journal of Development Studies*, 37, 6: 42–64.

Lu, S. and R. Ram (2001), 'Foreign Aid, Government Policies and Economic Growth: Further Evidence from Cross-country Panel Data for 1970 to 1993', *International Economics*, 54: 15–29.

Maizels, A. and M. K. Nissanke (1984), 'Motivations for Aid to Developing Countries', *World Development*, 12, 9: 879–900.

Mavrotas, G. (2002), 'Foreign Aid and Fiscal Response: Does Aid Disaggregation Matter?' *Weltwirtschaftliches Archiv*, 138, 3: 534–59.

McGillivray, M (2000), 'Aid and Public Sector Fiscal Behaviour in Developing Countries', *Review of Development Economics*, 4, 2: 156–163.

McGillivray, M. (2002), 'Modelling Aid Allocation', mimeo, World Institute for Development Economics Research, Helsinki.

McGillivray, M. and A. Ahmed (1999), 'Aid, Adjustment and the Public Sector in the Philippines', *Journal of the Asia-Pacific Economy,* 4, 2: 381–91.

McGillivray, M and O. Morrissey (2001a), *New of Evidence of the Fiscal Effects of Aid*, CREDIT Research Paper No. 01/13, Centre for Research in Economic Development and International Trade, University of Nottingham, Nottingham.

McGillivray, M. and O. Morrissey (2001b), 'Aid Illusion and Public Sector Fiscal Behaviour', *Journal of Development Studies*, 37, 6: 118–136.

McGillivray, M. and E. Oczkowski (1991), 'Modelling the Allocation of Australian Bilateral Aid: A Two-part Sample Selection Approach', *Economic Record*, 67, 197 (June): 147–152.

McGillivray, M. and E. Oczkowski (1992), 'A Two-part Sample Selection Model of British Bilateral Aid Allocation', *Applied Economics*, 24: 1,311–19.

McGillivray, M. and H. White (1993), *Explanatory Studies of Aid Allocation Among Developing Countries: A Critical Survey*, Institute of Social Studies Working Paper No. 148, ISS, The Hague.

McKinlay, R. D. and R. Little (1977), 'A Foreign Policy Model of US Bilateral Aid Allocation', *World Politics*, 30, 1: 58–86.

McKinlay, R. D. and R. Little (1978a), 'The French Aid Relationship: A Foreign Policy Model of the Distribution of French Bilateral Aid, 1964-70', *Development and Change*, 9: 459–78.

McKinlay, R. D. and R. Little (1978b), 'A Foreign-Policy Model of the Distribution of British Bilateral Aid, 1960-70', *British Journal of Political Science*, 8: 313–32.

McKinlay, R. D. and R. Little (1979), 'The US Aid Relationship: A Test of the Recipient Need and the Donor Interest Models', *Political Studies*, XXVII, 2: 236–50.

Morrissey, O. (2002), 'Aid Effectiveness for Growth and Development', *ODI Opinions*, February.

Radelet, S. (2002), 'Quantifying the Millennium Development Account', mimeo, Centre for Global Development, Washington DC.

Robinson, S. and F. Tarp (2000), 'Foreign Aid and Development: Summary and Synthesis', in F. Tarp and P. Hjertholm (eds), *Foreign Aid and Development: Lessons Learnt and Directions for the Future*, Routledge, London and New York.

Svensson, J. (1999), 'Aid, Growth and Democracy', *Economics and Politics*, 11, 3: 275–97.

Swaroop, V., S. Jha and A. Rajkumar (2000), 'Fiscal Effects of Foreign Aid in a Federal System of Governance: The Case of India', *Journal of Public Economics*, 77: 307–30.

Tarp, F., Bach, C. F., Hansen, H. and S. Baunsgaard (1999), 'Danish Aid Policy: Theory and Empirical Evidence', in K. L. Gupta (ed.), *Foreign Aid: New Perspectives*, Kluwer, Boston MA.

Tirole, J. (1992), 'Persistence of Corruption', Institute of Policy Reform Working Paper No. 55, Institute of Policy Reform, Washington DC.

Trumball, W. N. and H. J. Wall (1994), 'Estimating Aid-Allocation Criteria with Panel Data', *The Economic Journal*, 104: 876–82.

Wall, H. J. (1995), 'The Allocation of Official Development Assistance', *Journal of Policy Modeling*, 13, 3: 307–14.