TABLE 1.2 WAS CONSTRUCTED by Easterly, Levine, and Pritchett by performing a variance decomposition of the three studies listed in the table. They started with the following equation:

Growth of GDP per capita =

TFP growth $+ 0.4 \times$ Growth of capital per capita,

where the coefficient 0.4 is taken as the share of capital in GDP. They then decomposed the variance of growth of GDP per capita as follows:

Variance (growth of GDP per capita) =

Variance (TFP growth)

$+ (0.4)^2$ Variance (growth of capital per capita)

$+ 2 \times 0.4 \times$ Covariance (TFP growth, growth of capital per capita).

The first line of the table then reports the value obtained for the second term of the right-hand side of the equation, expressed as a percentage of total variance in growth of GDP per capita; the third and fourth lines of the table do the same for the first and third terms, respectively. The second line of the table is the sum of the third and fourth lines.

The figure in *Box 1.3* was constructed by first estimating an equation in which countries' growth rates of GDP per capita were regressed against several independent variables, including some considered to contribute to countries' access to knowledge and capability to use knowledge. Data for 74 countries and averages for three decades (1965–75, 1975–85, and 1985–95) were pooled, so as to exploit information across those decades. To avoid reverse causation affecting the results, values for the independent variables were taken at the beginning of each decade over which the dependent variable was averaged.

The dependent variable in the equation (GROWTH) is growth of real GDP per capita in 1985 international dollars. Data from the *Penn World Tables 5.6* (NBER 1998) were used for 1965 to 1992, and from World Bank 1998d for 1980 to 1995. For the overlapping years the observations from the two sources were averaged.

Independent variables consisted of three control variables (OPENNESS, TELEF100, and SCHOOL) and three state variables (GOVERNMENT, INCOME, and INVESTMENT). OPENNESS is a country's openness to trade as measured by the sum of imports and exports as a percentage of nominal GDP; data are from NBER 1998. TELEF100 is the number of telephone main lines per 100 inhabitants; data are from the International Telecommunication Union database. SCHOOL is average years of schooling in the population; data come from the TFP Project of the World Bank's Development Data Group.

GOVERNMENT is the share of general-government spending in real GDP in 1985 international dollars; data are from NBER 1998. INCOME is real GDP per capita;

Table TN1

Results of the regression of GDP growth on access to and capability to use knowledge

Independent variable	Regression coefficient	t statistic
Constant	−0.27	−1.80
OPENNESS	1.03×10^{-4} *	2.20
TELEF100	6.66×10^{-4} *	2.08
Log of (1 + SCHOOL)	0.012 *	2.29
GOVERNMENT	−0.001 **	−3.95
Log of INCOME	0.086 *	2.07
Square of log of INCOME	−0.006 *	−2.36
INVESTMENT	9.08×10^{-4} **	3.28
Adjusted R^2	0.24	
No. of observations	197	

** Significant at the 1 percent level.
 * Significant at the 5 percent level.
Note: Numbers in parentheses are t statistics.
Source: World Bank staff calculations.

data are from NBER 1998 for 1975 to 1992, and from World Bank 1998d for the remaining years. INVEST-MENT is the share of investment in real GDP; data are from NBER 1998.

Table TN1 presents the results. The point estimates for the log of INCOME and its square were close to those in Easterly and Levine 1996. This result supports the idea that there is convergence, but that countries that are very far behind converge very slowly if at all. Values for the other coefficients were close to those found in other research.

Next, on the basis of the estimated equation, average growth rates for the sample were calculated by fixing the state variables at their average levels and varying the control variables to take "low" and "high" values. "Low" values are those 1 standard deviation or more below the average, and "high" values those 1 standard deviation or more above the average.