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Towards Optimality**

Haider A. Khan
University of Tokyo

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Governance and Effectiveness of Japanese Aid: Towards Optimality

Haider A. Khan
GSIS
University of Denver
Denver, Co. 80208
hkhan@du.edu

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Abstract:

In this paper I have tried to pursue two related objectives. First, I have tried to gauge the impact of Japanese aid on South and Southeast Asia. My second objective in this paper is to offer an approach to relate governance and aid-effectiveness that could be applied to the aid and macroeconomic time-series data from the region. Using a bounded rationality format presented in a model that allows to progress towards optimality over time invites thinking along the lines of inductive learning to improve both governance and aid-effectiveness. Although Japan comes out ahead of many western donors, particularly, large ones such as the US and UK, there is still much room for improving aid-effectiveness. Both model-based and qualitative interview-based investigations in this paper point to donor and recipient policies that can be geared towards improving democratic governance, openness and grassroots empowerment in order to promote further aid-effectiveness.

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1. Introduction:

The purpose of this paper is to examine the macroeconomic impact of Japanese foreign aid on some South and Southeast Asian countries. This will be done not just for the sake of understanding the general connection between foreign aid and economic development in Southeast Asia, though this is one of the goals. More important, however, is the goal of learning something about the donor policies, allocation of aid by the recipient governments, and some of the institutional factors, in particular governance, related to the macroeconomics of aid so that other recipients can benefit from the experience of the South and Southeast Asian economies. The Southeast Asian economies chosen for this purpose are Malaysia, Indonesia and Thailand (the MIT economies from hereon)¹. The MIT economies have been among the most rapidly growing parts of what a widely cited World Bank Study has called “the East Asian Miracle”. Until the financial crisis of 1997 these economies were very much the vanguard of Asia’s economic march to prosperity.

A combination of factors are often cited for explaining the dramatic transformation of the “miracle” economies of Asia. These factors include openness to foreign trade, high savings rates, stable macroeconomic policies, high literacy rates and favorable demographic characteristics. One might also wish to include an institutional structure — certainly far from perfect as the financial crises in these countries have shown — which was flexible enough to mobilize domestic resources and to utilize available foreign resources, including development assistance for promoting economic growth.

The South Asian country experiences on which the paper is also based are India and Bangladesh. I will not discuss the cases individually or exhaustively since individual country studies exist and are cited in the reference section. My focus will be in describing the common model and the methodology on which the interpretation of the governance aspects is based in particular.

Japan’s role in recent overseas development assistance has been quite significant. Most of the increase in Japanese aid came in late 80’s. Between 1975 and 1989, the amount of ODA increased eight-fold in dollar terms. During the 1990s also Japan continued as a major donor in spite of domestic economic slowdown. For example, in 1998, Japan’s total ODA was still US\$ 10.731 billion approximately. In 1999, according to the OECD statistics the aid flow from Japan increased to 15.32 billion dollars---an increase of 44 percent.. At 1998 constant prices this amounted to 13.45 billion dollars---still an increase of 26.4 per cent in real terms.²

In 2002, Japan’s net ODA volume of USD 9.3 billion was still the second largest among the DAC countries. In 2001, Japan conceded its status as the largest bilateral donor to the

¹ I will not discuss each and every country, however. Individual country studies are cited among the references.

² OECD(2001): <http://www.oecd.org/dac/htm/agjpn.htm>

United States, a position it had held for a decade. However, Japan's ODA/GNP ratio turned out to be only 0.23%. The continuing recession clearly had a role to play in the gradually declining trend of ODA funds. At the 2002 Monterrey Conference, Japan was one of the few DAC members which was unable to commit to maintain or increase ODA. As the loan repayments from developing countries keep increasing, Japan's the ODA budget may have to increase in order to retain current levels of net flows

Even as the quantitative dominance in aid giving underwent some decline, Japan's development co-operation program has also undergone major reforms and significant restructuring. Japan's Official Development Assistance (ODA) Charter was revised to reflect changed domestic and international circumstances. In addition, the legal status of the Japan International Cooperation Agency (JICA) was changed in 2003 to make JICA more autonomous. The former Overseas Economic Cooperation Fund (OECF) and the Export-Import Bank of Japan (JEXIM) merged into the Japan Bank for International Cooperation (JBIC) in 1999. Also, the Ministry of Foreign Affairs (MOFA) has become the *de jure* co-ordinating body for the diverse implementing institutions of ODA. In the international arena, Japan has played a leading role in fostering new initiatives and in hosting major conferences on development issues

Much of Japanese aid has historically been directed to Asia³. As Yanagihara and Emig have pointed out:

This feature reflects not only geographic proximity, but also close historical, cultural, and economic relations, as well as Tokyo's recognition of Asia as its logical sphere of responsibility in global burden-sharing.⁴

Given the importance of Japanese aid overall, but especially in Asia, it is appropriate to ask how effective aid has been so far. The purpose of this paper is to examine the question of Japanese aid effectiveness in a limited geographical context, namely for parts of South and Southeast Asia. Companion papers in the same volume will look at other regions and sub-regions within Asia and elsewhere in the world. In this paper, I will review the available evidence at the macroeconomic level to ascertain to what extent Japanese aid has promoted development-related expenditures and projects in the South and Southeast Asian regions. Sections 2 and 3 will be devoted to these tasks. Some specific policy questions posed for this project in particular, will be addressed in section 4.

Since estimating the effectiveness of aid is a complex econometric exercise when done in a rigorous way, it seems best to motivate the discussion of this paper by using a hypothetical example.⁵ The example is constructed in two stages.

³ In 1998, Asia received US\$5,372.03 millions or slightly more than 50 per cent of the total aid disbursement by Japan. See Japan's ODA, Annual Report, 1999. http://www.mofa.go.jp/policy/oda/summary/1999/d_g2_01.html

⁴ Shafiqul Islam (ed.), *Yen for Development*, New York, Council on Foreign Relations Press, 1991.

⁵ For econometric work on some countries in these regions see Gang and Khan (1991, 1992) Khan (1994; 1995a, b, c; Khan 1997; forthcoming) and Khan and Hoshino (1992). The appendix contains a prototype model that can be used for future work in evaluating the effectiveness of Japanese aid.

- A. Suppose a country receives one million dollars in foreign aid. For the moment we do not question the source of aid. All we are concerned about is how this aid is to be spent by the government which receives it.

It might seem straightforward from the official budgetary documents in many LDC's that aid is spent for what economists call development expenditures -- for roads, education, health and, in some cases, plant and equipment. However, many studies have questioned this assumption. The type of policymaker becomes important. A developmentalist policymaker may allocate to development expenditures most of the \$1 million received, allowance being made for institutional rigidities, uncertainty and some human errors. However, what if the government is merely interested in bureaucratic expenditures? How much of the money will end up in the development budget?

These questions point to the need for distinguishing between developmental and statist policymakers. If we think about aid as a contribution to revenue in the budget there is in this case an increase of \$1 million in revenue. A fiscally conservative policymaker will not necessarily treat this as a windfall. On the other hand, a fiscally liberal (some might say irresponsible) policymaker may see this \$1 million as net gain on the revenue side. In this case domestic revenue raising efforts will be affected negatively.

- B. We now introduce a further complication. Aid may be given by bilateral or multilateral donors. In the first case, it may be another government, for instance, Japan. In the latter case, international organizations or a consortium of donors may be involved. The question to ask now is: given the type of policymaker, does the source of aid make any difference? How might public expenditures and revenues be affected?

One answer, of course, is that there is no difference. In this example, let us say that \$750,000 went to the development expenditures in A above. It might turn out that regardless of the source this is what happens in step B also. However, this is not the only possibility. Roughly speaking there are two other broad possibilities. Either bilateral aid leads to more development expenditures than does the multilateral aid or vice versa.

It is apparent now that we need a model that can distinguish both between types of policymakers and types of donors. We also need to do this in an institutional setting which is not too unrealistic. In this paper, I do not use such a model formally to evaluate aid effectiveness beyond the impact of aid on some crucial macroeconomic variables, but the criteria used conform to the general problem of aid-effectiveness from the point of view of promoting genuine human development. The appendix to this paper does contain a mathematical model formulated with the above requirements in mind in a bounded rationality setting. This has been and can be used further for the purpose of econometric assessment of the impact of Japanese(and other donors') aid. I will mention,

where appropriate, some results from a limited number of countries on which some work has been done so far.

In the next two sections I will briefly discuss the flow of Japanese aid to South and Southeast Asia respectively. Section 4 will be devoted to the question of aid effectiveness and further policy issues with the summary and conclusions following in section 5. Section 6 is an appendix that outlines a mathematical model for analyzing and estimating the effects of foreign aid.

2. Governance and Aid

Recent work at the World Bank and else where (Burnside and Dollar, 2004; Kaufmann et al., 2003) has focused on both general policy environment and some specific variables such as corruption in determining aid-effectiveness. In general, it seems both theoretically plausible and empirically confirmable that a sound policy environment will enhance aid-effectiveness. My approach is complementary to the macroeconomic policy environment research done in the mainly single equation econometric tradition. I offer a simultaneous equations framework within a general optimizing governance framework.⁶

The key insight of the existing work is that under a good macropolicy environment, aid promotes growth. I extend this to a broader hypothesis that under fiscally responsible regimes aid leads to relatively more development than nondevelopment expenditures. It is possible to test this hypothesis by identifying different macroeconomic governance regimes.

The overall framework of bureaucratic decision making is one of bounded rationality. An important aspect of policy making in the real world is the endemic uncertainty and institutional bounds to rational behavior. Departures from strict neoclassical utility maximization leads us to a bounded rationality framework. In this framework development and fiscal targets may not be known with certainty and are the outcomes of a complex negotiation process. The limiting case where development and fiscal targets may be known with certainty is a special case in our model. There is an optimizing process that in this case would coincide with perfect specification of targets and no negotiation costs.

Consider, however, the more general decision-making process of boundedly rational policy-makers who consider *ex ante* in their budgetary planning certain indicators of the "proper" level of (planned) expenditures and revenues. Although these levels are treated as targets *ex ante* the assumption of an asymmetric loss function implies that these are not necessarily the utility maximizing values. In fact, the policy-makers possess a loss function in which they try to minimize upward and downward deviations which are weighted differently. The indicator levels from which such deviations are measured can be thought of as outcomes of bureaucratic negotiations within the state and between the recipient and the donors.

⁶ The details of the model are explained in the appendix.

It is important to use an explicitly asymmetric loss function because policy-makers may weigh the overshooting and the undershooting of these indicator levels differently. For some policy-makers the under-achievement of some indicators may be more significant than overshooting. For others the opposite may be the case.

By this theoretical and modeling strategy, it is possible to estimate the marginal impact of aid on budgetary expenditure and revenue categories. Earlier works such as Heller (1975), Mosley, Hudson and Horrell (1989), Gang and Khan (1991), and Khan and Hoshino (1992) employed linear-quadratic or quadratic representations of the objective function. But recent work uses an objective function that can have with higher degrees of both non-linearity and asymmetry both theoretically and in empirical applications.

A version of the model describes how foreign aid influences the recipient's expenditure and revenue-raising behavior. In meeting pre-assigned values of indicator levels of expenditures and receipts the decision-makers respond in a predictable manner to any flows of aid from abroad.

The model takes into account the potential effect of aid on development and non-development expenditures. The former type of expenditures include the public sector's contribution to capital formation. Human as well as non-human capital are included. A third component of development expenditures is the government's contribution to **social** and **economic** services, e.g. expenditure on health and general welfare. Non-development expenditures are the expenditures on state administration. These two types of government expenditures are financed by internal and external means. Domestic revenues include taxes, public enterprise surpluses and borrowing. External assistance comes in the form of bilateral and multilateral aid.

Much of the literature on the macroeconomic effects of foreign assistance focuses on aid's effect on economic growth. My modeling approach is to analyze the impact of aid on public sector variables. Since aid funds pass through policy-maker's hand prior to reaching their destination, understanding where these funds are allocated by policy-makers is a prerequisite to understanding the long-term effects of aid. The distinction made here is between current development and current non-development expenditures. As a rule, the former will contribute to the long run health of the economy while the latter will not.⁷ The full model is described in appendix 1. Structural equations derived from policy makers' alternative preferences are also given there.

The purpose of this model is to determine (a) what effect aid has on the development efforts and fiscal behavior of the recipient; and (b) to what extent the type

⁷ Obviously, there can be some complementarity between development and nondevelopment expenditures. For example, within provisions of an infrastructure, legal and other kinds of services and certain types of regulatory environment for "normal" business activities the directly productive investment could be very productive.

of donor makes a difference. In determining the effect of aid ([a] above) the type of policymaker in the recipient country turns out to be crucial. Some illustrative empirical results are described in section 5.

Another way to discuss the relevance of good policies and governance is to emphasize that complementarities to foreign aid are crucial for the proper utilization of aid. In an earlier study, I emphasized this relation by calling these FACE or foreign aid complementarity elements. These elements may indeed turn out to be crucial in determining aid-effectiveness. Therefore we need to spell out what FACE may entail.

First of all we can divide the components of FACE into two further sub-categories; namely, institutional and policy-induced. Among the former are the institutional structures, capacities, and practices at the political-administrative, economic and civil society levels. In MIT and the South Asian economies generally these institutional aspects were not as strong as in the case of East Asia. Yet they were definitely present. The state, while not autonomous, had periods of strength. Malaysia had the strongest state capacity. Indonesia and Thailand had considerably less capacity. It is not surprising, in retrospect, that the last two – particularly Indonesia – became readily vulnerable to not only financial crisis but in social and political crisis as the aftermath of the financial crisis. Although civil societies remain weak in the MIT economies, there is a minimal structure of indigenous organizations complemented by some NGOs.

The contrast with the South Asian economies is also revealing. In the late sixties and early seventies most South Asian economies probably had a relatively more effective administrative structure than did the Southeast Asian economies, with the exception of Hong Kong. However, their period of rapid growth and modest---with the exception of Singapore--- administrative reforms neatly coincided so that the governance factor is more or less equal today. This is far from saying that the South Asian economies and the Southeast Asian economies do not need further reforms. Quite the opposite is implied. However, the claim that policy-induced reforms are both necessary and ---within limits--- possible, gets some support from the historical experience of the Southeast Asian economies in particular.

Therefore, the second, policy-induced part of FACE is equally important. In fact, a broader consideration of policy-induced part of FACE is warranted. Policies of export-led development have been significant if not instrumental in mobilizing foreign aid for investment purposes. The presence of foreign direct investment invited by opening the economy at least partially may also have influenced the channeling of aid to investment. Finally, creation of human capital through health and education policies also played a role in MIT economies, but much less so than in South Asia or even East Asia. Of course, this only underscores the importance of these policies for creating proper conditions for utilizing foreign aid.

The governance element in the macroeconomic context is the stock of institutions of governance--- executive, legislative and judiciary---including the crucial human and social capital components. The model-based exercise captures the quality of governance indirectly via the policy maker type within the state. A more direct approach based on direct measures of governance is also possible. Hence, my claim that my approach is complementary to the direct approach which, however, has not tried to capture the interdependencies among the governance and other aspects of aid. At the aggregate macrolevel my approach directs attention to these interdependencies in an optimizing framework that leads to a systems approach captured formally in this particular formulation by a set of simultaneous equations.

At a more detailed microlevel the quality of specific institutions need to be measured. Other than a few comments on the interactions between Japanese aid administration and the recipient government officials at various levels based on qualitative information gathered through discussions and interviews , I do not attempt to discuss these issues here. I now turn to a discussion of Japanese Aid to South and Southeast Asia.

3. Japanese Aid to South Asia:

According to the Asian Development Bank, the economic region South Asia comprises of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. Together these countries received almost 1.5 billion dollars in 1998. This amounted to about 14 percent of the total aid disbursed by Japan for that year.

There is wide variation in total aid received in absolute terms among the various recipients. In 1998, the range was from a low of 8.47 million dollars for Bhutan to a high of 504.95 million dollars to India. Generally, the size of aid varied consistently and almost proportionately with the size of the recipient country's economy. However, Pakistan, which has an economy much smaller than that of India, received almost an equal amount of aid in 1998--- 491.54 million dollars. Historically, Pakistan and India have been the two largest recipient countries, followed by Sri Lanka and Bangladesh as the countries that shared distant 3rd and 4th places between them. Small economies such as Bhutan or Maldives have historically received smaller amounts, but almost all of the aid has been as grants.

A fraction of Japan's aid to this region has come as technical cooperation grants. However, historically, the amounts have been quite modest. In 1998, for example, the total for the region as a whole was only 110.05 million dollars. This amounted to just over seven per cent of the total Japanese aid received in the region. Even large countries like India and Pakistan consistently received very little in the way of technical cooperation grants. For example, India received only 20.51 million dollars or only four per cent of the total aid received from Japan, as technical cooperation grants in 1998. Bangladesh was the country that received the largest amount in this category; but even so, the actual amount was only 22.83 million dollars.

Before discussing the effectiveness of various categories of aid for this region, a comparison with Southeast Asia will be useful. It is to this task that I now turn.

4. Japanese Aid to Southeast Asia:

Southeast Asia as a region received more aid than did South Asia in 1998. This also confirms a historical trend going back to the 1970s. In 1998, the total Japanese aid for the region was 2,437.66 million dollars--- higher by about one billion dollars than the aid flow to South Asia during the same year.

One Southeast Asian country, Indonesia was listed as the top Japanese aid recipient for 1999 by OECD sources. The total was 1,749 million dollars. Another Southeast Asian country, Thailand ranked third after China, with a received aid flow of 953 million dollars in 1999. For the same year, Philippines and Viet Nam were the 5th and 6th largest aid recipients respectively. Finally, another Southeast Asian country, Malaysia took the 10th place with 235 million dollars received in 1999. Thus, 5 countries in the region were among the top ten recipients of Japanese aid. This region has consistently been the major beneficiary from Japanese aid. Other than the entry of PRC in the list of major recipients nothing has happened to stem the flow.

Technical cooperation grants have also been higher for this region than those for South Asia. The total amount in 1998 was more than half a billion dollars or over twenty per cent of the total. This compares favorably both absolutely and relatively with the corresponding figures for South Asia mentioned previously. Even small economies such as Laos or Cambodia received technical assistance grants that are comparable to those received by large South Asian recipients such as India or Bangladesh. In 1998 Cambodia received a total aid flow of 81.4 million dollars of which 23.05 million dollars came as technical assistance. For the same year, Laos received 20.9 million dollars in technical assistance grants out of a total amount of 85.57 million dollars of Japanese aid to that country.

Larger recipients like Indonesia and Thailand have routinely received technical assistance from Japan between 100 and 200 million dollars a year during the 1990s. For example, Indonesia received 203.67 million dollars in 1995. Thailand received 147.46 million dollars during the same year. Even wealthy countries such as Brunei and Singapore received technical assistance grants from Japan in the 1990s, albeit for much smaller sums. Among the developing countries in the region only Myanmar received very small amount of aid and technical assistance relative to its needs.

Thus, Southeast Asia, along with China, has been clearly Japan's favorite region for channeling aid flows. Even with the recent changes, it still remains one of Japan's favorite region for aid disbursements. Therefore, to a large extent, the overall historical effectiveness of total aid from Japan depends on whether aid has been effective in Southeast Asia. I now turn to an assessment of the effectiveness of Japanese aid.

5. Effects of Japanese Aid and Some Policy Issues:

In the late 1990s Japan announced a new approach to aid management, based on transparency and efficiency. Given this basic shift in aid philosophy, it is even more important now to assess the impact of the aid carefully. Ideally, a country by country, sector by sector and project by project study should be done, based on a uniform

methodology. That ideal is not achievable at present, at least not in this paper. In what follows I report in detail the results from the macroeconomic impacts of Japanese vs. other donors' aid in two country studies I have done independently--- Bangladesh from South Asia and Indonesia from Southeast Asia. I also try to answer as many of the following questions related to Japanese aid policy, relying on my formally rigorous academic studies, experience as an economist at the Asian Development Bank, and consultant to various development organizations and Asian governments. These issues are whether Japanese aid

- attaches central importance to promoting the self-help efforts of developing countries;
- focuses on building economic infrastructure;
- emphasizes technology transfer in technical cooperation;
- request-based aid procedure ensures non-intervention in domestic political matters;
- ODA schemes and formulas are diverse enough;
- the decision-making system is overly centralized in Tokyo;
- the decision-making process is drawn out in order to build consensus among stakeholders;

I will also try to ascertain

- the desirability of having Japanese government ministries select technical experts for overseas aid assignments;
- the effectiveness of emphasizing on-the-job-training (OJT) in technology transfer strategies;
- the degree to which project-based technical assistance is donor driven in the following respects: identification; design; implementation and monitoring; and substantive areas of assistance;
- the merits and actual policy emphasis on various types of technical cooperation such as project vs. program formulas;
- the merits and actual policy emphasis on such efforts as the promotion of technology substitution, technology transfer, and institution building;
- the quality and appropriateness of technical experts;
- the quality and appropriateness of training techniques;

The Macroeconomic Impact: development vs. non-development expenditures--- results from an econometric model:

The model is formally set out in the appendix. Roughly, it describes the behavior of policymakers given their own type (e.g., whether they are developmentalist or not) and determines how much of the aid from various sources goes to either development or non-development expenditures. There are eight possible policy maker types depending on whether they are statist or not, whether they are developmentalist or not, and whether they are fiscally responsible or not.

The model takes into account the potential effect of aid on development and non-development expenditures. The former type of expenditures include the public sector's contribution to capital formation. Human as well as non-human capital are included. A third component of development expenditures is the government's contribution to **social** and **economic** services, e.g. expenditure on health and general welfare. Non-development expenditures are the expenditures on state administration. These two types of government expenditures are financed by internal and external means. Domestic revenues include taxes, public enterprise surpluses and borrowing. External assistance comes in the form of Japanese bilateral and other aid.

5a: Results from Bangladesh:

For the period, 1980 to 1999, Bangladesh received aid from both Japanese and other bilateral and multilateral sources. The model results show that on the whole Japanese bilateral aid was somewhat more effective in generating developmental expenditures than other aid.

Indeed, it is striking that for both developmentalist and non-developmental types of policymakers Japanese bilateral aid seems to have had a greater impact than other aid in almost every case of development expenditures. It is also interesting that in the presence of Japanese aid approximately 25 to 31 percent of this aid goes to development expenditure on the margin *if the policymaker is non-developmental*. On the other hand, the corresponding percentage of aid going to development expenditures, if the policymaker is *developmentalist*, is between 51 and 64 percent. Thus, it would be appropriate to conclude that in terms of influencing development expenditures in Bangladesh, success for Japanese bilateral aid depends on the type of the policymakers in Bangladesh; however, regardless of which type made policy in the last two decades, Japanese aid fared better than the non-Japanese aid. In addition to revealing the influence of Japanese aid, the results also indicate that the type of the policymaker really can make a difference. The type of the policymaker also makes a difference in terms of financing development expenditures out of domestic revenue. For a non-developmental policymaker, rather dismally, the model implies that between 78 and 85 percent of domestic revenues may go to non-development expenditures in the presence of aid in Bangladesh development purposes.

What kind of policymakers did make the decisions in Bangladesh regarding development? This is a particularly fascinating question, but is hard to answer in a definitive fashion. Within the context of the model, the "best guess" one can make must use a great deal of reliable institutional history. On the whole, however, a picture of at least partial(but far from total) commitment to genuine development objectives emerges.⁸

It is also possible to offer some econometric evidence to corroborate the above characterization. *Akaike information criterion* or AIC is a model selection criterion that can be applied to any model that can be estimated by the maximum likelihood method. One simply minimizes $(2\text{Log}L)/n + 2k/n$ where k =the number of parameters in the likelihood function L and n is the number of observations. Particularly for a non-linear model the AIC is a convenient econometric discriminator among different model specifications. It would seem that by this criterion, during the period of observation statist concerns dominated the real fiscal agenda in Bangladesh. This too, seems to be consistent with the institutional studies and my own informal observations.

If the **presence** of aid pulls some money out of the domestic revenue to non-development purposes we have to be cautious about its overall effects. Only if the substitution effect is not too high (i.e. aid does not replace completely development expenditures that would have been financed out of domestic revenues) will there be an incremental effect of aid on development expenditures. Under this scenario also, Japanese bilateral aid turned out to be relatively more effective.

5b: Results from Indonesia---development vs. non-development expenditures:

Just like in Bangladesh, it is striking that for both developmentalist and non-developmental types of policymakers, Japanese bilateral aid seems to have had a greater impact than the rest of the world aid in on development expenditures types. In the presence of Japanese aid, approximately 26 to 39 percent of this aid goes to development expenditure on the margin *if the policymaker is non-developmental*. On the other hand, the corresponding percentage of aid going to development expenditures is between 67 and 53 percent *if the policymaker is developmentalist*.

What kind of policymakers did make the decisions in Indonesia regarding development? This is a particularly fascinating question, but again is hard to answer in a definitive fashion. The "best guess" one can make must use a great deal of reliable institutional history. In case of Indonesia this is largely unavailable. The books and articles written on this subject deal at best with particular episodes. On the whole, however, again, like Bangladesh, a picture of at least partial commitment to genuine development objective emerges. This is also consistent with my own visits to Indonesia

⁸ This is also consistent with my own visits to Bangladesh and extensive conversations with the Bangladeshi and other academics and development practitioners on the subject. Since I speak and read Bengali, it was easy for me to meet and talk with people from many different backgrounds.

and extensive investigations with the Indonesian and non-Indonesian academics and development practitioners on the subject.

As in the case of Bangladesh, here too, I am also able to offer some econometric evidence to corroborate the above characterization. It would seem that by the previously mentioned Akaike information criterion at least, in Indonesia both developmental and statist concerns dominated the real fiscal agenda during this period. This too, seems to be consistent with the institutional studies and my own informal observations.

5c: Some Institutional and Policy Issues:

Turning now to the questions raised at the beginning of this section, it is clear in light of the above, that rigorous answers would require further data gathering and econometric estimation. For example, TAs could be distinguished from other forms of Japanese aid for model formulation and estimation. In fact, this looms as a major future task. For the moment, one has to rely on institutional knowledge and expert opinion to address the questions raised earlier.

As far as promoting self-reliance is concerned, the results, as perceived by the policymakers in these two regions, seems to have been mixed. On the one hand, some technical projects, such as the capability for Input-Output matrix data generating for the BPS (Biro Pusat Statistik), Indonesian central statistical Bureau that was aided by IDE has been a success. On the other hand Indonesian experts express some misgivings about large scale, especially, infrastructural projects where technological learning may not be taking place rapidly enough.

Thus, while emphasis on infrastructural projects may be correct at the present stage of development in South and Southeast Asia, the transfer of technology and skills could be speeded up. Training of local personnel and use of local businesses and professionals whenever available will be an appropriate policy move.

As far as intervention in domestic policy formulation of the recipients and their domestic politics are concerned the Asian policymakers generally compare Japan favorably to the US. In their view, the US has a history of using aid for political purposes, whereas Japan uses it for economic and, increasingly in recent years, for humanitarian purposes. At the same time, smaller European countries such as the Netherlands and the Scandinavian countries are perceived as being the most fair donors.

In terms of diversity of aid schemes and formulas, the recipients express a perception of lack of transparency on the part of Japanese government. In Bangladesh, several NGO representatives expressed a desire to see greater allocation and involvement of Japanese aid to health, education and gender-related projects. Health-oriented efforts such as the *Shapla Neer* are greatly valued and appreciated. Environment is another area where there is a perceived need for greater funding than is currently the case.

The remarks heard about the lack of transparency also are echoed when the centralization of Japanese aid decision making procedure in Tokyo is mentioned. However, many South and Southeast Asian policymakers think that the other donors are also centralized and hamstrung by an aid bureaucracy that is largely unaware of recipient needs and unwilling to listen.

I will now also try to ascertain the following based on qualitative information gathered through discussions and interviews:

- the desirability of having Japanese government ministries select technical experts for overseas aid assignments;
- the effectiveness of emphasizing on-the-job-training (OJT) in technology transfer strategies;
- the degree to which project-based technical assistance is donor driven in the following respects: identification; design; implementation and monitoring; and substantive areas of assistance;
- the merits and actual policy emphasis on various types of technical cooperation such as project vs. program formulas;
- the merits and actual policy emphasis on such efforts as the promotion of technology substitution, technology transfer, and institution building;
- the quality and appropriateness of technical experts;
- the quality and appropriateness of training techniques

On all of the above issues there is a surprising amount of unanimity among the Bangladeshi and Indonesian policymakers and other aid constituencies. In particular, they all agree that much of Japanese aid is donor- driven , beginning with identification of projects and programs. In their view, the design, implementation and monitoring are also one-sided.

In terms of the quality and appropriateness of technical experts, these show wide variations. Over time, the quality has improved. Also, as Japanese universities and training institutes pay more attention to the training of development professionals and devise improved curricula, the sought-after quality-improvement seems to be taking place. Young Japanese who learn Asian languages and culture seem to be better appreciated and are probably more effective actually than are those with simply advanced academic training from western institutions without the cultural assets. While it is desirable to have these Japanese experts who have the requisite technical skills and cultural sensitivities, a sense of partnership with the local experts seems to be missing. The ideal should, therefore, be a mix of rigorous technical training and cross-cultural sensitivity geared towards building a permanent partnership in development.

Finally, I want to discuss the merits and actual policy emphasis on such efforts as the promotion of technology substitution, technology transfer, and institution building. Here, neither Japan nor any other donor gets high marks. At the same time, my own views, based on discussions in Asia, are that Japan, in spite of a history of aggression in Southeast Asia, is perceived as potentially more capable of accomplishing these goals than are the other donors. In South Asia, particularly, India and Bangladesh, there is

much goodwill among the policy elite and at the popular level for Japan. Although the political history is complex, there is a positive historical memory also based on such facts as the acknowledgement that Subhash Chandra Bose and the Indian National Army were supported by Japan in their sincere and self-sacrificing revolutionary war for independence against British imperialism. However, there is still a perception in China in particular that the Japanese government has not dealt with the war crimes in a satisfactory fashion; but this does not seem to be as sharply felt or as tenaciously held in Southeast Asia.

Culturally also, the links through Buddhism and other elements still find a warm echo in the hearts of the people in both South and Southeast Asia even after so many centuries. If Japan shows sincere commitment to transfer technology, help build institutions of popular participation, and a genuine interest in transferring skills in a credible way, it can easily establish itself as the most helpful donor in South and Southeast Asia. Moving in this direction indeed will be the more general move towards optimality as distinguished from the technical discussion and the formal move towards optimality within the bounded rationality model in the appendix.

6. Conclusions:

In this paper I have tried to pursue two related objectives:

First, I have tried to gauge the impact of Japanese aid on South and Southeast Asia. Clearly, Japan comes out ahead of many western donors, particularly, large ones such as the US and UK. However, other smaller western donors are also looked at favorably by the recipients. But in all cases, there seems to be a perception that local voices are not being heard and that the manner of giving aid is more of a bureaucracy to bureaucracy than people to people. Better training of technical personnel, more knowledge of the history, geography and cultures of the recipients will be helpful. Language training should also be an integral part of this. There is a widespread perception that in its bid to catch up with the west Japan lost its interest in the rest of Asia and its own deep cultural bonds. A refocusing on Asia in a deeper way may help Japan regain its own cultural balance as well.

Another problem for Japan to avoid is to look too insistently on its own economic history to find policies for other Asian countries. As my Japanese colleagues, K. Ohno and K. Sakurai have pointed out:

The conditions of Japan in those days and those facing the developing countries and the transitional economies today are different. If the conditions are different, the policies and directions that need to be pursued are not necessarily equivalent. These conditions not only include economic aspects, such as the international setting, developmental stage, levels of capital and labour force, human capacity and population, administrative capacity of the government, but also historical, cultural, social, and geographical conditions.⁹

⁹ Higashi Ajia no Kaihatsu Keizaigaku, translation by OECD, OECD(1999) p.23. See also the book by Ohno and Ohno and the contributions therein.

It is to be hoped that by listening to such sage advice from within and outside Japan, and using its own historical experience as a partial guideline Japanese aid policy in the future will be guided more fully by both impartial economic analysis and a political and cultural dialogue between Japan on the one hand and, South and Southeast Asia on the other.

My second objective in this paper was to offer an approach to relate governance and aid-effectiveness that could be applied to the above data.

In terms of answering the specific social scientific question regarding the relationship between governance and aid-effectiveness, the sum total of empirical findings point to several interesting directions. In addition to offering a new indirect but comprehensive economic model, the econometric results raise some deeper issues related to governance.

First, the general position that good governance can benefit the recipients by making aid more effective receives some indirect support. The developmentally oriented and fiscally responsible governance seems to lead to relatively more development expenditures and stronger revenue-raising efforts in general.

Second, and even more interesting finding is that even in a weak governance environment Japanese aid has been more effective than most other donors. This requires a detailed investigation in terms of the types of projects and the modalities of Japanese aid. This area emerges as a high priority research area for donors and recipients alike who are interested in both the longer-term goal of improving governance and the shorter-term objective of getting the most out of aid even under suboptimal governance.

Third, the bounded rationality format invites thinking along the lines of inductive learning to improve both governance and aid-effectiveness. For example, a neural network approach where learning from both past successes and failures can take place is a possible framework for investigating the hypothesis that such inductive learning can in fact improve both governance and aid-effectiveness.¹⁰

Most importantly, from the point of view of both the political and social¹¹ economic analysis of Japanese aid in these regions, a nonbureaucratic, people to people dialogue and better coordination of governmental and nongovernmental actors on both the Japanese and the recipients' sides will offer large payoffs. For both Japan and the recipient governments commitment to such democratizing of the aid process and particularly the implementation and monitoring phases will lead to increasing aid effectiveness and genuine human development.

6. Appendix: A Bounded Rationality Model for Econometric Estimation of the Impact of Japanese and other Aid:

¹⁰ For an example of this approach in the context of banks the interested reader can see chapters 7 and 8 of Khan(2004)*Global Markets and Financial Crises in Asia*.

¹¹ Perhaps, even more broadly, 'cultural economic' aspects also.

The Asymmetric Loss function Model for Allocation of Foreign Aid :

The policy-makers minimize a loss function subject to expenditure constraints. In most general terms, the (quadratic-ratio) loss function, L , is given by

$$\begin{aligned} & \alpha_0 + \sum_i (\alpha_i/2) (i^j/i^k)^\beta, \\ & \text{if } j = *, \text{ then } i^k = i, \\ & \text{if } k = *, \text{ then } i^j = i, \\ & i = R, D, N, \\ & \beta \geq 2. \end{aligned} \tag{1}$$

"j" and "k" are related in the following way: if j (respectively k) represents the indicator value (symbolized by *) then i^k (respectively, i^j) equals i . "i" and "j" can be R, D, or N (domestic revenues, development expenditures and nondevelopment expenditure, respectively). The simplest non-linear model which is also asymmetric and economically meaningful, is obtained when $\beta = 2$. Note that for exact fulfillment of chosen indicator levels, $L = \alpha_0 + (\alpha_R/2) + (\alpha_D/2) + (\alpha_N/2)$. The policy-maker is making decisions on various categories of public expenditures. Each decision will reflect on her abilities, possibly her status, or even her job. In an uncertain environment, the best she can do is to reach the stated chosen indicator value.

The loss function stated in equation (1) has the advantage of allowing for asymmetries in loss when the policy-maker over- or undershoots the chosen indicator level. It also allows us to examine different assumptions about the "type" of the policy-maker. For example, writing the loss function explicitly as

$$\alpha_0 + (\alpha_D/2)(D^*/D)^2 + (\alpha_N/2)(N/N^*)^2 + (\alpha_R/2)(R/R^*)^2 \tag{2}$$

illustrates a policy-maker who is "developmentalist" in orientation: undershooting the development expenditure indicator value is worse than overshooting it. At the same time, the above policy-maker is a "fiscal liberal" since overshooting the revenue raising indicator value is worse than undershooting. Such policy-makers are not very anxious about the emergence of the inflationary gap. These bureaucrats are also "non-statist" in that overshooting nondevelopment expenditures is worse than undershooting. Statist bureaucrats who seek to maximize the resources which the state uses to reproduce itself would have loss functions that are asymmetric in exactly the opposite direction with regard to the composition of public expenditure. All in all, there are eight possible characterizations. Part of our problem is to explore which of these characterizations captures the behavior of policy-makers "best" in an empirical setting.

Given the type of policy-maker, the decision making problem can be described as the minimization of a specific form of equation (1). The economic and institutional constraint to which this minimization problem is subjected is the following:

$$N + D = R + A_B + A_M$$

The above, of course, is the accounting identity that expenditures equal receipts. To capture the distribution of foreign aid and domestic revenues into budgetary categories we instead write,

$$D = (1 - \rho_R)R + (1 - \rho_B)A_B + (1 - \rho_M)A_M \quad (3)$$

and,

$$N = \rho_R R + \rho_B A_B + \rho_M A_M \quad (4)$$

$(1 - \rho_R)$, $(1 - \rho_B)$, and $(1 - \rho_M)$ are the fractions of domestically raised revenues, bilateral aid and multilateral aid, respectively, allocated to government development expenditures. These two constraints reflect alternative uses of government revenues augmented by foreign assistance.¹² The first constraint allows for the possibility that D can be financed partly by domestic revenues and partly by different sources of foreign aid. The second constraint assumes that domestically raised revenues, and foreign aid not used for development purposes, go towards nondevelopment government expenditure. The model thus involves a trade-off between development and other spending by the government. It is a theoretical model of the implications of recipient preferences that can be used to determine the fiscal behavior of the government in the presence of foreign aid.

Solving the constrained loss minimization problem leads to a set of nonlinear simultaneous equations. The direction and extent of the impact of bilateral and multilateral foreign aid on N and D can be estimated econometrically with the help of these equations.

¹² One would like the allocation of aid among budgetary categories to be the outcome of a utility maximizing problem. Incorporating fungibility into a decision-making problem as a subproblem is extremely difficult. Use of a single budgetary constraint *a priori* assumes that aid is 100 percent fungible. While not directly addressing the fungibility issue, our approach does not *a priori* assume 100 percent fungibility; it does look at the allocation of aid among budgetary categories.

Appendix Table 1

Policymakers Alternative Preferences

Type of Policymaker	Development Expenditure	Non Development Expenditure	Domestic Revenue	Specific Loss Function
Type I: Nondevelopmental, non-statist, fiscal liberal	overshooting worse than undershooting	overshooting worse than undershooting	overshooting worse than undershooting	$\alpha_0 + (\alpha_D/2)(D/D^*)^2$ $+ (\alpha_N/2)(N/N^*)^2 +$ $(\alpha_R/2)(R/R^*)^2$
Type II: Nondevelopmental, non-statist, fiscal conservative	overshooting worse than undershooting	overshooting worse than undershooting	undershooting worse than overshooting	$\alpha_0 + (\alpha_D/2)(D/D^*)^2$ $+ (\alpha_N/2)(N/N^*)^2 +$ $(\alpha_R/2)(R^*/R)^2$
Type III: Nondevelopmental, statist, fiscal liberal	overshooting worse than undershooting	undershooting worse than overshooting	overshooting worse than undershooting	$\alpha_0 + (\alpha_D/2)(D/D^*)^2$ $+ (\alpha_N/2)(N^*/N)^2 +$ $(\alpha_R/2)(R/R^*)^2$
Type IV: Nondevelopmental, statist, fiscal conservative	overshooting worse than undershooting	undershooting worse than overshooting	undershooting worse than overshooting	$\alpha_0 + (\alpha_D/2)(D/D^*)^2$ $+ (\alpha_N/2)(N/N^*)^2 +$ $(\alpha_R/2)(R^*/R)^2$
Type V: Developmental, non-statist, fiscal liberal	undershooting worse than overshooting	overshooting worse than undershooting	overshooting worse than undershooting	$\alpha_0 + (\alpha_D/2)(D^*/D)^2$ $+ (\alpha_N/2)(N/N^*)^2 +$ $(\alpha_R/2)(R/R^*)^2$
Type VI: Developmental, non-statist, fiscal conservative	undershooting worse than overshooting	overshooting worse than undershooting	undershooting worse than overshooting	$\alpha_0 + (\alpha_D/2)(D^*/D)^2$ $+ (\alpha_N/2)(N/N^*)^2 +$ $(\alpha_R/2)(R^*/R)^2$
Type VII: Developmental, statist, fiscal liberal	undershooting worse than overshooting	undershooting worse than overshooting	overshooting worse than undershooting	$\alpha_0 + (\alpha_D/2)(D^*/D)^2$ $+ (\alpha_N/2)(N^*/N)^2 +$ $(\alpha_R/2)(R/R^*)^2$
Type VIII: Developmental, statist, fiscal conservative	undershooting worse than overshooting	undershooting worse than overshooting	undershooting worse than overshooting	$\alpha_0 + (\alpha_D/2)(D^*/D)^2$ $+ (\alpha_N/2)(N^*/N)^2 +$ $(\alpha_R/2)(R^*/R)^2$

References:

Bank of Indonesia, Annual Reports.

Biro Pusat Statistik (BPS), Jakarta, National Income Accounts, various years; Social Accounting Matrices, various years.

Binh, Tran-Nam and Mark McGillivray, 1993, "Foreign Aid, Taxes and Public Investment: A Comment," Journal of Development Economics 41, 173-176.

Booth, Anne, 1988, "Survey of Recent Developments," Bulletin of Indonesian Economic Studies, Vol.24, No.1, pp.1-26.

Browne, Stephen, Foreign Aid in Practice, New York: New York University Press, 1990, pp.193-95.

Bulletin of Indonesian Economic Studies, Economic Surveys, various years, Canberra:Australia.

Burnside, Craig and David Dollar. June 1998. Aid, the Incentive Regime, and Poverty Reduction, World Bank, Working Paper No.1937.

Burnside, Craig & David Dollar, 2004. "Aid, Policies, and Growth: Revisiting the Evidence," Policy Research Working Paper Series 3251, The World Bank.

Cashel-Cordo, Peter and Steven G. Craig, 1992, Donor Preferences and Recipient Fiscal Behavior: A Simultaneous Analysis of Foreign Aid Fungibility and the Flypaper Effect, Manuscript, Canisius College, Buffalo, NY 14208.

Europa World Yearbook (London: Europa Publications Ltd.), various years.

Frey, Bruno and Friedrich Schneider, 1986, "Competing Models of International Lending Activity," Journal of Development Economics 20, 224-245.

Gang, Ira N. and Haider Ali Khan, 1989, "Modelling Foreign Aid and Development Expenditures," paper presented at AEA conference, Atlanta.

----, 1999, "Does the Policymaker Make a Difference? Impact of Aid in a Bounded Rationality Model", Empirical Economics, September.

-----, 1990, "Some Determinants of Foreign Aid to India, 1960-1986," World

Development 18, 431-442.

-----, 1991, "Foreign Aid, Taxes and Public Investment," Journal of Development Economics, 34, 355-369.

-----, 1993, "Reply to Tran-Nam Binh and Mark McGilliray, "Foreign Aid, Taxes and Public Investment: A Comment," Journal of Development Economics 41, 177-178.

-----, 1994, "Foreign Aid and Development Expenditures: Does the Policymaker Make Any Difference?" unpublished paper.

Geographic Distribution of Financial Flows to Developing Countries (Paris: OECD, various years).

The Government of Japan: Ministry of Foreign Affairs, Waga Kuni No Seifu Kaihatsu Enjo, 1990, Tokyo.

Heller, Peter S., 1975, "A Model of Public Fiscal Behavior in Developing Countries: Aid, Investment and Taxation," American Economic Review 65, 429-445.

Holt, C. C., 1962, "Linear Decision Rules for Economic Stabilization and Growth," Quarterly Journal of Economics 56, 20-45.

The International Bank for Reconstruction and Development (World Bank), Bangladesh: Recent Economic Developments and Medium Term Prospects, Vol. 1, March 1986; The World Development Report, 1986, 1987.

Islam, Shafiqul(ed.), Yen for Development, New York, Council on Foreign Relations Press, 1991.

Kaufmann, Daniel, Aart Kraay and Pablo Zoido-Lobaton (1999a). "Aggregating Governance Indicators." World Bank Policy Research Working Paper No. 2195, Washington, D.C. <http://www.worldbank.org/wbi/governance/pubs/aggindicators.html>.

———— (1999b). "Governance Matters." World Bank Policy Research Working Paper No. 2196, Washington, D.C. <http://www.worldbank.org/wbi/governance/pubs/govmatters.html>

Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi (2003). "Governance Matters III– Governance Indicators for 1996-2002." World Bank Policy Research Working Paper No. 3106, Washington, D.C. http://econ.worldbank.org/files/28791_wps3106.pdf

Kawai, Masahiro and Shinji Takagi. 2001. "Japan's Official Development Assistance: Recent Issues and Future Directions". World Bank Policy Research Working Paper No. 2722, Washington, D.C.

Khan, Haider A., 2004, Global Markets and Financial Crises in Asia, Macmillan/Palgrave.

Khan, Haider A., 2003. "Aid and Development: What Can Africa Learn from the Macroeconomics of Foreign Aid in Some Southeast Asian Economies?" In Aryeetey, Ernest et al. edited *Asia and Africa in the global economy*. New York : United Nations University Press.

Khan, Haider A., 1995a, "Does the Policy-Maker Make a Difference?" paper presented at AEA/ASSA meetings, Washington D.C., January 1995.

-----, "Does Japanese Bilateral Aid Work? Foreign Aid and Fiscal Behavior in a Bounded Rationality Model," Regional Development Studies, Vol. 3 (Winter, 1996/97), pp. 283-97.

Khan, Haider Ali and Elichi Hoshino, 1992, "Impact of Foreign Aid on the Fiscal Behavior of LDC Governments," World Development 20, 1481-1488.

Lipton, M. and John Toye, 1990, Does Aid Work in India? A Country Study of the Impact of Official Development Assistance, Routledge.

Maizels, Alfred and Machiko K. Nissanke, 1984, "Motivations for Aid to Developing Countries," World Development 12, 879-900.

Mosley, P., J. Hudson and Sara Horrell, 1987, "Aid, the Public Sector and the Market in Less Developed Countries," Economic Journal 97, 616-41.

National Development Information Office (Indonesia), 1991, Indonesia Source Book, 1990/91 (Jakarta).

OECD, Development Cooperation Review Series, Japan, no. 34, Paris: OECD, 1999.

Pack, Howard and Janet Rothenberg Pack, 1990, "Is Foreign Aid Fungible: The Case of Indonesia," Economic Journal 100, 188-94.

Pack, Howard and Janet Rothenberg Pack, 1993, "Foreign Aid and the Question of Fungibility," Review of Economics and Statistics 258-265.

Sargent, T.J., 1976, "A Classical Macroeconomic Model for the United States," Journal of Political Economy 84, 207-238.

-----, 1993, Bounded Rationality in Macroeconomics (Oxford: Clarendon Press).

Sengupta, G.K., 1970, "Optimal Stabilization Policy with a Quadratic Criterion Function," Review of Economic Studies 36, 127-146.

SHAZAM User's Reference Manual Version 7.0, 1993, McGraw Hill.

Simon, Herbert A., 1982, Models of Bounded Rationality, MIT Press, Cambridge, MA.