

Table II.2. Relative Contributions of Variables to Calculated Quotas 1/
(In percent)

	GDP	Reserves	Current Payments	Current Receipts	Var. of Curr. Receipt	Ratio of Current Receipts to GDP	New variable	New variable	New variable	New variable	Memo item: Regress. no. 2/
I. Non-linear Equations											
<i>Benchmark Equation:</i>											
Equation using only the traditional variables	27.5	-13.7	17.8	--	47.6	20.8	--	--	--	--	1
Memo: Existing five formulas	28.9	3.9	33.3	4.4	13.4	16.1					
With PPP-based GDP	28.1	-13.0	21.2	--	45.7	18.0	--	--	--	--	2
Multiplicative term with a dummy variable distinguishing between industrial and developing countries	29.3	-16.0	37.5	--	17.2	32 3/	--	--	--	--	4
With an openness index	3.1	-1.6	0.5	--	22.6	--	75.5	--	--	--	12
Without the reserves variable	25.8	--	6.2	--	46.8	21.2	--	--	--	--	13
With gold reserves valued at market prices	27.4	-11.1	15.4	--	47.3	21.0	--	--	--	--	14
With five year average GDP replacing the existing one-year GDP	32.4	-11.3	16.8	--	41.3	20.8	--	--	--	--	15
With population	25.8	-17.0	21.4	--	42.2	20.4	7.2	--	--	--	16
With short-term debt	29.0	-18.9	21.4	--	45.2	20.9	2.3	--	--	--	17
With the variability of external receipts replacing the variability of current receipts	36.6	-18.0	60.6	--	0.8	19.9	--	--	--	--	18
With the then-existing quota as a multiplicative explanatory variable	12.7	-1.0	-2.0	--	2.3	20.9	67.1	--	--	--	19
With the then-existing quota as an additive explanatory variable	3.7	1.4	4.6	--	3.0	3.4	83.9	--	--	--	20

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With a five-year average of GDP, where the conversion factors are centered five-year moving averages of the annual exchange rates, replacing the existing one-year GDP	31.0	-12.6	14.3	--	46.6	20.7	--	--	--	--	22
With GNP converted with the World Bank Atlas method	29.9	-13.0	15.5	--	46.8	20.8	--	--	--	--	23
With net private capital flows as an additional variable	30.5	-7.9	10.4	--	41.7	20.7	4.6	--	--	--	29
With real effective exchange rate variability times current receipts as an additional variable	32.3	-1.0	120.6	--	38.2	20.6	-110.8	--	--	--	30
With debt as an additional variable	27.6	-17.1	25.8	--	36.1	20.4	7.3	--	--	--	31
With financial market Accessibility times current payments as an additional variable	32.8	-23.4	-0.6	--	30.8	21.1	39.2	--	--	--	36
Bretton Woods Formula for Schedule A Members Using 1934-43 Data	72.3	-1.1	8.8	--	11.9	8.1	--	--	--	--	37
II. Linear Equations											
With PPP-based GDP	19.6	-12.9	42.1	--	51.1	--	--	--	--	--	3
Without a multiplicative factor	20.2	-14.6	32.1	--	62.3	--	--	--	--	--	9
With current receipts	23.5	1.1	137.0	-111.6	50.1	--	--	--	--	--	10
With an openness index	20.5	-16.6	30.3	--	52.0	--	13.8	--	--	--	11
With variables indicative of ability to contribute financial resources to the fund (including gold reserves valued at market prices and net private capital flows as an additional variable).	35.0	3.7	--	47.4	--	--	13.9	--	--	--	21

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	GDP	Reserves	Current Payments	Current Receipts	Var. of Curr. Receipt	Ratio of Current Receipts to GDP	New variable	New variable	New variable	New variable	Memo item: Regress. no. 2/
With the then-existing quota, short-term debt, population, and trade added, and reserves and current payments dropped	2.4	--	--	--	3.7	--	83.1	0.3	0.5	10.1	24
Nested model where a regression of vulnerability variables (represented by the variability of current receipts and population) is estimated first	22.8	-2.6	--	10.7	59.3	--	6.3	3.5	--	--	26
Nested model where a regression of strength variables (represented by GDP, reserves -- with gold reserves valued at market prices, current receipts, and net private capital flows) is estimated first	16.8	1.8	--	22.7	46.1	--	6.7	5.9	--	--	27
With both strength and vulnerability variables	23.2	-6.8	--	16.6	53.8	--	6.5	6.6	--	--	28
III. Subsample Versions											
For members with calculated quotas based on the variants of the BW formula	-41.9	2.5	56.6	--	56.9	26	--	--	--	--	5
For members representing developing countries	27.6	-26.4	51.2	--	25.8	21.7	--	--	--	--	6
For members with actual quota shares less than 1 percent	39.4	-5.9	-5.3	--	45.7	26.2	--	--	--	--	7
For members who joined in the past twenty years	30.5	-1.9	6.3	--	36.2	28.9	--	--	--	--	8
With the then-existing quota as an additive explanatory variable for countries with calculated quotas based on the variants of the Bretton Woods formula	1.6	0.7	4.4	--	1.3	2.6	89.5	--	--	--	25
Members with quota shares of equal to or less than 1.0 percent -- with normal net capital flows as an additional variable	31.9	-8.2	0.2	--	41.9	26.2	8.1	--	--	--	32

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Members with quota shares of equal to or less than 1.0 percent -- with real effective exchange rate variability times current receipts as additional variable	34.7	-4.7	58.1	--	46.6	26.1	-60.7	--	--	--	33
Members with quota shares of equal to or less than 1.0 percent -- with financial market accessibility times current payments as an additional variable	30.5	-7.4	-51.4	--	33.0	26.3	69.0	--	--	--	34
Members with quota shares of equal to or less than 1.0 percent -- with debt as an additional variable	24.6	-7.3	3.3	--	42.5	26.2	10.7	--	--	--	35

Note: The variables in the equations are defined in Table II.1.

1/ The relative contribution of a variable to the calculated quota is the ratio between the variable times its coefficient and the members' calculated quota. The contribution of the ratio of current receipts to GDP is the contribution of the nonlinear element to the calculated quotas, i.e., the extent to which the calculated quota is revised by the application of the multiplier (unity plus the ratio of current receipts to GDP).

2/ As numbered in the List of Regression Equations in the beginning of this section.

3/ It includes the contribution of the dummy variable.