APPENDIX 1

Table A1.1. Determinants of the Envisaged and Actual Fiscal Adjustment (T–1 to T+1) in IMF-Supported Programs

	Envisaged		Actual	
	ΔGBAL	ΔGPBAL	ΔGBAL	ΔGPBAL
$GBAL_{T-1}$	–0.4609*** (–8.52)		–0.5877*** (–6.73)	
$GPBAL_{T-1}$		–0.4799*** (–6.93)		–0.6094*** (–6.03)
CAB_{T-1}	0.1186*** (2.10)	0.0874* (1.78)	0.0600* (1.88)	0.0886** (2.42)
EXP_{T-1}	0.0712*** (2.65)	0.1054*** (4.49)	0.0463 (1.48)	0.1226*** (3.53)
ΔCAB_{T+1}	0.1801*** (4.12)	0.2106*** (4.63)	0.0625* (1.81)	0.1366** (2.43)
$Growth_{T+1}$	0.0564 (0.45)	–0.0327 (–0.21)	0.2099*** (2.84)	0.1906** (2.37)
Transition	–2.079*** (–3.26)	–2.151*** (–3.87)	0.8949 (1.16)	–1.0238 (–1.51)
$Transition*GBAL_{T-1}$	–0.2425* (–1.85)	–0.1405 (–1.23)	0.1001 (0.81)	0.1949 (1.25)
Constant	–1.5420 (–1.60)	–0.5875 (–0.54)	–3.4334 (–5.57)	–2.6590*** (–3.44)
N	143	142	166	138
F	21.92	19.59	14.21	11.96
Prob > F	0.0000	0.0000	0.0000	0.0000
R-squared	0.6065	0.5799	0.4310	0.4785
Root MSE	2.189	2.245	2.995	2.964

Note: Equation estimated through ordinary least squares with White-corrected (heteroskedasticity-consistent) standard errors. *, **, and *** denote significance at the 90 percennt, 95 percent, and 99 percent confidence levels, respectively.

Table A1.2. Determinants of the Differences Between Envisaged and Actual Fiscal Adjustment

	$\Delta GBAL^A - \Delta GBAL^E$
$Growth^A_{T+1} - Growth^E_{T+1}$	0.3017* (4.01)
$GBAL^A_{T-1} - GBAL^E_{T-1}$	–0.4798* (–4.20)
Transition	1.3868* (2.07)
Constant	–0.9863* (–3.24)
N	135
F	12.67
Prob > F	0.0000
R-squared	0.2248
Root MSE	3.10

Notes: Equation estimated through ordinary least squares with White-corrected (heteroskedasticity-consistent) standard errors.
* = significant at the 99 percent confidence level.

Definition of variables
$\Delta GBAL^A - \Delta GBAL^E$: Difference between actual and envisaged changes in the fiscal balance from T–1 to T+1.
$Growth^A_{T+1} - Growth^E_{T+1}$: Differences between actual and envisaged real GDP growth at year T+1.
$GBAL^A_{T-1} - GBAL^E_{T-1}$: Difference in the fiscal balance between the WEO (actual) and MONA (envisaged) databases.
Transition: Dummy for transition countries.

Appendix 2 Code Book for Assessing the Need for Fiscal Adjustment

Do program documents clearly explain the source of the existing or potential balance of payments problem motivating the program?[1]

- "Unsatisfactory": The program document provides no explicit reference to any existing or impending external imbalance either from a flow or stock type that the program aims to correct or prevent.
- "Marginally satisfactory": The program document makes some quick reference to an existing or possible external imbalance, but does not provide any detailed discussion of the problem. The reader is therefore unclear about whether there is a balance of payments problem, what the nature of the problem is, and how the program is expected to correct it.
- "Satisfactory": The program document identifies, discusses, and critically analyzes the sources of the balance of payments problem the IMF-supported program is trying to correct. The document clearly explains the nature of the balance of payments problem calling for IMF involvement and the strategy that the program will follow to tackle it.
- "Highly satisfactory": In addition to the characteristics under "satisfactory," the program document would clearly identify whether the external financing gap calling for IMF involvement resulted from a current or capital account deficit and whether it stemmed from the public or private sector.

In light of the above, do documents explain the country-specific mechanism by which the fiscal adjustment will help improve the balance of payments problem (or more generally the problem that called for the Fund's involvement)?

- "Unsatisfactory": The program document makes no reference to the country-specific mechanism through which the envisaged fiscal adjustment will assist in solving or preventing the problems associated with the external imbalance.
- "Marginally satisfactory": The program documents refer to a possible link between fiscal adjustment and the external problems and imbalances mentioned above but provide virtually no discussion of how the mechanism that links the two will operate.
- "Satisfactory": The program document clearly describes and explains the mechanism through which the envisaged fiscal adjustment is going to contribute to solve or prevent the existing or possible balance of payments problem.
- "Highly satisfactory": Same as in previous category, but the program either provides a comprehensive analysis of these questions or includes a medium-term assessment of the relationship between these two variables.

Do documents explain the factors determining the pace and magnitude of the fiscal deficit adjustment, in particular its magnitude relative to the envisaged current account adjustment (e.g., fiscal adjustment as a fraction of the total adjustment)?

- "Unsatisfactory": Program documents do not compare the direction and size of the change in the fiscal and current account balances over the life of the program.
- "Marginally satisfactory": Program documents make some connection between how the magnitude of the envisaged fiscal adjustment is related to the magnitude of the envisaged current account adjustment, but provide practically no explanation or analysis of the envisaged joint evolution of these variables. Alternatively, a program document that makes no verbal connection between these two indicators but provides a table with information on the evolution of saving and investment balances of both the public and private sector has also been classified here.
- "Satisfactory": The program document provides a clear sense of the pace of "burden shar-

[1]In the less likely case that the IMF-supported program did not respond to a balance of payments difficulty, the same criteria would apply but with regard to the specific reasons that motivated the program.

ing" between adjustment in the private and public sector.

- "Highly satisfactory": Same as "satisfactory," but the document also provides an analysis of the factors affecting the likely evolution of the current account, fiscal deficit, and private savings-investment balance, including a medium-term table with disaggregated data on savings and investment of the public and private sector.

If there are other factors influencing the envisaged fiscal deficit adjustment (other than balance of payments considerations), do documents explain clearly how they influence that adjustment?

- "Unsatisfactory": The program documents do not point out which macroeconomic imbalances or problems, if any, the envisaged fiscal adjustment is expected to correct, or why a reduction of the fiscal deficit under the program is the appropriate economic policy to follow.
- "Marginally satisfactory": The program documents give some general reasons why the fiscal adjustment might be necessary (high inflation, debt sustainability, and financing problem) but the language is vague and does not analyze the problem with sufficient detail.
- "Satisfactory": The program documents provide a clear explanation of the objectives of the fiscal adjustment in terms of some well-defined macroeconomic objective (free resources for the private sector, reduce inflation, and bring the public debt to a sustainable path) and the reader is given a good and unequivocal sense of why the fiscal adjustment is necessary.
- "Highly satisfactory": The document not only provides a good analysis of why the fiscal adjustment is necessary but also a clear explanation of why the precise magnitude of the envisaged adjustment being proposed (and not some other magnitude) is necessary.

Do documents explain the rationale for the composition of the fiscal deficit adjustment? In other words, is there a good explanation of why the adjustment has to be done through revenues or expenditures or a combination of the two?

- "Unsatisfactory": The program documents provide a list of expenditure and revenue measures associated with the fiscal deficit reduction, but do not explain why the burden of adjustment has to fall on revenues and expenditures; or how the specific share of adjustment revenue and expenditures has been designed.
- "Marginally satisfactory": The program documents refer to how the adjustment will be effected (including a sense of the envisaged revenue and expenditure changes), but do not provide a clear rationale of why this specific composition between revenue and expenditures is optimal or necessary.
- "Satisfactory": The program documents provide a clear sense of why the specific composition of the adjustment (between revenue and expenditures) is the appropriate one. It includes indicators of what percentage of GDP specific revenue and expenditure measures are going to yield.
- "Highly satisfactory": In addition to providing a good explanation of the envisaged composition of the adjustment, the documents provide some analysis of the structure of revenue and expenditure (aimed at identifying major weaknesses in the structure of public finance) and a relatively detailed analysis of how intra-revenue or intra-expenditure changes are going to contribute to the adjustment.

APPENDIX 3

Table A3.1. Levels of Grants in a Sample of Sub-Saharan African Countries

Country	Year *T*	Units	Foreign Currency Magnitudes						
				Projections			Outturns		
			T–1	*T*	*T*+1	*T*+2	*T*	*T*+1	*T*+2
Benin	1996	US$ m	84.6	153.5	138.0	99.4	86.8	108.4	73.2
Burkina Faso	1996	US$ m	102.6	131.2	129.0	124.6	159.1	150.2	175.8
Central African Republic	1998	US$ m	48.1	58.5	64.7	53.6	90.0	86.7	46.2
Congo, Republic of	1996	US$ m	21.4	20.6	5.1	5.0	8.4	2.4	6.1
Côte d'Ivoire	1998	US$ m	75.7	79.1	67.6	68.0	85.6	65.0	47.2
Ethiopia	1996/97	SDR m	248.4	244.3	246.6	244.6	163.5	136.9	171.1
Gambia, The	1998	SDR m	3.8	3.9	4.1	4.4	4.4	3.5	3.6
Ghana	1995	US$ m	40.8	148.3	133.5	144.2	233.3	177.7	93.1
Guinea	1997	US$ m	122.0	127.5	123.9	150.5	116.7	103.3	80.1
Kenya	1995/96	US$ m	103.9	130.3	165.1	136.4	101.8	100.2	87.3
Madagascar	1996	SDR m	60.8	88.9	95.9	98.4	115.9	136.5	95.9
Mali	1996	SDR m	121.7	89.0	88.3	85.8	129.9	104.9	93.0
Mauritania	1995	SDR m	26.7	30.5	22.0	16.5	14.1	16.6	6.2
Mozambique	1996	US$ m	399.0	249.0	249.0	248.0	283.0	313.0	313.0
Niger	1996	US$ m	63.1	82.3	96.6	101.2	81.1	84.3	110.7
Rwanda	1998	US$ m	128.6	164.7	130.3	134.1	105.7	115.3	163.5
Senegal	1998	US$ m	71.8	50.5	46.5	42.5	136.6	100.0	89.9
Tanzania	1995/96	US$ m	128.6	174.9	179.7	182.1	254.0	245.1	350.9
Togo	1994	US$ m	3.5	10.3	38.2	54.9	13.7	17.6	7.6
Uganda	1997/98	US$ m	280.0	301.8	299.2	302.9	345.8	298.8	341.1

Country	Year *T*	Units	In Percent of GDP						
				Projections			Outturns		
			T–1	*T*	*T*+1	*T*+2	*T*	*T*+1	*T*+2
Benin	1996	US$ m	4.1	6.9	5.8	3.9	3.9	5.0	3.1
Burkina Faso	1996	US$ m	4.4	5.2	4.8	4.3	6.3	6.3	6.8
Central African Republic	1998	US$ m	4.7	5.4	5.7	4.5	8.8	8.3	4.8
Congo, Republic of	1996	US$ m	1.1	1.0	0.2	0.2	0.3	0.1	0.3
Côte d'Ivoire	1998	US$ m	0.7	0.7	0.6	0.5	0.7	0.5	0.4
Ethiopia	1996/97	SDR m	6.3	6.1	5.9	5.4	3.6	2.8	3.6
Gambia, The	1998	SDR m	1.3	1.2	1.2	1.2	1.4	1.1	1.1
Ghana	1995	US$ m	0.8	1.9	1.3	1.2	3.6	2.6	1.4
Guinea	1997	US$ m	3.1	3.2	2.9	3.3	3.1	2.9	2.3
Kenya	1995/96	US$ m	1.4	1.6	1.9	1.4	1.2	1.0	0.8
Madagascar	1996	SDR m	2.9	3.1	3.3	3.4	4.2	5.3	3.5
Mali	1996	SDR m	7.5	4.9	4.6	4.3	7.1	5.7	4.7
Mauritania	1995	SDR m	3.7	4.1	2.8	1.9	2.0	2.2	0.8
Mozambique	1996	US$ m	11.5	8.5	8.2	7.1	8.8	9.3	8.3
Niger	1996	US$ m	3.3	4.1	4.5	4.5	4.1	4.6	5.3
Rwanda	1998	US$ m	6.9	8.0	5.7	5.3	5.3	5.9	9.0
Senegal	1998	US$ m	1.6	1.0	0.9	0.7	3.0	2.1	2.1
Tanzania	1995/96	US$ m	2.5	3.1	3.0	2.9	3.6	3.0	3.9
Togo	1994	US$ m	0.3	1.2	3.8	5.0	1.5	1.4	0.8
Uganda	1997/98	US$ m	4.6	4.4	3.9	3.6	5.8	5.5	6.4

Source: Program documents.

Table A3.2. Changes in Levels of Grants

		Percentage Change			
		Foreign currency values		In Percent of GDP	
Country	Year *T*	*T*/(*T*–1)	(*T*+2)/*T*	*T*–(*T*–1)	(*T*+2)–*T*
Benin	1996	81.5	–35.2	2.8	–3.0
Burkina Faso	1996	27.9	–5.0	0.8	–0.8
Central African Republic	1998	21.6	–8.3	0.7	–0.9
Congo, Republic of	1996	–3.8	–75.6	–0.1	–0.8
Côte d'Ivoire	1998	4.4	–14.0	0.0	–0.2
Ethiopia	1996/97	–1.7	0.1	–0.3	–0.7
Gambia, The	1998	1.6	14.5	0.0	0.0
Ghana	1995	263.7	–2.8	1.2	–0.7
Guinea	1997	4.5	18.0	0.2	0.1
Kenya	1995/96	25.4	4.6	0.2	–0.2
Madagascar	1996	46.3	10.6	0.3	0.2
Mali	1996	–26.8	–3.6	–2.6	–0.7
Mauritania	1995	14.3	–45.8	0.4	–2.1
Mozambique	1996	–37.6			
Niger	1996	30.4	22.9	0.7	0.4
Rwanda	1998	28.0	–18.6	1.1	–2.7
Senegal	1998	–29.7	–15.8	–0.5	–0.3
Tanzania	1995/96	36.0	4.1	0.6	–0.3
Togo	1994	192.3	431.5	0.9	3.8
Uganda	1997/98	7.8	0.4	–0.2	–0.8
Counts					
Increase		15	7	12	4
No change		0	2	2	1
Decrease		4	10	5	14

Source: Program documents.

Table A3.3. Aid Flows Under IMF-Supported Programs, 1995–2001

Panel A. Medium-Term Projections of Aid Flows in ESAF/PRGF-Supported Programs, 1995–2001
(Change between initial and third program year)

Direction and Magnitude of Change	Count	Share of Total (In percent)	Mean Change (In percent of GDP)
Decrease	74	76	–1.1
By more than 2 percent of GDP	10	10	–3.7
Between 1 and 2 percent of GDP	17	18	–1.4
By less than 1 percent of GDP	47	48	–0.5
Increase	23	24	0.6
Total	97	100	

Panel B. Deviation of Outturns from Projected Aid Flows for the First Year of the Program (*T*)

Direction and Magnitude of Change	Count	Share of Total (In percent)	Mean Projection Shortfall (In percent of GDP)
Projections exceed actuals			
By more than 1 percent of GDP	3	8	2.6
By less than 1 percent of GDP	17	42	0.6
Projections below actuals			
By less than 1 percent of GDP	12	30	–0.4
By more than 1 percent of GDP	8	20	–1.4
Total	40	100	

Panel C. Deviations of Outturns from Projected Aid Flows for the Outer Years in a Sample of 20 Sub-Saharan African Countries
(Aid flows measured in U.S. dollars)

	Number of Cases		
	T	*T*+1	*T*+2
Projected exceeded outturns by more than 20 percent	6	6	9
Projected exceeded outturns by less than 20 percent	2	6	2
Projected below outturns by less than 20 percent	7	6	4
Projected below outturns by more than 20 percent	5	2	5
Total	20	20	20

Sources: Program documents, and IEO staff estimates.

APPENDIX 4

Explanatory Variables and Methodological Issues in the Analysis of Social Spending in IMF-Supported Programs

In order to appropriately assess the impact of the IMF on social spending using a multivariate regression framework, we need to take into account at least three methodological problems: (1) missing variable bias, (2) serial correlation and nonstationarity, and (3) the endogeneity of IMF-supported programs (for a more extensive discussion of these methodological issues, including an analysis of alternative estimating techniques such as the Generalized Evaluation Estimator, see Martin and Segura-Ubiergo (forthcoming).

To avoid a *missing variable bias*, the following control variables were defined using data from the World Bank's World Development Indicators and the IMF's World Economic Outlook (see Table A4.4 of this appendix for the summary statistics, including means for the "with IMF" and "without IMF" groups). Two other control variables (*health_priv* and *ca_y*) had insignificant coefficients and were excluded from the final regressions.

gdpusdpc	= GDP per capita in U.S. dollars
health_priv	= private expenditures in health as share of GDP (percent)
pop95young	= share of the population aged 0–14 (percent)
pop95old	= share of the population 65 years or older (percent)
growth	= annual rate of real growth (percent)
grw_neg	= annual rate of growth, when it is negative (= 0 otherwise)
grw_sd	= variability (standard deviation) on the rate of growth
ca_y	= current account deficit, share of GDP (percent)
devaluation	= annual change on the real exchange rate (percent)
democracy	= index of democracy from Gurr's Polity III data.[1]

The above control variables explain some of the differences in spending between countries, but there may be residual country differences in spending not captured by them. To account for that, the empirical model was also estimated with country dummies (fixed effects), that is, which allowed for a different level of average spending for each country.

To address the problem of *serial correlation and nonstationarity* we used a dynamic model that clearly separates short- and medium-term effects. Although there are different models that can serve this purpose, we decided to use an Autoregressive Moving Average process (ARIMA), which seemed to fit the data rather well. A first-order process on the dependent and independent variables was enough to obtain residuals without further detectable serial correlation or unit roots. The following equation was used:

$$S_{it} = \gamma \cdot \boldsymbol{L}S_{i,t} + \boldsymbol{L}X_{it}\,\alpha_0 + \boldsymbol{D}Xit\,\alpha_1 + \beta_0 \cdot \boldsymbol{L}IMF_{it} + \beta_1 \cdot \boldsymbol{D}IMF_{it} + u_{it} \quad (1)$$

where S_{it} denotes social spending in country "i" and period "t", X_{it} is the vector of exogenous variables defined above, and IMF_{it} measures the presence of an IMF-supported program as proxied by the instruments defined below. $\boldsymbol{L}$ is the lag operator (i.e., $\boldsymbol{L}Z \equiv Z_{t-1}$, for any variable Z), $\boldsymbol{D}$ is the first-difference operator ($\boldsymbol{D}Z_t \equiv Z_t - Z_{t-1}$), and u_{it} are the residuals.

An alternative and equivalent way of writing (1) is:

$$\boldsymbol{D}S_{it} = \boldsymbol{D}X_{it}\,\alpha_1 + \beta_0 \cdot \boldsymbol{D}IMF_{it} + (1-\gamma)\cdot(\boldsymbol{L}X_{it}\,\alpha_2 + \boldsymbol{L}IMF_{it}\,\beta_2 - \boldsymbol{L}S_{it}) + u_{it} \quad (2)$$

where $(1-\gamma)\cdot\alpha_2 = \alpha_1$ and $(1-\gamma)\cdot\beta_2 = \beta_1$. In this specification, changes in the dependent variables, $\boldsymbol{D}S_{it}$, can be seen as the result of two effects: contemporaneous change in the explanatory variables (with an impact determined by the coefficients α_1 and β_1); and gradual adjustment to an "equilibrium" level of spending, determined by the coefficients α_2 and β_2. Transitory changes in the independent variables do not change the long-run "equilibrium" level, so that the effect decays geometrically at the rate $(1-\gamma)$ after the second period.

[1]This index is defined from Gurr's *AUTOC* and *DEMOC* scores: *democracy* = 1 when *DEMOC* – *AUTOC* > 4, following Brown and Hunter (1999). See also Kaufman and Segura-Ubiergo (2001), and Segura-Ubiergo (2002).

To address the *endogeneity* issue, the following instruments were used to "predict" the presence of an IMF-supported program:

- current account deficit as fraction of GDP in the previous year (as proxy of external crisis);
- growth in the previous year (proxy of unsustainable expansion);
- income per capita (IMF-supported programs less likely in high-income countries);
- presence of an IMF-supported program in the previous year;
- government balance as share of GDP in the previous year; and
- democracy index (as in the control variables).

To explore the robustness of the result we compared the results with those obtained with alternative estimation methods and with different subsamples of countries (see Tables A4.2 and A4.3).

Table A4.1. ARIMA Model with Control Variables and Endogenous IMF-Supported Programs

	Health				Education			
	GDP	Total Exp			GDP	Total Exp		
	(In percent)		US$ pc	DP pc	(In percent)		US$ pc	DP pc
L.*Depend.Var.*	**0.577*****	**0.548*****	**0.748*****	**0.688*****	**0.604*****	**0.559*****	**0.662*****	**0.743*****
L.*IMF(predicted)*	**0.179*****	**0.492***	**0.390***	4.593	**0.251****	**0.681***	0.168	4.157
D.*IMF(predicted)*	**0.206*****	**0.636****	**0.395****	**9.736*****	**0.228*****	**0.748****	0.333	**6.027****
L.*gdpusdpc*	**–0.030***	–0.027	0.014	–0.164	0.021	0.070	0.517	1.406
D.*gdpusdpc*	**–0.080*****	–0.093	**1.101*****	**–2.761****	–0.034	0.125	**2.144*****	0.178
L.*devaluation*	**0.002****	**0.012*****	**0.010*****	**0.109*****	–0.001	0.001	**0.011*****	0.007
D.*devaluation*	0.001	**0.008*****	**0.005*****	**0.046***	–0.001	0.000	**0.005****	–0.025
L.*year*	**0.011*****	**0.068*****	–0.002	**1.219*****	**0.012***	**0.104*****	–0.012	**0.686*****
L.*democracy*	0.061	0.342	**0.221***	2.917	0.142	**0.620***	0.114	4.969
D.*democracy*	0.009	0.308	0.072	1.784	0.035	0.428	0.056	2.852
L.*pop95young*	**–0.031****	–0.015	–0.190	0.059	0.023	**0.211*****	–0.190	**1.593*****
L.*pop95old*	**–0.129***	–0.120	**–1.980*****	–1.528	–0.116	–0.119	**–3.745*****	3.560
L.*growth*	**0.013***	0.028	**0.073****	**1.521*****	–0.010	–0.047	0.050	**0.779*****
D.*growth*	0.005	0.019	0.033	**0.895*****	**–0.021*****	–0.035	0.025	0.320
L.*grw_neg*	**–0.049*****	–0.060	**–0.078***	**–1.736*****	–0.024	0.022	–0.045	–0.399
D.*grw_neg*	**–0.035****	–0.025	0.000	**–1.027****	0.004	0.036	0.060	0.236
L.*grw_sd*	**0.047*****	0.000	**0.386*****	–0.029	**0.050****	–0.118	**0.955*****	**–0.831***
Number of obs.	992	1,001	992	992	989	1,001	989	989
R-squared	0.931	0.894	0.985	0.544	0.918	0.881	0.987	0.626
Root MSE	0.408	1.375	1.209	20.569	0.597	1.952	1.761	15.591

Note: See the text for variable definitions. An initial *L* indicates a lagged value and *D* the first difference. IMF(predicted) is the estimated value of the IMF variable with the following instruments: lagged values of IMF, growth, CA/GDP, government balance/GDP, democracy index, and GDP per capita in U.S. dollars. The actual estimated equation is

$$\underset{(41.94^{***})}{IMF(predicted) = 0.148 + 0.696\, IMF(-1)} - \underset{(-2.58^{***})}{0.003\, growth(-1)} + \underset{(-0.69)}{0.001\, ca\_y(-1)} + \underset{(0.60)}{0.001.cgbal(-1)} - \underset{(-3.26^{***})}{0.043\, democracy} - \underset{(-4.85^{***})}{0.011.gdpusdpc}$$

N = 1,916

$R^2 = 0.522$

Table A4.2. Summary of Robustness Analysis

		Subsamples According to Total Time Under IMF-Supported Programs During 1985–2000		
	S0: Complete Sample (N = 146 countries)	S1: one to five years (N = 53)	S2: one to ten years (N = 88)	S3: five or more years (N = 64)
Time series analysis				
R1. Regressions by countries	For most countries no significant difference between years with and without IMF-supported programs. In countries with significant differences it was found that years with programs show lower spending in U.S. dollars, but higher spending measured in domestic prices.	Small number of countries with significant results.	Similar to the overall sample (S0), but with a smaller number of countries with non-significant difference with and without IMF-supported programs.	Significant difference between years with and without IMF-supported programs in half of the countries; among them, when there is an IMF-supported program, half have higher education spending and two-thirds have higher health spending.
Pooled cross-section and time series data				
R2. No correction for serial correlation or endogeneity of IMF-supported programs	No significant difference with and without an IMF-supported program, except for health/expend (+) and education per capita in U.S. dollars (–). High level of serial correlation in the residuals.	No significant difference. High level of serial correlation in the residuals.	No significant difference except for education per capita in U.S. dollars (–). High level of serial correlation in the residuals.	No significant difference with and without an IMF-supported program, except for health/ expend (+) and education per capita in U.S. dollars (–). High level of serial correlation in the residuals.
R3. No correction for endogeneity of IMF-supported programs	*Health:* significant positive impact in all definitions. *Education*: significant positive impact for GDP and domestic prices measures.	*Health:* no significant effects. *Education*: positive effect as share of GDP; others no significant effects.	*Health:* significant positive impact in all definitions. *Education*: no significant effects.	*Health:* significant positive impact in all definitions. *Education*: significant positive impact in all definitions.
R4. Base case. ARIMA model and instrumental var. (Table A4.1)	All 16 coefficients for contemporaneous and lagged effects positive and all but 4 significant.	No significant coefficient.	All 16 coefficients for contemporaneous and lagged effects positive and all but 6 significant.	All 16 coefficients for contemporaneous and lagged effects positive and all but 2 significant; smaller in magnitude than in the base case.
R5. Probit model for IMF-supported programs	All 16 coefficients for contemporaneous and lagged effects positive and all but 3 significant; smaller in magnitude than in the base case.	No significant coefficient.	All 16 coefficients for contemporaneous and lagged effects positive and all but 6 significant; smaller in magnitude than in the base case.	All 16 coefficients for contemporaneous and lagged effects positive and all but 2 significant; smaller in magnitude than in the base case.

Table A4.3. Summary of Regression Results

	Health				Education			
	GDP	Total Exp	US$ pc	DP pc	GDP	Total Exp	US$ pc	DP pc
	(In percent)				(In percent)			
R0. Without control variables								
IMF	**–0.156***	0.170	**–5.721*****	0.795	**–0.440*****	0.267	**–11.983*****	**–2.968***
Const	2.27	7.20	9.14	99.74	4.31	14.18	16.27	100.99
R1. Regressions by country								
Number of countries where the IMF variable is:								
Signif. Positive	**8**	**13**	**3**	**10**	**7**	**11**	**1**	**8**
Nonsignificant	78	76	83	75	83	76	86	71
Signif. Negative	**7**	**4**	**6**	**7**	**5**	**8**	**6**	**14**
R1a. Regressions by country—with GROWTH as control variable								
Number of countries where the IMF variable is:								
Signif. Positive	**7**	**12**	**2**	**10**	**6**	**10**	**1**	**9**
Nonsignificant	80	77	80	76	82	78	84	72
Signif. Negative	**5**	**3**	**10**	**6**	**4**	**4**	**7**	**11**
R2. With control variables and country dummies (fixed effects)								
IMF	0.074	**0.355***	0.064	1.793	–0.074	0.090	**–0.771*****	–2.898
Est. serial corr[1]	***0.497*****	**0.329*****	**0.505*****	**0.439*****	**0.574*****	**0.523*****	**0.617*****	**0.651*****
R3. With correction for serial correlation (ARIMA, fixed effects)								
Lagged IMF	**0.148*****	**0.512*****	**0.240***	**7.056*****	**0.112***	0.365	0.087	**3.969****
Delta IMF	0.042	0.224	0.017	2.855	–0.017	–0.072	–0.095	1.352
R4. [Base case] with instrumental variables for IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	**0.179*****	**0.492***	**0.390***	4.593	**0.251****	**0.681***	0.168	4.157
Delta IMF(pred)	**0.206*****	**0.636****	**0.395****	**9.736*****	**0.228*****	**0.748****	0.333	**6.027****
R4b. With limited dependent model for endogenous IMF-supported programs (Tobit model; ARIMA, fixed effects)								
Lagged IMF(pred)	**0.058*****	**0.159***	**0.131***	1.488	**0.083*****	**0.223***	0.061	1.398
Delta IMF(pred)	**0.065*****	**0.198****	**0.126****	**3.071*****	**0.073*****	**0.237****	**0.116***	**1.993****
R4c. With PROBIT model for endogenous IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	**0.042*****	**0.115***	**0.096***	1.079	**0.061*****	**0.161****	0.046	1.020
Delta IMF(pred)	**0.047*****	**0.142****	**0.091****	**2.216*****	**0.053*****	**0.171****	**0.087***	**1.450****
R5. With concessionary/nonconcessionary IMF-supported programs (instrumental variables, ARIMA, fixed effects)[2]								
Lagged CONC(pred)	**0.506*****	**1.083***	**1.804*****	**14.476****	**0.382****	0.837	0.704	5.194
Delta CONC(pred)	**0.274****	0.638	**0.798****	**9.328****	0.251	**0.936***	0.520	4.096
Lagged NONCONC(pred)	0.060	0.270	0.099	1.545	0.042	0.327	–0.006	2.317
Delta NONCONC(pred)	**0.195****	**0.739****	0.073	**11.477***	0.036	0.091	–0.032	4.746
F-test of CONC = NONCONC	***3.44****	1.22	**4.52****	2.05	1.13	0.59	0.92	0.25

Table A4.3 *(continued)*
Subsamples

	Health				Education			
	GDP	Total Exp			GDP	Total Exp		
	(In percent)		US$ pc	DP pc	(In percent)		US$ pc	DP pc
Sample 1. At least 1 year of IMF-supported program but not more than 6 years (53 countries)								
R0. Without control variables								
IMF	0.095	–0.533	**–1.626***	**–9.342*****	–0.075	**–1.636*****	**–4.535*****	**–10.641*****
_cons	2.20	7.29	5.52	102.76	4.30	15.31	10.32	103.20
R1. Regressions by country. Number of countries where the IMF variable is:								
Signif. Positive	3	3	1	2	2	2	0	3
Nonsignificant	34	36	36	33	38	37	37	30
Signif. Negative	3	1	2	4	1	2	3	7
R2. With control variables and country dummies (fixed effects)								
IMF	0.092	0.152	0.242	–1.932	0.083	–0.083	–0.406	–1.623
Est. serial corr. coeff.	0.695***	0.663***	0.786***	0.751***	0.788***	0.851***	0.868***	0.837***
R3. With correction for serial correlation (ARIMA, fixed effects)								
Lagged IMF	0.103	–0.066	0.151	1.862	**0.184***	–0.285	0.047	3.520
Delta IMF	–0.052	–0.270	–0.134	–2.533	0.026	–0.539	–0.232	1.432
R4. [Base case] With instrumental variables for IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	0.121	0.193	0.119	–3.355	0.143	0.063	–0.270	–1.388
Delta IMF(pred)	0.190	0.097	0.399	4.375	0.124	–0.031	0.185	2.390
R4c. With PROBIT model for endogenous IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	0.030	0.047	0.033	–0.631	0.034	0.015	–0.052	–0.269
Delta IMF(pred)	0.038	0.008	0.090	0.795	0.026	–0.010	0.049	0.623
Sample 2. At least 1 year of IMF-supported program but not more than 10 years (88 countries)								
R0. Without control variables								
IMF	0.135	0.260	**–1.155****	–1.491	–0.140	–0.609	**–3.503*****	**–6.430*****
const	2.12	7.22	5.13	100.60	4.11	14.72	8.99	102.62
R1. Regressions by country. Number of countries where the IMF variable is:								
Signif. Positive	7	10	2	8	4	9	0	6
Nonsignificant	62	62	66	60	67	61	68	56
Signif. Negative	5	2	5	5	4	5	6	12
R2. With control variables and country dummies (fixed effects)								
IMF	0.049	0.229	0.048	–0.102	–0.077	0.085	**–0.554*****	–3.032
Est. serial corr. coeff.	0.598***	0.681***	0.833***	0.776***	0.711***	0.911***	0.897***	0.837***
R3. With correction for serial correlation (ARIMA, fixed effects)								
Lagged IMF	**0.138*****	**0.439****	**0.247****	**5.508****	0.088	0.295	0.033	2.887
Delta IMF	0.001	0.093	–0.049	0.427	–0.020	–0.021	–0.133	0.868
R4. [Base case] with instrumental variables for IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	**0.263*****	**0.627****	**0.537****	6.737	**0.264****	0.656	0.049	3.685
Delta IMF(pred)	**0.269*****	**0.764****	**0.452***	**11.058*****	**0.199***	0.653	0.193	**5.053***
R4c. With PROBIT model for endogenous IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	**0.062*****	**0.147****	**0.125****	1.612	**0.064****	0.162	0.016	0.917
Delta IMF(pred)	**0.061*****	**0.172****	**0.102***	**2.520****	**0.047***	0.156	0.048	**1.236***

Table A4.3 *(concluded)*

	Health				Education			
	GDP	Total Exp			GDP	Total Exp		
	(In percent)		US$ pc	DP pc	(In percent)		US$ pc	DP pc
Sample 3. Five or more years of IMF-supported program (64 countries)								
R0. Without control variables								
IMF	0.184	0.888**	–0.022	6.196**	0.031	0.742*	–0.692	–0.662
_cons	1.96	6.67	3.96	96.46	3.87	13.84	6.05	100.38
R1. Regressions by country. Number of countries where the IMF variable is:								
Signif. Positive	7	12	2	8	4	9	1	5
Nonsignificant	47	43	53	46	51	45	55	48
Signif. Negative	4	3	3	4	4	5	3	6
R2. With control variables and country dummies (fixed effects)								
IMF	0.105	0.467*	0.031	3.373	–0.030	0.324	–0.544***	–0.953
Est. serial corr. coeff.	0.395***	0.717***	0.926***	0.817***	0.734***	0.939***	0.928***	0.905***
R3. With correction for serial correlation (ARIMA, fixed effects)								
Lagged IMF	0.168***	0.702***	0.276**	8.919***	0.163**	0.662**	0.252**	5.862***
Delta IMF	0.085*	0.435**	0.098	5.058**	0.019	0.115	0.057	1.742
R4. [Base case] with instrumental variables for IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	0.225**	0.730*	0.542**	7.521	0.392***	1.339***	0.493***	9.584**
Delta IMF(pred)	0.235***	0.826**	0.321	12.823***	0.382***	1.123***	0.386*	10.523***
R4c. With PROBIT model for endogenous IMF-supported programs (ARIMA, fixed effects)								
Lagged IMF(pred)	0.056**	0.180*	0.136**	1.832	0.097***	0.333***	0.123***	2.353**
Delta IMF(pred)	0.058***	0.205**	0.078	3.214***	0.096***	0.281***	0.097**	2.650***

Note: IMF variable measured as proportion of the years under an IMF-supported program. The number of asterisks indicates the significance level for the test that the coefficient is different from zero: *** for 99 percent, ** for 95 percent, and * for 90 percent.

[1]Estimate of serial correlation of the regression.

[2]CONC = Stand-By or EFF programs; NONCONC = SAF, ESAF, or PRGF programs.

Table A4.4. Control Variables for Social Spending

Variable	Description	Number of Obs.	Mean	Std. Dev.	Group Mean: With IMF-supported program	Group Mean: Without IMF-supported program[1]
ca_y	Current account deficit, share of GDP (percent)	2,233	–4.610	11.937	–4.620	–4.583
democracy	Index of democracy	2,336	0.519	0.500	0.562	0.409***
deval	Annual change in the real exchange rate (percent)	2,235	4.274	35.062	4.519	3.665
gdpusdpc	GDP per capita in U.S. dollars	2,265	2.214	3.075	2.722	0.934***
growth	Annual rate of real growth (percent)	2,264	2.720	6.791	2.574	3.086
grw_neg	Annual rate of growth, when it is negative (= 0 otherwise)	2,264	–1.275	4.207	–1.444	–0.848***
grw_sd	Variability (standard deviation) in the rate of growth	2,272	5.250	3.693	5.430	4.794***
health_priv	Private expenditures in health as share of GDP (percent)	994	2.241	1.412	2.206	2.302
pop95old	Share of the population 65 years or older (percent)	2,144	5.141	3.217	5.195	5.014
pop95young	Share of the population aged 0–14 (percent)	2,160	36.860	8.716	36.181	38.482***
population	Total population (millions)	2,265	30.439	124.400	34.930	19.125**
reg_AFR	Regional dummy for countries in each of IMF	2,336	0.301	0.459	0.244	0.450***
reg_APD	Departments: Africa, Asia and Pacific, Europe I,	2,336	0.171	0.377	0.201	0.095***
reg_EU1	Europe II (countries of the former Soviet Union	2,336	0.096	0.295	0.108	0.065***
reg_EU2	in Europe and Central Asia), and Western Hemisphere	2,336	0.103	0.304	0.103	0.103
reg_WHD	(America). AFR is used as reference in the regressions	2,336	0.205	0.404	0.201	0.217
year	Years, from 1985 to 2000	2,336	1,992.50	4.61	1,992.11	1,993.52***

[1]Statistically significant differences in means are indicated by *** (99 percent confidence level) or **(95 percent).

Table A4.5. List of Countries and Subsamples

Country	Years Under IMF-Supported Program	S1	S2	S3
Albania	5.71	S1	S2	S3
Algeria	4.81	S1	S2	
Angola	0.00			
Argentina	11.76			S3
Armenia	4.48	S1	S2	
Azerbaijan	4.13	S1	S2	
Bahamas, The	0.00			
Bahrain	0.00			
Bangladesh	6.59	S1		S3
Barbados	1.31	S1	S2	
Belarus	1.00	S1	S2	
Belize	1.24	S1	S2	
Benin	9.61	S1		S3
Bhutan	0.00			
Bolivia	12.10			S3
Bosnia and Herzegovina	1.00			
Botswana	0.00			
Brazil	6.35	S1		S3
Bulgaria	7.34	S1		S3
Burkina Faso	9.77	S1		S3
Burundi	5.26	S1	S2	S3
Cambodia	3.56	S1	S2	
Cameroon	7.86	S1		S3
Cape Verde	1.16	S1	S2	
Central African Rep.	2.45	S1	S2	
Chad	8.23	S1		S3
Chile	3.02	S1	S2	
China	0.00			
Colombia	1.03	S1	S2	
Comoros	2.45	S1	S2	
Congo, Dem. Rep. of	4.42	S1	S2	
Congo, Republic of	5.41	S1	S2	S3
Costa Rica	6.59	S1		S3
Côte d'Ivoire	10.94			S3
Croatia	4.50	S1	S2	
Cyprus	0.00			
Czech Republic	1.00			
Djibouti	2.37	S1	S2	
Dominica	3.05	S1	S2	
Dominican Republic	3.63	S1	S2	
Ecuador	8.20	S1		S3
Egypt	8.06	S1		S3
El Salvador	6.73	S1		S3
Equatorial Guinea	5.72	S1	S2	S3
Eritrea	0.00			
Estonia	6.82	S1		S3
Ethiopia	5.62	S1	S2	S3
Fiji	0.00			
Gabon	9.20	S1		S3
Gambia, The	8.55	S1		S3
Georgia	4.08	S1	S2	
Ghana	11.78			S3
Grenada	1.64	S1	S2	
Guatemala	2.59	S1	S2	
Guinea	13.38			S3
Guinea-Bissau	0.00			
Guyana	10.12			S3
Honduras	6.29	S1		S3
Hungary	7.75	S1		S3
India	1.66	S1	S2	
Indonesia	3.16	S1	S2	
Iran, Islamic Rep. of	0.00			
Jamaica	9.73	S1		S3
Jordan	9.42	S1		S3
Kazakhstan	6.05	S1		S3
Kenya	6.99	S1		S3
Kiribati	0.00			
Korea	4.90	S1	S2	
Kuwait	0.00			
Kyrgyz Republic	7.12	S1		S3
Lao P.D.R.	6.63	S1		S3
Latvia	7.13	S1		S3
Lebanon	0.00			
Lesotho	8.72	S1		S3
Liberia	1.43	S1	S2	
Libya	0.00			
Lithuania	5.74	S1	S2	S3
Macedonia, FYR	3.41	S1	S2	
Madagascar	9.63	S1		S3
Malawi	10.13			S3
Malaysia	0.00			
Maldives	0.00			
Mali	13.38			S3
Malta	0.00			
Marshall Islands	0.00			
Mauritania	12.16			S3
Mauritius	1.50	S1	S2	
Mexico	8.30	S1		S3
Moldova	5.29	S1	S2	S3
Mongolia	6.29	S1		S3
Morocco	5.95	S1	S2	S3
Mozambique	10.52			S3
Myanmar	0.00			
Namibia	0.00			
Nepal	6.24	S1		S3
Netherlands Antilles	0.00			
Nicaragua	4.99	S1	S2	
Niger	10.96			S3
Nigeria	3.90	S1	S2	
Oman	0.00			
Panama	7.93	S1		S3
Papua New Guinea	4.60	S1	S2	
Paraguay	0.00			
Peru	8.27	S1		S3
Philippines	11.92			S3
Poland	5.83	S1	S2	S3
Qatar	0.00			
Romania	5.15	S1	S2	S3
Russia	5.37	S1	S2	S3
Rwanda	5.13	S1	S2	S3
Samoa	0.52			
São Tomé and Príncipe	3.18	S1	S2	
Saudi Arabia	0.00			
Senegal	13.93			S3
Seychelles	0.00			
Sierra Leone	6.87	S1		S3
Slovak Republic	1.67	S1	S2	
Solomon Islands	0.00			
South Africa	0.00			
Sri Lanka	6.27	S1		S3

Table A4.5 *(concluded)*

Country	Years Under IMF-Supported Program	S1	S2	S3	Country	Years Under IMF-Supported Program	S1	S2	S3
St. Kitts and Nevis	0.00				Turkey	2.45	S1	S2	
St. Lucia	0.00				Turkmenistan	0.00			
St. Vincent and					Uganda	11.66			S3
the Grenadines	0.00				Ukraine	5.08	S1	S2	S3
Suriname	0.00				United Arab Emirates	0.00			
Swaziland	0.00				Uruguay	8.47	S1		S3
Syrian Arab Rep.	0.00				Uzbekistan	1.24	S1	S2	
Tajikistan	3.18	S1	S2		Vanuatu	0.00			
Tanzania	10.09			S3	Venezuela	4.00	S1	S2	
Thailand	4.63	S1	S2		Vietnam	3.30	S1	S2	
Togo	12.07			S3	Yemen, Rep. of	4.60	S1	S2	
Tonga	0.00				Zambia	7.48	S1		S3
Trinidad and Tobago	2.07	S1	S2		Zimbabwe	6.12	S1		S3
Tunisia	4.49	S1	S2						

Note: S1 = one to five years; S2 = one to ten years; and S3 = five or more years.

APPENDIX
5

Coverage of Social Issues in IMF-Supported Programs

	1 Is Social Spending Referenced?	1a Changes in Social Spending Noted?	1b Changes in Social Spending Analyzed?	2 Social Spending Clearly Defined?	3 Specific Problems Identified?
Algeria	Social safety net to cushion price increases; housing.	Move from Indemnité Complémentaire pour les Sans-Revenu (ICSR) unemployment scheme to targeted employment program; overhead savings from merging three cash transfer programs.	Impact of move from ICSR.		1992 social safety net costs 2.2 percent of GDP and abused due to bad means testing and lack of integration to other social support; need to control costs of public housing, increase rents, and target concessional mortgages; high cost of severance requires unemployment insurance scheme.
Bulgaria	Recovery of social assistance spending; need to address critical social needs.	Revamp social programs; reallocate spending to low income and unemployed; box discusses social assistance, pensions, health.	Estimated impact of reforms is additional 1 percent of GDP annually over three years.		Box on reforms in social sector: poor targeting; World Bank assistance to improve targeting and increase assistance to the unemployed.
Costa Rica	Measures to improve efficiency of social spending and strengthen social safety net.				
Ecuador	Social spending to decline from 4.7 percent to 4.5 percent of GDP under program.	Detailed discussion in Box 6.	*Bono Solidario* cash transfer to decline by 0.4 percent of GDP to 0.9 percent of GDP; Box 6: traditional social programs (education, health, and welfare) cut by 1.4 percent of GDP from 1996 to 1999.	Implicitly in Box 6.	Rising poverty: from 33 percent in 1995 to 43 percent in 1999; cutbacks in social spending due to rising deficits; targeting *Bono Solidario* problematic: 25 percent of recipients not eligible; regressivity of price subsidies: bottom 20 percent get10 percent electricity.
Egypt	Authorities shielding social sectors (especially health and education); Social Fund set up in 1991 to cushion adjustment on poor via public works and assistance to enterprises and displaced workers.	Increased employment in health and education while cutting other areas; improved targeting of social safety net; increased donor support for Social Fund.			Poverty regionally concentrated and linked to agriculture: 20–25 percent of households.

3a How to Protect Critical Programs?	4 Conditionality	5 Series on Social Spending	6 Follow-Up
Budgetary appropriations of 1.2 percent of GDP for public works program versus 0.6 percent of GDP for ICSR.	Public works scheme by September 1994 (benchmark); unemployment compensation scheme by September 1994 (benchmark); completed according to review.		ICSR to be abolished in October 1994; three allowances integrated; unemployment insurance scheme introduced; no discussion on housing.
	Health reform (benchmark).	Table 2; 1994–98 and projected to 2001.	Health reform.
			Measures to improve efficiency of social spending and strengthen social safety net implemented, including administrative reform, decentralization, and increased resources.
		In Box 6: 1996 to 2000.	
		Not clearly defined. Series for Social Fund and Subsidies 1992/93 to 1996/97.	Seventh review, September 1998: under program public spending on health increased from 2.4 percent to 3.2 percent of public spending; education spending increased to 13 percent; assistance through cash transfers; and Social Fund financed projects; Social Fund addressed (1) human resources development; (2) public works; (3) enterprise development; (4) community development; and (5) institutional development. Vision 2017 plan adopted to promote development.

Appendix 5 *(continued)*

	1 Is Social Spending Referenced?	1a Changes in Social Spending Noted?	1b Changes in Social Spending Analyzed?	2 Social Spending Clearly Defined?	3 Specific Problems Identified?
Jordan	Continue efforts since 1998 to protect more vulnerable groups and promote employment generation through Social Productivity Program; social spending to be protected.	Elimination of poorly targeted food cash transfer; protect social spending.	Food cash transfer: 1.3 percent of GDP; education from 10.6 percent to 10.9 percent of total spending; health, 5.5 percent to 5.9 percent.	Implicitly: health, education.	Food cash transfer not well targeted due to virtually unrestricted eligibility; extensive discussion in Box 3.
Pakistan	Measures required to safeguard social and poverty-related spending.	Projected sizable increase in social spending aimed at poverty reduction.	Public Sector Development Program (PSDP), Social Action Program, and Food Support Program increased by 28 percent (0.4 percent of GDP to 2.8 percent of GDP).	Implicit; Table 5 indicates social and poverty-related spending as percent of GDP; 1993/94 to 1998/99 and projected to 2000/01.	Cushion impact on poor of price increases and exchange rate depreciation; public debt constrains social and poverty-related spending; dilemma between fiscal adjustment and increased social and poverty-related spending.
Peru	Will continue policies aimed at poverty reduction by redirecting primary health care and other basic services to poorest areas.	Geographical targeting of health and other basic services; increased social spending to be financed by improvements in tax administration.		Only in second-year program in Box 2.	
Philippines	Authorities urged to protect poverty programs from 25 percent across-the-board nonwage cuts and to restore social programs if revenue allows.				Minimize impact of emergency budget cuts on social programs; ensure availability of rice stocks; contain inflationary impact of peso depreciation.
Romania	Targeted social spending required to diminish risk of social unrest undermining reform agenda.	Targeting social transfers of 10.5 percent of GDP in 1999 to vulnerable: unemployment benefits constant in real terms; severance payments of 0.7 percent of GDP; introduction of retraining; expand wage subsidy for new entrants; child allowances of 1.1 percent of GDP.		Implicitly Table 3: 1995–98 and projected to 2000.	Social stability requires protection of the most vulnerable through well-targeted measures; devolution of health insurance administration to 43 national insurance houses; pensions to be decompressed to reduce incentives for evasion.

3a How to Protect Critical Programs?	4 Conditionality	5 Series on Social Spending	6 Follow-Up
Increased share of budgetary outlays to education and health.			
Expansion of PSDP, Social Action Program, and Food Support Program; broadening of social safety net over medium term; quarterly quantitative targets for social and poverty-related spending to protect from cuts.	Indicative quarterly targets on social and poverty-related spending.	Table 5 indicates social and poverty-related spending as percent of GDP; 1993/94 to 1998/99 and projected to 2000/01; updated first review Table 5; second review Table 3.	First review: maintain target to increase social and poverty-related spending by 0.4 percent of GDP; concern over shortfalls in first half, although offset by improved accountability and governance; second review: social and pro-poor outlays below target but services not affected due to efficiency gains; increased spending related to education reform; third review: shortfalls confirmed and impact discussed in general terms.
		Only in second-year program: Box 2 and Table 7, 1992 to 1997.	Health and pension reform have long-term positive benefit and short-term cost; aim to promote private provision in education and health while strengthening safety nets; Box 2 of second-year program discusses social spending 1992–97, targeting under social safety net, and reforms supported by World Bank and IDB; third-year program proposes increased health and education spending financed by revenue mobilization; pilot health programs linking outlays to outcomes; more follow-up in December 1998 review.
			First and second reviews: small amount of social spending restored from sequestration (1.6 billion pesos for 1998) including maintenance for schools and operations for basic health; targets relaxed to accommodate less revenue and higher social spending; World Bank assistance to improve targeting and efficiency of poverty reduction programs; third review: relax targets to allow higher social spending; emphasis on agriculture, education, and health; fourth review: government spending in social areas (education, health, and nutrition) fell in 1998; budget cuts and slow disbursement affected some critical social programs.
Socially sensitive programs constant in real terms: unemployment benefits; severance payments and pensions.		Table 3 lists social expenditure.	First review: better targeting social benefits with World Bank assistance includes child protection agency, earmarking local spending for handicapped and children; real allocations raised 25–30 percent; overall social spending constant at 9 percent of GDP with real cuts in pensions.

Appendix 5 *(continued)*

	1 Is Social Spending Referenced?	1a Changes in Social Spending Noted?	1b Changes in Social Spending Analyzed?	2 Social Spending Clearly Defined?	3 Specific Problems Identified?
Senegal	Aim to provide adequate allocations for social services.	Adequate provisions for education and health.			Raise primary enrollment rates with emphasis on girls and raise efficiency; reinvigorate primary health care through community participation; availability of drugs and expanded coverage.
Tanzania	Orient public spending to physical and social infrastructure, particularly health, education, and water.				Social safety net to support public sector retrenchment.
Ukraine	Aim to improve efficiency of social spending.				Box 2 on structural rigidities of budget: 40 percent earmarked for social payments, road construction, and research and develop-ment; program continuing process of reducing earmarking to free resources for wages and social benefits; need to rationalize employment through reform of health and education; many social services provided by extrabudgetary funds.

3a How to Protect Critical Programs?	4 Conditionality	5 Series on Social Spending	6 Follow-Up
	Policy performance indicator: finalize 10-year development plan and 5-year investment program for health; operational programs to develop human resources (primary enrollment); rationalization of higher education and initiation of plans to increase literacy, especially among women; Second National Action Plan for Women; update Declaration of Population Policy; completion of poverty assessment; adoption of program to fight poverty.	Implicit: second annual arrangement: education and health series Table 5 July 1999; 1996–98 and projected to 2001; Table 5 November review; Table 3 June 2000 review; Table 3 third annual arrangement; Table 3 August 2001 review; Table 3 March 2002 review.	November 1998 review: progress on 1998–2007 health plan, 5-year investment program, 10-year education plan, intensification of measures aimed at most disadvantaged, mobilize revenue and external financing to support human resource development and social sectors. Second annual arrangement: education and health increased from 33 percent to 36 percent of current spending in 1998; aim at 38 percent and share in capital up 3 percent to 15 percent; June 2000 review: pension reform; action plan to improve use of health and education appropriations; social spending in line with targets; plan to increase health spending to reach World Health Organization target of 9 percent by 2002. Third annual arrangement: health and education increased to 4.7 percent of GDP in 2000 but 0.1 percent of GDP less than programmed due to shortfalls in education spending; priority investment for rural water and electricity, health, rural roads; August 2001 review: HIPC resources to health, education, rural infrastructure, butane price freeze, pensions = 20 percent more social spending from domestic resources. March 2002 review: increase education spending and monitor education and health completion point targets.
		Second annual arrangement: education and health 1995/96–1997/98; July 1999 review: health and education 1996/97–1998/99 and projected to 2000/01.	Second annual arrangement: social indicators compare unfavorably; devolution to enhance community development and cost recovery and shift resources to basic needs, e.g., primary education; expansion in social spending for 1997/98. July 1998 review: social spending protected from budget cuts. Third annual arrangement: increased social spending with nonwage spending up 10 percent and road repair from minimal to 0.8 percent of GDP; extension of devolution based on pilot projects; moving on educational reform including rationalization with World Bank assistance of teacher hiring and deployment. July 1999 review: social spending higher than projected; World Bank public expenditure review strengthened medium-term priority setting; increased allocation for social sectors by 29 percent for 1999/2000.
	Finalize action plans for restructuring ministries of health and education (benchmark) completed according to third review.	Table 4 lists education and health spending 1996–98 and projected to 1999; Table 4 of first review lists education, health, social security and welfare, and housing and community services for 1996–98 and projected to 1999. Second review: Table 4 updated from first review. Fourth review: updates Table 4 from 1997 to 1999 and projected to 2001. Fifth and sixth reviews: updates 1998–2002.	First review: cuts except in social spending protected by law; Box 2 discusses social safety net and poverty: better targeting required. Third review: timetable for reform of ministries of labor and social policy. Fourth review: consolidating all social programs by end-2001.

Appendix 5 *(concluded)*

	1 Is Social Spending Referenced?	1a Changes in Social Spending Noted?	1b Changes in Social Spending Analyzed?	2 Social Spending Clearly Defined?	3 Specific Problems Identified?
Uruguay					
Venezuela	Improvement in social safety net by increasing monthly stipends to vulnerable families with school-age children.	Social expenditure will increase by 1 percent of GDP including social security outlays.			Deteriorating economic conditions resulted in increase of poverty to 50 percent of population over 1990–95. Protection of vulnerable key objective: aim to assist vulnerable families with school-age children; subsidy to protect low-income users of public transport; increase old-age pensions; need to improve targeting and efficiency of social safety net to increase political support for program.

Source: Program documents.

3a How to Protect Critical Programs?	4 Conditionality	5 Series on Social Spending	6 Follow-Up
Increase social transfers by 1 percent of GDP and consolidate benefits within "family subsidy."	Legislation to reform severance payment system (benchmark); strengthen social safety net (benchmark).	Social transfers in Table 4 for 1991–97. First review: Table 5 lists social transfers for 1995–96.	First review: social safety net measures, in particular, enhancement of family subsidy, mitigated impact of adjustment on vulnerable, and increased support for program. However, social safety net needs more consolidation and better targeting and reforms being discussed with IDB. Real spending on social safety net increased by 300 percent in first half of 1996 relative to 1995. Outlays projected to increase from 0.3 percent of GDP in 1995 to 1.2 percent of GDP in 1996.

Appendix 6

Progress with Reforms in 15 Selected IMF-Supported Programs

Progress with Reform by Area and Degree of Progress and as a Percent of Programs in Which the Area of Reform Is Covered

	Little or No Progress	Partial Progress	Significant Progress	Number of Cases	Little or No Progress	Partial Progress	Significant Progress
Revenue							
Tax policy	Senegal	Algeria Ecuador Egypt Jordan Pakistan Peru Philippines Romania Ukraine Uruguay	Bulgaria Tanzania	13	1 8%	10 77%	2 15%
Tax administration	Egypt Pakistan Romania	Peru Philippines Ukraine Uruguay	Bulgaria Jordan Tanzania	10	3 30%	4 40%	3 30%
Organizational reforms	Senegal Ukraine Venezuela	Pakistan Peru Philippines	Bulgaria Jordan	8	3 38%	3 38%	2 25%
Expenditure							
Wage bill/civil service	Bulgaria Ecuador Egypt Peru Romania Venezuela	Algeria Costa Rica Philippines Ukraine Uruguay	Pakistan Tanzania	13	6 46%	5 39%	2 15%
Social sector	Pakistan Venezuela	Peru Ukraine	Algeria Ecuador Bulgaria	7	2 29%	2 29%	3 42%
Other spending		Uruguay	Algeria Costa Rica	3	0 0%	1 33%	2 67%
Quasi-fiscal							
Public enterprises including privatization	Costa Rica Senegal	Algeria Egypt Pakistan Peru Philippines Romania Uruguay Venezuela	Bulgaria Jordan Tanzania Ukraine	14	2 14%	8 57%	4 29%
Social security	Senegal Ukraine Venezuela	Bulgaria Uruguay	Peru	6	3 50%	2 33%	1 17%
Pricing policy		Algeria Egypt Venezuela	Ecuador Pakistan Philippines Senegal	7	0 0%	3 43%	4 57%

Source: Program documents.

Appendix 7 Illustrative Selection of Technical Assistance Inputs to Fiscal Reforms in the Lead-Up to the IMF-Supported Programs in 15 Countries

Algeria 1994 Stand-By Arrangement. A 1989 FAD mission recommended measures to modernize tax administration, including a new taxpayer identification system and master file, reorganizing the department, and developing computer systems. Follow-up in 1990 to 1993 reviewed implementation and provided advice including administrative preparations for the VAT (introduced in 1992), development of a single tax identifier, and computerization of the tax department. A 1990 mission advised on revenue sharing. Missions in 1991 and 1993 assisted in the design of social safety nets.

Bulgaria 1998 Extended Fund Facility. Missions in 1996 and 1997 focused on establishing a Large Taxpayer Unit. Other recommendations included: introduction of a unique tax identification number across tax, customs, and social security; adoption of a functionally based organizational structure; improvements to the VAT audit program and collection enforcement; and development of a tax administration modernization program and computerization strategy. A resident expert was installed to help implement the tax administration reform strategy. In 1997, a mission reviewed draft legislation on the profits tax, personal income tax, and VAT. Assistance was also provided on expenditure control, fiscal management under a currency board, and public expenditure management.

Costa Rica 1995 Stand-By Arrangement. A 1992 mission reviewed proposed tax reforms and a 1995 mission provided TA on the introduction of an Integrated Financial Management System.

Ecuador 2000 Stand-By Arrangement. TA missions reviewed policy and administration in respect of the main taxes (1996–2000) and a long-term advisor assisted with tax administration reforms. Issues raised included the lack of administrative controls and suggestions included improvements in the audit process, tax collection system, management of tax arrears, and computerization of tax returns, in addition to reform of the tax code. The latest TA placed priority on the modernization of the revenue administration and offered proposals to redesign the tax system. Public expenditure management (PEM) TA aimed to strengthen the financial management of the public sector (1993), improve the monitoring and control system of major public enterprises (1995), introduce an Integrated Financial Management System (1996), and develop the social safety net (1999).

Egypt 1996 Stand-By Arrangement. TA missions reviewed the personal income and profits taxes, arguing for further simplification of the rate structure and more aggressive action to roll back exemptions and stressing problems arising from asymmetries in the treatment of interest income (1993 and 1996); and examined investment incentives, pressing for the elimination of tax holidays (1994).

Jordan 1999 Extended Fund Facility. TA missions advised on design and implementation of the goods and services tax (GST) (1993 to 1995). Jordan also received extensive technical assistance, including procedures for budget preparation and execution, financial reporting, sales taxation, reform of the tax system, and pension reform. In 1998 FAD TA included three missions to advise on means to improve budget monitoring and execution.

Pakistan 2000 Stand-By Arrangement. TA missions covered a variety of areas, including a study of the PEM system (1997); the operation of the GST and measures to improve tax administration and increase tax compliance (1997, 1998, and 1999); a review of the income tax system and development of a strategy to improve its efficiency, potential for long-term development, and ease of administration (1999); an overhaul of the income tax law (2000); the revision of fiscal data; and measures to strengthen the fiscal reporting and accounting systems (2000). In 2000, a TA mission assisted with the preparation of the fiscal module of the Report on the Observance of Standards and Codes that was followed up with a review of progress in the strengthening of the fiscal reporting and accounting systems and assistance to the authorities in the preparation of revised fiscal data for 1993/94 to 1998/99.

Peru 1996 Extended Fund Facility. TA included long-term technical assistance in tax administration since 1991 and missions to advise on the reform of the pension system (1993); VAT and excise tax administration (1994); tax administration (1994 and 1995); expenditure management and expenditure policy design in the context of a poverty reduction program (1994). In particular, the Integrated System of Financial Administration—to provide monthly planning and monitoring of expenditure and Treasury resources—benefited from FAD TA missions in 1994 and 1996 backed up by long-term technical assistance.

Philippines 1998 Stand-By Arrangement. TA missions reviewed proposals to improve the structure of the individual and corporate income taxes and to rationalize tax incentives (1995); counseled on the tax treatment of the financial sector recommending movement away from transactions-type taxes (1997); and advised on tax administration (1998). A joint FAD–World Bank mission explored the interrelations between macroeconomic policy and environmental and resource policies (1996).

Romania 1999 Stand-By Arrangement. Peripatetic TA aimed at strengthening VAT administration (1994 and 1995) and missions provided broad policy and administration advice on income taxation (personal and corporate) and indirect taxes, advising on simplicity and the establishment of broad bases (1997) as well as comprehensive assessments of revenue administration and recommendations on reorganizing the tax administration, improving registration, payments, audits and arrears management processes and, in customs, advising on strengthening antismuggling efforts, and valuation procedures (1998).

Senegal 1998 Enhanced Structural Adjustment Facility. TA included advice on social safety net issues (1994); recommendations to strengthen tax and customs administration, including upgrading the customs computer system (GAINDE); developing a strategy for staffing and training in customs; improving collaboration between the preshipment inspection supplier and customs; implementing a tax identification number; strengthening monitoring of large taxpayers; and improving audit and collection enforcement (1996). This last measure included an assessment of the revenue impact of the new external tariff structure with suggested measures to correct the revenue shortfall stemming from the introduction of a common external tariff under the West African Economic and Monetary Union—for example, establish a Large Taxpayer Unit, simplify procedures for small businesses, develop a computer system for tax operations, reinforce customs valuation controls, implement a customs warehousing procedure for petroleum products, and improve information exchange between the tax and customs departments (1998).

Tanzania 1996 Enhanced Structural Adjustment Facility. TA missions reviewed PEM (1992); assisted in the design of a VAT (1992 and 1994); recommended measures to strengthen tax and customs administration, including improvements in arrears collection, compliance, and audit procedures and information technology systems (1994); and advised on tax reforms for the 1995/96 budget (1995). To prepare for VAT, FAD provided resident advisors for 12 months between March 1994 and July 1995. TA missions also undertook a broad review of the tax system, including investment incentives (1995), and addressed a range of tax aspects of the relationship between the mainland and Zanzibar (1996). In addition, a seminar on PEM was organized in 1995.

Ukraine 1998 Extended Fund Facility. Three long-term advisors and one short-term advisor were assigned and missions undertook a broad assessment of the personal and corporate income tax and indirect taxes, and contributed to the drafting of a tax code. The assistance entailed two distinct phases: an initial phase from 1993 to 1997 that aimed at implementing a comprehensive reform program of the tax department and a subsequent phase beginning in 1997 that focused on a more targeted range of issues, including creating large taxpayer offices, strengthening audit and arrears collection, and improving the processing of VAT refunds. Other TA focused on setting up social safety nets, improving fiscal management, increasing transparency and accountability, reducing opportunities for corruption, promoting cash operations, scaling back government activities outside the budget and quasi-fiscal operations, and strengthening expenditure controls. The key public expenditure management element was treasury development and more specifically the introduction of a single treasury account.

Uruguay 2000 Stand-By Arrangement. TA in the areas of tax and customs administration was provided in 1996. To improve transparency of public finance, in 2000 and 2001, PEM TA missions facilitated the identification of losses incurred by the public enterprises and public banks due to governmental activities that were not visible in the fiscal accounts.

Venezuela 1996 Stand-By Arrangement. TA included a review of the VAT law and advice on its implementation (1993); guidance on the implementation of the VAT, including a tax administration expert on a six-month assignment (1993/94); recommendations on tax administration (1994 and 1996); advice on tax policy (1996); and suggestions on strengthening of non-oil revenue, including indirect and income taxes (1996). A long-term expert in tax administration was also assigned. The range of recommendations went from redesigning forms for tax returns to modernizing tax administration and redrafting codes and laws covering all taxes, internal revenues, and customs. TA also assisted with performance auditing and internal control (1996).

Appendix 8

Table A8.1. Effectiveness of Surveillance

	Poor	Mixed	Good	Index
Learning from the past				
Does the program request mention, analyze, or evaluate past fiscal performance?	Costa Rica, Peru, Romania, Uruguay, Venezuela	Egypt, Jordan, Pakistan, Ukraine	Algeria, Bulgaria, Ecuador, Philippines, Senegal, Tanzania	
Percentage of cases	*33*	*27*	*40*	*53*
Does the program request evaluate fiscal performance under preceding arrangement?	Costa Rica, Ecuador, Jordan, Pakistan, Peru, Romania, Tanzania, Uruguay, Venezuela	Egypt, Ukraine	Algeria, Bulgaria, Philippines, Senegal	
Percentage of cases	*60*	*13*	*27*	*33*
Does self-standing surveillance between arrangements evaluate fiscal performance and draw lessons?[1]	Algeria, Venezuela	Costa Rica, Ecuador, Tanzania	Romania	
Monitoring of reforms during surveillance				
Has surveillance forcefully promoted structural reforms in the fiscal area where implementation was lacking?	Algeria, Costa Rica, Ecuador, Jordan, Peru, Senegal, Venezuela	Pakistan, Philippines, Romania, Uruguay	Bulgaria, Egypt, Tanzania, Ukraine	
Percentage of cases	*46*	*27*	*27*	*40*
Links between surveillance and program				
Were all major issues flagged during surveillance incorporated in the program?	Egypt, Pakistan, Peru		Algeria, Bulgaria, Costa Rica, Ecuador, Jordan, Philippines, Romania, Senegal, Tanzania, Ukraine, Uruguay, Venezuela	
Percentage of cases	*20*		*80*	*80*
Were all problem areas taken up in the program identified during surveillance?	Algeria, Bulgaria, Costa Rica, Ecuador, Egypt, Jordan, Peru, Romania, Senegal, Tanzania, Ukraine, Uruguay, Venezuela		Pakistan, Philippines	
Percentage of cases	*87*		*13*	*13*

Effectiveness of Surveillance—Most Recent Program Request

	None or Brief	Partial or General	Specific or Comprehensive
Learning from the past			
Does the program request evaluate fiscal performance under preceding arrangement?	Bulgaria (SBA 2002), Jordan (SBA 2002), Peru (SBA 2002), Uruguay (SBA 2002)	Pakistan (PRGF 2001), Romania (SBA 2001)	Algeria (EFF 1995), Tanzania (PRGF 2000)
Does the program request mention, analyze, or evaluate past fiscal performance?	Jordan (SBA 2002)	Bulgaria (SBA 2002), Pakistan (PRGF 2001), Peru (SBA 2002), Uruguay (SBA 2002)	Algeria (EFF 1995), Romania (SBA 2001), Tanzania (PRGF 2000)

[1]Bulgaria, Egypt, and Ukraine are excluded because the Article IV could not evaluate the program which was ongoing.

Table A8.2. Article IV Reports Reviewed in the Preprogram Period

Arrangement	*T*	*T*–1	*T*–2	*T*–3	Total	Freestanding
Algeria 1994 SBA	1994 Article IV and request for SBA (EBS/94/99).	. . .	1992 Article IV consultation (SM/93/9).	1991 Article IV consultation and request for a SBA and External Contingency Mechanism (EBS/91/79).	3	1
Bulgaria 1998 EFF	. . .	1997 Article IV consultation and first review under the SBA (EBS/97/124).	. . .	1995 Article IV consultation (SM/95/300).	2	1
Costa Rica 1995 SBA	. . .	1994 Article IV consultation (SM/94/273).	1993 Article IV consultation and request for SBA (EBS/93/45).	1992 Article IV consultation and review under the SBA (EBS/92/35).	3	1
Ecuador 2000 SBA	. . .	. . .	. . .	1997 Article IV consultation (SM/97/212).	1	1
Egypt 1996 SBA	1996 Article IV and request for SBA (EBS/96/149).	1995 Article IV consultation (SM/95/221).	. . .	1993 Article IV consultation and request for Extended Arrangement (EBS/93/139).	3	1
Jordan 1999 EFF	1999 Article IV consultation, request for Extended Arrangement, and use of Fund resources, request for purchase under the Compensatory and Contingency Financing Facility (EBS/99/51).	1998 Article IV consultation and fourth review under Extended Arrangement (EBS/98/65).	. . .	1996 Article IV consultation and second review under the Extended Arrangement (EBS/97/7).	3	0
Pakistan 2000 SBA	2000 Article IV consultation and request for SBA (EBS/00/230).	. . .	1998 Article IV consultation, second review under the Extended Arrangement and request for waiver of performance criteria, request for the second annual arrangement under the ESAF, use of Fund resources—request for purchase under the Compensatory and Contingency Financing Facility, and exchange system (EBS/98/231).	1997 Article IV consultation and request for arrangement under the Enhanced Structural Adjustment Facility and the EFF (EBS/97/185).	3	0
Peru 1996 EFF	. . .	1995 Article IV consultation and midterm and financing assurances reviews of the third year of the Extended Arrangement (EBS/95/177).	1994 Article IV consultation, second year program under the Extended Arrangement, and reviews of financing assurances (EBS/94/137).	. . .	2	0

Philippines 1998 SBA	1997 Article IV consultation, final review under the Extended Arrangement and request for SBA (EBS/98/50).	1996 Article IV consultation and review under the Extended Arrangement (EBS/96/187).	1995 Article IV consultation and review under the Extended Arrangement (EBS/95/153).	1994 Article IV consultation and request for an Extended Arrangement (EBS/94/117).	4	0
Romania 1999 SBA	. . .	1998 Article IV consultation (SM/98/220).	1997 Article IV consultation and request for SBA (EBS/97/69).	. . .	2	1
Senegal 1998 ESAF	. . .	1997 Article IV consultation and midterm review under the third annual arrangement under the ESAF (EBS/97/130).	1996 Article IV consultation and midterm review under the second annual arrangement under the ESAF (EBS/96/92).	1995 Article IV consultation and midterm review under the first annual arrangement under the ESAF (EBS/95/80).	3	0
Tanzania 1996 ESAF	1996 Article IV consultation and request for SBA (EBS/96/165).	1995 Article IV consultation (SM/95/291).[1]	1994 Article IV consultation (EBS/94/82).[2]	. . .	3	2
Ukraine 1998 EFF	. . .	1997 Article IV consultation and request for SBA (EBS/97/144).	. . .	1995 Article IV consultation (SM/95/320).	2	1
Uruguay 2000 SBA	. . .	1999 Article IV consultation, first review under the SBA, and request for modification of performance criteria (EBS/99/117).	1998 Article IV consultation and second review under the SBA (EBS/98/128).	1997 consultation and request for SBA (EBS/97/88).	3	0
Venezuela 1996 SBA	1996 Article IV consultation and request for SBA (EBS/96/108).	. . .	1994 Article IV consultation (SM/95/28).	1993 Article IV consultation (SM/94/30).	3	2
					40	**11**

indicates freestanding Article IV.

[1]Tanzania's 10/28/94 request for two-year arrangement under ESAF (EBS/94/210) was withdrawn.

[2]Tanzania's 1994 Article IV dates to April 1994, before the 1991 program's ending date of July 1994. The 1995 Article IV is therefore taken as the first after that program.