Towards Poverty Reducing Macroeconomic Policies

Strategy Paper

prepared by

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on behalf of the

New Rules for Global Finance Coalition

An informal coalition of scholars and human rights, labor, environmental, development and religious organizations dedicated to the reform of the global financial architecture in order to stabilize the world economy, reduce poverty and inequality, uphold fundamental rights, and protect the environment.

March 2002

* Valuable comments from Masood Ahmed, Nancy Alexander, Brian Ames, Graham Bird, Francois Bourguignon, Aldo Caliari, Giovanni Andrea Cornia, Randall Dodd, Jo Marie Griesgraber, Gerry Helleiner, Didier Jacobs, Ravi Kanbur, Hans Löfgren, Lisa McGowan, Warwick McKibbin, Luiz Pereira da Silva, Sherman Robinson, David Sahn, Frances Stewart, Lance Taylor, Rolph van der Hoeven, Mark Weisbrot, Charles Wyplosz, and Erinc Yeldan are thankfully acknowledged. All remaining omissions and errors are mine. The views expressed in this paper do not necessarily represent those of the Coalition or its members.
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# List of Acronyms

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<tr>
<td>AID</td>
<td>Agency for International Development</td>
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<td>CDF</td>
<td>Comprehensive Development Framework</td>
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<td>CFNEP</td>
<td>Cornell Food and Nutrition Policy Program</td>
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<td>CGE</td>
<td>Computable General Equilibrium</td>
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<td>CIDA</td>
<td>Canadian International Development Agency</td>
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<td>CIDSE</td>
<td>International Cooperation for Development and Solidarity</td>
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<td>CPRC</td>
<td>Chronic Poverty Research Centre</td>
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<td>DAC</td>
<td>Development Assistance Committee</td>
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<td>DEC</td>
<td>Development Economics &amp; Chief Economist</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<tr>
<td>ESAF</td>
<td>Enhanced Structural Adjustment Facility</td>
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<td>ESAM</td>
<td>Environmentally Extended Social Accounting Matrix</td>
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<tr>
<td>ECGE</td>
<td>Environmental Computable General Equilibrium</td>
</tr>
<tr>
<td>GDN</td>
<td>Global Development Network</td>
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<tr>
<td>HIPC</td>
<td>Heavily Indebted Poor Country</td>
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<td>IDA</td>
<td>International Development Association</td>
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<td>IEO</td>
<td>Independent Evaluation Office</td>
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<td>IDRC</td>
<td>International Development Research Centre</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>IFRC</td>
<td>International Federation of Red Cross and Red Crescent Societies</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>IMMPA</td>
<td>Integrated Macroeconomic Model for Poverty Analysis</td>
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<tr>
<td>LP</td>
<td>Labor-Poverty (module for the RMSM-X)</td>
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<tr>
<td>MERRISA</td>
<td>Macro Economic Reforms and Regional Integration in Southern Africa</td>
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<td>MIMAP</td>
<td>Micro Impacts of Macroeconomic and Adjustment Policies</td>
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<tr>
<td>MSG3</td>
<td>McKibbin-Sachs-G-Cubed Model (Version 3)</td>
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<tr>
<td>NGO</td>
<td>Non-governmental Organization</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>PREM</td>
<td>Poverty Reduction &amp; Economic Management</td>
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<td>PRGF</td>
<td>Poverty Reduction and Growth Facility</td>
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<td>PRSC</td>
<td>Poverty Reduction Support Credit</td>
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<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
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<td>RMSM-X</td>
<td>Re-specified Minimum Standard Model-Extended</td>
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<td>SAC</td>
<td>Structural Adjustment Credit</td>
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<td>SAM</td>
<td>Social Accounting Matrix</td>
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<td>SAPRI</td>
<td>Structural Adjustment Participatory Review Initiative</td>
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<td>SIA</td>
<td>Social Impact Analysis</td>
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<td>SISERA</td>
<td>Secretariat for Institutional Support for Economic Research in Africa</td>
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<tr>
<td>T21</td>
<td>Threshold 21 National Development Model</td>
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<td>TMD</td>
<td>Trade and Macroeconomics Division, IFPRI</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>UNIFEM</td>
<td>United Nations Development Fund for Women</td>
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<td>UNU</td>
<td>United Nations University</td>
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<td>WBI</td>
<td>World Bank Institute</td>
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<td>WIDER</td>
<td>World Institute for Development Economics Research</td>
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Executive Summary

There are substantial disagreements on the impact of macroeconomic policies on poverty. While past criticism of stabilization and adjustment programs have led to considerable changes in program implementation and program content, heated debates on the impact of macroeconomic policies on poverty continue to be at the center of the development debate.

The debate so far has not only shown how little agreement there is on the impact of macroeconomic policies on poverty, it has also shown that there are considerable disputes on how to assess the impact of macroeconomic policies on poverty. With more and more data available, the binding constraint for a thorough analysis is more and more related to the lack of agreed standards, methodologies, and tools to assess the impact of macroeconomic policies on poverty.

There are a variety of promising initiatives ongoing that develop quantitative tools that can be used to assess the impact of macroeconomic policies on poverty, especially within (a) the Network analyzing the Micro Impact of Macroeconomic and Adjustment Policies (MIMAP), (b) the World Bank, and (c) the International Food Policy Research Institute (IFPRI). Yet, these initiatives would benefit from closer coordination and cross-fertilization. Furthermore, more efforts are needed to overcome the limitations of currently existing computable general equilibrium (CGE) models and to consider alternative as well as complementary methodologies to CGE models to assess the impact of macroeconomic policies on poverty.

In any case, it would be desired if some structured collaboration on such issues could be initiated among researchers around the globe in NGOs, think tanks, and many national and international development organizations, like the Bretton Woods Institutions, the Organisation for Economic Co-operation and Development (OECD), and a variety of United Nations organizations.
I.  INTRODUCTION

This strategy paper intends to present the key issues related to the development of some standards, methodologies, and tools that could be used to assess the impact of macroeconomic policies on poverty. The rationale to develop such standards, methodologies, and tools is based on two related facts: (i) there are substantial disagreements on what appropriate macroeconomic policies are to reduce poverty most effectively, and (ii) there are no agreed standards, methodologies, or tools to assess the impact of macroeconomic policies on poverty. Indeed, there is a broad consensus that more realistic and analytic evaluations of macroeconomic policies would be useful.1

Though work is currently ongoing in various institutions and networks to develop quantitative models that can be used for the assessment of macroeconomic policies on poverty, the models currently developed lack at various fronts. First, the models lack a broadly agreed and systematic framework. Second, there seems to be little coordination among (and sometimes even within) the various initiatives and institutions working on the development of quantitative models. Finally, while some models intend to capture national economic structures and national political institutions, there is no analysis of the impacts of international macroeconomic policies, international macroeconomic settings and policy arrangements.

This strategy paper is structured as follows. Given that there exists an abundant literature on the impact of adjustment policies that has also analyzed the impact of macroeconomic policies on poverty, we review first the key results of the major initiatives analyzing the impact of adjustment policies on poverty. The next section (Section III) outlines then the relevant debates of development macroeconomics, which will need to be addressed by methodologies and tools to assess the impact of macroeconomic policies on poverty. Section IV provides an overview of currently ongoing work at various networks, institutions, and agencies that is related to the development of quantitative tools. Section V describes some initial thoughts on what standards, methodologies and tools might need to be developed to allow a better assessment of the impact of macroeconomic policies on poverty. The last section (Section VI) provides some conclusions.

II. KEY RESULTS OF PREVIOUS INITIATIVES ANALYZING THE IMPACT OF ADJUSTMENT POLICIES ON POVERTY

This section reviews the key results of four major initiatives analyzing the impact of adjustment policies on income distribution and poverty: (1) UNICEF’s “Adjustment with a Human Face”; (2) the OECD’s research program on “Adjustment with Growth and Equity”; (3) the analysis of “Economic Reform and the Poor in Africa” undertaken under a cooperative agreement between the Africa Bureau of the U.S. Agency for International Development (AID) and the Cornell Food and Nutrition Policy Program (CFNEP); and (4) the Structural Adjustment Participatory Review Initiative (SAPRI), undertaken jointly by the World Bank and a broad global network of some 250 nongovernmental organizations (NGOs) and other civil society groups.

II.1. UNICEF’s “Adjustment with a Human Face”

One of the best-known studies evaluating the impact of structural adjustment policies on poverty is the United Nations Children’s Fund (UNICEF) Report on Adjustment with a Human Face.\(^2\) The report concluded that two main effects of the adjustment programs adopted were responsible for the failure to sustain growth and child welfare. “First, the predominantly deflationary character of most programmes which led to growing poverty through depressed employment and real incomes; secondly, the direct negative effects of certain macroeconomic policies on the welfare of particular socioeconomic groups.”\(^3\)

II.2. OECD’s “Adjustment with Growth and Equity”

Recognizing that the costs of adjustment programs appear to have been borne largely by the poor and that adjustment programs have also often been accompanied by increases in urban poverty that lead to riots and other civil disturbances, the Development Centre of the Organisation for Economic Co-operation and Development (OECD) launched a research program on “Adjustment with Growth and Equity”\(^4\) in January 1987. “In contrast to most previous work in this field, these studies lead to more cautious conclusions about the social costs of adjustment. The evolution of poverty, inequality, and the incomes of poor households varied greatly across countries, ranging from the cases of Chile and Ecuador, where the evolution was very unfavorable, to those of Indonesia and Malaysia, where improvement occurred during adjustment.”\(^5\)


In addition to these results, the OECD research program also made significant contributions to the development of methodologies to evaluate the impact of adjustment policies on poverty and income distribution. At the OECD’s invitation, Francois Bourguignon, William Branson, and Jaime de Melo built a model that combined, for the first time, the microeconomic characteristics of a computable general equilibrium (CGE) model with the traditional features of a macroeconomic model (the so-called maquette). The maquette enabled researchers to trace the microeconomic impact of macroeconomic stabilization measures on employment and income distribution. As McKibbin (1993) had pointed out, this was a major step forward as CGE models and macroeconometric models have co-existed with very little interaction between the modelers in the two modeling streams, and with very little cross fertilization between the two approaches.

II.3. Cornell’s “Economic Reform and the Poor in Africa”

Challenged by the sharp disagreements on the appropriateness and effectiveness of macroeconomic and sectoral economic reforms in Africa, a cooperative agreement between the Africa Bureau of the U.S. Agency for International Development (AID) and the Cornell Food and Nutrition Policy Program (CFNEP) used a body of quantitative research (mostly CGE models) to analyze the question if Africa’s poor were hurt by the adoption of economic policies designed to restore macroeconomic stability.

As summarized in Sahn (1996, p. 21), the results of this research “reject the proposition that economic reforms are inherently harmful to the poor or that the poor bear the disproportionate cost of adjustment. In fact, they provide evidence quite to the contrary. Removing distortions in markets and altering relative prices in the directions typically associated with economic reform policies generally improve income distribution and raise the income of the poor, albeit marginally, even in the absence of large supply responses.” However, as will be analyzed in more detail below, these results have been criticized by de Maio, Stewart, and van der Hoeven (1999).

II.4. Structural Adjustment Participatory Review Initiative (SAPRI)

In 1997, the World Bank and a broad global network of some 250 nongovernmental organizations (NGOs) and other civil society groups jointly launched the Structural Adjustment Participatory Review Initiative, known as SAPRI, whereby they agreed to work together to review the impact of adjustment lending and policy advice in selected countries (Bangladesh, Ecuador, Ghana, Hungary, Mali, Uganda, and Zimbabwe). SAPRI had been developed in a participatory fashion through consultations between a World Bank team and an NGO/civil society network steering committee. It aimed to improve understanding about the impacts of adjustment policies as well as about

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how the participation of local, broad-based civil society can improve economic policymaking.

The review consisted of a combination of public fora, field investigations, and reviews of the existing literature on adjustment in each of the seven countries. Public forums had been held to open the project, starting with the First Global Forum, which was held in Washington, DC in July 1997 and since then, in each of the seven countries. Field investigation and overall analysis were carried out during 1999 and 2000. All country-specific findings and conclusions were discussed at national forums held in each country. The findings from all of the country studies and any recommendations for policy changes had been presented and discussed at the Second Global Forum that took place on July 30-31, 2001 in Washington, D.C., which marked the conclusion of SAPRI.\(^\text{10}\)

Based on the final report prepared by the World Bank for the Forum (available on the internet: [http://www.worldbank.org/research/sapri/index.htm](http://www.worldbank.org/research/sapri/index.htm)), the key findings are that (i) a significant shift has taken place in thinking on development, placing country ownership at the center of development assistance (ii) development programs, including adjustment programs, should be comprehensive in their approach to addressing social and structural challenges, (iii) institutions are essential to making adjustment succeed by generating new prosperity, and (iv) it is critical that poor people’s access to high-quality health and education services is improved and that the necessary financing for social expenditures is available. For more information on SAPRI and SAPRIN, please see websites cited above.

III. RELEVANT DEBATES OF DEVELOPMENT MACROECONOMICS

While there is an abundant literature on the impact of adjustment and stabilization policies on economic growth, the analysis of the impact of macroeconomic policies on poverty is just emerging (see Section II of the Bibliography). There are at least three reasons for the relative lack of such analysis. First, the concentration of the economic literature on the sources of growth, whereby—until the recent growth-poverty debate—most economists have generally associated economic growth with poverty reduction. Second, the lack of good poverty data, though considerable progress has been made in this regards over the last few years and is continuing to improve further. Last but not least, the lack of agreed standards, methodologies, or tools to assess the impact of macroeconomic policies on poverty.

This section summarizes the relevant debates of development macroeconomics for the development of quantitative tools to assess the impact of macroeconomic policies on poverty. We begin with the discussion related to the ownership of macroeconomic policies. We then summarize the results of the recent growth-poverty debate and the

\(^\text{10}\) However, a network of civil organizations and associations which has adopted the name of “Structural Adjustment Participatory Review International Network (SAPRIN)” has extended its reach to include additional exercises in a parallel and ongoing initiative known as the Citizens' Assessment of Structural Adjustment (CASA). Please see [http://www.saprin.org/index.htm](http://www.saprin.org/index.htm) for more information on SAPRIN.
interrelationships between economic growth, poverty eradication and environmental sustainability. The third subsection provides a conclusion from specific macroeconomic policy debates as they are discussed in more detail in Appendix 1. The section closes with some international macroeconomic issues.

III.1. THE OWNERSHIP OF MACROECONOMIC POLICIES

In September 1999, the Development and Interim Committees of the IMF and World Bank endorsed a new framework for IMF and World Bank efforts to support low-income countries. Within this new framework, building on the principles of the Comprehensive Development Framework (CDF), nationally-owned participatory poverty reduction strategies—embodied in Poverty Reduction Strategy Papers (PRSPs)—form the basis for the Bretton Woods Institutions’ concessional lending and for debt relief under the enhanced Heavily Indebted Poor Country (HIPC) Initiative.

Without much apparent change in program contents, the Fund has renamed its previous Enhanced Structural Adjustment Facility (ESAF) to Poverty Reduction and Growth Facility (PRGF). The World Bank’s concessional lending arm, the International Development Association (IDA), is also in the process of replacing Structural Adjustment Credits (SACs) with Poverty Reduction Support Credits (PRSCs), whereby a PRSC usually requires that a PRSP be in place.

While there is widespread agreement that these changes are steps in the right direction, it has been questioned how far PRSPs reflect public relation strategies or a genuine change in the Fund’s and Bank’s approach to poverty alleviation. These doubts build on the recent claims that donors have not allowed the time and space for the emergence of domestic constituencies for poverty reduction, and that macroeconomic policies are still largely determined by the Fund’s view of what constitutes appropriate macroeconomic policies.

While (i) more participatory PRSPs, (ii) more participatory macroeconomics, and (iii) possible institutional changes in the IMF that would make the Fund more democratic could lead to more pro-poor macroeconomic policies, we are clearly not there yet. Moreover, even with a more participatory and democratic approaches, policy-

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12 Though there are some indications that the Fund is willing to adjust their PRGF-supported programs if a country’s poverty reduction strategy suggests so, the qualification has been made that the adjustments have to be consistent with the Fund’s view of maintaining macroeconomic stability. In other words, the Fund remains to determine what macroeconomic policies are appropriate and what not.

13 See also the World Bank’s website on participatory macroeconomics, which suggests that the rationale for participatory macroeconomics is based on the fact that successful participation in public policy has been linked to creating an enabling political environment with increases in accountability, transparency, openness, and responsiveness to demands from a wider range of societal groups: http://www.worldbank.org/participation/web/webfiles/macro.htm.
makers, researchers, and the broad public would benefit from better knowledge about pro-poor macroeconomic policies.

III.2. THE GROWTH-POVERTY DEBATE

There is some broad agreement that sustainable economic growth is a powerful force for sustained poverty reduction (see Section I.2. of the Bibliography). Yet, it is not clear (i) if growth causes reduced poverty, (ii) if reduced poverty causes growth, or (iii) if both are determined simultaneously. In any case, there is some agreement that growth alone is not necessarily sufficient for reducing poverty. Sharp disagreements then emerge with regards to questions on which policies foster economic growth most and which growth policies are most beneficial to the poor.

Furthermore, the heated growth-poverty debate has largely neglected the interrelationships between economic growth, poverty eradication and environmental sustainability. While it is possible to cover environmental sustainability by (i) defining economic growth as sustainable economic growth and (ii) including environmental aspects in the definition of poverty, little of these interrelationships between economic growth, poverty eradication and environmental sustainability have found their way into mainstream macroeconomic analysis.14

Instead, it is generally assumed that the costs of environmental degradation are small compared to the benefits of growth. However, the fact that the number of hydro-meteorological disasters has more than doubled over the second half of the last decade15 indicates that the costs of environmental degradation are much larger than previously estimated. Furthermore, given that (i) the negative effects on the environment may hurt the poor most, and (ii) some groups of the poor may be hurt more than others,16 a more careful and detailed analysis of these interrelationships is needed.

14 Similarly, the analysis of macroeconomic policies on gender is also just emerging; see Catagay, Nilüfer, “Engendering Macroeconomics and Macroeconomic Policies” Social Development & Poverty Elimination Division, Bureau for Development Policy, UNDP, Working Paper, WP6 (October 1998), available on the internet: http://www.undp.org/poverty/publications/wkpaper/wp6/wp6-nilufer.pdf, as well as the special issues of World Development on Gender, Adjustment, and Macroeconomics ((November 1995) and on Growth, Trade, Finance, and Gender Inequality (July 2000). For gender issues of fiscal and trade policies, see the more specific references in Sections II and VI of Appendix 1.

15 In 2000, the International Federation of Red Cross and Red Crescent Societies (IFRC) registered 752 natural disasters, versus 609 in 1999 and 481 in 1998. Predictions are that this trend is likely to accelerate, whereby agricultural production in many tropical and subtropical countries, especially in Sub-Saharan Africa and Latin America is likely to decrease. See the United Nation’s third assessment on climate change of July 2001 (available on the internet: www.ipcc.ch/), which states that global temperatures are rising nearly twice as fast as previously thought; see also the recent statements by Robert Watson, World Bank Chief Scientist and Chairman of the Intergovernmental Panel of Climate Change.

16 For example, depending on the development strategy chosen (agricultural extension, agricultural intensification, or industrialization), the negative environmental implications of the development strategy will have different implications for the rural and urban poor.
While much work is currently ongoing in many of the environmentally-oriented NGOs, one major academic contribution in this regard is Xie and Saltzman (1999), who introduced an integrated economic and environmental modeling framework in the line of computable general equilibrium (CGE) approach for environmental policy analysis. The model incorporates various environmental components, including pollution emissions, pollution taxes, pollution abatement subsidies, and pollution cleaning activities, into the standard CGE framework. The study also presents an environmentally extended social accounting matrix (ESAM) framework serving as a consistent data set for parameter calibration of the environmental CGE (ECGE) model.

III.3. CONCLUSIONS FROM SPECIFIC MACROECONOMIC POLICY DEBATES

As is analyzed in more details in Appendix 1, the various debates on the impact of specific macroeconomic policies on poverty have shown that such an analysis implies a marriage between macroeconomics and microeconomics that is still at an early stage. Indeed, a recent IMF Working Paper by Cashin, Mauro, Pattillo, and Sahay (September 2001, p. 21) has not found significant and robust evidence that variables such as inflation, budget deficits, government spending, openness, and the black market foreign exchange premium are individually associated with pro-poor (or anti-poor) economic growth, and has thus called for alternative research approaches to find significant and robust evidence on the direction and strength of the effects of these variables on the poor.

Furthermore, even the impact of IMF-supported stabilization programs on growth is still highly disputed. Przeworski and Vreeland (2000) find that (i) IMF programs lower growth rates for as long as countries remain under a program, and (ii) once countries leave the program, they grow faster than if they had remained, but not faster than they would have without the IMF program. Similarly, Barro and Lee (2001) find that without instrumenting, increased IMF program participation is associated with a contemporaneous reduction of economic growth, though they find no statistically significant contemporaneous impact of IMF program participation after controlling for endogeneity. With regards to recent currency crises and the current Argentine debt crisis, the question has been raised if the output costs of IMF-suggested macroeconomic policies and their impact on the poor are worse than the initial disease. While there is some broad

17 See for example the Friends of the Earth’s website: http://www.foe.org/, as well as the website of the Macroeconomics for Sustainable Development Program Office of the WWF (formerly known as World Wildlife Fund): http://www.panda.org/resources/programmes/mpo/.
agreement that macroeconomic stability is necessary for sustainable growth and poverty reduction, there is little agreement on what constitutes macroeconomic stability.

Finally, there remain sharp disagreements on how to define and maintain macroeconomic stability, especially in already slow-growing or stagnating economies. While the United States is currently encouraging other countries to use more expansionary fiscal and monetary policies to overcome the current slump of the world economy, almost all IMF-supported programs prescribed some contractionary fiscal and monetary policies, even if these countries were in the midst of economic stagnation. There is—for example—one group of economists that argues that the current Argentine crisis is due to insufficient fiscal discipline while another group argues that the crisis is due to excessive contractionary fiscal and monetary policy. The first group tends to argue that the contractionary fiscal policy was needed to defend the fixed exchange rate to the US dollar and that a less restrictive fiscal and monetary policy would have been possible with a more flexible exchange rate. However, the second group tends to argue that the fixed exchange rate was required (a) to attract urgently needed national and international investment and (b) to shield Argentina from highly volatile international capital flows.

III.4. ASPECTS OF INTERNATIONAL MACROECONOMICS

“A new global economy has developed in recent decades, with manifold interconnections between national economies. These interconnections take the form of increasing flows of goods, of workers and managers, technology, information, and capital across national boundaries. Consequently, the ‘domestic’ economic problems of particular countries cannot be analysed in isolation from the international element of their origins, nor from their international implications. (…) The new interconnections extend to the relationship between the developing countries and the more industrialized economies. Whereas it has long been assumed that the economic performance of the former is substantially dependent upon economic events and policies in the latter, there is now growing realization that these are two-way relationships.”

Given that the above quote was written about 15 years ago, it is surprising how little attention has been paid on the implications of developing countries’ macroeconomic policies on themselves as well as on industrialized countries. Following the tragic events of September 11, 2001, the attention to the interconnectedness between the least developed and the richest countries has resurfaced. Yet, it is unclear if this will lead to significant changes in aid policies and international macroeconomic policy settings. The goal of this subsection is to outline briefly (i) the issues related to insufficient aid and debt relief, (ii) the constraints international macroeconomic settings pose on national macroeconomic policies, and (iii) how national macroeconomic policies of developing countries have global implications.

III.4.a. Insufficient Aid Flows and Insufficient Debt Relief

It now becomes clear that the current low aid flows are not sufficient to halve poverty by 2015. Furthermore, evidence is also mounting that debt relief of the enhanced Heavily Indebted Poor Country (HIPC) initiative will not be sufficient to provide long-term debt sustainability to many of the HIPCs and especially some non-HIPCs.\(^{22}\) With more aid and more debt relief (instead of less aid for more debt relief), fiscal policies to reduce poverty could be more effective. Furthermore, more aid and debt relief could reduce fiscal deficits and could thus also reduce the need for unsustainable money-financing and/or contractionary monetary policy. On the other hand, it is unlikely that more aid and debt relief will cause inflationary pressures (as has been claimed by some economists) since most of the additional spending related to aid and debt relief are capacity enhancing, especially if there is a proper mix of investments into human capital and infrastructure.\(^{23}\)

III.4.b. The Constraints of International Macroeconomics on National Macroeconomic Policies

Given that macroeconomic policies are not independent from each other, it is conventional wisdom that governments cannot employ all macroeconomic policy instruments independently from each other. Looking at three traditional macroeconomic policy instruments (interest rates, government expenditures, and the exchange rate), governments can maximally determine two of the three, even with regulated foreign capital flows. However, as has been illustrated by Adelman and Yeldan (2000),\(^{24}\) with unrestricted foreign capital flows, countries lose control over all three of these instruments.

III.4.c. The Impact of National Macroeconomic Policies on International Macroeconomics

Finally, we should also address briefly the implications of national macroeconomic policies on international macroeconomic outcomes. The assumption generally made for developing countries is that they are too small to have a significant impact on global levels. However, this is not the case if most developing countries follow similar strategies. For example, as has been pointed out in Appendix 1, if all developing countries try to benefit from increased food exports to industrialized countries, the likely effect will be a further collapse of food commodity prices, and the projected benefits based on traditional trade theory to the rural poor from such a strategy may thus not occur.

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\(^{22}\) See for example Gunter (2001) and the many other contributions made at the United Nations University (UNU)/World Institute for Development Economics Research (WIDER) conference on debt relief in August 2001, of which some are published as WIDER discussion papers: [http://www.wider.unu.edu/publications/discussion-papers.htm](http://www.wider.unu.edu/publications/discussion-papers.htm).


IV. QUANTITATIVE TOOLS TO ASSESS THE IMPACT OF MACROECONOMIC POLICIES ON POVERTY

Building on the discussion of the major initiatives analyzing the impact of adjustment on poverty, this section concentrates on quantitative tools to assess the impact of macroeconomic policies on poverty. Given that CGE models have become the dominant quantitative tool for analyzing a wide range of possible policy changes, we concentrate in this section on CGE models. We first summarize the implications of previous contributions to the CGE literature and present then the currently ongoing work in the MIMAP Network, the Bretton Woods institutions, the International Food Policy Research Institute (IFPRI), the United Kingdom’s Department for International Development (DFID), the Brookings Institution, and the private sector.

Though not directly related to the development of quantitative tools, a closely related research project on Macroeconomic Policies and Poverty Reduction, consisting of a series of 38 country, sub-regional, and regional studies have recently been completed by the United Nations Development Programme (UNDP). The studies cover countries in all regions: 9 in Asia, 13 Sub-Saharan Africa, 4 in the Arab states, 3 in Latin America, 3 cluster studies covering 9 countries in Eastern Europe and CIS, and 6 are regional comparative studies. They trace the articulation between macroeconomic policies and poverty reduction, primarily from an income poverty perspective. The studies examine past national poverty reduction strategies in the context of: (i) the macroeconomic policy framework within which the strategies were implemented (ii) the context and content of national poverty reduction strategies (iii) macroeconomic performance of the economy and poverty reduction record over time. See McKinley (2001)\textsuperscript{25} for some of the studies; some papers are also available on-line: \url{http://www.undp.org/poverty/publications/case/}.

IV.1. PREVIOUS CONTRIBUTIONS

As Section III.2 of the Bibliography shows, there are many important contributions to the CGE literature of eminent development economists. There are also many reviews of CGE models (see Section III.3 of the Bibliography), some of which go back to the 1980s. At least seven reviews of CGE models were published in the 1990s. The most recent review of the CGE literature is Iqbal and Siddiqui (January 2001).\textsuperscript{26} Currently, about 60 books, articles or working papers are published every year related to CGE models, whereby more than half refer to the development of new CGE models.

Based on publications in 2000, at least ten CGE models have been developed to analyze environmental issues, another ten contributions simulate the implications of international trade issues, and at least nineteen CGE models analyze other economic (non-environment and non-trade-specific) issues. Of the nineteen models that were not environmental and/or trade-specific CGE models, two were developed to analyze global


or interregional macroeconomic issues, eight were applied to industrialized countries or industrial regions (see Section III.4.e. of the Bibliography), two were applied to transition countries (Hungary and Poland), and seven were applied to developing countries (Cameroon, Madagascar, Mozambique, North Korea, South Africa (two models), and Zimbabwe; please see Section III.4.d of the Bibliography).

While CGE models have become the dominant tool to analyze the impact of economic policies (especially environmental, trade, and adjustment policies), there are some serious concerns about the validity of their results. Referring to the seminal contributions by Sahn and others at Cornell, de Maio, Stewart, and van der Hoeven (1999) have pointed out that extreme caution is needed in interpreting results of CGE models concerning the effects of adjustment policies on the poor. Similarly, as illustrated in McKitrick (1998), the standard calibration method for constructing CGE models has been criticized for using weak parameter selection criteria, intrinsically-biased data and restrictive functional forms. McKitrick argued that the choice of functional forms visibly influences the macroeconomic and sector-specific outcomes for both large and small policy perturbations and provides evidence for these claims by developing and comparing two econometric CGE models, which differ only in their respective functional forms.

More recently, building on the seminal contribution of Taylor (1991), an illustrative example of the different results depending on different CGE modeling has also been provided by Gibson and van Seventer (2000). They compare the results of structuralist and neoclassical CGE models for South Africa and show that the neoclassical model fully supports the principles of the “Washington Consensus” while the structuralist model requires a far more heterodox set of policies to avoid slow growth or high inflation.

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29 Please see footnote 8.
30 Please see footnote 9.
34 For many recent CGE applications of trade integration and structural adjustment in North America, Central America, and the Caribbean, see the 1999 special issue of the *North American Journal of Economics and Finance*. Of importance for the analysis of trade policies (though without an emphasis on poverty) is also the Michigan Model of World Production and Trade; for more information of this model, please see: [http://www.spp.umich.edu/rsie/model/description.html](http://www.spp.umich.edu/rsie/model/description.html).
Finally, though a little bit older, still interesting insights can also been obtained from a study by Capros, Karadeloglou and Mentzas (1991).\(^{35}\) They first design a general core CGE model and then derive 12 alternative model variants by allowing for market imperfections in the markets for goods, labor and foreign exchange. They investigate the role of such rigidities in evaluating the macroeconomic impacts of European market integration on a small open economy, namely Greece, whereby they find that the market imperfections have significant implications on the results.

**IV.2. THE MIMAP NETWORK**

Supported by Canada's International Development Research Centre (IDRC), and sponsored by a consortium of national and international organizations,\(^ {36}\) the Micro Impacts of Macroeconomic and Adjustment Policies (MIMAP) program assists developing countries build the knowledge base to measure and analyze poverty as well as design polices and programs that meet economic stabilization targets while alleviating poverty and reducing vulnerability. The program has established the MIMAP Network that connects developing-country researchers, policy officials, NGOs, and international experts. Through research, training, and dialogue, the network works to increase knowledge of the human costs of macroeconomic policies and shocks; improve policies and programs to alleviate poverty and increase equity; and press for their consideration and implementation at the sub-national, national, and international levels. The network includes more than 40 research teams from Asia, Africa, and Canada.

The objectives of the MIMAP program are to (i) enhance the research capacity of developing countries to analyze the impact of macroeconomic policies on their citizens; (ii) to provide new instruments for policy and program design and analysis by developing rigorous analytical tools and poverty monitoring systems; (iii), to assist the development of community-based monitoring and local development mechanisms; (iv) to strengthen the ability of policymakers to negotiate with international players, such as the international financial institutions and other multilateral and bilateral organizations; (v) to bring together researchers, politicians, government officials, and NGOs in policy dialogue at the national and regional levels; and (vi) to promote the exchange of research knowledge, tools, results, and policy measures among countries, institutions, and donors. For further information, please see the MIMAP website: [http://www.mimap.org/](http://www.mimap.org/).

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\(^{36}\) The International Development Research Centre, Canada; the Canadian International Development Agency (CIDA); the Swiss Agency for Development Corporation; the Department for International Development (DFID), UK; the United Nations Development Fund for Women (UNIFEM); the Commonwealth Secretariat; the World Bank Institute (WBI); the Secretariat for Institutional Support for Economic Research in Africa (SISERA); the Ford Foundation; the Développement International Desjardins, Canada; and the African Development Bank.
IV.3. Work Ongoing at the Bretton Woods Institutions

In early 2001, a joint World Bank-IMF working group was established to develop an approach to social impact analysis (SIA) in Bank and Fund programs. The working group recognized that more efforts are required to develop a set of quantitative models for the analysis of macroeconomic and structural policies. According to April 2001 concept note of the joint working group (see Appendix 2), “the Bank will take the technical lead in assessing and, if needed, carrying out social impact analysis of Bank-Fund assisted programs.” On July 3, 2001, a joint World Bank-IMF workshop organized an informal gathering where modelers, survey designers and end-users reviewed the various tools, surveys and models available for monitoring and designing poverty reduction strategies.38 In any case, as we will see below, during the last year, a variety of researchers, especially in the World Bank, have developed a series of quantitative tools that can be used to assess the impact of macroeconomic policies on poverty and some more are in the pipeline.

IV.3.a. Work Ongoing at the World Bank

In reply to a draft of this Strategy Paper shared with various Banks staff, senior Bank staff members have indicated that they welcome the strategy paper's focus on identifying key issues regarding the impacts of macroeconomic policies on poverty outcomes and summarizing the literature and ongoing efforts in this area. It was mentioned that reflecting the importance the Bank places on improving practice and techniques in this area, the Bank is currently implementing a coordinated work program and approach (which is attempted to be summarized in the following paragraphs). There was agreement on the need to further develop and apply economic tools to the analysis of the poverty and social impact of key structural, social and macroeconomic policies. It was emphasized that developing new tools and further applying existing tools is very much part of our ongoing work program as is building capacity among Bank operational staff and other practitioners to use these techniques. Bank staff also agreed with the value of engaging and working with other partners in this area.

Work is ongoing in various parts of the World Bank, especially in the Vice-Presidency of Development Economics & Chief Economist (DEC), (ii) the Vice-Presidency of Poverty Reduction & Economic Management (PREM), and (iii) the World Bank Institute (WBI) to develop a set of quantitative models that can be used for SIA. Furthermore, as a joint DEC/PREM initiative, one group plans to elaborate on the micro-aspects of qualitative models, and another group plans to elaborate on the macro-aspects of the qualitative models; both aspects are supposed to be completed until the joint Bank-Fund Spring 2002 Meetings. PREM staff also plan to develop a 30-40 page-long guide on SIA until the Spring 2002 Meetings; after which the central PREM network intents to coordinate the various activities within the World Bank.

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37 We want to thank for the information and comments received from various Bank and Fund staff through informal meetings in October and November 2001, as well as in March 2002. However, the statements and views expressed here are the understanding and opinion of the author of the strategy paper.

The most advanced and likely most promising work within the Bretton Woods
Institutions is currently ongoing in the World Bank Institute (WBI), where a
disaggregated CGE model (baptized the IMMPA, for Integrated Macroeconomic Model
for Poverty Analysis) has been developed recently for the specific purpose of analyzing
the impact of policy and external shocks on income distribution, employment and poverty
in low-income, highly-indebted countries as well as middle-income developing
economies. The first three pilot projects for the implementation of the IMMPA model for
Brazil, Cameroon and Senegal have been completed and more country teams in Benin,
Cote d’Ivoire, and Morocco have begun working on an IMMPA application.

The IMMPA model highlights the role of labor market segmentation, the
differential impact of public expenditure in infrastructure, education, and health on
supply and demand, and (in the prototype version focusing on low-income, highly
indebted countries) the link between foreign borrowing and private investment. It also
accounts for the existence of urban informal activities, credit market imperfections, and
the effects of financial variables on the real economy, by linking firms’ short- and
medium-term borrowing needs to bank lending. The dynamic nature of the model allows
the user to examine intertemporal trade-offs in evaluating the impact of policy and
exogenous shocks on the poor.

The prototype model for low-income countries [described in Agénor, Izquierdo
and Fofack (2001)] is calibrated for a representative economy and various numerical
simulations are performed to illustrate its properties. The quarterly IMMPA Newsletter
serves as a channel to provide regular updates regarding the modifications and
improvements that are made to the framework. For further information, please see the

Within the World Bank’s Vice Presidency for Development Economics & Chief
Economist (DEC), an aggregated CGE model (also called the 123-PRSP model) has been
developed to examine the impact of macroeconomic policies and shocks on households
(and hence on poverty). The framework links a standard set of macroeconomic accounts
(such as the IMF’s Financial Programming Framework) with (i) a static, two-sector
general equilibrium model, to capture relative-price and wage effects; and (ii) two
aggregate growth models, to capture the short- and long-term growth effects of the
policies and shocks. The resulting set of relative prices, wages and growth rates are then
used to calculate the impact on household incomes and expenditures (using household
survey data) in order to evaluate the effect of policies and shocks on household welfare.
The 123-PRSP model is operating in Cameroon and Zambia.

Within the Bank’s central Poverty Reduction & Economic Management (PREM)
network, work has been undertaken to integrate a labor-poverty (LP) modules into the
Bank’s macro-consistency model, the so-called Extended Re-specified Minimum
Standard Model (RMSM-X). The RMSM-X model with the labor and poverty modules

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39 The Revised Minimum Standard Model (RMSM) was originally created in 1973 as a means of ensuring a
consistent approach to World Bank projections and thus facilitate intercountry comparisons. These
objectives are met through the provision of a standard list of variables and a minimum set of economic
is then called RMSM-X+LP.\textsuperscript{40} It is considered a minimalist approach to assess poverty reduction policies via the Bank’s macro-consistency model. Even if developed further, it is unlikely to be sufficient to assess the impact of macroeconomic policies on poverty.

A joint research project of the International Food Policy Research Institute (IFPRI) and the World Bank has recently developed an advanced quantitative model for Indonesia that combines elements of the household income micro-simulation (HIMS) approach with that of a macroeconomic model. The model is described in Robilliard, Bourguignon, and Robinson (forthcoming),\textsuperscript{41} though some description can also be found in Bourguignon, Pereira da Silva and Stern (2002).\textsuperscript{42}

More recently, Pereira da Silva, Essama-Nssah and Samake (2002) have developed a Poverty Analysis Macroeconomic Simulator (PAMS), which is an Eviews-Excel package that allows users to assess the impact of macroeconomic policies on sectoral employment and income, incidence of poverty and income distribution. It is designed to help evaluate policies associated with PRSPs for low-income economies. The package is a simple tool that can be used to simulate the poverty and distributional impact of the following: (a) alternative growth scenarios for GDP (e.g. policy-driven or external shocks), associated with different combinations of inflation, fiscal and current account deficits; (b) alternative sectoral growth combinations (agricultural or industrial, tradeable or non-tradeable goods sectors, within a given aggregate GDP growth rate); (c) applying different levels of social (budgetary) transfers to different groups (within the macro-consistent budget constraint). Steps have been taken to apply and test the PAMS for Burkina Faso and Mali.

Finally, though not a quantitative tool to assess the impact of macroeconomic policies on poverty, a set of user-friendly Excel-based simulators (SimSIP) are being developed in the Poverty Group of the Poverty Reduction and Economic Management Division (PREM) in the Latin America and the Caribbean Region at The World Bank to facilitate the analysis of issues related to social indicators and poverty. Please see the SimSIP website \url{http://www.worldbank.org/simsip} for more information.

Though efforts have been undertaken to coordinate the work among the various groups within the World Bank, there remain some disagreements within the Bank on what appropriate methodologies are to assess the social impact of Bank and Fund programs and especially on how detailed a quantitative model should be to assess poverty relationships. The RMSM is a thinking and planning tool. Its primary purpose is to show the user what levels of investment, imports, and external borrowing will be required for a targeted real GDP growth rate. The planner’s choice of a real growth rate will determine what level of investment will be necessary.

\textsuperscript{40} For a more detailed description of the RMSM-X+P, see the December 2001 IMMPA Newsletter, available on the IMMPA website: \url{http://www.worldbank.org/immpa}.


reduction strategies. The fact that there are disagreements among different researchers within the World Bank should be interpreted as a positive sign. However, it makes it more difficult for developing countries to adopt the most appropriate tool. Another positive aspect is that all of World Bank researchers that have been contacted expressed their willingness to adopt changes in their model specifications if a developing country—that intends to use their model—suggests such changes.

IV.3.b. Work Ongoing at the IMF

As indicated in the joint SIA concept note (see Appendix 2), the Bank will take the technical lead in assessing and, if needed, carrying out social impact analysis of Bank-Fund assisted programs. However, some modeling work is currently in progress in a combined effort of staff from the IMF’s African Department, the IMF Institute, and the IMF’s Research Department. Using a CGE model for Uganda, the model intends to map the impact of macroeconomic policies on income distribution and poverty. The model is likely to be somewhere between the World Bank’s 123-PRSP model and the IMMPA model, though it will be more advanced than the IMMPA model in allowing income distribution to change within groups.

More generally, in reply to a draft of this Strategy Paper shared with various IMF staff, some senior staff agreed that it is important to build econometric models to help quantify the impact of alternative macroeconomic policies and other exogenous shocks on poverty and various social indicators. They acknowledged that this was one of the major issues raised by participants during the recent international conference on the PRSP approach held at the IMF in January 2002, and that it was also a recurrent theme in all four regional PRSP fora held before the January 2002 conference. They furthermore pointed out that the forthcoming review of the PRSP stresses the importance of this issue and calls for a concerted international effort to support the development of these and other tools, methodologies, and techniques.

Fund staff also agreed that a concerted effort by all interested parties, including country authorities, donors, international financial institutions, NGOs, and think tanks is absolutely critical to be successful in developing such models that will allow discussion of alternative policy choices and trade-offs involved in the context of PRSPs. They stressed that it will be important that different institutions doing research and developing such models share information, that this will not only help the exchange of ideas among various institutions and researchers and avoid replication of efforts, but that it will facilitate building on the experience of others. They emphasized that there is not, or should no be, a single standard model. Rather, depending on the country’s circumstance (i.e., data gaps, administrative capacity, etc.), certain models may be more appropriate and relevant. Moreover, any model is simply one of many quantitative and qualitative

44 More information on the Fund’s modeling work may soon be available at: http://www.imf.org/external/pubs/res/index.htm (check the category on ongoing research projects).
inputs that policy makers should take into consideration in developing public policy.

Furthermore, Kenneth Rogoff, the newly appointed Director of the IMF’s Research Department, has recently suggested to going “ahead with work on building multi-country macroeconomic models that allow us to analyze global macroeconomic policy implications.”45 Finally, though no indications have surfaced yet, some interest in developing some tools and methodologies to assess macroeconomic policies may come from the newly established Independent Evaluation Office (IEO) of the IMF, headed by Montek Singh Ahluwalia.46

IV.4. IFPRI’S “MERRISA” PROJECTS

Building on a decade of analysis and findings, the Trade and Macroeconomics Division (TMD) of the International Food Policy Research Institute (IFPRI) continues research in trade liberalization and macroeconomic reforms in Sub-Saharan Africa and other countries, especially through the second project study program of “Macro Economic Reforms and Regional Integration in Southern Africa (MERRISA).” Following the recently completed country studies of Mozambique, Tanzania, Zambia, and Zimbabwe, which analyzed the effects of reforms started in the early and mid 1990s, IFPRI undertakes currently a series of new country studies designed to measure the economic impact of current domestic and international policy changes in Malawi, Mozambique, Tanzania, and Zimbabwe.

MERRISA’s country-study component aims to contribute to a better understanding of recent macroeconomic policy adjustments in selected Southern African countries, and of their implications for economic growth and equity. The methodology of the project uses both historical analysis and formal economy-wide (especially CGE) modeling, with special attention to the links between agriculture and the rest of the economy. The country CGE models incorporate special structural features that better reflect Southern African characteristics, such as own household consumption, non-separability of farm-household consumption and production decisions, informal non-agricultural production and employment, factor-market segmentation, high transportation and transactions costs, government-controlled price on staples such as maize, and quantitative trade restrictions. For more information, please see: http://www.ifpri.cgiar.org/themes/mp12/merrisa.htm and http://www.ifpri.cgiar.org/themes/mp12/merrisa2.htm.

Senior staff of the Trade and Macroeconomics Division of IFPRI replied positively to the draft of this Strategy Paper, they were interested to stay in touch and offered their assistance. As noted above, IFPRI staff also works together with World Bank staff in developing quantitative models that combine elements of the household income micro-simulation (HIMS) approach with that of a macroeconomic model.

46 The IEO provides objective and independent evaluation on issues related to the IMF. It operates independently of IMF management and at arm’s length from the IMF’s Executive Board. See the IEO’s website (http://www.imf.org/external/np/ieo/sta.htm) for more information and the latest news on the IEO’s work program.
IV.5. U.K. DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID)

Following the Fund and the Bank’s agreement to work together to carry out poverty focused social impact analysis of macroeconomic and structural policies in Fund and Bank program countries, DFID is funding pilot studies in about seven countries, whereby one of the aims of the studies is to generate insights into methodologies for looking at impact of macro policies on poverty. DFID’s work is parallel to the World Bank’s plan to piloting poverty and social impact work in eight countries. DFID also plans to organize a conference with the Bank in Fall 2002 and probably another European one to bring in a wider range of actors. Please see Appendix 3 for the DFID’s Terms of References (Working Draft) for the pilot studies.

IV.6. DISTRIBUTIVE EFFECTS OF ECONOMIC POLICY (DEEP) MODEL

The Integrated Social Development Centre (ISODEC) in Ghana is currently building a computer-based dynamic economic model of Ghana. It aims at providing a clear understanding of the distributive tradeoffs imposed by the macroeconomic constraints, as well as the specific effects of particular government polices and external shocks on the income and quality of life of the poor and the marginalized. The model consists of three different modules that respectively track macroeconomic dynamics, effects of pro-poor government spending, and detailed income distribution. The macroeconomic module has two noteworthy methodological aspects: working within the structuralist macroeconomic tradition as opposed to the mainstream neoclassical approach, and use of a particular modelling technique called dynamic economic modelling. More information about the DEEP model is available upon request.

IV.7. C-CUBED AND MSG3 MULTI-COUNTRY MODELS

The most relevant global models are the so-called “G-Cubed Model” and the so-called “MSG3 Model” (please see Box 1), both of which have been developed by Warwick McKibbin and Peter Wilcoxen, whereby the MSG3 model replaces the MSG2 model originally developed by McKibbin and Sachs (1991). Though neither model has been used to assess the impact of macroeconomic policies on poverty, they could be used to assess the international components of the impact of macroeconomic policies on poverty. Both models have been used widely to analyze aspects of global warming, climate change, demographic change, trade and financial liberalization, and international policy coordination.

The Brookings Institution is in the process of developing an online training center for the development and use of economy-wide and global models, including the G-Cubed and MSG3 models. The online training center will be available without restriction to economists and policy analysts throughout the world. It will provide a complete self-paced model-building course that can be used by economists and policy analysts worldwide, whereby particular attention will be devoted to helping develop expertise in this area in developing countries. In addition, the center will provide materials and

curriculum to support instructors who wish to deliver undergraduate and graduate courses in modeling or to use modeling in courses on other topics, such as macroeconomics.

**Box 1: The MSG3 Model**

The MSG3 model has been constructed to contribute to the current policy debate on macroeconomic policy design in different economies. It is a world model with substantial regional disaggregation and some sectoral detail. In addition, countries and regions are linked both temporally and intertemporally through trade and financial markets. Like the MSG2 and G-Cubed models, the MSG3 model contains a strong foundation for analysis of both short run macroeconomic policy analysis as well as long run growth consideration of alternative macroeconomic policies. Intertemporal budget constraints on households, governments and nations (the latter through accumulations of foreign debt) are imposed. To accommodate these constraints, forward looking behavior is incorporated in consumption and investment decisions. Overall, the model is designed to provide a bridge between computable general equilibrium models and macroeconomic models by integrating the more desirable features of both approaches.

*Source: McKibbin Software Group Pty Ltd website: [http://www.sensiblepolicy.com](http://www.sensiblepolicy.com).*

**IV.8. THE THRESHOLD 21 NATIONAL DEVELOPMENT MODEL (T21)**

The Millennium Institute (a private development research and service firm headquartered in Arlington, Virginia, USA) provides computer modeling services for holistic planning that include economic, social, and environmental considerations. It developed the “Threshold 21 National Development Model (T21) to make national development planning easier and more effective. The Millennium Institute claims that the T21 is the first computer-based analysis tool to integrate human, economic, finance, and environmental concerns into one model. However, some reviewers have indicated that the model structure, parameter estimation, and practical use of the T21 are questionable. For more information, please see Box 2.

**Box 2: The Threshold 21 National Development Model (T21)**

When pursuing a strategy for sustainable development, policymakers and other planners are faced with the difficult question of where to invest resources. To make this decision, they must consult a variety of sources and interpret the complex inter-relationships between the economy, social welfare, and the environment. Often information is disorganized, inaccessible or inconclusive and leaves policy planners unsure of the optimal solution.

The Millennium Institute’s Threshold 21 (T21) computer-based analysis tool provides a solution to understanding these complex systems and to defining relevant analysis. It is a user-friendly software program which permits users to organize, access and analyze necessary information for making prudent decisions on sustainable development strategy. It is the first computer analysis tool to integrate human, economic and environmental concerns into one model and is uniquely designed for national and regional application.

T21 allows policymakers and planners to construct a customized model for their country: comprehensive and yet easy to build, modify and interpret. Once the model is adapted to the country, users can examine the long and short term effects of different policies with just the touch of a button. Users can also tailor the model to examine specific regions, sectors or even particular issues such as gender or greenhouse gases. Finally, with its visually compelling and user-friendly, transparent design, T21 is ideal for use as a discussion tool and a consensus builder.

V. THOUGHTS ON STANDARDS, METHODOLOGIES, AND TOOLS TO BE DEVELOPED

This section presents some initial thoughts on what standards, methodologies, and tools will need to be developed in order to come at least to some agreement on the impact of macroeconomic policies on poverty. However, the complexities of such analysis as well as the different levels of data availability will require the use of a combination of research methods and models.

Given that no single model can answer all the questions related to the impact of macroeconomic policies on poverty is, it would be desired that some models are developed that would be detailed enough to evaluate impacts of macroeconomic policies not only in terms of economic outcomes but also in terms of impacts on (i) the environment, (ii) social and institutional capital, (iii) income distribution, (iv) quality of life, and (v) gender. In order to be able to address international aspects of macroeconomic policies, it might be useful to develop some interregional dynamic CGE model (for example, see Adelman and Yeldan 2000, referred to in footnote 23) and to also make use of the MSG3 model (please see Section IV.7.a.).

We begin this section with the presentation of evaluation criteria. We then discuss the two basic principles as they apply to any impact evaluation and present the three basic methodologies to assess the impact of macroeconomic policies on poverty. The section concludes with the presentation of some key problems of CGE models.

For a detailed description and discussion of tools to evaluate the poverty impact of micro- and macro-oriented economic policies, please see Bourguignon, Pereira da Silva, and Stern (2002, referred to in footnote 41).

V.1. EVALUATION CRITERIA

As described in Box 3 below, relevance, effectiveness, efficiency, impact, and sustainability are general evaluation criteria to be considered when evaluating programs and projects. However, the key criterion of interest for evaluating macroeconomic policies and programs is their impact on poverty, whereby we are interested to know the impact of (a) specific macroeconomic policies and (b) overall macroeconomic programs.
### Box 3: DAC Criteria for Evaluating Development Assistance

When evaluating programs and projects it is useful to consider the following Development Assistance Committee (DAC) Criteria, as laid out in the DAC Principles for Evaluation of Development Assistance:

**Relevance**

The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.

In evaluating the relevance of a program or a project, it is useful to consider the following questions:

- To what extent are the objectives of the program still valid?
- Are the activities and outputs of the program consistent with the overall goal and the attainment of its objectives?
- Are the activities and outputs of the program consistent with the intended impacts and effects?

**Effectiveness**

A measure of the extent to which an aid activity attains its objectives.

In evaluating the effectiveness of a program or a project, it is useful to consider the following questions:

- To what extent were the objectives achieved / are likely to be achieved?
- What were the major factors influencing the achievement or non-achievement of the objectives?

**Efficiency**

Efficiency measures the outputs -- qualitative and quantitative -- in relation to the inputs. It is an economic term which signifies that the aid uses the least costly resources possible in order to achieve the desired results. This generally requires comparing alternative approaches to achieving the same outputs, to see whether the most efficient process has been adopted.

When evaluating the efficiency of a program or a project, it is useful to consider the following questions:

- Were activities cost-efficient?
- Were objectives achieved on time?
- Was the program or project implemented in the most efficient way compared to alternatives?

**Impact**

The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the local social, economic, environmental and other development indicators. The examination should be concerned with both intended and unintended results and must also include the positive and negative impact of external factors, such as changes in terms of trade and financial conditions.

When evaluating the impact of a program or a project, it is useful to consider the following questions:

- What has happened as a result of the program or project?
- What real difference has the activity made to the beneficiaries?
- How many people have been affected?

**Sustainability**

Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. Projects need to be environmentally as well as financially sustainable.

When evaluating the sustainability of a program or a project, it is useful to consider the following questions:

- To what extent did the benefits of a program or project continue after donor funding ceased?
- What were the major factors that influenced the achievement or non-achievement of sustainability of the program or project?

**Source:**

V.2. BASIC PRINCIPLES OF EVALUATION

There are two basic principles that apply to any impact evaluation. First, the methodology used should follow well-respected scientific standards. The problem here is that there are some ideological differences between the neoclassical and structuralist camps on suggestions of what kind of quantitative models can be used for the assessment of macroeconomic policies on poverty. Nevertheless, there seems to be some agreement that structuralist models are the more appropriate ones for developing countries, at least from a theoretical point of view. The practical problem is that structuralist models are usually more complicated and thus more efforts and support would be needed to increase their use.\(^4^8\) In any case, it would be useful if development economists of various schools would discuss the various issues and agree to some minimum standards for the development of quantitative tools.

The second basic principle of any evaluation is that independent researchers should perform this evaluation. However, there are at least three issues that suggest that this principle is less important for the actual development of quantitative tools.

- First, the quantitative models to be developed are supposed to be used ex ante to the implications of macroeconomic policies.

- Second, there will obviously be some learning involved from developing such quantitative models that would be useful for both, the people who suggest macroeconomic policies/programs and the people who evaluate the macroeconomic policies/programs. Indeed, in order to take country-specific circumstances into account, there will need to be some collaboration between model developers and model users (as is the case in the MIMAP network and to some degree also with the IMMPA model).

- Third, given the experience and resources international institutions like IFPRI, the IMF, and the World Bank have for developing such tools, it would be highly inefficient to exclude any of these institutions from the development of quantitative models or tools. Instead of excluding anybody from the development of quantitative models or tools, it would be desired that multilateral institutions, national development agencies, and researchers from NGOs, think tanks, and civil society groups (especially from developing countries) would collaborate with each other. Furthermore, use could be made of existing networks, both, those that are currently involved in the development of quantitative tools (like the MIMAP network) and those which are currently not directly involved in the development of quantitative tools.

tools [like the Global Development Network (GDN)\textsuperscript{49} and the Chronic Poverty Research Centre (CPRC)\textsuperscript{50}].

V.3. METHODOLOGIES TO CONSTRUCT THE COUNTERFACTUAL

The heart of evaluating the impact of macroeconomic policies and/or programs on poverty depends on the fundamental question of what poverty would have been if different macroeconomic policies and/or programs were adopted. Given that there is no definitive answer to this question, an imperfect solution is to approximate an answer by constructing an appropriate counterfactual. The task to construct an appropriate counterfactual is especially difficult for the assessment of macroeconomic policies and/or programs as macroeconomic policies affect the whole population (what is usually called a full-coverage intervention). Thus, the simulation of counterfactuals by comparing program participants (the treatment group) with a control or comparison group is very difficult. Based on the existing evaluation literature, it is possible to distinguish between three methodologies to assess the impact of macroeconomic policies on poverty: (a) reflexive comparisons, (b) with and without comparisons, and (c) simulations using CGE models.

V.3.a. Reflexive comparisons

Reflexive comparisons are relatively simple before-and-after comparisons. Thus far, experience seems to indicate that the use of reflexive comparisons is not sufficient to properly assess the impact of macroeconomic policies on poverty, though they can be useful for the analysis of a specific issue.

V.3.b. With and without comparisons

With and without comparisons could compare countries that have adopted similar policies with countries that have used alternative policies. A crucial problem of such a methodology is that the initial conditions for the two country groups may not be comparable and that there may be too many other circumstances that have caused the different results between the two groups of countries. However, it could also be considered to further develop methodologies that use regressions to control for the difference in initial conditions and policies undertaken in program and non-program countries or regions. This approach identifies the differences between program and non-program areas in the pre-program period and then controls these differences statistically to identify the isolated impacts of the programs in the post-reform performance.

V.3.c. Simulations using CGE models

CGE models are the most widely used methodology to assess the impact of macroeconomic policies on poverty. CGE models attempt to contrast outcomes in the observed and counterfactual situations through computer simulations, which require the

\textsuperscript{49} The GDN is a collaborative initiative of development institutions all over the world, with regional development networks in each of seven regions; for more information, see: \url{http://www.gdnet.org/}.

\textsuperscript{50} The Chronic Poverty Research Centre is an international partnership of universities, research institutes and NGOs which exists to focus attention on Chronic Poverty, to stimulate national and international debate, to deepen understanding of the causes of Chronic Poverty, and to provide research, analysis and policy guidance that will contribute to its reduction. For more information, see: \url{http://www.chronicpoverty.org/index.html}
complete specification of both the supply and demand sides of all relevant markets, based on detailed social accounting matrices (SAMs) collected from data on national accounts, household expenditure surveys, and other survey data.

V.4. SOME KEY PROBLEMS OF CGE MODELS

While CGE models have many characteristics that explain their superiority compared to other methodologies, there are also some major problems related to the use of CGE models. A detailed and specific description of these problems can be found in de Maio, Stewart, and van der Hoeven (1999), though some of their claims have been rejected in the reply by Sahn, Dorosh, and Younger (1999).51 A good description of the key problems of CGE models can also be found in Iqbal and Siddiqui (2001, see footnote 24). Though there is no strict separation of some issues, they can be characterized by the following: (a) validity of model assumption, (b) data quality, parameter estimation, and calibration, and (c) sensitivity analysis and tracking record.

V.4.a. Validity of model assumption

As is the case with all economic modeling, a CGE model is only useful in estimating policy effects if it (i) represents a good approximation of how an economy behaves and (ii) is appropriately designed to handle the question being examined. Hence, we have suggested that a first step would be to develop minimum standards of what assumptions and model characteristics are appropriate.

V.4.b. Data quality, parameter estimation, and calibration

While data availability and data quality are problem factors for any empirical analysis, they are especially severe for CGE models as a lack of good data has implications on parameter estimations, which then feed back into model results. It has also been suggested to replace time-point-sensitive calibrations with econometric estimation of parameters. “Whatever method is adopted for estimating parameters and relationships, careful tracking over time is essential to evaluate the reliability of the estimates.”52

V.4.c. Sensitivity analysis and tracking record

Finally, as de Maio, Stewart, and van der Hoeven (1999, p. 459) have concluded, “any empirical model, whatever its numerical approach, should be supported by exploring its tracking record, supplemented by thorough sensitivity analysis with respect to critical parameters.”

52 De Maio, Stewart, and van der Hoeven (1999, p. 458).
VI. CONCLUSIONS

- There are substantial disagreements on what appropriate macroeconomic policies are to reduce poverty most effectively.

- Even though some promising steps have been taken to develop quantitative models to assess the impact of macroeconomic policies on poverty, there remains a lack of (a) quantitative tools and (b) agreed methodologies, especially if considering aspects of international macroeconomics and environmental implications.

- No single model, tool, or methodology will be able to assess the impact of macroeconomic policies on poverty.

- CGE models, especially next generation disaggregated CGE models, are one tool for an exante assessment of the impact of macroeconomic policies on poverty.

- There are considerable theoretical and practical problems related to CGE models, which require that other methodologies will need to support the results derived from CGE models.

- While it is important to develop models, tools, and methodologies for the assessment of macroeconomic policies on poverty, it is equally important
  - to analyze what macroeconomic and structural policy changes have led to the sharp slowdown in economic growth of the last twenty years (compared to the previous twenty years), and
  - to use and develop methodologies like “Voices of the Poor”\(^{53}\) to guarantee that the poor themselves can influence the design of macroeconomic policies.

- A concerted international effort by all interested parties (national and international developmental institutions, country authorities, donors, non-governmental organizations, and think tanks) is critical to be successful in developing models, tools and methodologies to assess the impact of macroeconomic policies on poverty.

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\(^{53}\) Please see [http://www.worldbank.org/wbp/voices/index.htm](http://www.worldbank.org/wbp/voices/index.htm) for more information as well as the concluding chapter “An Empowering Approach to Poverty Reduction” of the three-part series entitled *Voices of the Poor* by Deepa Narayan and Patti Petesch (also available on the Voices of the Poor-website).
Appendix 1:

Debates on the Impact of Specific Macroeconomic Policies on Poverty

I. Introduction

We categorize specific macroeconomic policies into fiscal, monetary, financial, exchange rate, and trade policies. Even though these policies are neither independent from each other nor independent from international policy settings we will outline the key debates on the impact of these policies on poverty under these five specific headings, depending on where the concentration of a debate takes place. The last section provides a short conclusion of these various debates, which is also provided in Section B.III.3. of the Strategy Paper. 54

II. Impact of Fiscal Policy on Poverty

Fiscal policies constitute one of the most important domains of the state to reduce poverty. There is broad agreement that (i) an increase in the share of priority sectors (especially education and health), 55 and (ii) a better targeting of public expenditures are essential elements of any poverty reduction strategy. 56 There is also some agreement that steps towards people-centered budgets would support these changes within an overall framework of a fully-participatory poverty reduction strategy. 57 Finally, there is now also broad agreement that the poor need to be protected from contractionary fiscal policies imposed by stabilization programs, though there are of course disagreements about the contents and extent of such a protection.

With regards to fiscal expenditures, various disagreements are related to the trade-offs from choosing between competing expenditures, which should be based on the relative effectiveness of the different expenditures to reduce poverty. Most of these trade-offs can only be assessed properly by analyzing the impact of various expenditures on poverty using detailed information based on repeated household surveys. In any case, one aspect that deserves more attention is the protection of the poor from economic shocks.

54 Note also that the bibliography for this appendix is part of the comprehensive bibliography provided in the last section of the Strategy Paper.
56 Recent studies analyzing the benefit incidence of public expenditures indicate that the poor do not get their fair share of these expenditures. For example, Castro-Leal, Florencia, Julia Dayton, Lionel Demery, and Kalpana Mehra, “Public Social Spending in Africa: Do the Poor Benefit?” World Bank Research Observer, Vol. 14, No. 1 (February 1999), pp. 49-72 show that the benefit incidence of public spending on health for the poorest 20 percent of the population is 11 percent for Cote d’Ivoire, 12 percent for Ghana, 4 percent for Guinea, 14 percent for Kenya, 12 percent for Madagascar, 17 percent for Tanzania, and 16 percent for South Africa.
The literature analyzing the impact of economic shocks on the poor seems to indicate that the poor are more vulnerable to economic shocks than the non-poor.\(^{58}\) Though vulnerability is generally cited as a companion of material and human deprivation, which emerges as a result of internal and external macroeconomic instability (which the poor are unable to avoid, mitigate, or cope with), the protection of the poor from economic shocks is likely to have some immediate budgetary consequences. Furthermore, given that most developing countries have pro-cyclical government expenditures, the protection of the poor from economic shocks could also have medium-term budgetary implications. For example, it could be considered to establish reserves during high-growth periods that could be used to buffer shocks during low-growth periods, especially for the poor and most vulnerable groups of society.

With regards to fiscal revenues, there are various disagreements on what changes in tax policies (for example, changes in the tax progression) will benefit the poor most in the long run.\(^{59}\) As was the case on the expenditure side, these policy choices can only be assessed properly by analyzing the impact of various tax policies on poverty using detailed information based on repeated household surveys, which is complicated by issues related to changes in foreign tax structures and capital mobility. In any case, there is some agreement that tax codes should be simplified and that tax exemptions to the non-poor policies should be eliminated.

Finally, looking at the combination of expenditures and revenues, there are debates on (i) what levels of budget deficits are sustainable (which depends for most of the developing countries critically on the availability of foreign budget assistance in terms of loans and grants) and (ii) how to finance budget deficits without compromising macroeconomic stability. The first question has been addressed in Section B.III.4.a. of the Strategy Paper; the second question will be discussed in the next section.

### III. Impact of Monetary Policies on Poverty

While there is broad agreement that high and highly volatile inflation has negative implications on growth and poverty, there is no agreement on the impact of moderate inflation on poverty and growth. With regards to the impact of inflation on poverty, there are only a couple of cross-country studies (see Section II.3.a. of the Bibliography), indicating that high inflation increases poverty, largely through (a) the negative impact of high inflation on economic growth and (b) the lack of the poor to protect the real value of

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\(^{58}\) See Ferreira, Francisco, Giovanna Prennushi and Martin Ravallion, “Protecting the Poor from Macroeconomic Shocks” World Bank, Policy Research Working Paper, No. 2160 (August 1999); and Glewwe, Paul and Gillette Hall, “Are some Groups more Vulnerable to Macroeconomic Shocks than Others? Hypothesis Tests on Panel Data from Peru” *Journal of Development Economics*, Vol. 56, No. 1 (June 1998), pp. 181-206. Note that though the analysis of Easterly, William, “The Effect of IMF and World Bank Programs on Poverty” IMF, First Annual Research Conference (November 2000) seems to indicate that the poor may suffer less from economic shocks in countries undergoing structural adjustment reforms, it has been pointed out that this result could be due to 5-year observation period and that higher frequency data would show that the poor suffer more during crises.

\(^{59}\) Tanzi, Vito and Howell H. Zee, “Tax Policy for Emerging Markets: Developing Countries” Washington, DC: IMF Working Paper, WP/00/35 (March 2000) have cautioned against increasingly progressive taxes as they could have negative implications on investment and growth.
their incomes and assets from inflation. Easterly and Fischer (2000)\(^{60}\) conclude that their evidence tends to support the view that inflation reduces the relative income of the poor. Based on correlating inflation with the share of the bottom quintile in income, the poverty rate, and the real minimum wage, they find that high inflation tends to (i) lower the share of the bottom quintile, (ii) lower the real minimum wage, and (iii) increase poverty. However, more recently, Cashin, Mauro, Pattillo, and Sahay (2001)\(^{61}\) have found no evidence that inflation (or its variance) is individually associated with either pro-poor or anti-poor economic growth.

With regards to the impact of inflation on growth, most of the literature indicates that the negative relationship between inflation and growth applies only to high inflation.\(^{62}\) However, Gosh and Phillips (1998)\(^{63}\) concluded that inflation has at all but the lowest levels a negative impact on growth. As was the case in the growth-poverty debate, some more insights could be obtained by looking beyond average relationships between inflation and poverty. Indeed, a recent study by Khan and Senhadji (2001, p. 1)\(^ {64}\) suggested that “the threshold level of inflation above which inflation significantly slows growth is estimated at 1-3 percent for industrial countries and 11-12 percent for developing countries.”

Furthermore, there is a considerable debate on what constitutes a proper stabilization of inflation. In addition to the question to which level inflation rates should be at or reduced to, there are questions on how aggressively inflation rates should be reduced, under what circumstances inflation rates should be reduced, and what instruments should be used to stabilize inflation. According to these four issues, critiques claim that IMF-supported disinflations (i) target unnecessarily low inflation rates, (ii) are performed too aggressively, (iii) neglect an economy’s business cycle, and (iv) use inappropriate instruments. We will return to some of these issues below when we discuss debates related to exchange rate policies.

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IV. Impact of Financial Policies on Poverty

Until recently, financial policies have not been considered to be key components of poverty reduction policies. However, events like the rise of micro-finance on the one hand and the East Asian crisis on the other hand, have brought financial policies to the center of the development debate. Though the East Asian Crisis has shown that there is a connection between weaknesses in the domestic banking sector, financial liberalization and currency crisis, we first review debates that concentrate on domestic financial polices and summarize then the debate on financial liberalization.

IV.1. Domestic financial policies

As demonstrated in a recent World Bank policy research report, there is broad agreement that a sound financial sector is crucial for poverty-reducing economic growth. There is less agreement on the report’s conclusion that governments are not good at providing financial services and that developing countries should tap market forces so that bank owners, participants in the financial markets, and bank supervisors have incentives to monitor one another and avoid excessive risk. On the other hand, there is again broad agreement that (a) well functioning markets need legal and regulatory underpinnings, (b) good financial safety nets require good institutions, and (c) a diversity of financial intermediaries is good for financial stability and development. The more difficult questions are what legal and regulatory underpinnings are needed, how to get good institutions and a diversity of financial intermediaries, whereby the key debate is on the impact of capital account liberalization.

IV.2. The debate on the impact of financial liberalization

Though the benefits and costs of financial liberalization have been debated for decades, the majority of the recent literature (please see Section II.3.b. of the Bibliography) comes to the conclusion that financial liberalization has gone too far and been too fast for most of the developing countries.

Cobham (2001) provides a summary of the literature on the growth impacts of capital account liberalization, reviews the impacts of capital account liberalization on government spending, and considers whether financial liberalization brings benefits to the poor through greater employment opportunities and access to credit. Cobham concluded that while theory implies there will be efficiency benefits for international finance, the existence of growth benefits for developing countries has simply not been established. Similarly, Blecker (1999, p. xiv) concluded that although more research is needed.

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67 Cobham, Alex, “Capital Account Liberalisation and Poverty” Paper prepared for an expert group meeting held at Oxford University, January 2001; published as Part II of a joint Breton Woods and Oxfam report examining the links between capital account liberalization and poverty, which is available on the internet: http://www.brettonwoodsproject.org/topic/financial/f22growthflows1.htm.
clearly needed, “on the whole, the costs of capital market liberalization have generally outweighed the benefits.”

The World Bank’s research report on *Finance and Growth* (2001, p. 4; see footnote 12) has stated that open financial markets can spur development, but also warned that “opening up is accompanied by some drawbacks, including a heightening of risk in some dimensions, and will need careful monitoring.” The IMF study on capital account liberalization has also acknowledged that liberalizing the capital account before the developing country’s financial system has been strengthened can contribute to serious economic problems, however, the study nevertheless concludes that financial liberalization is inevitable for countries that wish to take advantage of the substantial benefits of participating in the open world economic system.

A more recent IMF working paper by Wagner (2001) has found that the many structural changes that are associated with the globalization process cause an increase in the uncertainty surrounding monetary policy which leads to increased uncertainty as to how to interpret macroeconomic data and about the monetary transmission mechanism. On the other hand, Wagner concluded that globalization increases international competition that forces market players to make structural adjustments or reforms that change the conditions or constraints under which monetary policy is implemented.

Finally, though also recognizing that liberalization may bring some benefits, Wyplosz (2001) concluded that a silver lining of the recent crises is that the liberalization activism of the 1990s is now passé, and that there is no urgency to undertake liberalization, even though that step should be taken somewhere down the road.

V. Exchange Rate Policy

While the key debates related to exchange rates are ongoing since the collapse of the so-called Bretton Woods exchange rate system, there are also a couple of debates related to national exchange rate policies. A first debate is related to a country’s overall choice of exchange rate regime, a second debate is related to the optimal adjustment of a country’s exchange rate, and a third debate is related to measures a country could adopt to limit the negative implications of devaluations on the poor.

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72 For instance, if the world should return to a fixed exchange rate system or if the negative effects of speculative capital movements can be limited through a global tax on international currency transactions (the Tobin tax).
V.1. The choice of an appropriate exchange rate regime

It is now conventional wisdom that a country’s choice between a fixed and a flexible exchange rate depends on balancing the effectiveness of and need for an independent monetary policy with that of limiting excessive volatility of exchange rates under flexible regimes. However, there are disagreements on the size of the negative impacts of exchange rate volatility. Over the last three decades, encouraged by the IMF, more and more developing countries have adopted more flexible regimes. Though Fischer (2001)\textsuperscript{73} has shown that the actual number of developing countries that have adopted a flexible exchange rate regime is lower than the number of countries that officially declared to have a flexible exchange rate regime, there remains a trend towards more flexible exchange rate regimes.

One of the key reasons for the move towards flexible exchange rate regimes has been related to the unsuccessful experience with fixed regimes, which are at least partly due to inertia in required adjustments based on an excessive accommodation to political pressures. The adoption of a flexible exchange rate regime is considered to reduce the latitude for discretion and political pressure on the conduct of exchange rate policy, which led to considerably overvalued exchange rates in the 1980s. While a flexible exchange rate regime implies by definition continuous changes in the exchange rate, experience has shown that a fixed exchange rate regime usually implies megadevaluations that occur once the fixed exchange rate regime collapses. Though disagreements remain, there is some indication that the move toward more flexible exchange rates has been associated with large declines in economic rents and a shift of relative prices that favor the rural poor.\textsuperscript{74} We will discuss this further in the subsection on the impact of devaluation on the poor.

More generally, macroeconomic theory suggests that a fixed exchange rate would require a country to (i) have a dominant trade share (at least 50 percent) with the country or countries to which the currency is fixed, and (ii) be able to sustain an inflation rate consistent with the currency or basket of currency to which the peg is made. Another key economic argument for flexible exchange rates is the claim that a flexible regime can smooth adjustment to real shocks more effectively than a fixed regime.\textsuperscript{75} Hence, a key decision rule is not based on which regime provides a more stable real exchange rate, but which regime is more appropriate to cope with external shocks. Moreover, Tornell and Velasco (2000)\textsuperscript{76} have shown that fixed exchange rates do not necessarily imply more


\textsuperscript{75} For one of the most recent and comprehensive evidence along this line, see Broda, Christian, “Coping with Terms-of-Trade Shocks: Pegs versus Floats”, \textit{American Economic Review}, Vol. 91, No. 2 (May 2001), pp. 376-80.

fiscal discipline than flexible regimes. Finally, based on an analysis of 22 SSA countries from 1980-96, Adam, Bevan and Chambas (2001) suggested that misalignments of the real exchange rate imply lower fiscal revenues, though this is not necessarily an argument for flexible exchange rates.

While most of these factors tend to suggest that a flexible exchange rate regime seems to be slightly more consistent with sustained economic growth and poverty reduction strategies of small developing countries than the adoption of a fixed exchange rate, the temporary adoption of a fixed exchange rate may be a successful short-run strategy, especially if inflation is caused by volatile external factors (like temporary terms of trade shocks and unusual large capital inflows).

V.2. Determination of the optimal adjustment of a country’s exchange rate

Independent on which exchange rate regime is adopted, the question usually arises on what the optimal adjustment of the nominal exchange rate is. With fixed nominal exchange rates, the question is at which point to correct any possible deviation from the real exchange rate. In this regards, the use of a high interest rate policy to defend a fixed exchange rate regime (as suggested by the IMF for some of the East Asian countries) has come under severe attack.

With flexible exchange rates, the question on the optimal adjustment of the exchange rate implies the determination of the optimal degree of exchange rate flexibility. Given that the adoption of fully market-determined exchange rate is generally associated with excessive exchange rate volatility, especially in small developing countries, it is generally agreed that interventions aiming at reducing excessive volatility are principally desired as long as these interventions do not intend to defend any particular rate that is inconsistent with the long-term equilibrium exchange rate. Nevertheless, the IMF usually suggests an exchange rate policy of strict non-intervention in the setting of the exchange rate, and to forego all discriminatory currency practices and exchange restrictions.

V.3. Impact of devaluation on poverty

In general, devaluations are quite unpopular within developing countries, largely due to (i) fears of setting off a devaluation-inflation spiral, (ii) low export and import elasticities, (iii) increased domestic costs of servicing foreign debt, (iv) increased costs of financing subsidies for imported inputs, (v) falling terms of trade, (vi) fear of a loss of confidence with foreign investors, and (vii) for many other political reasons.

Most of the early literature also indicated that devaluations have negative impacts on the poor, mainly through its negative impact of inflation. Stabilization programs, in which devaluations usually were a key component, were harshly criticized in circles associated with the poor, especially among NGOs. For a more advanced analysis of the

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impact of devaluation on poverty, see for example, Stewart (1995). While no clear conclusion has emerged yet, there are a couple of recent studies that seem to indicate that devaluations had generally a positive impact on poverty reduction. In any case, it is clear that a further disaggregation of the effects and of the poor is needed, i.e., into short-term and long-term effects, and into rural and urban poor.

VI. Trade Policy

The recent empirical literature analyzing the impact of trade specifically on poverty seems to conclude that trade has a positive impact on poverty reduction. Furthermore, the majority view among economists suggests that recent changes in the distribution of income primarily reflects technological changes rather than increases in international trade. Thus, the general conclusion is that further trade liberalization will have an overall positive impact on poverty reduction. However, it has also been argued that there are methodological problems with the empirical strategies employed in the trade literature which cast doubt on the majority view that countries with lower policy-induced barriers to international trade grow faster (see Rodriguez and Rodrik 2000).

Furthermore, as Winters (April 2000) has shown, there are cases in which the poorest members of society have been negatively affected from trade liberalizations, and thus, compensatory policy measures may be needed. Studies that disaggregate among the poor show that depending on production, trade, and consumption patterns, some of the poor are positively, and some negatively affected by trade. Furthermore, studies that disaggregate trade liberalizations into various components indicate that some agreements (e.g., free trade of goods) will generally benefit the developing countries, while other agreements (like on intellectual property rights) will be costly for most of the least developed countries. There is also evidence that there are “Rigged Rules and Double Standards” which prevent world trade from being a powerful motor to reduce poverty.

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78 Stewart, Frances, Adjustment and Poverty: Options and Choices, London and New York: Routledge, 1995. This analysis is based on (a) changes in the price ratio between tradeables and non-tradeables, (b) the relative labor intensity between tradeables and non-tradeables, and (c) the distribution of poverty among urban and rural sectors.


81 See the forthcoming Trade Report of Oxfam International (April 2002); which will also be available on the Oxfam International website (http://www.oxfam.org/).
A factor that has been neglected widely is the possible negative implications from international implications. If all developing countries try to benefit from increased food exports, the likely effect will be a further collapse of food commodity prices, and the projected benefits to the rural poor from such a strategy may thus not occur. See Blecker (2000)\textsuperscript{82} for a thorough analysis of the related issue of diminishing returns to export-led growth. Finally, Cagatay (2001) has pointed out that (a) men and women are affected differently by trade policies and performance, owing to their different locations and command over resources within the economy, (b) gender-based inequalities impact differently on trade policy outcomes, depending on the type of economy and sector, with the result that trade liberalization policies may not yield expected results, and (c) gender analysis is therefore essential to the formulation of trade policies that enhance rather than hinder gender equality and human development.\textsuperscript{83}

VII. Conclusion

The various debates on the impact of specific macroeconomic policies on poverty have shown that such an analysis implies a marriage between macroeconomics and microeconomics that is still at an early stage. Indeed, a recent IMF Working Paper by Cashin, Mauro, Pattillo, and Sahay (September 2001, p. 21; please see footnote 7 for full references) has not found significant and robust evidence that variables such as inflation, budget deficits, government spending, openness, and the black market foreign exchange premium are individually associated with pro-poor (or anti-poor) economic growth, and has thus called for alternative research approaches to find significant and robust evidence on the direction and strength of the effects of these variables on the poor.

Furthermore, even the impact of IMF-supported stabilization programs on growth is still highly disputed. Przeworski and Vreeland (2000) find that (i) IMF programs lower growth rates for as long as countries remain under a program, and (ii) once countries leave the program, they grow faster than if they had remained, but not faster than they would have without the IMF program.\textsuperscript{84} Similarly, Barro and Lee (2001)\textsuperscript{85} find that without instrumenting, increased IMF program participation is associated with a contemporaneous reduction of economic growth, though they find no statistically significant contemporaneous impact of IMF program participation after controlling for endogeneity. With regards to recent currency crises and the current Argentine debt crisis, the question has been raised if the output costs of IMF-suggested macroeconomic policies

and their impact on the poor are worse than the initial disease. While there is some broad agreement that macroeconomic stability is necessary for sustainable growth and poverty reduction, there is little agreement on what constitutes macroeconomic stability.

Finally, there also remain sharp disagreements on how to define and maintain macroeconomic stability, especially in already slow-growing or stagnating economies. While the United States is currently encouraging other countries to use more expansionary fiscal and monetary policies to overcome the current slump of the world economy, almost all IMF-supported programs prescribed some contractionary fiscal and monetary policies, even if these countries were in the midst of economic stagnation.
Appendix 2: Joint World Bank and IMF Concept Note on Social Impact Analysis (SIA) of Macroeconomic and Structural Policies

(April 26, 2001)

I. Background

1. The Poverty Reduction Strategy Paper (PRSP) process has given increased impetus to understanding the impact of public actions on social and poverty outcomes, in order (i) to provide a basis for considering policy options and/or appropriate sequencing of policies and (ii) to integrate appropriate mitigating measures and/or risk management systems into the reform program when negative consequences are unavoidable.

2. A joint Bank-Fund Working Group was established early this year by the Joint Implementation Committee (JIC) to develop an approach to social impact analysis (SIA), as well as to prepare a work program to operationalize SIA in Bank and Fund programs that support national PRSP processes. This note lays out an agreed conceptual framework, issues and challenges for implementing SIA systematically, and a phased plan for implementation. Section II develops the conceptual framework for social impact analysis. Section III addresses more specific issues in the operational context of Bank-Fund work. Finally, Section IV proposes a work-program to address these outstanding issues, particularly in the areas of analytical approaches, Bank/Fund support and coordination on SIA, and developing Bank/Fund policies on SIA. The conceptual framework for SIA will be refined over this calendar year by taking stock of data, available methodologies and practices, while engaging in operational work on SIA in the short-term in the context of upcoming operations.

II. Social Impact Analysis: A Preliminary Approach

A. Analytical Framework

3. The term “social impact analysis/assessment” refers to a wide variety of models, concepts, and tools. We do not choose here between those different models. Instead, a cross-country stocktaking of SIA is subsequently proposed in Section IV, so as to arrive at a working arrangement for conducting SIA in the context of country PRSPs.

4. Under the broad conceptual framework adopted in this note, SIA refers to the analysis of intended and unintended consequences of policy interventions—ex ante, during their implementation, or ex post—on the well-being of different social groups, with a special focus on the vulnerable and the poor. Well-being, or welfare,
includes the income and non-income dimensions of poverty. As SIA analyzes the distributional impact of policy across social groups, it requires disaggregated analysis of the impact of policies on diverse social groups (based on gender, ethnicity, age, land ownership, livelihood, and geographic location). The units of analysis for SIA may include individual, household and intra-household members, or community and interest groups at the local, regional or national levels.

5. SIA should ideally be based on a comprehensive analysis of policies and public actions (i.e. public spending programs) and capture both direct and indirect effects. In practice, because of data and other limitations, a more limited analysis of the immediate social impact of alternative policies may have to be utilized. In some cases, a partial-equilibrium analysis of first-round effects of alternative policies can provide an initial assessment of their social impact.

6. Realistic SIA will need to assess the institutional and other factors that determine the success of policies, as well as the risks to policy success. Depending on the nature of the policy alternatives under consideration, SIA may need to take account of the short-, medium-, and long-term impact of policy. Some macroeconomic and structural policies may have an adverse social impact in the short-term, but they might be indispensable for medium- and long-term growth and poverty reduction. In addition, while certain policy interventions may entail social costs, these may be smaller than what would have been the case without the intervention.

7. Social impact analysis is undertaken with the immediate objective of continually informing policy dialogue, choice, and implementation, within the broader objective of promoting sustainable poverty reduction and social inclusion.

- **Ex ante SIA** would inform the choice, design, and sequencing of alternative policy options through (i) the clarification of assumptions on the transmission channels and expected impact of policies, and (ii) the delineation of the range of the potential distributional and poverty impact of different policies. If policy options are assessed by the SIA as having a potential negative impact, either (i) alternative design options and/or (ii) mitigating measures and risk management systems may need to be considered. SIA would also inform the design of monitoring systems to track the implementation and evolution of actual outcomes against those which were anticipated.

- **During implementation** SIA would monitor the actual impact of policies and public actions, including unanticipated effects and institutional behavior that affects those outcomes. This feedback from SIA might lead to the refinement of policy interventions; to a reconsideration of the pace and sequencing of reforms,

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87 Well-being is used synonymously with the concept of welfare. There are a variety of indicators that may be used to capture the multiple dimensions of well-being and poverty relating to opportunity, empowerment, and security. For operational purposes, in the short-term it will be necessary to focus on a limited set of priority variables, such as those captured in the international development goals.
or the institutional arrangements for reform implementation; and to the introduction or strengthening of mitigation measures.

- **Ex post SIA** assesses the actual distributional and poverty impact of policy, to improve the understanding of the social impact of future policy interventions.

**B. Application of SIA**

8. SIA could be applied to a variety of policies or exogenous shocks that may affect the development process. The particular focus of this note is the application of SIA in the context of national PRSPs, and the Bank’s PRSC and the Fund’s PRGF programs in support of each country’s poverty reduction strategy. In this context, this note focuses specifically on the social impact analysis of macroeconomic, structural, and sectoral policies at the country level.

- With regard to **macroeconomic policies**, for example, these would include exchange rate adjustments and specific expenditure programs and revenue measures. Depending on country circumstances, other policy measures can be considered, while ensuring macroeconomic stability and sustainability.

- The domain of relevant policies for SIA also includes **structural and sectoral reforms and policies**. These include, *inter alia*, policies related to international trade, domestic prices, financial markets, civil service reform, legal reform, privatization, and sectoral reforms. Such policies and programs will affect the poor and other social groups through their direct and indirect effects, for example, through changes to relative prices, asset values, access to market opportunities and public services, empowerment, and security.

9. **SIAs will be conducted during the preparation of national PRSPs.** Countries themselves have the main responsibility for conducting SIA in the context of PRSPs, with the support of donors and the World Bank. This note recognizes that not all SIA work may be completed before a PRSP is ready. Therefore, SIA will involve both up-front and ongoing analyses as part of program implementation.

10. **SIA will have to be applied in a selective manner, given limited capacity at present for carrying out such analysis—both among countries and their development partners.** Priority will be given to analyzing policies with a demonstrable short term social impact. Policies for SIA should be selected by countries in consultation with relevant stakeholders, including the Bank and Fund. **SIA should be undertaken for specific policies or policy regimes which are expected, a priori, to have a substantial social impact on different social groups, as measured by clearly identifiable indicators of well-being.** When SIA finds a significant adverse social impact on certain
groups, this can be taken into account in either policy design, through an alternate policy mix or sequencing of reform, or through suitable social mitigation measures.\(^{88}\)

**C. Country Ownership and Capacity**

11. Experience has shown that country ownership of policy analysis and choice is important for effective and sustainable economic and social development. For PRSP countries, the PRSP process, based on the CDF principles, calls for the formulation of economic and social policies through informed diagnosis and national dialogue. In this context, social impact analysis is central to the PRSP approach, and SIA should be firmly anchored in the PRSP process. The quality of SIA will be enriched by the use of participatory processes for data gathering, analysis, and consideration of public policy choices.

12. In many countries, the capacity to undertake SIA is weak. For example, in many countries there is limited human resource capacity to analyze household survey data or to undertake qualitative analysis. Given capacity constraints, in some countries SIA may require considerable external technical assistance during a transition period. Where weaknesses are identified, the Country Assistance Strategy (CAS) would typically specify how the Bank’s assistance program would help address such weaknesses, including through the PRSC or other Bank-supported operations. The Bank will collaborate with other development partners to strengthen the capacity for SIA among local institutions and stakeholders involved in the PRSP process. Over time, national capacity for social impact analysis will be critical for country ownership of all dimensions of SIA, including policy analysis and evaluation.

**D. The Roles of the Bank and Fund in SIA**

13. The Bank and Fund have an important role to play in supporting countries in the development, implementation, and monitoring of poverty reduction strategies through national dialogue. This includes supporting country SIA as part of a national PRSP process. The Bank and the Fund are also publicly accountable for the impact of policies and public actions that they operationally support. Bank and Fund involvement in SIA can take three forms: analytical inputs during the PRSP process; assistance to build in-country capacity; and undertaking SIA for Bank-Fund assisted programs.

- In the short-term, through its analytical program, the Bank will directly contribute to countries’ undertaking of the SIA of policies and public actions, as needed. The Bank can play an important role in assisting countries to undertake the poverty and social impact analysis of policies. Contributing to SIA will be an important component of Bank support to the PRSP process. The Bank can also assist countries in obtaining support from donors for undertaking SIAs.

\(^{88}\) While SIA would focus particularly on the vulnerable and the poor, the analysis would also examine the social impact on non-poor stakeholders, especially to the extent that these groups are expected to affect the sustainability of the reform program.
• Over the longer term, the Bank and Fund will **support the development of national capacity for SIA**, including systems for monitoring and evaluation. The Bank, in partnership with other donors, will mobilize resources to build national capacity for social impact analysis.

• Third, **with regard to their own public accountability**, the Bank and Fund also have a responsibility to report on the social impact of key policies that Bank and Fund programs support, as well as to refine Bank and Fund policy recommendations and programs on the basis of such analysis. To the extent possible, the Bank and Fund will draw on country-owned SIA undertaken for the PRSP. When such analysis has not been undertaken at the country-level, or is deemed inadequate, the Bank and Fund should ensure that SIA is undertaken for relevant policy measures. Drawing on its comparative advantage, the Bank will take the technical lead in assessing and, if needed, carrying out social impact analysis of Bank-Fund assisted programs. SIA should be included in the terms of reference for Bank-Fund PRSP missions and referred to in the Bank’s and Fund’s operational documents. The Fund, like the Bank, will review and discuss its policy recommendations with its member countries and other stakeholders in light of SIA work as an integral part of the PRSP process. With a view to enhancing country-ownership of analysis, wherever possible, any such work will be undertaken in collaboration with country agencies and stakeholders.

### III. Issues in Implementing Social Impact Analysis

#### A. Methodologies and Tools for SIA

14. A variety of tools already exist or are being developed to undertake various dimensions of social impact analysis.

• **For ex-ante SIA**, there are currently tools that can be used immediately, such as (i) public expenditure and revenue reviews, including incidence and efficiency analysis; and (ii) rapid social analysis to assess the impact on selected population groups and key stakeholders. In addition, there are tools that are in the process of being refined and include: (i) macroeconomic (computable general equilibrium) models, which can be integrated with labor market and income distribution modules—or household survey data—to assess the impact of policies on the poor; (ii) micro-simulation models using the full sample of household surveys, which can be used independently to assess the impact of policies and exogenous shocks on households. Additional tools, such as scenario analysis, which help assess the impact of uncertainty on policy outcomes, are currently being adapted for Bank use.

• **Tools available for SIA during implementation and ex-post** include: (i) quantitative and qualitative methods for assessing the impact of projects and reforms
on poverty;\(^89\) (ii) public expenditure and revenue analysis to assess the incidence and efficiency of expenditure and revenue policies on various groups, including the poor; (iii) social impact surveys, beneficiary assessments, and third party monitoring and evaluation for social impact monitoring; and (iv) participatory public expenditure monitoring, balanced scorecards and social audits being developed to assess the delivery of services and monitoring of policy impact and outcomes.

15. Despite the existence of these tools, methodological challenges in several areas will affect the implementation of SIA:

- For Bank and Fund operational work, **more effort is required to develop a set of quantitative models, adapted to country-specific circumstances, for the analysis of the potential poverty and distributional effects of macroeconomic and structural policy.** Such models would capture the main direct and indirect economic effects of policy changes (such as relative price changes and wealth effects) on social groups and the poor. Work is currently ongoing at the Bank (both at DEC, PREM and WBI) to develop such a family of models. The pace of implementation will be affected by resource and capacity constraints within individual countries.

- **More effort is required to capture the non-income dimensions of poverty and well-being by:** (i) developing and reaching agreement on indicators for social inclusion, security and empowerment; (ii) incorporating these dimensions in the modeling framework above; (iii) where feasible, using existing tools and approaches, including quantitative and qualitative methodologies to draw operationally relevant implications; and (iv) adapting practical tools of social analysis from the private and public sectors for Bank-Fund use. The work on operationalizing the World Development Report 2000/01 on poverty will also contribute to this process.

- Operational work will build on existing methodologies, in particular by **mapping to specific types of reform the approaches, tools and techniques that would be most appropriate**, and by integrating these approaches into an overall risk management framework.

**B. Data and Monitoring and Evaluation Systems**

16. The paucity or quality of data and weak capacity for policy analysis in many countries pose substantial challenges for SIA.

- **There is a need to strengthen national monitoring and evaluation systems, including the systematic collection of relevant data.** For example, only a few African countries have the comparable data needed to permit an analysis of changes in the social impact of different policies over time. In other cases, data need to be updated, for example in post-conflict countries where the most recent survey data often pre-dates the conflict and the displacement of populations and livelihoods.

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Comprehensive national household survey data, the ideal requirement for quantitative modeling, are in some cases either not available, outdated, or of poor quality. Likewise, appropriate data at the community, social, and individual levels are often not systematically collected. SIA will need to be adapted to make the best use of existing data and to strengthen the collection of relevant data in a timely fashion.

- **There is a need to better link data collection and analysis to policy formulation and policy review.** In many countries, poverty monitoring and evaluation systems and institutions are extremely weak and are poorly tailored to address the needs of policy analysis. Even in countries where useful data exists, these data and analysis are often not used to evaluate past policy records and formulate new policy. Development of a culture of evidence-based policy-making is essential, but is expected to evolve gradually.

17. **Given these challenges, in the short-term SIA will require pragmatic approaches to make the best use of available data and to strengthen the collection of relevant data in a timely fashion.**

C. **Mainstreaming SIA at the Bank and Fund**

18. **SIA is beginning to be reflected in Bank and Fund operations and is being integrated within existing Bank and Fund instruments and processes.**

- In IDA countries, the Bank’s and country’s SIA work is part of the country’s PRSP process and will be reflected in the Joint Staff Assessment (JSA) of the PRSPs. Draft guidelines for Joint Staff Assessment of PRSPs emphasize the importance of SIA in underpinning policy choices.

- Staff guidelines being drafted for poverty and social analysis emphasize SIA as a key feature of the Bank’s analytical work, and SIA will inform the development of the Bank’s Country Assistance Strategies (CASs). Bank instruments that can be used to undertake SIA and provide inputs into the country PRSP processes include due diligence Economic Sector Work (ESW) products such as Poverty Assessments, Public Expenditure Reviews, and Development Policy Reviews, as well as social analysis undertaken for PRSCs and other programmatic lending instruments. PRSC guidelines also reflect the need for sound SIA to underpin Poverty Reduction Support Credits (PRSCs). PRSCs currently in the pipeline, such as for Uganda and Vietnam, pay increased attention to SIA. On the basis of the experience gathered during the pilot phase, the JIC may subsequently wish to issue guidance to staff on the minimum requirements for SIA. Systematic delivery of SIA will have resource and staffing implications.

- **The Fund is already committed to integrate SIA in PRGF-supported programs.** Fund staff are expected to demonstrate that when specific measures could be expected to have an adverse effect on groups of the poor, these effects
should be carefully considered, and where appropriate, countervailing measures built into the PRGF-supported programs.90

- The undertaking of SIA will require close coordination between the Bank and Fund, particularly with regard to the choice of policies for which SIA will be carried out, and the timing of SIA. For example, the Bank’s linking of its delivery of SIA to the PRSP cycle, its own instruments, and the timing of PRGF-supported programs may not match, and may require adjustments in timing of either or both. Bank-Fund coordination will need to be strengthened, and this will need to be one of the objectives of the short-term work-program.

### IV. Addressing Social Impact Analysis in the Short Run: A Phased Approach for the Bank and Fund

19. Undertaking SIA systematically as an integral part of the PRSP process will take time for countries and for the Bank and Fund and, as outlined above, poses substantial challenges. In the short-run, SIA is being initiated to the extent feasible in the context of the design of Bank PRSCs and Fund PRGFs in support of PRSPs. For example:

- The Vietnam PRSC uses a variety of existing techniques to analyze the employment and gender impacts of proposed reforms, as well as to design appropriate safety nets. In Uganda, expenditure tracking surveys have been used to inform the public on actual spending and have resulted in changes in spending procedures.

- Currently two different modeling approaches have been developed by the Bank, and two more approaches are being elaborated. Some of these techniques are already being implemented, in collaboration with local counterparts, in several countries such as Cameroon, Mauritania, and Zambia. Qualitative approaches to SIA are increasingly being utilized in Bank projects, for example in Madagascar, Cameroon, Uganda, and Pakistan.

- The Bank and Fund already provide substantial technical assistance for strengthening statistics, in close coordination with other development partners. For example, over 70 discrete Bank tasks in the Africa Region, including lending and analytical tasks, provided support to the strengthening of the statistical database. The Africa Poverty Reduction Information System Regional Program and the Regional Program of Improvement and Measurement of Living Conditions (ISLC) in Latin America also aim at strengthening household survey data, while the Policy Analysis Initiative aims at building the capacity of national policy analysis training institutions.

20. However, these efforts need to be brought together as part of a systematic integrated approach to SIA that will build on existing, discrete efforts during program

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90 See “Key Features of PRGF-supported Programs,” (SM/00/193, August 17, 2000).
implementation. This note therefore proposes a practical, phased approach on SIA for the Bank and Fund. The strategy entails:

- using available data and tools in a flexible manner to undertake SIA in the short term, while building a knowledge base on practice and applications;

- further refining tools and techniques to better undertake macroeconomic and other dimensions of SIA;

- encouraging and assisting countries to strengthen national systems for data collection and country capacity to undertake SIA over the longer term; and

- developing and refining operational guidelines regarding SIA to task teams on the basis of experience gained through the PRSP process.

A. Phase One: Stocktaking

21. Phase One would take stock of where we currently stand on SIA in a selected number of PRSP countries, with a view to ascertaining the scope and feasibility for developing a systematic approach to SIA. For the selected PRSP countries, the stocktaking exercise would identify key macro and sectoral policy reforms already undertaken, and review the social impact and risks of policy reforms considered by teams during program design. An ex-post assessment of the actual social impact would also be involved. For planned reforms under upcoming PRSCs and PRGFs, the stocktaking exercise would identify relevant SIA data availability and gaps, and plans for monitoring and evaluation. The primary source of information for the stocktaking exercise would be through a review of key Bank and Fund reports, and a structured interview of multi-disciplinary joint Bank-Fund country teams for each of the countries. The results of the stocktaking exercise will be reported to JIC at the end of Phase One (June 2001).

B. Phase Two: Pilot Cases

22. Phase Two would be a pilot phase in which focused efforts at SIA of macroeconomic and structural policies would be undertaken in several countries that are not able to undertake such analysis themselves in the context of the preparation of PRSPs, and which are supported by PRSCs and PRGFs. This would be done with a view to further developing tools and cultivating good practice. (While Phase Two is expected to conclude after Phase One, Phase Two activities, such as the country case work, could begin concurrently with Phase One.) Key outputs of Phase Two will be several pilot-country operations based on SIA; further development of tools and methodologies, including adaptations or integration of existing techniques; development and dissemination of technical guidance to countries and country teams; inclusion of SIA requirements into Bank operational guidelines; and closure on issues of Bank-Fund coordination. This work will continue through CY01; interim results of a few country cases will be reported to JIC by September 2001.
Annex: Work-program for Phase One

Phase One will consist of a stock taking of SIA in selected countries drawn from the list of PRGF/PRSC countries. This will be a desk review, undertaken by the JIC SIA Working Group, based on existing documents and interviews with Bank and Fund Country Teams. The objective of the stock-taking exercise will be to:

- Report on the current status of SIA in Bank/Fund programs. This will include identification of social impacts in Bank/Fund supported programs in the recent past and the extent to which they have or have not been addressed by SIA.
- Report on country SIA and M&E capacity and inventory data and information currently available or planned to conduct SIA in the near term.
- Report on current plans and arrangements for coordination on SIA between the Bank, Fund, country and other partners.

Countries for the first phase will be selected in consultation with Bank and Fund regional departments. In order to get cross-regional understanding and ownership of SIA, the Working Group (WG) proposes to include 10-12 countries in the first phase. In addition to regional dispersal, the selection of countries will be done so as to include known variations among countries based on the nature of the reforms, general in-country capacity for SIA and M&E, and the extent of political stability/conflict. A tentative list of countries for inclusion include Albania, Burkina Faso, Cameroon, Georgia, Guinea, Mauritania, Mongolia, Mozambique, Pakistan, Uganda, Vietnam, and Zambia.

### PROPOSED WORK SCHEDULE FOR PHASE ONE

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<td>Preparation of Interview Guide for semi-structured interview with country teams</td>
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<td><strong>Step Two: Assembly of Materials</strong></td>
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<td>Assembly and reproduction of country documents: (e.g. CAS, PRSP or IPRSP, project documents on prior Bank-Fund assisted policy reform, available drafts of PRGF and PRSC, rapid appraisal of existing SIA documentation.)</td>
<td>WG in collaboration with Country Teams (CT)</td>
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<td><strong>Step Three:</strong></td>
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<td><strong>Review of country documentation</strong> on policy reforms and SIA</td>
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<td><strong>Joint interviews for each country</strong> with WB Country Directors and Anchor or Resident Representatives, Fund Mission Chief, Bank-Fund country economists, PRSP leaders, country poverty economist and country social scientist and other relevant team country team members. These interviews will aim to:**</td>
<td>WG with multi-disciplinary Bank-Fund country teams</td>
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<td>- Identify past and future policy reforms with large social impacts</td>
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<td>- Explore impacts on, and affects of, different stakeholder interests on the policy and on outcomes</td>
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<td>- Assess strengths, weaknesses, potential and capacity for SIA</td>
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Appendix 3: DFID Terms of Reference (Working Draft) on Piloting Social Impact Analysis of Stabilisation and Adjustment Programmes

(July 26, 2001)

I. Introduction

1. The Fund and the Bank have agreed to work together to carry out poverty focused social impact analysis (SIA) of macroeconomic and structural policies in Fund and Bank programme countries. Guidelines for PRGF and PRSC supported programmes state that the associated documentation will include ex-ante analysis that considers how poor people are likely to be affected by these reform programmes and, when necessary, show the steps that have been taken to mitigate adverse effects and enhance positive ones.

2. In April 2001, the Joint Implementation Committee (JIC) of the World Bank and IMF produced a Concept Note outlining an approach to how SIA could be undertaken. Key paragraphs include the following:

   • SIA refers to the analysis of intended and unintended consequences of policy interventions - ex ante, during their implementation, or ex post - on the well-being of different social groups, with a special focus on the vulnerable and the poor (page 1, paragraph 4).

   • SIA is undertaken with the immediate objective of continually informing policy dialogue, choice and implementation within the broader objective of promoting sustainable poverty reduction and social inclusion (page 2, paragraph 7).

   • Countries themselves have the main responsibility for conducting SIA…with the support of donors and the World Bank…Policies for SIA should be selected by countries, in consultation with relevant stakeholders, including the Bank and the Fund (page 3, paragraph 8-9).

3. DFID considers SIA to be an important feature of the new environment for international development assistance, reflected in the PRS principles. The PRS principles include: (a) developing a comprehensive development strategy that has poverty reduction as its overarching and primary goal; (b) consultation with civil society; and, (c) ownership by national government. The PRS process has raised expectations that macro and structural policies will be developed and designed in a way that is significantly different to ESAF and previous World Bank supported structural reforms programmes. DFID believes that producing SIA which is government-led, discussing its findings with a wide range of stakeholders, and clearly laying out the implications of alternative policy choices for poverty reduction are necessary steps toward meeting these expectations.

4. Since the initial commitment was made to carry out SIA, DFID has engaged with the World Bank and IMF on how to take SIA forward in line with PRS principles. DFID
has strongly endorsed the approach to SIA laid out in the JIC Concept Note. In May 2001, a DFID mission to Washington DC led to agreement that DFID, in close collaboration with the Working Group of the JIC, will support the piloting of SIA in a small number of countries.

II. **Purpose of the Pilot Studies**

5. DFID believes that SIAs should be conducted in a manner that reflects serious commitment by donors to strengthening partnerships through developing a more informed and substantive dialogue on alternative macroeconomic and structural policies for poverty reduction. For these reasons, the DFID pilots will be carried out in direct collaboration with national governments, and will be part of the effort to build capacity to broaden and deepen the poverty assessments that inform policy making in the context of the PRSP.

6. The purpose of piloting SIA is to determine the best ways:

   6.1 To strengthen the poverty reducing dimensions of macroeconomic and structural reform programmes, through the development of viable ways to analyse the social impact of reform programmes on identifiable groups of the poor, and the discussion of alternative policy choices;

   6.2 To maximise the policy impact of analytical work, by enabling government to take the lead in setting the strategic agenda for policy analysis, and embedding analysis within national policy making processes;

   6.3 To strengthen national capacity for social analysis of the impact of macro/structural policy choices on the poor, and use of this analysis in policy dialogue, including with IFIs;

   6.4 To ensure that, in situations where national capacity is weak, donor agencies support undertaking SIA in a manner that reflects PRS principles of comprehensiveness and national ownership;

   6.5 To develop guidance in carrying out effective but practical SIAs in different policy environments, especially when conventional data are weak/unreliable.

7. DFID-supported SIA pilots will complement activities being carried out by the JIC, including an initial stocktaking exercise in some 12 countries. The stocktaking: (a) reviews the main reform programmes of the Bank to date; (b) examines how the social/poverty impacts of these programmes has been assessed; and, (c) looks at what methodologies have been used by Bank/Fund country teams. Follow-up activities will include more substantive discussions between Bank Working Group members (situated within PREM) and Bank country teams in a select number of countries, in order to develop guidelines for how to undertake SIA, and the operational support that may be needed from headquarters.
8. According to the JIC Concept Note, the World Bank and IMF have a responsibility to report on the social impact of key policies in Bank and Fund programmes, as well as to refine policy recommendations and support on the basis of such analysis (Concept Note, page 5). The Concept Note suggests that, ideally, Bank and Fund will be able to draw for these reports on a government-led SIA that analyses the likely impact on the poor of the macro/structural reforms being planned or undertaken in the country. However, an issue arises in situations where a government-led SIA is either non-existent or deemed inadequate. In such circumstances, the Bank and the Fund have indicated that they will ensure that SIA is undertaken for relevant policy measures (Concept Note, page 5). DFID believes that in these circumstances, the Bank and the Fund have an obligation to manage SIA in a way that reflects PRS principles, including the promotion of national ownership and a more inclusive policy process.

III. Principles of SIA

9. In most PRSP countries, donors, government, NGOs and academic institutions are involved in on-going analytical work that addresses the impact of policies and programmes on poverty. However, this work is often carried out in isolation and driven by the requirements of individual institutions, many of which are not based in country. Often government is not in the driver's seat of the analytic agenda informing the reform programme, and is unable to shape the programme of work and/or easily tap its results for policy decision making. For these reasons, analytical work may have less impact on policy than would otherwise be the case. SIA offers the opportunity to draw together past and existing analysis within a framework that enhances government ownership, and to locate this analysis within an institutional context where it will directly impact on policy.

10. Increasingly, national NGOs and CSOs are expressing concern that the new agenda around PRSPs has failed to deliver both a different way of doing business and real dialogue around a broader choice of policy options. It is a matter of concern if NGOs and CSOs become disenchanted and disengage at an early stage in the formulation of a PRSP. SIA can facilitate an informed national debate about the macro programme, by making available an independent analysis of the poverty impact of proposed policies, and by making explicit the economic logic underpinning existing policies in a way that is widely accessible.

11. These considerations reinforce the importance of SIA being undertaken in a manner that reflects PRS principles. More specifically:

11.1 SIA should be nationally-led and embedded in national policy processes where they will have the greatest likelihood of informing/influencing national policy. SIAs should be broadly owned and contribute to national debates around poverty reduction. They should not become exclusively donor-driven;

11.2 SIA should be integrated into on-going PRS processes, so that they inform PRS policy analysis, formulation, implementation, and monitoring;
11.3 SIA should build on existing work. New analysis should exploit the wealth of data and analysis which already exists in-country, and avoid duplication of effort;

11.4 SIA should contribute to building national capacity for poverty-focused social analysis of macro/structural reforms. This includes the capacity of government to shape the nature of the analytic agenda and its capacity to demand, from national institutions, relevant research and other commissioned work;

11.5 SIA should be selective. Priority areas of work should be identified, relating to current and planned reforms in areas where qualitative and quantitative data availability mean that policy relevant information can be produced. The process of identifying reforms should be led by Government and involve debate with stakeholders.

IV. Scope of Work

12. SIA can potentially encompass a very broad range of issues and methodologies. The term "social impact analysis" also means different things to different people. Consequently, it is important to define further what DFID understands by SIA.

What is SIA?

13. A large body of work exists that is referred to as "social assessment". Typically, social assessments are carried out for large (often infrastructural) projects in order to understand their consequences for specific, affected communities. Alternatively, social assessments are used to identify "winners" and "losers" from structural policy reforms (civil service reform; privatisation, etc.), and to design compensatory measures. In addition, social assessments can be understood as referring to benefit incidence analysis of public spending in social sectors, and/or linking social sector policies to outcomes such as health and education.

14. DFID's understanding of social impact analysis of macro/structural programmes is distinct from any of these. The focus of SIA in this context is the implications that monetary policy, fiscal policy and structural reform measures have for socially-differentiated groups of the poor.

15. This represents a new domain for strategic policy analysis. Typically, impact-oriented analysis of macroeconomic and structural policy in PRSP countries falls into one of three categories. In many cases, the focus is the impact of discreet structural adjustment policies (privatisation; trade liberalisation, etc.) on growth. In some cases, analytical work looks at the impact of these policies on the income of specific socio-economic groups. Finally, there are studies that examine the impact of overall growth on the poverty headcount. However, this leaves a number of important gaps. SIA offers the opportunity to fill these gaps, by:
- Undertaking strategic synthesis that pulls together and reflects on the combined implications of existing analytic work;
- Analysing the implications for sector and structural policies of different macro policy scenarios;
- Analysing linkages between monetary and fiscal policy and poverty.

SIA can also add value by reviewing work that has already been done so as to identify critical areas that have been insufficiently covered.

16. In general, SIA requires context-specific judgements in relation to three key issues: which policy choices to analyse; what groups to consider when assessing social impact; and what approach to take in conducting SIA, including the methodologies employed.

Which Policies?

17. The range of possible subjects for SIA will depend on the current macro-economic characteristics of the country in which SIA is carried out. For example, the subjects of SIA will differ in a country where severe fiscal and current account imbalances exist, as compared to a country where stabilisation has been achieved but growth is negligible, which will be different again from a country which has achieved both stabilisation and growth.

18. The policy package for stabilisation and adjustment includes: removal of price controls; removal of taxes on exports; removal of import licensing; foreign exchange liberalisation; privatisation; rehabilitation of infrastructure (post conflict countries); civil service reforms; fiscal adjustment. Where stabilisation is at an early stage or yet to be achieved SIA can consider direct impact of specific reforms and propose policies for mitigating adverse effect (see External Evaluation of the IMF, 1998). In addition it should clearly set out the ex-ante assumptions regarding how and, who among, the poor will benefit from the goals of the reform package e.g. higher producer prices for exports; lower inflation, a lower fiscal deficit, reserve accumulation, improved access of the private sector to credit.

19. For post stabilisation economies the scope of SIA is wider, encompassing a greater range of structural reforms. SIA should examine whether ex-ante expectations of previous reforms have been met. It should distinguish between the direct impact of these reforms – their impact of on the incomes of poor people and the publicly provided services available to them- and the indirect effects – how the poor have to benefited from the new economic environment created by adjustment e.g. labour market effects. The overarching goal of SIA in this environment should be to provide strategic analysis to inform policy choices so that growth becomes (more) pro-poor. SIA should therefore consider wider research questions (e.g. how do labour markets work? Is the present level of aid sustainable? Has environmental sustainability been adversely effected by privatisation/ agricultural reforms?) as well as the impact of individual reforms (what is the impact of privatising the Electricity Board?).

20. Analysis of the social impact of macroeconomic structural policies on the poor encompasses a vast area of enquiry. A process is needed to identify the range and scope
of SIA given particular country circumstances. SIA pilots will be expected to identify a small number of policies and/or research areas to focus on. They will be highly selective and strategic pieces of work. Policy and research areas should be identified through a process that includes the following:

20.1 Identification of different policy interests/priorities for key national stakeholders (including government departments managing PRS processes and other relevant departments of government; civil society organisations; and donors), including issues that resonate with on-going national discourses around causes of poverty and the implications of stabilisation/adjustment paths;

20.2 Analysis of the dynamics underpinning moves to evidence-based policy making in-country, including how past and on-going analytical work has influenced (or failed to influence) policy choices and revisions, and the institutions and procedures this has implied;

20.3 Gaps in past and on-going/planned analytic work in terms of both the range of topics covered, and, for specific topics, the adequacy of the research questions for establishing policy-poverty linkages;

20.4 Final choice regarding policies to focus on should reflect both the issues that key stakeholder groups (especially within government) consider to be most strategic for poverty reduction in the immediate and near term, and issues where analytical work is likely to be most effective in terms of influencing policy choices.

What Groups?

21. In many countries where large percentages of the population fall below the poverty line, the question to address is who among the poor will win or lose out as reforms are implemented. SIA should strive as far as possible to differentiate the poor not only in terms of income/consumption measures but also in terms of social and livelihood categories. This means, for example, incorporating the way in which gender mediates the different opportunities and constraints that growth creates for men and for women. It also means incorporating what is known about differential opportunities among distinct livelihood groups. Knowledge about the poor should be drawn from a wide variety of conventional and non-conventional data sources, including qualitative studies and information. Where gaps in knowledge about socially-differentiated groups among the poor exist, these should be made explicit.

22. SIA should take account of the fact that the income of the poor is composed of wage and non-wage income and transfers in-kind, and that other, usually non-marketed economic activities (e.g. subsistence agricultural production, fetching firewood and water, building social capital) are essential to the overall standard of living poor people are able to achieve.
What Approach?

23. SIA should explore key policy variables in terms of the transmission mechanisms whereby macroeconomic and structural reforms affect poor groups. Key macroeconomic policy variables and transmission mechanisms may include tax changes, shifts in expenditure composition, inflation rates, exchange rate changes, tariff changes, price liberalisation, real interest rate changes, shifts in the velocity of circulation of money, and the structure of the financial sector. To understand their impact on the poor SIA will need to address micro-level institutions, firms, enterprises and households, and analyse how social and institutional relations mediate the effects of macroeconomic change on outcomes at the individual and household level.

24. It is expected that SIA will make use of a variety of context and non-context specific methods. This will require strong and iterative collaboration between social development experts and economists/statisticians. Qualitative methods will be important to uncover causal linkages, to identify poor groups according to different forms of vulnerability and access to markets, and to uncover diverse livelihood strategies of poor households. Quantitative and statistical methods are needed to measure critical variables, establish relationships between different variables, and compare policy-related impacts so as to understand trade-offs and make policy choices.

25. Computable General equilibrium models (CGEs) that specify channels appropriate to country specific circumstances through which adjustment policies effect the distribution of income, have a key role to play in developing ex ante analysis of poverty impacts of macro policies. Not least, they allow comparisons of alternative adjustment paths to be made. However, data constraints (including the quality and consistency of national income accounting and other national survey data) mean that use of these models may not always be a realistic aim in the short term for many countries, and they should not always be relied on for the kind of ex ante impact analysis required here.

V. Inputs

26. DFID-supported SIA pilots will be carried out by a small team of international experts in collaboration with a small team of national experts. There may be different international teams for different pilot countries, depending on availability, skills and country experience. Teams will include a combination of social/macroeconomic analytical skills, but with strong background in interdisciplinary and team working. Approximately four pilot countries will be identified on the basis of specific criteria, including clear demand for SIA expressed by government, and the willingness of DFID country programmes to support the piloting of SIA and follow-up activities in support of nationally-owned SIA capacity building.

27. The main interlocutors for the research teams are likely to be representatives of Ministries of Finance, and/or other government departments that are responsible for negotiation on macroeconomic/structural programmes with IFIs and for national poverty reduction measures. DFID staff in-country will also be key contact points for the research
teams, as will World Bank/IMF staff in-country and in Washington DC. It is anticipated that IFI country staff will have been briefed by the JIC Working Group members in Washington DC, and will be ready to discuss and collaborate as required with the DFID researchers. Close collaboration is also expected from members of PREM (World Bank), including shared results of the initial stocktaking exercise.

28. Approximately 40 person days per international researcher, and 40 person days per national researcher are envisaged for the pilots. Research teams are expected to comprise two international plus two national researchers in total. Travel will include at least 20 person working days in country, possibly over two missions, and a short mission to the World Bank, Washington. The purpose of the Washington mission is to liaise with the JIC Working Group and, if need be, research the underlying logic and motivation of key reforms in the pilot countries. A literature review will be needed and researchers should allow for additional desk work in the form of data analysis/econometric work where suitable surveys exist.

29. It is expected that the pilots will be carried out in two phases. Phase 1 should constitute an initial scoping phase, and will be completed upon production of a Scoping Report (See Output 1 below). Work will then proceed to the production of Outputs 2 and 3. According to time availability of researchers and timing/circumstances in-country, it may be appropriate to break these phases into distinct missions.

30. The pilots will be jointly managed by IFID (Economist) and APED (Social Development Adviser), in close co-operation with the DFID country programmes, and under the broad remit of DFID's internal PRSP Group ("Lean and Mean"). APED will provide an administrative anchor for the project.

VI. Outputs

31. SIA pilots will produce three main Outputs, as follows:

Output 1: Scoping Report

32. Output 1 will be an initial Scoping Report, and will be submitted to DFID at the end of "phase 1" of the piloting work. Output 1 should include:

32.1 A stocktake of relevant existing/planned analytical work;

32.2 Identification of key policies/ research questions to focus on, including justification and explanation of how and why these policies/question as opposed to others were identified;

32.3 Identification of gaps in analytical work around these specific policies/ research questions in terms of transmission mechanisms and multi-dimensional poverty impacts;
32.4 Details of the proposed process by which SIA will be carried out, and specifically how it will be linked to existing policy processes, notably around the PRS;

32.5 Outline of how considerations for building long-term national capacity will be taken into account.

**Output 2: Analysis**

33. Output 2 will comprise the actual analysis of social impact of stabilisation and adjustment programmes. Output 2 should include the following:

33.1 Analysis of the evolution of the current macroeconomic and structural framework. This will include the economic logic and assumptions underlying macro and structural policies. It should cover reviews of past or existing macro economic, trade and other structural policies, and those presently under consideration or likely to be included in PRGFs/PRSCs with respect to a) their impact on growth b) their impact on the incomes and vulnerability of the poor and c) their impact on quantity and quality of services.

33.2 An elaboration of the transmission mechanisms through which the poor will benefit. This should include general as well as country specific knowledge about how social differentiation and socially-mediated relationships affect the opportunities for different groups to participate in and benefit from overall growth and/or specific policies.

33.3 A series of short studies that aim to fill the analytical gaps that have been identified, where available data makes this possible. This is likely to include combined use of qualitative and quantitative methods, and the tapping of "non-traditional" sources of policy-relevant information (for example, anthropological studies; CSO/NGO reports).

33.4 An analysis that helps to identify how the growth path can be made more pro-poor through well-sequenced, effectively implemented policies. This should include proposals on the basis of past experience and current knowledge as to policy changes or iterations could lead to greater poverty reduction. Specifically, where possible, alternative policy choices should be mapped out in terms of their projected consequences on poverty.

**Output 3: Guidelines/Issues to Consider in Conducting SIA**

34. Output 3 consists of an exposition of the issues, challenges and considerations that have arisen in undertaking SIA in the specific country context, as well as an elaboration of lessons learnt and an outline of guidelines for use in undertaking future SIAs.
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