The Distributional Effects of IMF Programs: A Cross-Country Analysis

GOPAL GARUDA *

Harvard University, Cambridge, Massachusetts, USA

Summary. — This paper measures the effects of 58 International Monetary Fund programs during 1975–91 on Gini coefficients and income of the poorest quintile; these variables are traced over the two to five years following program initiation. This research also presents a new technique to control for differences in countries' initial economic circumstances. The study finds evidence of a significant deterioration in income distribution and the incomes of the poor in Fund program countries relative to their nonprogram counterparts when pre-program external imbalance is severe. In cases where prior external imbalance is not as great, countries participating in Fund programs actually show relative improvements in distributional indicators. © 2000 Elsevier Science Ltd. All rights reserved.

Key words — income distribution, poverty, international, cross-country, International Monetary Fund, conditionality

1. INTRODUCTION

Since the Latin American debt crisis, the Fund's financial and rhetorical support of a country's economic reform package has generally served as an important "seal of approval," restoring confidence to the international capital markets and helping to curb capital flight. The International Monetary Fund's more recent involvement in Indonesia, South Korea, Brazil and Russia highlights an increasingly influential, highly visible and at times controversial role. Aggregate Fund lending has increased dramatically; total commitments over the past three years have exceeded those of the prior nine. As the size, number and visibility of IMF programs continue to grow, the importance of Fund lending—and scrutiny of the associated conditionality provisions—will likely grow as well.

The IMF's increased activity in recent years has renewed interest in the historical performance and impact of Fund supported stabilization programs. Research on the direct macroeconomic effects of Fund programs has generated a fairly sizable literature over the past 30 years, including studies both by Fund economists and outside observers. Only more recently, however, have more rigorous, quantitative analyses of broader issues surrounding the Fund's impact been undertaken. One such issue concerns the distributional effects of Fund programs. Critics of IMF programs sometimes argue that the Fund's emphasis on fiscal restraint, external balance and reductions in aggregate demand worsens poverty in absolute terms by focusing the costs of adjustment on lower income groups. The Fund's supporters respond that restoring the confidence of international lenders renews foreign investment, improves growth and ultimately helps everyone—including the poor.

Little work has been conducted on distributional questions, mainly due to a lack of reliable data on income distribution in a broad cross-section of developing countries over time. These data insufficiencies have been of primary concern to researchers, limiting attempts to

evaluate the distributional impact of IMF programs to case studies and computable general equilibrium (CGE) models. Unfortunately, generalizing the results of single-country case studies or economic models (themselves highly sensitive to model specifications) is difficult.

This study provides new estimates of the effect of IMF stabilization programs on income distribution and the incomes of the poor. The analysis employs a cross-country database on income inequality recently developed by Klaus Deininger and Lyn Squire (Deininger & Squire, unpublished). The sample covers 58 programs in 39 countries from 1975–91. Since the Fund's impact on poverty may be different from its effect on income distribution, evaluating both may present a clearer picture of the actual distributional impact. The recent development of the Deininger-Squire database considerably softens the data constraints faced in previous work. While the data available are still incomplete, and certainly do not cover all Fund programs, they do present a fairly widespread sample of programs in Latin America and Asia, though data on African countries—and hence, programs conducted in them—remain somewhat sparse.

The basic technique is a comparison of a sample of country-years in which a country entered a Fund program to another in which a country did not. The problem faced by these types of "with–without" evaluations of Fund performance—and an important issue in all attempts to measure IMF program performance—is in the establishment of the counterfactual, or determining what "would have" happened in the absence of a program. As pointed out in reviews of the literature on IMF program evaluation, much of the existing work fails to identify its counterfactual appropriately. This study addresses the problem of identifying the counterfactual by using a statistical technique known as "propensity score estimation" to reduce the selection bias inherent in comparing program and nonprogram countries. Propensity score methods have been used extensively in economics to balance treatment and control groups in nonrandomized experiments; for example, Dehejia and Wahba (1998) employ these techniques in evaluating the impact of job training programs and education on participants' future earnings.

Propensity scores serve as proxies for a country's pre-program economic problems. Specifically, they represent the probability that either program or nonprogram countries *would have* agreed to an IMF stabilization program *ex-ante*, regardless of what they ultimately decided to do. [1] While the actual decisions are of course known, propensity scores measure a country's likelihood of seeking the Fund's assistance at some point before the decision is made. Once propensity scores are generated, observations can be subclassified into groups by them and separated, within each group, into those cases in which countries went to the Fund and those in which they did not. This process of "balancing" program and nonprogram observations by propensity score controls for systematic differences between the two groups prior to the decision whether to participate in a Fund program. In particular, countries seeking the Fund's assistance typically face a more unstable pre-program economic climate than those who do not. Failure to control for these pre-program differences would bias our measures of the Fund's impact.

2. REVIEW OF LITERATURE

Case studies considering the impact of IMF sponsored adjustment on poverty are numerous; the most widely cited work is Johnson and Salop (1980), an IMF study of the consequences of Fund stabilization programs in six countries. Although the study lacked the data required to quantify directly the impact of the Fund programs on poverty or income inequality, it considered important macroeconomic intermediaries, such as growth, inflation, exchange rate devaluation, wages, and government spending and speculated about the potential impact given the observed intermediate macroeconomic effects. Concluding that Fund programs necessarily had distributive consequences, the authors found that these consequences were crucially dependent on the structure of the economy, the specific terms of the stabilization program, the level of program implementation and the structure of poverty. These issues are discussed in more detail in Section 3. More recent studies by the IMF have proceeded along the same lines; the difficulties of performing more rigorous, quantitative assessments are outlined in Heller *et al.* (1988).

Pastor (1987) is the only crosscountry statistical assessment of the IMF's impact on poverty to date. This study considered Fund stabilization programs in 18 Latin American countries over 1965–81. Pastor compared