

Comparable Estimates of Returns to Schooling Around the World

Claudio E. Montenegro
Harry Anthony Patrinos



WORLD BANK GROUP

Education Global Practice Group

September 2014

Abstract

Rates of return to investments in schooling have been estimated since the late 1950s. In the 60-plus year history of such estimates, there have been several attempts to synthesize the empirical results to ascertain patterns. This paper presents comparable estimates, as well as a database, that use the same specification, estimation procedure, and similar data for 139 economies and 819 harmonized household surveys. This effort to compile comparable estimates holds constant the definition of the dependent variable, the set of control variables, the sample definition, and the estimation

method for all surveys in the sample. The results of this study show that (1) the returns to schooling are more concentrated around their respective means than previously thought; (2) the basic Mincerian model used is more stable than may have been expected; (3) the returns to schooling are higher for women than for men; (4) returns to schooling and labor market experience are strongly and positively associated; (5) there is a decreasing pattern over time; and (6) the returns to tertiary education are highest.

This paper is a product of the Education Global Practice Group. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at hpatrinos@worldbank.org

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Comparable Estimates of Returns to Schooling Around the World

Claudio E. Montenegro

World Bank and Department of Economics, University of Chile

Harry Anthony Patrinos

World Bank

JEL codes: C13, J31

Keywords: Returns to schooling; Returns to experience; Investments in education

I. INTRODUCTION

Education is critical for economic growth and poverty reduction. Quality education systems produce the global economy's workers and expand knowledge. Schooling enables students to learn the skills that propel individual labor productivity. A host of social and non-market benefits are also produced by schooling, including but not limited to increased child well-being, health status, efficiency of consumer choices, and social capital. The individual contribution of schooling has often been measured by labor market earnings. Similarly, potential experience is a proxy for skills learned in the workplace. In many poor economies, education and labor market experience are the only human assets for a vast part of the labor force.

The study of the relationship between schooling and earnings has led to a number of empirical studies on a variety of social issues. These include, for example, racial and ethnic discrimination (McNaab and Psacharopoulos (1981); Chiswick (1988)); gender discrimination (Goldin and Polacheck (1987); income distribution (Mincer (1958); the determinants of the demand for education (Freeman (1976)); the impact of technology on wage differentials (Krueger (1993)); the impact of unexpected price, productivity and technology shocks (King, Montenegro, and Orazem (2012)); the impact of information on demand for schooling (Jensen (2010)); and the returns to schooling in the context of job creation (World Bank (2012). Under certain assumptions, earnings differentials by level of education have been used to identify the sources of economic growth (see, for example, Denison (1967). But perhaps the quintessential application has been the estimation of the rate of return to investment in schooling. Earnings of workers classified by some dimension have been at the core of empirical economics and other social sciences for many decades, starting with human capital theory (Schultz (1961); Becker (1964); Mincer (1974).

For 40 years, researchers (Banerjee and Duflo (2005); Colclough, Gandhi Kingdon, and Patrinos (2010); Harmon, Oosterbeek, and Walker (2003); Psacharopoulos (1972), Psacharopoulos (1973), Psacharopoulos (1985), Psacharopoulos (1989), Psacharopoulos (1994); Psacharopoulos and Patrinos (2004), Psacharopoulos and Layard (2012)) have reported on the patterns of estimated returns to schooling across developing economies. The returns are typically in the form of the estimated proportional increase in an individual's labor market earnings from each additional year of schooling completed. Among the consistent findings across the various surveys are:

1. Private returns to schooling are generally positive and the cross-economy average rate of return to schooling is 10 percent a year.
2. Returns to schooling seem to be higher in low or middle income economies than in high income economies.
3. Returns to schooling are highest at the primary level and become smaller (although still large) at the secondary and tertiary levels of schooling.

4. Estimated returns to schooling are higher for women than for men.
5. Returns to schooling have declined very modestly over time despite rising average levels of schooling attainment, suggesting that the world demand for skills has been increasing as the world skill supply has also increased.

All but one of these findings survive our analysis and that is point 3; in fact, tertiary education now displays the highest average private rates of return.

As discussed by Psacharopoulos and Patrinos (2004), the stylized facts presented above are based on compilations of studies that may not be strictly comparable. There are two main sources of non-comparability: data sample coverage and methodology. First, survey samples may not accurately reflect population means. For cost or convenience, surveys may concentrate on subpopulations that are easier or less expensive to reach, focusing on firms rather than households, or concentrating on urban populations while excluding rural residents. Second, studies rarely use the same model to estimate returns. Variation in control variables used can affect estimated returns, as can variation in the estimation strategy used. Both of these problems make it possible for observed variation in estimated returns to be due to these differences in sample design or estimation method and not to the true variation in returns.

Another methodological limitation is that researchers often include in the regression model many independent variables (Becker (1964)). This procedure leads to a lower estimated effect of education on earnings. While researchers who include other variables in earnings functions do so because they are interested in modeling earnings, not necessarily in estimating the rate of return to schooling, this nevertheless leads to biased estimates when the schooling coefficient is interpreted as a rate of return.

This paper presents new and comparable estimates of the private returns to schooling (and to potential experience) using data from 139 economies with a total of 819 harmonized household surveys. The sample includes several economies for which there is more than one survey available. Private rates of return are used to explain the behavior of individuals in seeking different education levels. Estimates of the returns to schooling and to potential experience are a useful indicator of an individual's productivity. This evidence can be used to guide public policy in the design of programs and crafting of incentives that both promote investment in education and ensure that low-income families make those investments.

The paper sets out to describe the patterns and trends using the same specification and estimation procedure by making use of harmonized country surveys and by using comparable methods. This effort to compile comparable estimates addresses the issues in the literature such as by holding constant (i) the definition of the dependent variable; (ii) the variables used as controls; (iii) sample definitions; and (iv) estimation method for all the surveys in the sample. The results show (i) that the returns to schooling and potential experience are more concentrated around their respective means than previously thought; (ii) the basic Mincerian model used is more stable than one may have expected; (iii) the

returns to schooling are higher for women than for men; (iv) returns to education and to potential experience are strongly and positively associated; (v) returns demonstrate a decreasing pattern over time; and (iv) returns to tertiary education are the highest and to secondary education the lowest.

II. METHODS

The private rate of return compares the costs and benefits of schooling as incurred and realized by the individual student who undertakes the investment. Mincer (1974) has provided a great service and convenience in estimating returns to schooling by means of the semi-log earnings function (see also Becker and Chiswick (1966)). The now standard method to estimate private returns per year of schooling is to estimate log earnings equations of the form:

$$(1) \quad Ln(w_i) = a + \beta_1 S_i + \beta_2 X_i + \beta_3 X_i^2 + \mu_i$$

where $Ln(w_i)$ is the natural log (of hourly or annual, depending on data) earnings for the i_{th} individual; S_i is years of schooling (as a continuous variable); X_i is labor market potential experience (estimated as $age_i - S_i - 6$); X_i^2 is potential experience-squared; and μ_i is a random disturbance term reflecting unobserved abilities. Therefore, β_1 can be viewed as the average rate of return to years of schooling to wage employment. The list of control variables is kept deliberately small to avoid overcorrecting for factors that are correlated with years of schooling. This is also known as the “Mincerian” method (Mincer (1974)).

The earnings function method can be used to estimate returns at different schooling levels by converting the continuous years of schooling variable (S) into a series of dummy variables, say D_p , D_s and D_t (where p is primary schooling, s is secondary schooling and t is tertiary) to denote the fact that a person has achieved that level of schooling. The omitted level is people with no schooling and that dummy is not in the equation to avoid matrix singularity. The estimation equation in this case is of the form:

$$(2) \quad Ln(w_i) = \alpha + \beta_p D_{p_i} + \beta_s D_{s_i} + \beta_t D_{t_i} + \beta_1 X_i + \beta_2 X_i^2 + \mu_i$$

After fitting this “extended earnings function” (using the above dummies instead of years of schooling in the earnings function), the private rate of return to different levels of schooling can be derived from the following formulas:

$$(3) \quad r_p = (\beta_p) / (S_p)$$

$$(4) \quad r_s = (\beta_s - \beta_p) / (S_s - S_p)$$

$$(5) \quad r_t = (\beta_t - \beta_s) / (S_t - S_s)$$

where S_p , S_s and S_t stand for the total number of years of schooling for each successive level. Care has to be taken regarding the foregone earnings of primary school-aged children. In the empirical analysis that follows we have assigned only three years of foregone earnings to this group, following tradition (see, for example, Psacharopoulos (1995)).

The costs incurred by the individual are her foregone earnings while studying, plus any tuition fees or incidental expenses incurred during schooling. Since schooling is mostly provided free by the state, at least at the basic education level, then in practice the only cost in a private rate of return calculation is the foregone earnings. The private benefits amount to what a more educated individual earns (after taxes), above a comparable group of individuals with less schooling. This more or less refers to adjacent levels of schooling; for example, tertiary versus secondary school graduates. Although convenient because it requires less data, this method is slightly inferior to the full discount method (Psacharopoulos (1995)); in fact, it assumes flat age-earnings profiles for different levels of schooling (Psacharopoulos and Layard (1979)).

From equation (1) the return to potential experience is given by:

$$(6) \quad \beta_2 + 2\beta_3 X_i$$

which needs to be evaluated at a given value of X_i . For each sample we use the average years of potential experience as the evaluation point. It is important to stress that in the empirical part when we refer to potential experience we are referring to the estimates based on equation (1).

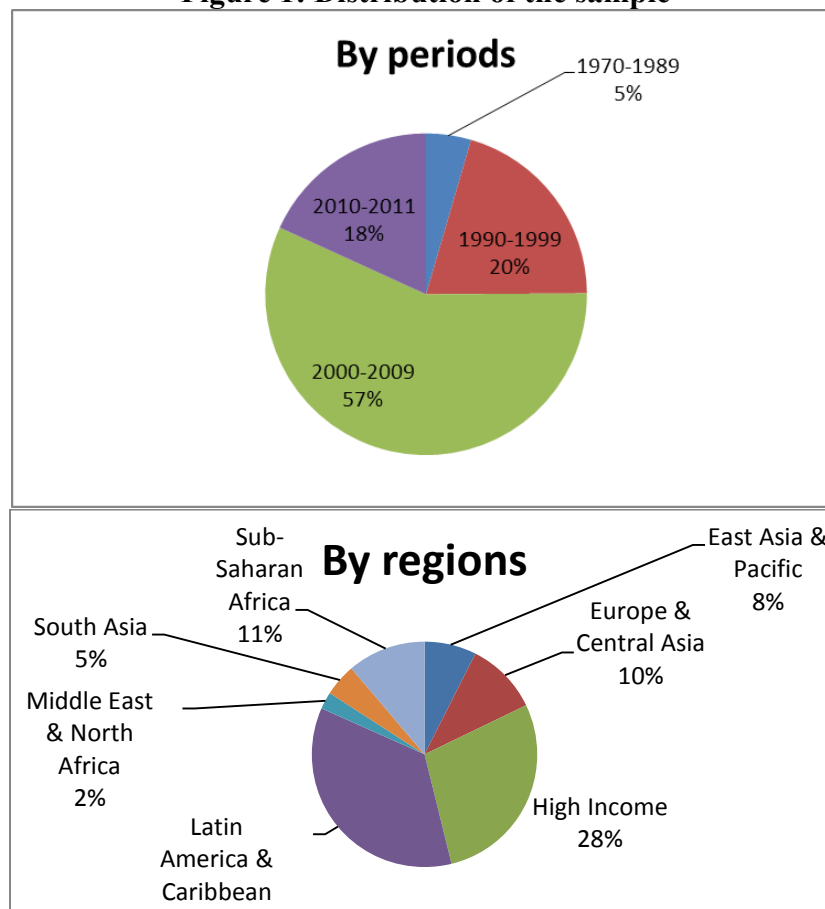
III. DATA

Our findings are the result of studying a large database constructed from existing national household surveys through the use of the International Income Distribution Database (I2D2) World Bank (2014), initially compiled by the World Bank's World Development Report unit over the period 2005-2011, and now under the World Bank's Poverty and Inequality Unit (since 2012). These data have been used in recent *World Development Reports* and also in several *Human Development Reports* (see, for example, United Nations Development Program (UNDP) (2011)). For a detailed description of the sample, see Montenegro and Hirn (2009). The database covers economies from developed and developing regions, with no censoring of any kind in the sample selection. For most of the economies it covers at least one point in time, and in many cases several points in time. An enormous effort was undertaken in standardizing the variable definitions across economies and time periods. The original data set includes 1,018 economies-years that represent 160 economies. Not all of the economy-year data points are included in our analysis because some surveys lack key variables. The basic specification (the one that requires the minimum set of variables, and hence the one that has the most estimates) was calculated for 819 economy-year points, and covers 139 economies.

The period of time under study is 1970 to 2013. However, less than 5 percent of observations are from before 1990, and only 25 percent before 2000; 75 percent of our estimates come from the period 2000-2013. Figure 1 presents the distribution of the sample by year. The most represented economies include Brazil (with 27 years of survey data), Costa Rica (21 years) and Argentina and Honduras (20 years each). On the other extreme, there are several economies with only one point in time, most of which are in Africa and Eastern Europe, or are small economies.

Looking at the distribution of the sample by region, from Figure 1 it is immediately obvious that the Latin America and Caribbean region has the largest representation in the sample, at 36 percent, or 291 data points, of all estimates. This is exclusively a result of data availability. High Income Economies follow at 28 percent, then Sub-Saharan Africa at 11 percent, with East Asia and the Pacific at 8 percent, Europe and Central Asia at 10 percent, South Asia at 5 percent, and finally the Middle East and North Africa at 2 percent.

Figure 1: Distribution of the sample



The sample definition used in this study includes only waged employees. Self-employed workers were eliminated because the database did not allow the separation of income into returns to labor and returns to capital. Family aid workers, apprentices and similar workers were also eliminated because their wages do not reflect market productivity.

The unemployed and people who work in voluntary services were also excluded. The same variables and sample definitions are used for all surveys, which gives us comparable economy-year results. For every survey, the top 0.5 percent of the sample was eliminated to avoid possible biases due to wage outliers. Like many other studies, school attainment is defined by the highest grade attended and completed; experience is defined as potential years of experience, where this is defined as age minus years of schooling minus six (as the typical school starting age). Both variables are measured in years. Annex Table 1 presents the list of economies and years used in this study, along with the returns to schooling (both as an aggregate variable and by levels).

IV. RESULTS

The basic earnings functions, equations (1) and (2), were applied to three different groups: (i) total sample, (ii) males and (iii) females (given the well-known differences in behavior for males and females in the labor market). As shown in the first three data rows of Table 1, the average rate of return to another year of schooling is 10 percent for the total sample. When considering only males, the rate of return to another year of schooling is 9.6 percent, and for females the rate of returns is much higher, at 11.7 percent. All of these estimates are based on 819 observations from 139 economies between 1970 and 2013. These results are similar to many other reviews of the literature.

Variable	Mean	N
Years of schooling total	10.1 (3.3)	819
Years of schooling male	9.6 (3.2)	819
Years of schooling female	11.7 (3.3)	819
Primary schooling total	10.6 (6.4)	547
Secondary schooling total	7.2 (3.6)	619
Tertiary schooling total	15.2 (5.8)	762
Primary schooling male	10.0 (6.6)	543
Secondary schooling male	7.1 (3.8)	614
Tertiary schooling male	15.2 (5.8)	745
Primary schooling female	10.9 (7.6)	519
Secondary schooling female	8.7 (4.6)	607
Tertiary schooling female	16.8 (6.1)	738

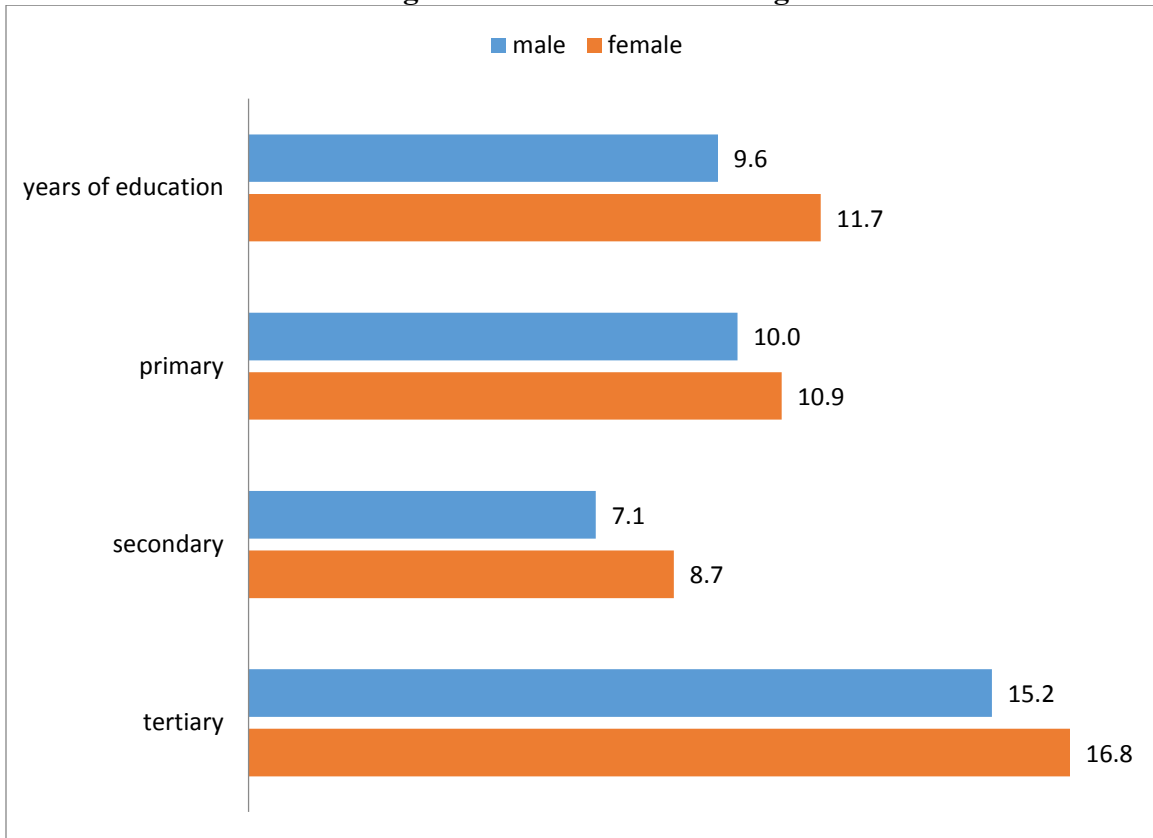
Note: Standard deviations in parentheses

The returns are also estimated for levels of schooling, shown in the second, third and fourth block of rows in Table 1. In particular, the second block presents the returns for the total sample, the third for males, and the fourth for females.

Table 1 clearly corroborates a fact already known in the literature: the returns to education for females are higher than for males. This is true not only when considering

the returns to another year of schooling, but also for each one of the three levels of education examined here. To stress the results presented in Table 1, Figure 2 presents the averages returns to schooling (as a whole and by level). Figure 2 clearly shows the higher returns for women than for men. T-tests (not included here but available upon request) confirm that, in each and every case, the average returns are higher for females than for males (see Dougherty (2005) for an explanation as to why returns are higher for women). In all cases the results are statistically significant.

Figure 2: Returns to schooling



One important thing to stress is that the estimates presented in this paper were obtained after estimating the returns in a comparable fashion (that is, the definition of the dependent variable, the control variables, the sample definition, and the estimation method were the same and applied to all the surveys in our sample). The similarity of our results to the ones presented by Psacharopoulos and Patrinos (2004) shows just how stable these estimates really are. The rate of return to another year of schooling is also well-behaved and has a normal distribution (for the three samples considered here), as shown in Figure 3. The same well-behaved normal distribution also applies when considering the breakdown by gender.

When analyzing the returns to schooling by level, the returns are normally distributed for each level, but their distributions are different. As shown in Figure 3, the returns to

primary and tertiary are less concentrated around the mean, while the returns to secondary are much more concentrated around the mean.

Figure 3: Returns to Schooling

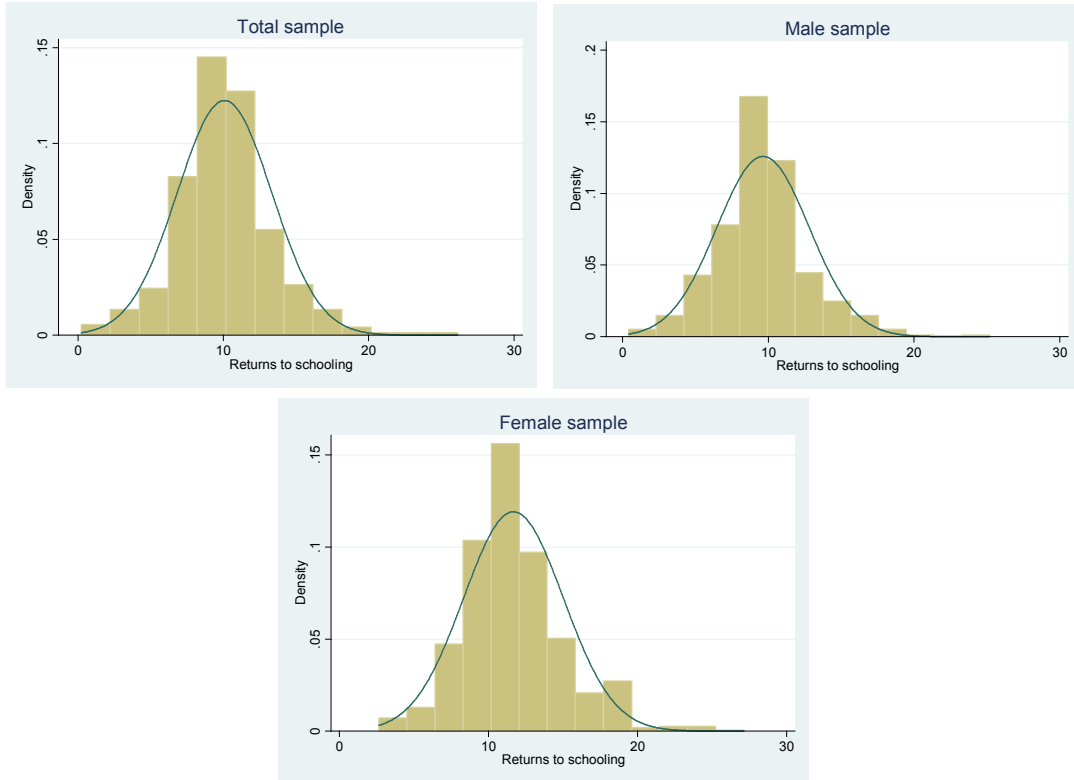
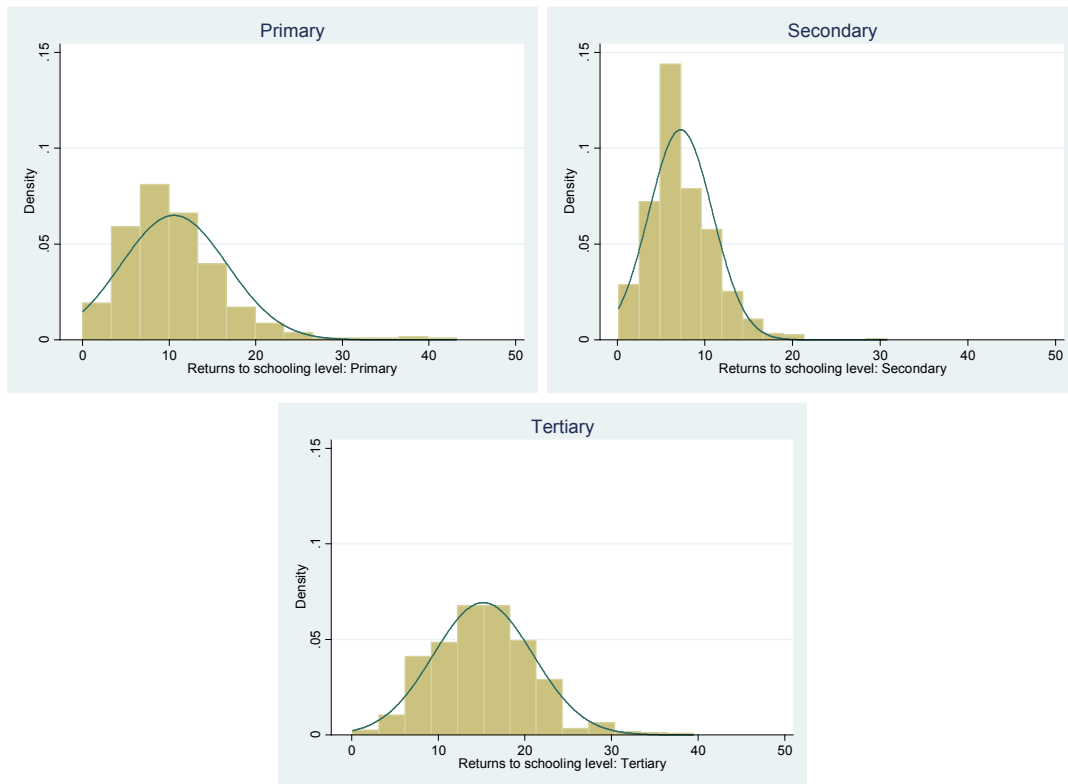


Figure 3 (cont'd): Returns to Schooling by Level



Considering only the latest available estimate for each economy and the returns to schooling when using the total sample, the five economies with the lowest rate of return are: Afghanistan, Armenia, Russian Federation, Guyana and Iraq. The five economies with the highest returns are: Rwanda, South Africa, Ethiopia, Namibia, and Burundi. It is interesting to note that among the five highest returns, all are from Africa. This is shown in Table 2, which also presents the economies with the lowest and highest returns by gender.

Table 2: Highest and Lowest Returns to Schooling by Economy

Overall		Male		Female		
Economy	Return	Economy	Return	Economy	Return	
Lowest	Afghanistan	1.6	Armenia	0.8	Afghanistan	3.0
	Armenia	2.2	Afghanistan	1.3	Papua New Guinea	3.7
	Russian Federation	2.6	Burkina Faso	2.8	Armenia	4.2
	Guyana	3.3	Sierra Leone	3.1	Belarus	4.3
	Iraq	3.4	Iraq	3.1	Cambodia	4.7
Highest	Rwanda	22.4	Rwanda	20.8	Rwanda	24.4
	South Africa	21.1	South Africa	20.3	South Africa	23.3
	Ethiopia	18.5	Namibia	19.3	Ethiopia	19.3
	Namibia	18.3	China	17.7	Kenya	19.3
	Burundi	17.3	Burundi	17.2	Tanzania	19.2

The returns to another year of schooling by world region are highest in Sub-Saharan Africa (12.4 percent), significantly above the global average (9.7 percent; see Table 3). Returns are lowest in the Middle East/North Africa region (7.3 percent). Healthy returns are experienced in East Asia (9.4 percent) and Latin America (9.2 percent). There are below average returns in the Eastern European economies (7.4 percent) and in South Asia (7.7 percent).

Regarding the returns by level (see Table 3), the returns are, in general, higher in Sub-Saharan Africa with only one exception: when considering the primary school level for females, but it is still higher than the global average. There are low returns to primary schooling in high income economies, as would be expected. There are high returns to primary schooling in the Middle East and North Africa, especially for females; by contrast, the returns to tertiary are low in the Middle East and North Africa. Returns to primary schooling are surprisingly low in South Asia.

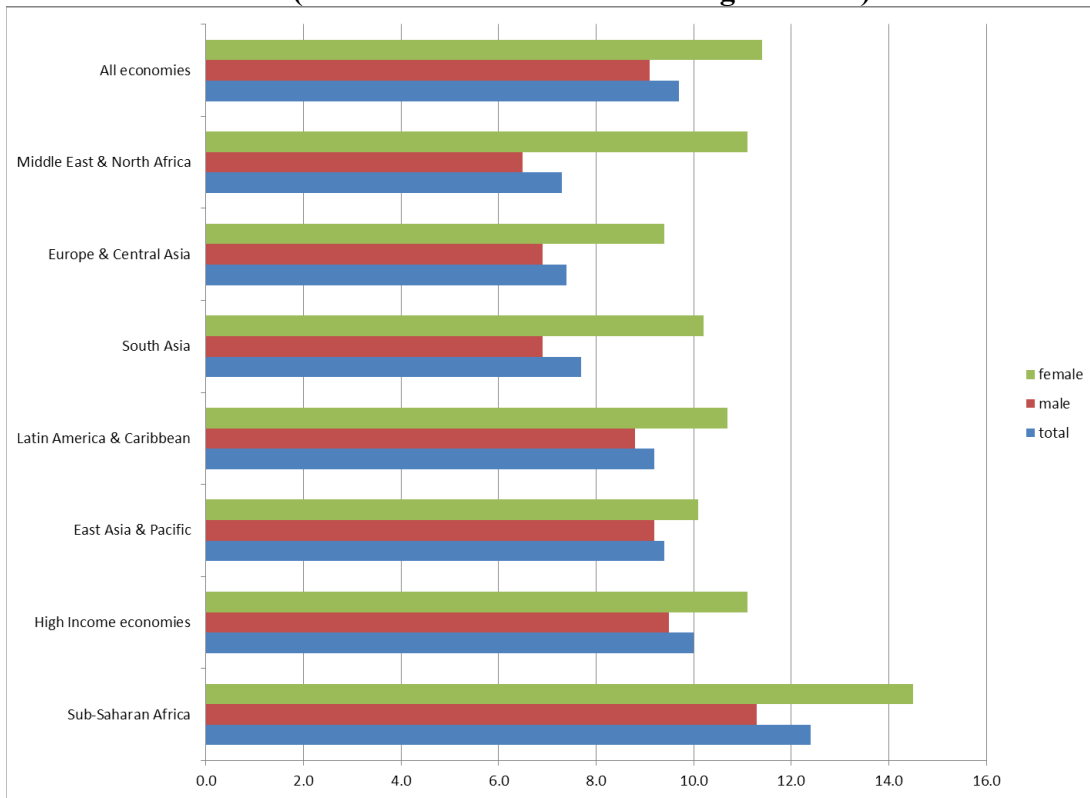
Table 3a. Average Returns to Schooling (latest period for each country)

Region	Average returns to schooling			Average years of schooling			N
	total	male	female	total	male	female	
High Income economies	10.0	9.5	11.1	12.9	12.7	13.1	33
East Asia & Pacific	9.4	9.2	10.1	10.4	10.2	10.7	13
Europe & Central Asia	7.4	6.9	9.4	12.4	12.2	12.7	20
Latin America & Caribbean	9.2	8.8	10.7	10.1	9.5	10.9	23
Middle East & North Africa	7.3	6.5	11.1	9.4	9.2	11.0	10
South Asia	7.7	6.9	10.2	6.5	6.5	6.4	7
Sub-Saharan Africa	12.4	11.3	14.5	8.0	8.1	8.1	33
All economies	9.7	9.1	11.4	10.4	10.2	10.8	139

Table 3b. Average returns to schooling by levels

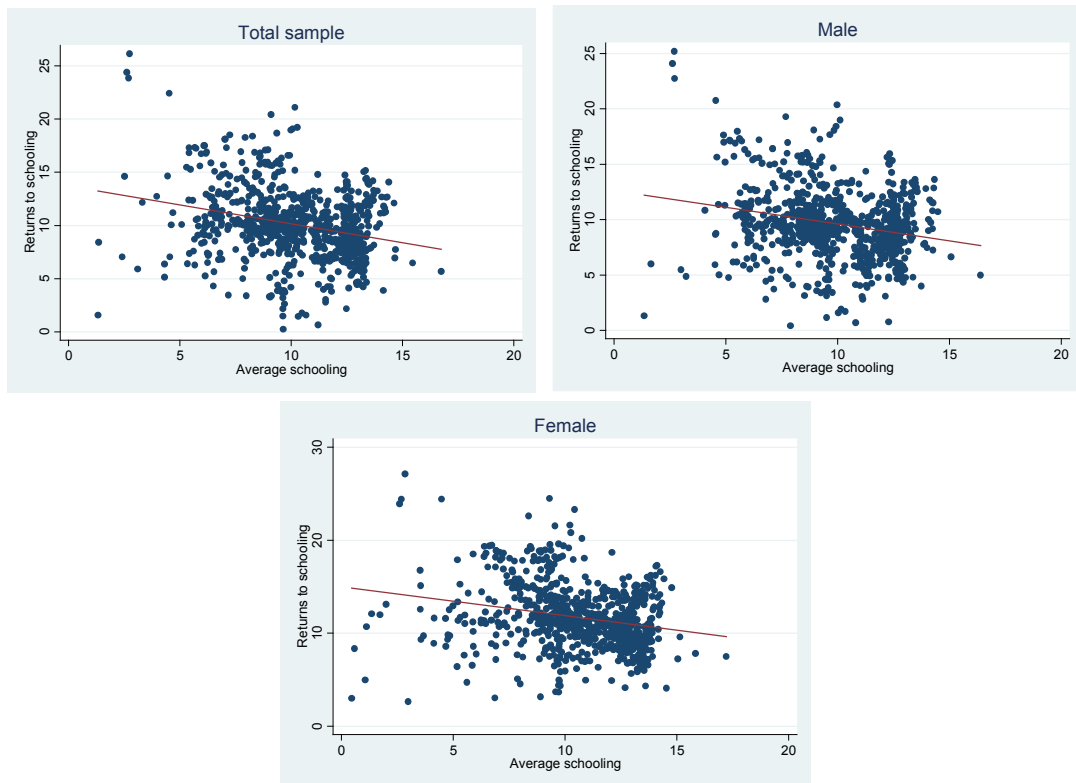
Region	Total			Male			Female		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
High Income	4.9	6.6	11.1	3.3	7.5	10.7	7.2	5.2	12.3
East Asia	13.6	5.3	14.8	12.6	5.8	15.0	9.5	6.4	15.8
Europe/Central Asia	13.9	4.7	10.3	12.1	4.2	9.8	11.9	6.4	12.2
Latin America	7.8	5.4	15.9	7.9	5.3	15.7	8.7	6.5	17.4
Middle East/N. Africa	16.0	4.5	10.5	12.7	4.3	10.2	21.4	7.4	13.5
South Asia	6.0	5.0	17.3	4.7	3.9	16.6	4.8	6.2	23.3
Sub-Saharan Africa	14.4	10.6	21.0	12.5	10.1	21.0	17.5	12.7	21.3
All economies	11.5	6.8	14.6	10.1	6.7	14.4	13.2	8.2	16.1

Figure 4. Average returns to schooling by region and gender (ordered from lowest total to highest total)



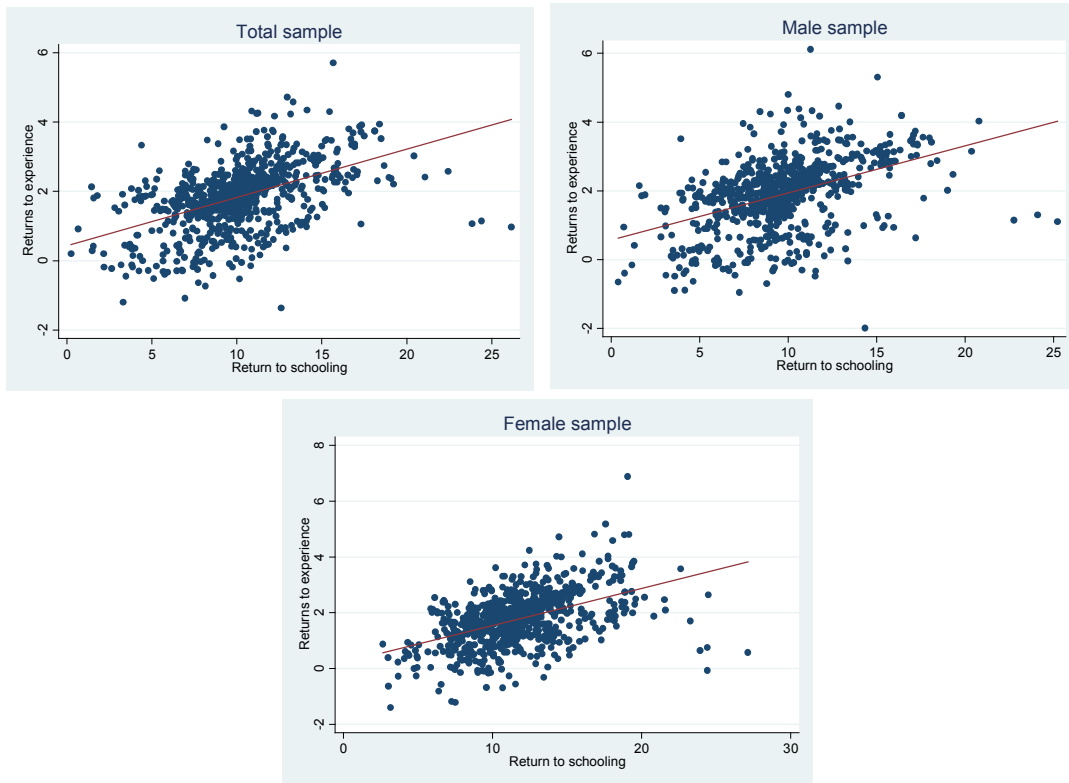
The returns to another year of schooling tend to decline as the average level of schooling rises in an economy. This demonstrates that schooling increases respond to price signals. Therefore, as demand for education increases and the supply follows, the price tends to fall (see Figure 5).

Figure 5: Returns to Schooling and Average Years of Schooling



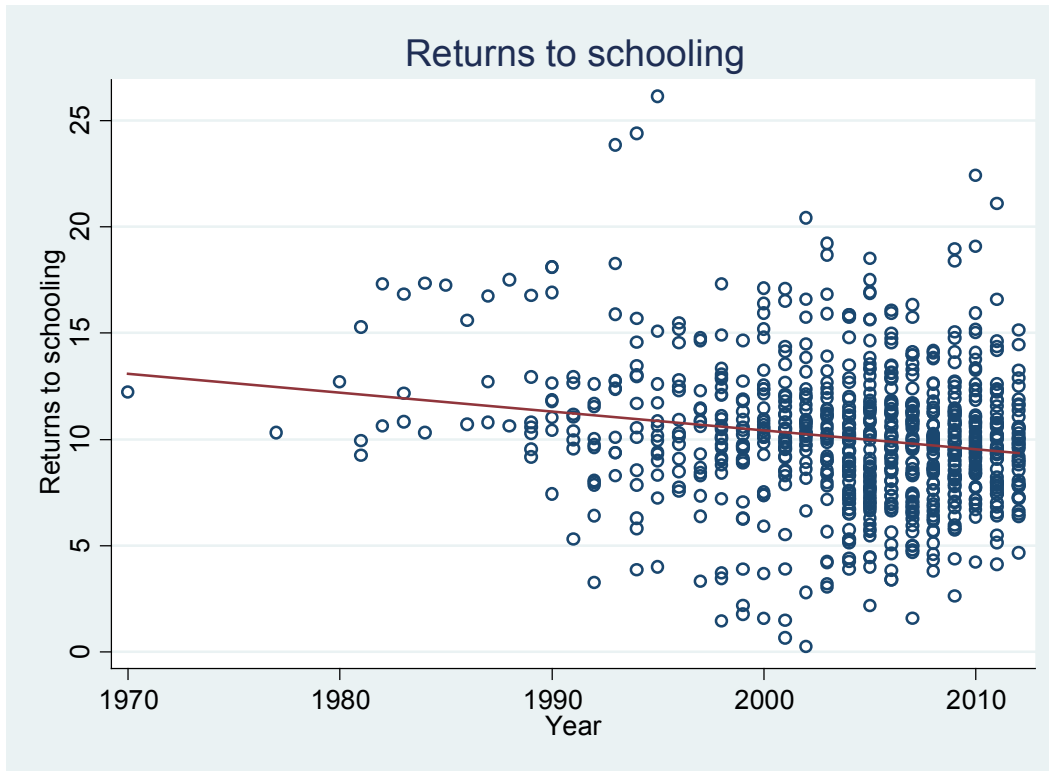
There is a positive correlation between the returns to schooling and the returns to experience. That is, the coefficients on schooling and experience are positively related (see Figure 6).

Figure 6: Correlation returns to schooling and returns to potential experience



There has been a tremendous increase in schooling attainment in recent decades. In 2010, the world population aged 15 and above was estimated to have an average of 8 years of schooling, having increased steadily from just over 5 years in 1980 (Barro and Wha Lee (2013)). As schooling in an economy increases, the returns to schooling tend to decrease, as show in Figure 7. Our new estimates show a sharp decline in returns during the past few decades, reflecting the sharp increase in schooling levels worldwide.

Figure 7: Returns Patterns over Time



The returns to schooling have declined significantly since the 1980s, when they were above 13 percent, to just over 9 percent in recent years (Table 4). This is due, at least partly, to the unprecedented expansion in schooling since the 1980s and, especially, since the late 1990s. Schooling has expanded by almost 50 percent since 1980. Over a 30 year period the returns to schooling have declined by 3.5 percentage points, or 0.1 percent a year. At the same time, schooling increased by more than 3 years, or 2 percent a year. On average, another year of schooling leads to a reduction of the returns to schooling by one percentage point.

Table 4. Returns to Schooling and Average Years of Schooling by Period

	Returns to Schooling	Average years of schooling	Number of surveys
1980-1985	13.3	6.6	12
1986-1990	12.7	8.1	23
1991-1995	11.0	8.0	58
1996-2000	10.1	8.8	109
2001-2005	9.9	10.1	228
2006-2010	9.6	10.9	238
2011-2013	10.0	11.6	149

Figure 8: Average returns to schooling and average mean of education over time



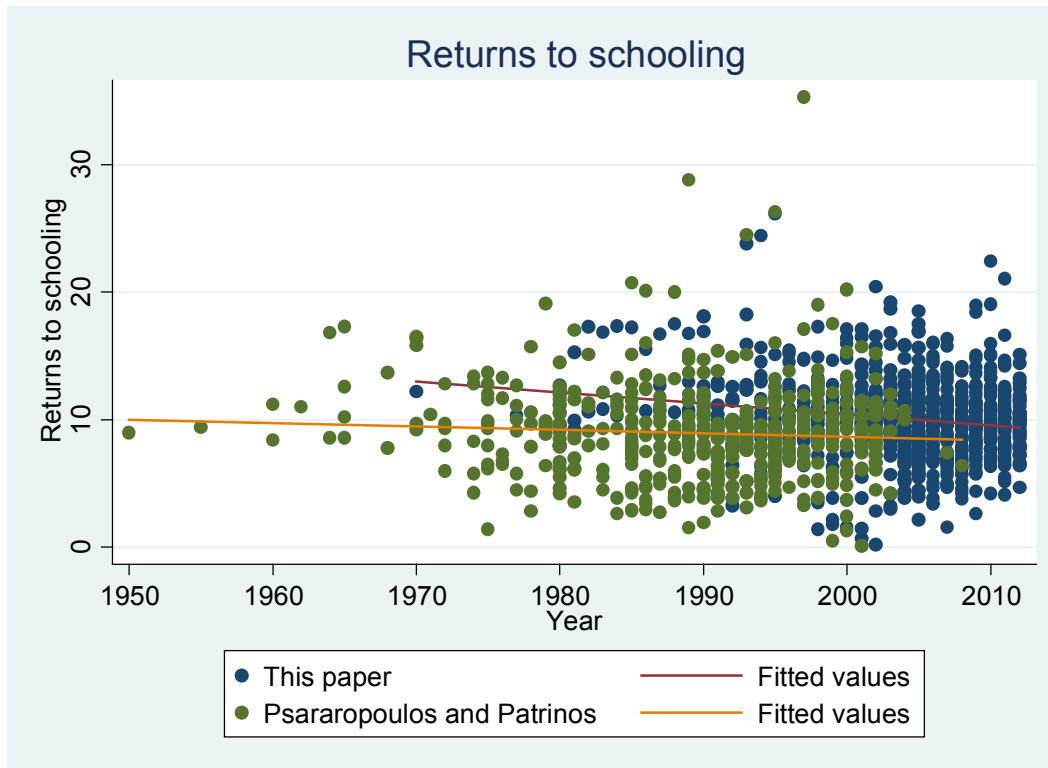
V. COMPARISON WITH ALTERNATIVE ESTIMATES

Other studies find the average rate of return to another year of schooling is 10 percent (see, for example, Psacharopoulos and Patrinos (2004)). Returns to schooling by level of national income show that the highest returns are recorded for low-income and middle-income economies. Average returns to schooling are found to be highest in the Latin America and Caribbean region and for the Sub-Saharan Africa region. Returns to schooling for Asia are at about the world average. The returns are lower in the high-income OECD economies. Average returns to schooling are lowest for the non-OECD European, Middle East/North Africa group of economies.

The only differences that we find are the relatively low returns to schooling for South Asia and the relatively high returns in high-income economies, though these differences may be due to economy coverage. Our data set and the compilation of studies by Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014) show a decline in the rates of return over time. Overall, the average returns estimated by Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014) are slightly lower. This is most likely due to additional control variables that are being used in the

studies that Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014) review. Also, Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014) cover, in general, a period prior to the estimates derived here.

Figure 9: Returns to Schooling Estimates, all data points



Source: Our estimates and the reviews of Psacharopoulos and Patrinos (2004).

Comparing these new, consistent estimates with Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014), we estimate, in terms of latest year available, for 139 economies, an average rate of return of 10.0 percent (with a standard deviation of 3.4). Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014), for 91 economies, estimate a rate of return of 9.4 percent (with a standard deviation of 3.9). Our new estimates contain 43 more economies. Together, the two compilations cover 149 economies (76 percent of the 193 economies recognized by the United Nations). In terms of world population in 2010, the estimates reviewed in Psacharopoulos and Patrinos (2004) and Psacharopoulos and Patrinos (2014) cover 84 percent of the globe. This new study covers 92 percent of the world's population. Combined, the two studies cover more than 95 percent of the global population. In Figure 9 we plot all estimates, demonstrating the consistency and stability of the estimates.

VI. LIMITATIONS

This study focuses on the returns to schooling as measured by labor market earnings. While a useful measure, it does mean that we do not include self-employed or informal sector workers because of methodological difficulties. This is not a problem in more advanced and growing economies, but it is a limitation in countries where a substantial proportion of the population is in the informal sector. Individual country work is needed to fill that gap (see, for example, Garcia-Mainar and Montuenga-Gomez (2005)).

Another potential limitation is endogeneity. The results reported here are correlations from earnings functions estimated using Ordinary Least Squares. To the extent that there are other factors that affect the schooling decision then there could be bias. To address the potential bias researchers have instrumented schooling or tried other techniques. The results reported confirm the estimates obtained here; in many cases the returns estimated using an instrumental variables (IV), which correspond to sub-populations and are therefore Local Average Treatment Effects (LATE), are typically higher than the average OLS estimate in the same country (Ichino and Winter-Ebmer (1999); Card (1995); Duflo (2001); Patrinos and Sakellariou (2006)). Therefore, we do not believe that the correlations reported here are biased, and are certainly not biased upward.

The results reported here are private returns. They are based on what the individual will earn and the only costs considered are those incurred for attending school – fees, tuition and so on, as well as the indirect or opportunity cost of schooling in the form of foregone earnings. These estimates can help explain individual behavior about schooling decisions and can be used by policy makers to design school finance policies, especially for tertiary education. But for most policy decisions, policy makers would need to know the social returns to schooling. First, this would require full social returns estimates of social benefits (externalities and non-market effects), a difficult task for a single country (but see Acemoglu and Angrist (2001); Wolfe and Haveman (2002)), almost impossible for the global estimates we provide here. Second, one would need full social costs, in the form of what the government provides in terms of the supply of schooling. For narrow returns, one can use the private benefits and the social costs. This is something our future research will address.

VII. CONCLUSION

Our new data set of comparable estimates of the returns to schooling and to potential experience covers 139 economies. We use 819 harmonized household surveys to provide the estimates that cover the period from 1980 to 2013. This compilation of comparable estimates addresses several issues in the literature, such as: (i) the definition of the dependent variable—which we keep consistent throughout; (ii) the variables used as controls – we use the basic Mincerian specification; (iii) sample definitions – we limit the analysis to the same samples throughout in terms of age, employment status and earnings; and (iv) estimation method – which we apply consistently to every survey.

The results show: (i) that the returns to schooling are more concentrated around their respective means than previously thought; (ii) the basic Mincerian model used is more stable than one may have expected; (iii) the returns to schooling are higher for women than for men; (iv) returns to schooling and to experience are strongly and positively associated; (v) both returns show a decreasing pattern over time; and (vi) the returns to tertiary education are the highest and to secondary education the lowest.

When we combine our new estimates with the Psacharopoulos and Patrinos (2004) review, we mostly confirm previous findings and stylized facts. The combination also allows us to create a time-trend dating back to the 1960s, confirming that returns to schooling decline over time.

This comparable data set on returns to schooling and to potential experience should be helpful empirical work in a variety of fields. Our comparable estimates provide a reasonable proxy for the value of human capital for a broad group of economies. This new data set is useful for studying the links across economies between schooling attainment and the returns to schooling. Moreover, it can be used to examine economic growth, competitiveness, inequality, democracy, institutions and political freedom.

Given the high returns to tertiary education, an immediate concern for policy makers is to consider the large implications. While our estimates are for *private* returns to schooling, the high returns to tertiary education will fuel demand for post-secondary education. Governments will need to consider the appropriate policy for financing tertiary education.

Annex Table 1: Returns to Schooling by Economy and Period

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Afghanistan	2007	1.6	2.9	4.1			3.5				3.6	
Albania	2005	4.5	3.2	14.1	1.2	7.4	17.4	1.3	7.2		3.5	11.2
Argentina	1992	7.8	3.8		4.3	12.7	1.2	5	14.4		2.4	10.5
Argentina	1993	8.3	3.8	2.6	4.6	11.9	1.3	4.8	12.6	7.4	4.3	10.3
Argentina	1994	8.6	3.7		5.1	10	9.2	5.2	10.1		5.2	9.8
Argentina	1995	9	3.8	8.6	5.1	14.6	10.8	5.2	16.4	3.6	5.3	12.3
Argentina	1996	7.7	4.2	3.9	5.8	12.4	4.5	5.9	15.3	2.3	5.7	9.4
Argentina	1997	8.4	3.8		2.9	13.2		3.3	14.8		1.9	11.6
Argentina	1998	10.4	3.8	7.4	5.7	15.5	12.8	5.6	16.9	0.5	6.1	14.7
Argentina	1999	9.7	3.8	5.3	4.8	15.1	14.2	5	15.7		4.7	15
Argentina	2000	10.5	3.9	5.3	5.4	15.9	9.6	5.6	16.9	1.9	5.3	15.4
Argentina	2001	10.8	3.9	4.4	5.7	15.6	1.9	5.7	16	8.4	5.7	15.6
Argentina	2002	10.8	3.9	3.4	5.1	17.2	7	5.5	18.6		4.6	16.4
Argentina	2003	9.9	4	10.5	5.1	15.8	8.1	5.4	15.8	12.5	4.7	16.2
Argentina	2004	9.9	3.8	0.8	4.9	14.6		4.9	14.6	2.6	4.9	15.2
Argentina	2005	10.2	3.8	6.1	5	15.1	9.7	5.7	14.6		4.2	16.3
Argentina	2006	10.1	3.8	7.2	5.4	14.7	3.7	5.6	13.6	10.7	5.5	16.9
Argentina	2007	10	3.8	3.8	5.6	14.8	5.2	5.8	14.7	3.1	5.6	15.8
Argentina	2008	9.8	3.8	8.1	5.4	13.5	10	5	12.9	5.3	6.5	15.2
Argentina	2009	9.6	3.7	3.7	5.3	13.4	6.7	5.2	12.8		5.7	15
Argentina	2010	9.4	3.7	6	4.3	14	13.5	4.4	13.3		4.4	15.8
Argentina	2012	8.8	3.6	3.7	4.7	12	0	4.7	11.5	14.7	4.8	13.4
Armenia	1999	2.2	3.3			4.6			2.9			6.8
Australia	2001	9.8	2.1			12.2	11.3		10.2			12.9
Australia	2002	10.2	2		0.6	12.2	14.7		9.6		8.3	
Australia	2003	11.1	2	1.2		13.5	7.9		11.3	2.6		
Australia	2004	12.7	1.9			14.9		4.6	14.1			14.8
Australia	2005	11.8	1.8		4.9	13.7		3.5	11.3			
Australia	2006	11.6	1.8			13.4		7	13.1	8.4		
Australia	2007	11.3	1.7			13.3		11.9	12.6	12.6		
Australia	2008	12.6	1.7		10	14.5		36.4	12.6	12.1		
Australia	2009	12.7	1.7		5.9	15.1		24.2	14.7	18.5		
Australia	2010	14.1	1.6		30.8	14.6		35.1	14.1			16.3
Austria	2004	9.4	2.3			8.4			8.1			10.3
Austria	2005	10.8	2.1			8.5			8			10.2
Austria	2006	11.6	2.1			9.4			8.8			10.7
Austria	2007	11.1	2.1			9.6			9.2			11.3
Austria	2008	10.7	2.1			8.6			8			10.5
Austria	2009	11.1	2.1			9.3			8.4			10.8
Austria	2010	9.1	2.3			8.7			8.4			9.8
Austria	2011	10.2	2.2			9			8.2			10.3
Austria	2012	9.9	2.2			8.8			9.1			9.2
Azerbaijan	1995	7.2	2.9	19.8	2.2	8.1	28.2		7.8	11	4.2	7.5
Bangladesh	2000	5.9	4.4	8.6	2.6	13.2	6.4	2.1	12.5	9	1.7	29.1
Bangladesh	2005	7.1	5.4	8.1	5	16	5.8	4.2	14.4	8.8	8.1	23
Belarus	1998	3.7	1									
Belgium	2004	5.3	3.5	1.7	3.4	7.5		3.7	6.8	6.4	3.4	10.4
Belgium	2005	5.8	3.1	6.8	3.5	7.2	10.6	3.8	6.9		4.6	9

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Belgium	2006	5.6	3		2.7	7.2	1.3	3.8	6.2		3.2	9.4
Belgium	2007	6.3	2.8			7.8			7			10.6
Belgium	2008	6.2	3	7.5	4.1	7.9	0.6	3.6	7.1	11.6	5	10.5
Belgium	2009	5.8	3.2	11.2	2.2	7.8	13.9	2.5	6.9	8.7	1.3	10.5
Belgium	2010	6.3	3.2	5.8	3.8	8.3	14	3.8	7.3		3.4	10.8
Belgium	2011	6.4	3	7.1	3.4	8.1	2.2	3.1	7.6	17.1	4	10.2
Belize	1993	9.4	3.4	1.6	7.7	13.2	0.4	7.6	12.6	5.4	8.7	13.9
Belize	1994	10.5	3.4	13.2	6.7	13.1	11	5.4	13.5	21.3	10.4	12.3
Belize	1996	9.1	3.4	7.2	6.1	12.1	7.8	5.3	10.1	5.5	8.6	13.6
Belize	1997	10.8	3.4	12	6.6	15.4	9.7	6.2	15	29.5	7.6	15.7
Belize	1998	10.6	3.4	5.5	7.9	14.5	6	7.2	14.1	5.1	10	15
Belize	1999	10.4	3.3	9.5	6.5	16	10.8	6	14.6	4.3	8.1	17.1
Bolivia	1992	11.7	4.2	14.7	7.2	17	9.5	4.3	16.7	10	10.5	20.3
Bolivia	1993	12.4	4.7	16.3	7.9	20.1	5.9	4.6	20.2	12.7	11.2	22.9
Bolivia	1997	11.4	4.8	13	7.2	20.2	8	4.6	19.9	7.7	12.9	21.7
Bolivia	1999	10.9	4.7	20.8	5.5	18.2	8.4	2.7	19.1	11	12.1	18.4
Bolivia	2000	11.5	4.8	11.9	5.6	22.5	10.8	3.1	23.4	7.2	9.6	22.2
Bolivia	2001	10.4	4.8	6.8	5	19.8	6.2	4.3	19.6	2.6	6.1	21.3
Bolivia	2002	10.3	4.8	4.7	4.8	21.9	8.1	3.8	20.8		6.7	24.5
Bolivia	2003	10.5	4.7	9.6	4.2	22.4	7	3.9	21.7	6.9	4.6	25
Bolivia	2005	11.6	4.8	8.9	6.3	21.3	4.2	5	21.8	7.8	8.8	21.7
Bolivia	2007	10.5	4.7	17.1	5.1	18.8	6.3	4.8	17.8	21	4.5	22.2
Bolivia	2008	8.5	4.6	13.7	2.7	16.9	9.1	1.8	16.4	11.1	4.6	19
Bolivia	2009	7	4.7	8.2	1.8	14.6		0.6	13.3	6.9	3.7	18
Bolivia	2011	6.8	4.8	7.9	2.4	13.3	1.9	1.3	12.2	8.7	4.8	17
Bolivia	2012	7.3	4.7	8.6	3.1	13.6	3.2	1.9	11.2	4.9	5.5	19
Bosnia and Herzegovina	2001	7.9	2.7	7.3	3.1	11.4		2.5	9.4	6.3	4.9	15.4
Brazil	1981	15.3	4.5	21	15	16.8	22	15.3	16.1	19.9	17.1	17.5
Brazil	1982	17.3	4.3	22.4	15.6	20.4	23.4	15.9	21.4	21.9	17.4	19.9
Brazil	1983	16.8	4.4	19.8	15.6	21	20.6	15.9	21.4	19.4	17.5	20.9
Brazil	1984	17.3	4.4	20.9	15.9	21.5	21.3	15.9	21.8	21.2	18.6	21.7
Brazil	1985	17.2	4.3	21.7	15.7	20.7	22.4	15.6	20.6	21.5	18.6	21.6
Brazil	1986	15.6	4.4	18.8	13.3	21.7	19.8	13.9	21.5	18.1	14.8	22.5
Brazil	1987	16.7	4.4	21.6	14.5	21.9	22.6	14.8	22.7	20.9	16.3	21.9
Brazil	1988	17.5	4.5	24.1	14.9	22.5	26	15.4	23.2	21.4	16.7	22.6
Brazil	1989	16.8	4.4	23.1	14	22.5	24.7	14.7	23.3	20.9	15.6	22.6
Brazil	1990	16.9	4.5	23.2	14.4	22.6	25.3	15.1	22.1	20.5	15.5	23.9
Brazil	1993	15.9	4.4	19.9	13.8	20.1	21.7	14.3	21.4	17.8	14.9	20.3
Brazil	1995	15.1	4.4	18.5	12.4	21.4	21	13.4	22.9	14.6	12.7	21.5
Brazil	1996	14.5	4.4	18	11.7	20.9	20.8	12.9	21.5	13.8	11.7	21.8
Brazil	1997	14.8	4.4	17.3	12	21	19.8	13	21.5	13.7	12.2	21.7
Brazil	1998	14.9	4.4	16.7	11.9	22	19.4	12.8	23.3	12.8	12.2	22.3
Brazil	1999	14.7	4.4	15.8	11.5	21.8	18.5	12.3	22.5	12.5	12.1	22.4
Brazil	2001	14.3	4.4	15.9	10.8	21.8	17.9	11.9	22.9	13.5	10.6	22.3
Brazil	2002	14.5	4.4	14.8	10.7	22.3	17.1	11.8	23.3	12	10.5	23
Brazil	2003	13.9	4.4	14.1	10	21.8	16.1	11.1	22.7	12.3	9.8	22.5
Brazil	2004	13.5	4.3	13.1	9.6	21.4	15	10.6	22.2	11.5	9.6	22.1
Brazil	2005	13.3	4.3	12.2	9.4	21.2	14.3	10.4	22	10	9.2	22
Brazil	2006	13.1	4.3	12	9	20.9	14.1	10	21.8	10.1	8.8	21.6

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Brazil	2007	11.5	4.4	11.1	8.7	18.4	12.8	9.6	18.8	9.8	8.4	19.4
Brazil	2008	11.4	4.3	10.2	7.9	18.3	12.8	8.8	18.4	7.2	7.8	19.6
Brazil	2009	11.3	4.3	9.8	7.8	18	11.9	8.7	18.3	7.6	7.5	19.2
Brazil	2011	10.1	4.3	8.1	6.6	17.7	10.9	7.6	18.3	3.9	6.2	18.7
Brazil	2012	10.5	4.2	7.9	6.3	17.3	10.3	7.2	18	4.9	6.1	18
Bulgaria	2001	3.9	4.4	13.6	3.2	5	5.1	3.5	4.6	57.2	4.1	5.1
Bulgaria	2003	7.8	2.9	0.7	5	7.7		5.2	8.5	3.1	5.3	8.3
Bulgaria	2007	6.5	2.5	5.9	4.3	7.9	6.8	4.2	8.2	13.9	4.3	9.5
Bulgaria	2008	8	2.6	2.1	8.3	9.2	0.3	8.2	9.1	2.5	8.3	11.3
Bulgaria	2009	7.8	2.4		9	8.6		8.9	9.4		9.7	11.2
Bulgaria	2010	8.6	2.5		10.3	9.5		10.5	10		10.7	11.9
Bulgaria	2011	9.7	2.5	9.1	7.2	11.5		9.6	12.1	30.3	4.6	13.9
Bulgaria	2012	7.8	2.5	12	5.8	9.1	0.3	7.3	9.9	28.2	3.9	11.5
Burkina Faso	1994	15.7	5.2	39.1	10.4	13.9	36.5	10.5	13.8	60.1	8.2	15.8
Burkina Faso	1998	13.3	5.3	15.6	13.2	21.3	16.5	11.9	21.3	16.5	19.2	20.9
Burkina Faso	2003	12.2	5.7	12	12.2	19.6	12.2	10.9	27.6	12.8	17.6	12.5
Burkina Faso	2009	7.4	5.3		17.8			19.6		20.2	12.9	
Burundi	1998	17.3	5.2	12.9	21.3	21.8	9.7	21.5	23.4	23.7	19.8	19.2
Cambodia	1997	6.4	3.7	15.8	3.6		12.1	3.8		25.1	2.8	
Cambodia	2004	5.3	4.3	9.6	3.5	14.1	5	3.1	14	11.8	4	16.6
Cambodia	2007	5.6	4.3	0.9	3.5	15		2.5	15.7	3.4	4.7	14.2
Cambodia	2008	4.3	4.4		2.5	20.7		1	20.8		4	20.5
Cameroon	2001	14.1	4.3	16.9	12.1	23.2	15.5	12.5	21.2	22.4	12.8	28.2
Cameroon	2007	11.6	4.3	11.1	8.9	21.7	9.9	9.3	21	24.1	10.1	23.4
Canada	1981	9.2	2.7			8.6			6.8			10
Canada	1991	11.2	2.5			9.8			8.1			11.2
Canada	2001	12.1	2.4			10.1			8.2			12.4
Chad	2003	7.2	5.7	1.1	7.4	22.7	1.4	5.6	24.6	4.7	16.9	8.4
Chile	1987	12.7	4.3	7.6	8.8	22.6	8.6	8.9	25.5	7	8.9	20.8
Chile	1990	11	4.2	7.3	7.8	17.1	8.6	8	19.7	7	8.1	16.2
Chile	1992	8	4	6.2	7.2	10.5	7.2	7.4	12	2.7	6.8	10.2
Chile	1994	11.7	4.1	8.1	7.9	17.9	9.3	8.4	20.5	5.2	7.5	16.5
Chile	1996	12.8	4	6.5	8.7	18.7	8	9.1	20.5	1.3	8.8	18
Chile	1998	13	4	6.3	8.5	18.9	6.4	8.7	20.3	5.5	8.5	18.9
Chile	2000	13.2	3.9	4.7	7.5	19.8	4.7	8.2	20.7	4	6.9	19.9
Chile	2003	13.2	3.8	6.8	7.2	19.3	7.9	7.5	19.8	3.7	7.4	19.9
Chile	2006	12.4	3.7	4.2	6.2	17.5	4.6	6.8	17.5	3.3	6.1	18.9
Chile	2009	11.9	3.7		5.9	17.6	1.5	6.3	18.1		6	18.6
Chile	2011	12.3	3.6	3	5.6	17.6	2.6	5.7	17.8	4.1	6	18.8
China	2002	16.6	3.2		9.3	20.9	0.1	8.9	23.3		10.3	16.8
Colombia	2001	11.5	4.5	5.2	6.3	24.2	4.1	6.1	24.3	10.3	7	24.1
Colombia	2002	12	4.6	6.4	6.6	25.5	5.2	6.4	25.3	9.7	7.2	25.7
Colombia	2003	11.4	4.6	4.4	6.3	23.8	4.2	5.7	23.8	7.1	7.7	24
Colombia	2004	11.3	4.6	4	6.2	22.8	3	6.1	22.7	8.1	6.9	23.2
Colombia	2005	11.3	4.6	4.5	6	23	3.7	5.9	22.7	7.7	6.6	23.6
Colombia	2006	11.4	4.7	7	6.2	22.5	7.2	5.9	22.6	8.9	7.4	23.1
Colombia	2007	11.7	4.7	6.1	6.7	21.9	5.9	6.7	21.7	10.2	7.7	22.9
Colombia	2008	11.2	4.6	7.2	5.8	20.4	7.1	5.6	20.3	10.3	7	21.4
Colombia	2009	10.8	4.6	7	5.4	20	6.9	5.3	19.5	9.6	6.4	21.4

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Colombia	2010	11	4.6	4.5	5.3	20.3	4.4	5.3	20.1	7.6	6.1	21.6
Colombia	2011	11	4.6	6.3	5.3	19.7	6.7	5.4	18.9	7.9	6.1	21.5
Colombia	2012	11	4.6	6	5.3	19.6	5.3	5.7	19.3	12.5	5.3	21.4
Comoros	2004	6.5	5.9	2.2	5.4	17.2		5.8	15.4	9.9	7	20.3
Congo, Dem. Rep.	2005	6.3	4.1	9	1.7	21.5	2.5	1.9	20.1	24.7	0.9	32.8
Costa Rica	1989	10.6	4	7.9	7.3	16	8.6	6.7	16.5	10.9	9.6	16.2
Costa Rica	1990	10.4	4	8.7	6.8	17	9.6	6.5	16.7	5.8	8.5	18.4
Costa Rica	1991	10.4	3.9	7	6.1	18.5	5.7	5.6	17	14.6	7.8	21.1
Costa Rica	1992	10	4	5	5.8	17.8	4.7	5.8	16.5	6.7	6.4	20.2
Costa Rica	1993	10.1	4.1	10.7	5.4	18	10.1	4.9	17.3	12.5	6.8	19.5
Costa Rica	1994	10.1	4	5.9	6.1	17.4	7.2	6.2	16.6	4.1	6.7	19.2
Costa Rica	1995	10.2	4	7.8	5.4	18	8.1	5.5	17.8	9.3	6	19.2
Costa Rica	1996	10.3	4	9.3	6.1	17.7	8.4	6	18	16.2	6.9	18.2
Costa Rica	1997	10.6	4	7.6	5.5	19.2	8.2	5.4	18.4	7.8	6.6	20.6
Costa Rica	1998	10	4.1	4.6	5.5	17.9	5	5.3	17.5	6.2	6.5	19.1
Costa Rica	1999	9.6	4.1	5.8	4.9	17.8	4.6	5	17.7	8.2	5.4	19.1
Costa Rica	2000	9.3	4.2	5.2	4.8	17.4	6.3	4.8	18.1	2.8	5.5	17.5
Costa Rica	2001	10.5	4.3	5.6	6	18.2	6.9	6	17.7	3.5	6.8	19.5
Costa Rica	2002	10.7	4.2	8.2	4.9	20	8.8	5.1	20.2	8.8	5.3	20.6
Costa Rica	2003	10.6	4.2	6.6	5.1	19.5	6.6	5.1	19.1	10.1	6.1	20.8
Costa Rica	2004	10.5	4.2	8.9	5	19.3	10.2	5	19.6	5.9	6	19.7
Costa Rica	2005	10.3	4.2	4	4.3	19.8	4.7	4.7	19	3.6	4.3	21.6
Costa Rica	2006	10.3	4.3	4.3	4.9	18.6	5.3	5	18.4	3.2	5.8	20
Costa Rica	2007	10.1	4.2	5.2	4.3	19.3	6.8	4.5	19.1	2.5	4.7	20.4
Costa Rica	2008	10.1	4.2	4.4	4.2	19.2	6.9	4.3	18.9		5.1	20.4
Costa Rica	2009	10.7	4.3	4.3	4.8	19.5	5.8	4.9	18.5	2	5.7	21.7
Croatia	2004	9.4	2.5			10.1			9.8		5.5	
Croatia	2011	10.8	2			11.9			9.2			15.2
Croatia	2012	11.6	2			13.1			11.7			15.3
Czech Republic	2005	11.3	1.7			10.7			11.1			
Czech Republic	2006	11.7	1.7			11.4			11.4			
Czech Republic	2007	11.6	1.7									
Czech Republic	2008	9.8	1.7									
Czech Republic	2009	9.4	1.7			9			8.9			10
Czech Republic	2010	9.6	1.7			9.7						10.1
Czech Republic	2011	10.7	1.7									
Czech Republic	2012	10.5	1.8			10.2			10.7			
Côte d'Ivoire	2002	13.2	5.7	12.1	12.9	28.7	13.3	10.9	27.1	8.6	16.4	32.4
Côte d'Ivoire	2008	11.3	6.5	12.6	12.1	24.9	7.7	10.9	21.9	19.4	14.1	31
Denmark	2004	7.3	2.6			8.4			9.3			8.6
Denmark	2005	7.6	2.6			8.5			8.9			9.4
Denmark	2006	6.6	2.6			7.1			8.3			7.6
Denmark	2007	7.1	2.6			8.2			8.5			9.5
Denmark	2008	6.2	2.6			6.8			7.3			7.7
Denmark	2009	6.4	2.6			7.1						8.2
Denmark	2010	7.1	2.6			7.7						7.7
Denmark	2011	7.9	2.6			9.8			12.7			8.4
Denmark	2012	7.7	2.5			9.1			10.7			8.7
Djibouti	1996	15.5	5.3	32.5	8.9	16	19.6	7	16.5	33.4	10.7	10.7

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Dominican Republic	1996	8.5	4.8	12	4.7	16	12.6	3.7	17.1	12.6	7.5	15.1
Dominican Republic	1997	7.3	5	6.7	5.5	13	7.4	5.1	13.3	4.9	6.7	13.6
Dominican Republic	2000	9.8	4.8	8	5.4	18.6	10.8	5.1	18.8	3.6	6.1	19.5
Dominican Republic	2001	9.5	4.8	9.5	5.6	18.1	10.5	5.2	19	7.7	7.2	18.6
Dominican Republic	2002	9.7	4.8	11.2	6.2	16.4	12.6	5.3	16.8	10.4	8.4	16.7
Dominican Republic	2003	10.1	4.8	12.9	5.3	18.1	13.8	5.2	18.7	10.7	6	18.8
Dominican Republic	2004	9.5	4.7	10.6	5.2	16.3	12.3	5.7	15.5	7.4	4.9	19.2
Dominican Republic	2005	9.5	4.7	8.7	5.2	17.3	7.1	4.9	15.8	10.3	6	20.3
Dominican Republic	2006	9.6	4.8	8.4	5.3	16.7	7.2	5.1	16.7	11.1	6	18.3
Dominican Republic	2007	9.5	4.6	8.9	5.8	15.8	10.7	5.5	15.7	5.4	6.3	17.6
Dominican Republic	2008	9.7	4.7	8.3	4.5	17.8	9	4.4	18.3	7	4.9	18.5
Dominican Republic	2009	9.8	4.6	10.1	5.4	16.9	10.9	5.6	16	9.9	5.4	19.2
Dominican Republic	2010	9.5	4.6	7.1	5	17.5	7.9	5.5	15.8	7.4	4.2	21.1
Dominican Republic	2011	9.4	4.5	8.3	4.9	15.8	10.9	4.6	15.2	6.2	5.8	18.1
Ecuador	1994	7.8	4.7	6.4	4.3	16.7	7.1	4.7	16.8	3.5	4.9	18.5
Ecuador	1995	9.3	4.5	10.6	2.8	6.7	10	2.3	6.1	8.4	2.5	7.3
Ecuador	1995	9.4	4.8	14.7	6.7	15.3	13.1	6	16.2	13.6	8.9	15.4
Ecuador	1998	9.6	4.6	7.9	5.1	19	6	4.7	18.2	8	7.2	21.5
Ecuador	1998	10.9	4.6	7.3	4.4	7.1	8.7	3.1	6.1	3.9	5.8	8.3
Ecuador	1999	9.7	4.7	7.7	4.5	19.2	5.7	4.2	21.6	10.5	5.5	16.4
Ecuador	2000	10.1	4.9	8.6	7.3	18.2	7.1	6.3	18.8	8.5	11	18.1
Ecuador	2003	8.4	4.8	4.7	5	16.5	4.3	4.4	17.9	3.2	7.3	15.9
Ecuador	2004	8.3	4.9	7.5	4.8	15.7	7	4.7	16.8	8.1	5.8	15.3
Ecuador	2005	8.7	4.8	8.6	5.1	16.8	7.4	5	17.6	11.8	5.7	17.1
Ecuador	2006	8.5	4.7	8.2	4.9	16	6.6	4.8	16.6	12	5.7	16.8
Ecuador	2006	13.4	4.7	16.3	10	21	16.5	10.7	21.4	16.5	8.3	21.6
Ecuador	2007	8.4	4.8	7.7	5	15.7	5.5	4.9	16.1	13.2	6	16.5
Ecuador	2008	7.9	4.8	5.4	4.4	15.4	4.9	4.5	15.3	6	4.9	17.2
Ecuador	2009	8.1	4.7	3.5	4.6	15.1	2.6	4.3	15.8	5.3	6.3	15.5
Ecuador	2010	7.8	4.8	7	4.2	14.4	5.6	4	15	10.2	5.2	14.6
Ecuador	2011	7.4	4.7	7.5	5	12.3	7.1	5	12.3	8	5.2	13.3
Ecuador	2012	7.2	4.7	4.6	4.5	12.3	2.2	4.9	11.9	12.3	4	14.3
El Salvador	1991	9.6	5.2	10.7	10.1	14.9	9	8.1	14.9	11.6	15.7	15.1
El Salvador	1995	9.9	5.3	12.6	10.1	14.8	12.6	8.3	14.4	13	15	15.7
El Salvador	1996	10.2	5.4	13.4	10	16.4	11.7	8.3	16.6	16.9	14.7	16.8
El Salvador	1998	10.1	4.9	13.6	9.3	15	13	9	14.2	13.5	10.7	16.1
El Salvador	1999	10.2	5	13.1	8.6	16.6	13.2	7.6	16.8	12.2	10.9	16.6
El Salvador	2000	10.4	5	13.2	8.5	16.7	12.9	8.2	16	14.5	9.6	17.8
El Salvador	2001	9.7	5	11	7.3	18.9	12.2	6.7	18.6	7.9	8.6	19.4
El Salvador	2002	9.8	4.9	11.8	7.8	16.7	12.2	7.2	16.3	10.9	9.4	17.4
El Salvador	2003	9	4.9	8.4	6.9	17.6	8.4	6.3	17.3	8.8	8.3	18.1
El Salvador	2004	8.7	4.9	8.6	6.2	17.7	8.2	6.1	16.2	9.4	6.9	19.7
El Salvador	2005	9.1	5.1	9.9	7.4	15.2	9.9	7.4	14.8	9.5	8	16.1
El Salvador	2006	7.6	5	7	5.6	15.5	5.9	6.1	13.6	8.9	5.4	17.8
El Salvador	2007	8.4	4.9	7.7	6	16.6	8.4	6	15.7	6.1	6.8	18
El Salvador	2008	8.6	4.7	4.4	10.2		4.6	9.4		3.7	11.8	
El Salvador	2009	9.3	4.9	8	6.4	18.8	7.1	6.4	17.1	9.5	7	21
Estonia	2004	7.5	2.3		7.6	6.4		6.3	9.5		11.8	7.1
Estonia	2005	7.7	2.2			6.2		10				7.7

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Estonia	2006	6.8	2.3		4.5	5.6		6.4	7.1	14.2	2.3	8.6
Estonia	2007	5.9	2.3	7.1	3.6	4.7	10.6	5.5	6.4		7.3	
Estonia	2008	5.7	2.3		1.5	6.1		4.2	7			10
Estonia	2009	5.7	2.3		0.8	5.8		1.2	7			9.1
Estonia	2010	6.9	2.3		3.7	7.3		6.5	8.4			10.4
Estonia	2011	7.6	2.3		7.2	7.9		8.7	10.2			
Estonia	2012	6.5	2.3			6.4			7.3			10.7
Ethiopia	2005	18.5	5.4	32.7	16.2	17	31.7	13.6	16.9	25.9	20.7	16.8
Finland	2004	7.6	2.5									
Finland	2005	8.6	2.5									
Finland	2006	8.1	2.5									
Finland	2007	7.4	2.9			10.8			11.6			12.1
Finland	2008	9.3	2.5									
Finland	2009	8.3	2.5									
Finland	2010	7.7	2.4									
Finland	2011	7.8	2.4									
Finland	2012	7.9	2.4									
France	2004	8.5	3.2	10.9	3.9	12.9	5.5	3.4	12.4	24.4	4.4	15.1
France	2005	8.4	3.2	5.2	4	12.6	7.1	3.4	12.2	8.5	4.9	14.7
France	2006	8	3.2	2.7	4	11.8	7.4	1.9	11.6	4.3	6	13.7
France	2007	8.3	3.1	4.7	4.7	11.5	7.1	3.7	11	5.7	5.9	13.9
France	2008	8.7	3.1	4.1	5	12	8.5	3.4	11.2	3.9	6	14.5
France	2009	9.2	3.1	3	5.1	12.7	3.2	3.9	12.3	6.7	5.7	15
France	2010	9.1	3.1	4.5	4.5	12.5	10.2	2.7	11.3	4.5	6.5	15.2
France	2011	9.1	2.9	2.2	5.3	12	0.2	3.7	11.9	12.7	7.1	13.6
France	2012	9	2.9		3.8	12.2		2.5	11.8	1.3	5.8	14.5
Gabon	2005	13.5	4.3	5.7	10.6	25.5	5	8.6	23.5	9.4	14.5	29.3
Gambia, The	1998	9.1	5.3	9.4	8.6	18.1	9.6	5.3	22.7	1.5	19.4	4.5
Georgia	2010	7.7	2.8			11.5			13.1		8.1	
Germany	2005	11	2.3			10			9.7			10.3
Germany	2006	13.2	2.3			12.1			10.8			13.6
Germany	2007	14	2.3			13.3			11.7			14
Germany	2008	14.2	2.4			13.7			12.1			14.7
Germany	2009	15	2.3			14.5			11.9			15.3
Germany	2010	15.2	2.4			14.8			13			15.4
Germany	2011	14.3	2.3			14.3			12.2			15.3
Germany	2012	14.5	2.3			14.3			12.8			14.8
Ghana	1991	5.3	4.8	1.4	7.9	12.2		6.7	12.3	6.3	11.4	12.8
Ghana	2005	10.3	4.6	4.7	7.8	23.2		6.8	22	11.6	8.4	27.8
Ghana	2012	12.5	4.6	2.7	8.8	28.7		6.5	26.6	2.3	11	34.8
Greece	2004	7	3.4			7.8			7			10.2
Greece	2005	7.5	3.4			9.4			8.5			12.3
Greece	2006	7.3	3.4			8.8			9.1			10.7
Greece	2007	7.5	3.4			8.9			8.5			11.4
Greece	2008	7.6	3.4		5.2	9.2		5.5	8.7		4.6	11.8
Greece	2009	7.4	3.3		5.9	8.1		5.4	6.9		5.8	11.6
Greece	2010	7	3.2	5.4	5.2	8.3	0.4	4.1	7.5	12.7	6.1	11.3
Greece	2011	6.5	3.1	3.8	5.4	6.5	4.6	5.7	7.7		4.5	6.5
Greece	2012	6.4	3.1	2.7	3.1	7.6	3	2.4	9.7		4.2	6.4

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Guatemala	2000	10.5	4.8	12.6	8.4	19.2	9.9	8.1	19.7	13.2	11.1	18.1
Guatemala	2002	10.1	4.9	11.6	9.4	18.2	10	8.5	18.5	13.2	12.9	17.9
Guatemala	2003	11.1	4.7	14.3	9.9	17.4	16.8	10.2	16.8	6.4	10.8	18.6
Guatemala	2004	10	4.7	14.6	8.9	15.1	12.3	8.8	16.7	18.7	11.2	14.1
Guatemala	2006	9.6	4.8	13.9	7.8	14.7	13.5	7.6	16.4	11.4	10	12.9
Guatemala	2011	10	4.8	3.4	4.1	19.5	2.9	2.8	18.9	7.1	4	24.5
Guinea	1994	6.3	7.2	19.5		8.8	19.4		10.4	24.4	0.5	4.4
Guyana	1992	3.3	2.9		0.6	2.6		1.4	3.6		1.8	6.4
Haiti	2001	8.3	8	23.8	14	18.4	20.8	12.3	21.9	23.9	18.3	11.5
Honduras	1991	12.9	4.5	13.8	13.1	20.9	12.5	11	20.8	26	18.9	21.1
Honduras	1992	12.6	4.6	12.8	13.3	19.6	12	11.2	20.4	22.4	18.2	18.2
Honduras	1993	12.8	4.5	13.3	13.2	19.1	13.6	10.5	20.5	15.6	18.8	17.2
Honduras	1994	13.5	4.4	19.2	12.8	19.7	20.7	11.5	21.1	15.5	15.8	17.7
Honduras	1995	11.7	4.4	11.4	11.8	17.8	12	10.2	19.8	13.7	15.7	15
Honduras	1996	12.3	4.6	15.4	11.4	18.8	14.1	10.3	18.9	26.4	14.9	18.5
Honduras	1997	11.4	4.4	12.3	10.4	20.2	12.5	8.5	20.7	18.7	14.4	19.4
Honduras	1998	11.1	4.6	12	10	20.8	12	7.8	22.1	15.6	14.7	19.5
Honduras	1999	11.8	4.5	12.4	11	19	10.5	9.4	18.8	22.9	14.8	19.5
Honduras	2001	12.7	4.5	13.7	11.7	19	14.1	10.3	19.9	14.2	14.7	18.3
Honduras	2002	11.4	5	12.9	11.5	20.8	12.6	10.9	20.7	17.5	13.3	21.2
Honduras	2003	12.7	4.5	13.2	10.9	23.1	12.9	10.8	23.6	14.9	11.2	22.8
Honduras	2004	12.9	4.6	14.1	11.7	19.2	15	11.1	20.5	10.5	13	17.9
Honduras	2005	13	4.5	9.7	11.7	21.1	10.1	11.8	21.5	6.5	11.7	21.1
Honduras	2006	12.9	4.6	15.1	11.3	19.9	14.5	11.1	20.3	18.6	11.5	19.6
Honduras	2007	13	4.5	14	10.6	21.9	14.3	10.5	21.8	13.2	11.1	22.1
Honduras	2008	12.2	4.6	13.3	10.1	20.7	13	9.7	21.2	15.6	11.2	20.4
Honduras	2009	12.2	4.5	11.9	11	19.2	11.5	10.1	19.7	15.3	12.7	18.5
Honduras	2010	12.3	4.6	11.8	10.6	20	11	9.9	20.9	17.7	12.2	19.3
Honduras	2011	12.4	4.6	12.1	10.7	19.8	12.4	10.1	20.4	10.8	11.7	19.3
Hungary	2004	11.9	2.7			13			13.3			13.3
Hungary	2005	13.3	2.2		9.4	16		11.1	17	16.5	4.4	16.1
Hungary	2006	14.7	2.2	21.1	8.4	16.5	7.7	9.3	18.2		8.4	
Hungary	2007	14.1	2.2			15.4			16.1			16
Hungary	2008	13.9	2.2			15.1			16.5			15.4
Hungary	2009	14.1	2.2			14.7			16.9			14.3
Hungary	2010	13.7	2.2			14.6			16			15
Hungary	2011	12.6	2.1			13			14.3			13.4
Hungary	2012	13.2	2.1			13			14			14
Iceland	2004	9.5	2.7			11.2			10.7			13.5
Iceland	2005	8.7	2.7			10.6			10.3			12.8
Iceland	2006	8.1	2.7			9.5			9.8			11.7
Iceland	2007	6.5	2.7			7.8			6.9			11.4
Iceland	2008	7.2	2.8			8.8			9.3			11.1
Iceland	2009	8.2	2.7			10.2			10.1			12.1
Iceland	2010	7.2	2.8			8.9			8.6			12.4
Iceland	2011	7.4	2.8			9.4			8.1			13.2
Iceland	2012	7.2	2.8			9.4			9.3			12.2
India	1983	12.2	4.9	20.6	14.4	10.8	16.3	13.5	11	7.8	23	9.9
India	1993	12.7	5	15.7	11.9	20.4	11.9	10.9	20.2	6.3	16.1	23.7

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
India	1999	7	3.7	11.4	4.3	20.2	7.7	3.9	17.4	6.6	2.3	36.5
India	2004	8.7	5.9	11.7	5.4	18.7	7.9	4.8	17.9	4.7	6	28.4
India	2007	12.4	5.3	11.5	9.6	27.7	8.4	9.1	26.5	5	8.5	37.4
India	2009	8.3	5.5	5.8	6	20.8	2.8	5.3	19.7	1.8	5.2	31
Indonesia	1998	12.1	4.3	18.4	11.1	13.4	12.7	8.8	13.9	8.1	13.5	15
Indonesia	1999	10.6	4.3	12.8	10.4	12.1	8	8.7	12.7	6.3	13.2	12.2
Indonesia	2000	10.1	4.9	17.5	9.5	11.1	11.3	8.2	11.5	16.6	12.8	11.3
Indonesia	2002	10	4.9	14.6	10.3	12.7	10.8	8.6	13.5	13.4	13.2	12.3
Indonesia	2003	10.2	4.3	14.9	9.5	10.6	10.2	8.2	11.3	14.4	11.9	11.2
Indonesia	2004	10.2	4.2	13.7	9.4	10.5	10	8	11.2	12.5	12.1	10.9
Indonesia	2006	10.1	4.3	10.6	9.7	10.9	8	8.5	11.9	10.7	11.7	11
Indonesia	2008	10.1	4.7	13.1	10.3	10.2	10.2	8.9	11.5	12.5	12.1	11.5
Indonesia	2009	10.7	4.7	14.6	10.6	10.6	10.8	9.3	12.1	15.4	12.4	11.5
Indonesia	2010	10.4	4.7	12.7	10	11.5	9.6	8.7	12.6	12.7	12	12.9
Iraq	2006	3.4	4.8	7.7	1.2	3.2	6.3	1	3.9	40.4	5.7	4
Ireland	2004	8.3	3.3			11.3			9.6			13.6
Ireland	2005	7.8	3.3			10.9			8.6			14
Ireland	2006	9.1	3.2			11.6			11			13.4
Ireland	2007	8.9	3.2			11.9			10.6			15
Ireland	2008	8.8	3.2			10.9			9.6			13.7
Ireland	2009	8.1	3.2			10.8			10.7			11.7
Italy	2004	6.7	2.9	7.5	5.2	6.9	8.5	4.9	7.5	6.9	6.7	8
Italy	2005	6.6	2.9	10.4	4.5	7.2	13.5	4.1	7.9	6.2	5.7	7.9
Italy	2006	6.8	2.8	4.9	5.1	7.3	6	5.2	8.4	11	5.5	8.1
Italy	2007	7	2.9	7	4.4	7.6	5.6	4.2	8.6	13.2	6	8.6
Italy	2008	6.4	2.8	0	5.2	7.2	3.5	3.8	7.6		7.4	9
Italy	2009	7.1	2.8	3.5	4.9	8.3	9.2	4.4	8.7		6.6	9.8
Italy	2010	6.7	2.8	1.5	4.9	7.7	4.8	4.6	8.3		6.5	9.2
Italy	2011	7	2.7	1.3	6.2	7.4	5.9	5.1	8		9.5	9
Italy	2012	6.6	2.6		5.7	7.3		4.7	8.2		7.9	8.7
Jamaica	1990	7.4	2.8		3.2	14		4	16.5		2.6	15.3
Jamaica	1996	15.2	2.6	4	2.6	26.9	3.5	1.9	26.4	7.6	2.7	30.9
Jamaica	1999	6.3	3.1	1.5	1.9	12.7		2.3	13	15.6	1.8	14.8
Jamaica	2001	11.1	3.3			22.2		4			3.6	
Jamaica	2002	10.3	2.8	9.3	1.2	22	16.9	2.8	23.9			22.3
Japan	2004	9.9	2.2			8.6			5			6.7
Japan	2007	14	2.1			9			7.4			3.1
Jordan	2002	8.9	3.8	10.3	4.2	8.4	8.4	4.5	10.1	16.7	6	11.2
Kenya	2005	16.9	3.8	17.6	15.9	22.4	19.1	14.5	21.2	9.6	19.6	24.9
Korea, Rep.	2010	13.2	2.2			12.7			12.7			10
Kosovo	2003	4.2	2.7		2.1	7.4		2.6	7	9.3	0.4	9.2
Kyrgyz Republic	1997	8.7	3		5.6	7		6.7	6.8		5.7	5.7
Lao PDR	1997	3.3	4.2	13.2	2.5	5.3	13.6	2.3	5.6	16.9	3.3	5.4
Lao PDR	2002	10.3	3.9	18.4	9.1	10.5	24.7	8.1	11	12.7	11.5	11.5
Lao PDR	2008	5.1	4	10.7	4.8	5.6	13.9	3.5	5.6	7.6	7.7	5.4
Latvia	2004	6.5	2.3			9.9			11.6			10.3
Latvia	2005	7.4	2.9	23.2	4.3	7.6	15.2	6.2	7.4	47.8	3.6	10.7
Latvia	2006	10.2	2.1			8.7			10.8			11.2
Latvia	2007	9.7	2.2	8.1	5.8	8.8	8.9	8.6	9.1		4.3	

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Latvia	2008	10	2.3		3.5	11.3	2.5	6.5	12.3		2.3	14.8
Latvia	2009	10.9	2.3		12.2	11.5		11.9	12	9.8	13.7	14.1
Latvia	2010	11.9	2.3	51.8		12.6	48.8		14.6			13.5
Latvia	2011	11.6	2.3		3.9	11.6	2.9	2.8	12.5			
Latvia	2012	11.4	2.3		7.6	11.6		4.7	12.8		12.8	13.9
Lebanon	2011	5.5	4.2			9.8			7.6			16.6
Lithuania	2005	12.2	2.1			9.8			10.5			11.9
Lithuania	2006	12.9	2.1			10.2			11.5			12
Lithuania	2007	10.9	2			8			8.5			11.9
Lithuania	2008	9.9	2			7.2			7.6			11.2
Lithuania	2009	10.4	2.1		2	8.1					1.1	12.6
Lithuania	2010	12.4	2.1		1	10.7						13
Lithuania	2011	14.2	2.1				3.3					14
Lithuania	2012	12.9	2.1			10.9	4.2					14.4
Luxembourg	2004	10.7	3.6			12.9			11.8			13.6
Luxembourg	2005	10.9	3.6			13			10.9			15
Luxembourg	2006	11.2	3.6			13			10.8			15.5
Luxembourg	2007	11.3	3.6			14.1			11.3			16.3
Luxembourg	2008	10.7	3.6			11.8			9.7			13.7
Luxembourg	2009	11.3	3.6			13.3			12.2			14.5
Luxembourg	2010	10.6	3.6			12.9			11.4			14.9
Luxembourg	2011	10.6	3.6			13.1			11.4			15.1
Luxembourg	2012	10.6	3.6			13.6			11.7			15.5
Macedonia, FYR	2003	5.7	3.1	2.5	2.1	8.5	4.5	1.1	7.9	3.7	4.2	9.9
Macedonia, FYR	2004	6.7	3		3.1	9.5		2.7	8.9	4.3	4.6	11.2
Macedonia, FYR	2005	5.7	3.4	4.4	1.7	7.2	5	2.4	6.1	2.8	0.7	10
Madagascar	1993	12.4	4.5	13.9	9.8	20.2	11.2	8.8	16	11.5	13.8	27.5
Madagascar	1997	9.3	4.3	11.2	8.6	8.8	12.8	6.9	8.1	5.5	10.5	9.7
Madagascar	2001	10.5	4.6	6.7	11	13.3	7.8	10.4	13.7	5.2	11	12.1
Madagascar	2010	11.1	4.5	2.8	10.3	23.1	0.9	9.7	25.1	1.4	11.7	19.7
Malawi	2004	5.2	3.7	6.3	5	23.7	5.6	4.1	22.9	2.7	4.4	
Malawi	2010	9.8	4.5			24.2			23.9			26
Malaysia	2007	11.7	4.1	8.4	9.7	21.4	7.2	8.9	22.4	7.4	12.6	20.9
Malaysia	2008	11.5	4.2	11.3	9.6	21.2	10.8	8.7	20.8	9.3	12.9	22.5
Malaysia	2009	12.7	4.3	9.8	10.6	23.4	8.6	9.9	23.4	9.5	13.7	24.3
Malaysia	2010	12	4.2	8.8	9.7	22	7.6	9.3	21.8	6.8	12.3	23.1
Maldives	1998	3.5	4.2		7.7			13		0.8	6.6	
Maldives	2004	7.2	4.1	2.8	3.5	12.8	4.4	1.3	14.1		9.1	13.7
Mali	1994	13	5.8	21.2	12.4	19.3	14.3	11.1	18.8	39.5	16.1	17.9
Malta	2009	9.8	2.9			12.8			11.6			15.1
Malta	2010	9.7	3		1.7	13.3		2.1	12.5	2.4	0.9	14.4
Malta	2011	9.6	3.1		2.3	13.4		1.9	11.5		4.7	16.3
Malta	2012	9.8	3		0.7	12	1.8	0.4	11.5		2.7	13.4
Mauritania	2000	7.4	5.4	11.7	5.8	13.5	8	5	13.1	21.3	9.2	13.5
Mauritius	1999	12.7	3.5	9.4	10.8	23.2	3.8	8.6	22.4		13.9	23.8
Mauritius	2001	13.5	3.1	11.5	11.1	17.3	6.8	9.1	9.9	3	13.7	25.3
Mauritius	2002	12.4	3.6	11.7	8	16.7	5.9	6.5	17.4		9.7	17.1
Mauritius	2003	12.4	3.7	13.4	9	14.8	5	7.2	14.8	2.3	11.8	16.6
Mauritius	2004	14.8	3	13.9	11.6		3.9	9.5		7.2	15.8	

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Mauritius	2005	14.7	3.1	13.7	11.7		9.5	9.6		3.1	15.7	
Mauritius	2006	13.5	3.8	15.6	11.5	14.1	7.5	9.5	15.9	7.9	14.6	13.3
Mauritius	2007	13.3	3.6	13.4	8	18.8	3.3	6.3	18.2	7.2	11.1	22
Mauritius	2008	13.8	3.7	12.9	7.9	18.6	6.3	6.1	18.6	6.5	10.8	21.3
Mauritius	2009	14.8	3.7	10.7	8.7	21.9	3.3	7.3	21.1	2.4	10.6	25
Mauritius	2010	15	3.7	12.6	8.7	21.2	4.5	7.1	20.5	5.1	10.6	24.4
Mauritius	2012	15.1	3.7	13.2	8.6	21.5	6.7	6.7	20.9	4.4	11.1	24.7
Mexico	1989	10.3	4.7	10.1	8.8	17.7	10.8	8.1	18.6	8.1	11.2	15.6
Mexico	1992	11.5	4.6	10.4	9.5	20.5	10.8	9	21.7	8.8	10.8	18.1
Mexico	1994	13	4.8	11.1	10.5	24.1	11	9.3	26	11	13.2	20.7
Mexico	1996	12.5	4.7	9.7	10.1	22.7	8.8	9.7	23.2	12.2	10.9	21.7
Mexico	1998	12.8	4.6	11.9	9.3	24	11.4	8.6	24.7	13.2	11.2	23
Mexico	2000	12.5	4.6	12	8.8	23.7	12.6	7.8	24.2	10.6	11.4	22.9
Mexico	2002	11.6	4.6	11	7.7	22.6	10.6	7.4	22.8	12.9	8.6	22.3
Mexico	2004	10.7	4.5	12.6	7.8	17.7	11.2	7.5	18.1	15.3	9.2	18.4
Mexico	2005	10.3	4.5	12.2	7.2	17.4	11.4	6.8	18	11.5	8.8	18
Mexico	2006	10.6	4.4	12	7.7	18.1	10.4	7	17.5	15.2	10.2	19.8
Mexico	2008	9.9	4.4	7	5.9	19.2	6.6	5.5	18.6	7.8	6.9	20.6
Mexico	2010	10.1	4.4	7.2	5.5	20.7	7	5.4	20	7.7	6	22.1
Mexico	2012	10.1	4.3	7.8	4.8	20.7	7.2	4.2	20.2	9.5	6	22
Moldova	2002	8.1	3.2			12.6			15.4			10.9
Moldova	2005	7	3.5			13.2			12.2			14.5
Mongolia	2002	6.6	2.3		4.4	6.7		3.8	6.8		7.9	7.6
Mongolia	2006	7	2.2	7.6	4.3	8.1	11.6	5.1	8.6	6	3	8
Mongolia	2007	6.6	1.8		7.6		1.2	8.3			7.4	
Mongolia	2009	8.1	2.9	11.2	4.8	10.7	13.1	5.6	10.5	7.6	4.2	12.1
Mongolia	2010	9.4	2.4	9.3	5	10.9	11.9	5.8	11.2	3.1	5.2	12.1
Mongolia	2011	9.1	2.4	13.7	4.2	10.1	13.4	5.1	10.4	14.8	4.3	11.4
Morocco	1991	10	5.8	6.6	8.7	14.6	3.9	7.3	13.6	10.8	11.7	19.8
Morocco	1998	10	4.6	11.6	6.2	16.1	7.7	5.7	15.1	16.8	7.9	17.5
Mozambique	2002	13.8	3.6	23.6	5.9	6.1	22.2	6.1	3.8	29.9	5.4	15.9
Mozambique	2008	14.1	4.4	20.2	13.3	17.7	19.5	13.2	17.6	22.5	14.3	17.7
Namibia	1993	18.3	4									
Nepal	1998	8.4	2.5	14.6	0.9	9.8	11.6			5.3	8.5	9.4
Nepal	2008	7.6	5.3	12.3	4.3	16.5	7.6	4.1	16.1	9.7	6.1	17.2
Nepal	2010	9.2	5.4	9.7	5.1	23.1	5.5	3.4	21.5	3.9	7.2	28
Netherlands	2005	8.9	2.9			11.5			10.6			12.4
Netherlands	2006	9.9	2.9		2.5	13.1		3.9	11.1		2.8	14.7
Netherlands	2007	8.9	2.9		3.8	11.7		4.3	10		5.2	12.7
Netherlands	2008	9.2	2.9		5.6	11.8		6.7	9.9		6	13.1
Netherlands	2009	9.3	2.8		4.7	12.5		4.9	10.6		5.9	14
Netherlands	2010	9.5	2.9		4.5	12.9		4.7	11.1		5.4	14.6
Netherlands	2011	9.6	2.9		2.2	13.3		4	11.2		1.4	14.9
Netherlands	2012	9.7	2.9		3.9	12.9		4.2	11.4		5.4	14.4
Nicaragua	1993	9.4	4.4	11.2	7	16.4	12.4	8	18	7.8	4.9	13.9
Nicaragua	1998	9	4.5	8.5	6.8	17.6	8.3	7.7	17.4	9.3	5.8	18.6
Nicaragua	2001	8.6	4.6	8.4	5.5	18.9	8.8	6.1	20.6	7.7	5.3	17
Nicaragua	2005	7.7	4.8	6	5.5	14.6	5.9	6.3	17.1	7.5	5	14
Nicaragua	2009	6	4.9	4.8	2.3	14.5	5.1	2.4	13.3	4.7	2.8	16.4

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Niger	2002	10.9	6	5.2	11	22.3	2.6	11.1	23.7	18.9	9	19.5
Niger	2007	11.2	4.7	10.5	18		3.7	17.8		25.7	23.6	9.8
Niger	2011	14.6	4.2	38.7	6.3	29.7	40.5		35.8	25.7	11.6	28.3
Nigeria	2003	10.1	4.8	16.6	6.8	13	12.5	6.1	12.1	30.6	8.2	13.7
Norway	2004	9	2.2			9.9		0.3	9.6			11.1
Norway	2005	7.2	2.2		11.4	8.1		5.4	8.8		21.6	8.9
Norway	2006	8.6	2.6		7.7	9.4		6.1	10.2		11.9	10.3
Norway	2007	7.3	2.6		4	8.3		6.4	9.3		0.7	9.4
Norway	2008	7.6	2.6		0.5	8.6			9.2			10.6
Norway	2009	6.8	2.6		14.5	7.7		18.4	8.1		8.9	9
Norway	2010	8.3	2.6	40.4	5.7	9.5	60.4	6.8	9.2	16.6	4.4	11.2
Norway	2011	8.2	2.6		12	9.3	7.2	11.3	10.3		45.6	10
Norway	2012	8.9	2.6		2.6	9.9	4.3		9.6			11.9
Pakistan	1992	6.4	5.5	6.3	5.7	14.7	5	5.7	15	7.1	8.3	13.9
Pakistan	1999	6.3	5.6	7.3	4.7	14.6	4.2	5.1	14.5	11.1	7.6	19.1
Pakistan	2001	10.1	5.2	14.8	7	13.9	6.1	6.2	13.8	11.4	14.5	23.4
Pakistan	2004	9.1	5.3	14.9	6.4	14.7	8.9	6.8	13.9	10.1	10.9	22.6
Pakistan	2005	7.3	5.7	8.7	5.6	17.3	5.9	5.5	17.7	11	11.2	21.3
Pakistan	2006	9.2	5.3	13.4	6.8	16.1	8.5	6.5	16.5	15.5	13	19.9
Pakistan	2007	6.8	5.7	9.1	4.8	15.3	6.1	4.9	16.2	10.9	7	17.6
Pakistan	2008	6.8	5.7	7.6	5.5	15.4	4.2	5.5	16	11.6	9.9	19.7
Pakistan	2010	10.8	3.6									
Palau	2000	12.4	3.1	6.3	5.1	15.8	12.1	5.4	14.3		5.8	18.3
Panama	1989	12.9	4.5	7	10.5	19.8	7.6	9.4	19.3	11.4	14	21
Panama	1991	12.6	4.5	1.7	9.8	20.6	2.1	8.7	20.1	5.9	12.9	22.2
Panama	1995	12.6	4.5	10.3	9.5	20.4	12.5	9.2	20.1	7.8	12.2	22.1
Panama	1997	12.3	4.5	10.5	9.3	20	11	8.7	20.1	14.2	11.9	21.5
Panama	1998	12.1	4.5	7.7	8.9	20.1	11.2	8.1	20.3	0.9	12.5	21.4
Panama	1999	11.9	4.5	9.9	8.3	20	10.7	8.1	19.9	12.4	11	21.8
Panama	2000	12.1	4.5	10.2	8	20.3	11.3	7.5	20.9	12.7	10.6	21.3
Panama	2001	12	4.5	10.7	8	20.2	11.4	7.5	20	19.6	11	21.6
Panama	2002	12.1	4.5	9.1	8.4	20.3	9.1	8.4	20.1	15.6	10.2	22.3
Panama	2003	12	4.5	8.3	8.1	20.1	10.1	8.2	19.5	5.5	9.6	22.6
Panama	2004	12	4.5	8	8.1	19.4	7.3	8.4	19	14.8	9	21.9
Panama	2005	11.5	4.4	9.9	8	18.5	11.4	7.7	18.2	9.9	10.5	20.5
Panama	2006	11.3	4.4	8.5	7.8	18.4	7.2	7.4	18.2	13	11.3	20.6
Panama	2007	10.7	4.4	12	7.6	16.8	12.4	7.6	16.3	12.8	9.8	19.4
Panama	2008	10.2	4.3	11.4	7	16.9	11.6	7.3	16.3	13.4	8.4	19.9
Panama	2009	9.9	4.2	5.3	5.4	16.5	5.8	5.4	17.4	2.7	6.5	17.1
Panama	2010	10	4.3	10.3	6.6	16.1	11.7	6.8	16.3	5.9	7.8	17.7
Panama	2011	9.5	4.4	7.9	6.4	15.5	10.6	6.6	15.9	0.7	7.5	16.9
Panama	2012	10	4.4	10.9	6.4	16.2	13.2	6.7	16.5	4.4	7.2	17.5
Papua New Guinea	2010	7.7	3.3	43.2	1.8	10	32.4	5.1	13.2	2		
Paraguay	1990	12.6	4.1	8.6	11.5	18.6		7.2	18.5	12.3	14.4	20.8
Paraguay	1995	10.9	4.3	12.2	8.2	17.5	8.4	7.6	18.5	13.5	9.3	17.4
Paraguay	1997	11.5	4.1	12.1	7.3	19.4	12.7	7.6	19.2	12.2	6.6	20.6
Paraguay	1999	11.3	4.2	17.6	7.2	18	15.2	7.6	18.5	20.8	6.5	18.2
Paraguay	2001	11.8	4.4	17.4	7.3	21.6	22.2	7	23.6	7.2	7.6	19.4
Paraguay	2002	10.5	4.3	8.2	7.6	17	8.8	7.8	16.7	6.4	7.3	18.6

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Paraguay	2003	11.2	4.4	6.6	7.4	19.9	7.4	7	20	5.2	7.7	20.7
Paraguay	2004	10.3	4.3	9.8	6.4	17.6	8.1	6	18.7	14.2	6.8	17.3
Paraguay	2005	10.9	4.3	4.7	7	19	2.6	7	19.1	6.9	6.6	20.1
Paraguay	2006	10.6	4.3	9.1	6.4	18.8	10.8	6.5	18.7	5	6.2	20.2
Paraguay	2007	9.7	4.3	2.2	6.5	15.8	2	6.4	16.2	1.1	6.7	16.3
Paraguay	2008	9.9	4.4	5.8	7.2	15.4	6.4	7.5	14.9	4.9	6.1	17.6
Paraguay	2009	9.5	4.2	0.3	5.4	16.8		4.8	16.1		6.6	18.9
Paraguay	2010	8.7	4.2	2.3	5.3	15.8	1.4	5.2	15.9	16.3	5.1	16.6
Paraguay	2011	9.3	4.3	4.8	5.2	16	7.5	4.8	16		6	17.6
Peru	1997	8.3	4	15	4.3	12.2	13.4	4.9	12.3	15.3	3	13.3
Peru	1998	9.1	4.1	19.4	6.4	12.8	15.1	6.2	14	20.1	6.4	11.5
Peru	1999	9.6	4.2	16	6.1	14.8	12.6	5.8	13.8	15.7	6.1	16.4
Peru	2000	7.4	3.9	6.1	5.8	11.7	0.5	6	10.9	10.2	4.8	13.5
Peru	2001	9.2	4.2	13.5	5.9	13.7	8.6	5.8	13.5	13.1	5.7	14.9
Peru	2002	10.3	4.1	15.6	5.8	16	11.1	6.1	15.6	14.4	4.4	17.4
Peru	2003	10	4.5	13.2	8.8	12.2	10.7	9.7	14.1	15.3	7.3	9.7
Peru	2004	10.2	4.1	12.9	5.8	15.6	15.5	5.3	15.1	7.1	6.1	17.2
Peru	2005	10.2	4.2	15.8	6.8	14	11.2	6.4	13.5	12.8	6.9	15.8
Peru	2006	10.8	4.1	17	6.6	15.7	12.9	6.1	15.6	14.6	6.7	16.5
Peru	2007	10.6	4.1	14.5	6.6	15.3	8.8	5.9	14.7	12.6	7	17.5
Peru	2008	9.5	4	13.7	6.1	13	12.8	4.8	13	9.6	7.5	14
Peru	2009	9.3	4	15.3	5.4	12.8	6.6	4.7	12.9	13.3	6	14.3
Peru	2010	8.4	4	13.3	5.6	10.8	5.3	4.7	10.5	13.6	6	12.9
Peru	2011	8	3.9	12.4	4.9	10.4	7.8	4.3	9.9	11.1	5	12.5
Peru	2012	8.1	3.9	14.6	4.9	10.4	8	3.9	10.3	16	5.4	12
Philippines	2003	8	5.4	8.9	6	20.9	10.7	6.5	18.5	5.5	5.5	26.4
Philippines	2004	8	5.4	8.8	5.9	21.2	10.3	6.3	18.9	5.7	5.4	26.6
Philippines	2005	8.1	5.3	7.9	5.9	20.5	9.8	6.3	17.8	3	5.7	26
Philippines	2006	8.6	5.3	9	6.4	22.3	10.7	6.7	19.3	5.5	6.8	28.4
Philippines	2007	8.6	5.3	9	6.4	22.3	10.7	6.7	19.3	5.5	6.8	28.4
Philippines	2008	8.4	5.2	9.7	5.7	21.1	11.7	6.1	18.3	5.2	5.7	26.7
Philippines	2009	8.6	5.3	9	5.8	23.6	10.6	6.3	20.7	6	5.4	29.8
Philippines	2010	8.6	5.3	9.7	5.9	23.5	11.2	6.4	20.6	6.6	5.6	29.7
Philippines	2011	8.6	5.3	6.4	5.8	23.2	7	6.4	20.1	3.7	6.1	29.4
Poland	2005	11.4	2.5		6.1	13.6		6.8	14.7		5.4	15.2
Poland	2006	11.8	2.4		5	14		5.8	14.8		4.4	16.4
Poland	2007	11.6	2.4		5.4	13.6		5.6	15		6	15.6
Poland	2008	10.7	2.4		4.6	12.3	15.9	4.6	13.8		5.4	14.4
Poland	2009	10.1	2.4		3	12.5		3.4	13.6			14.6
Poland	2010	10.8	2.4	5.2	3.8	12.6	4.5	4.1	13.2	9.7	4.2	15.2
Poland	2011	10.7	2.4		3.5	12.7		3.6	12.9	9	4.5	15.5
Poland	2012	10.5	2.4	5.2	3.1	12.3		3.2			3.7	15.6
Portugal	2004	11.1	3.7	17.9	6.9	17.9	8	6.4	18.4	11.5	8.5	19.1
Portugal	2005	11.7	3.7			18.6			18.6			20.4
Portugal	2006	11.3	3.7			18.1			17.9			19.9
Portugal	2007	10.9	3.7			17			17.6			18.4
Portugal	2008	10.2	3.6			15.5			14.8			17.6
Portugal	2009	10.3	3.6			15.6			14.2			18.4
Portugal	2010	9.9	3.6			15.7			14.1			18.4

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Portugal	2011	10.1	3.7			15.8			14.9			17.9
Portugal	2012	9.2	3.8			14.5			13.3			16.8
Puerto Rico	1970	12.2	4.2	14.4	10	15.7	14.7	10.9	17.3	12.3	8.9	15.3
Puerto Rico	1980	12.7	3.9	5.8	9.1	16.7	8.4	9.6	18		8.7	16.4
Puerto Rico	1990	11.9	3.1		6.2	15.2	3	7.6	16.1		4.6	15.6
Puerto Rico	2000	10.9	3.1	0.9	4.8	14.3	3	6	15.9		2.9	15.7
Puerto Rico	2005	12.6	3	2.5	4.3	16.3	5.1	6.2	15.7		1.7	20.7
Romania	1994	5.8	3									
Romania	2007	13.6	2.1			14.5			13.6			16.7
Romania	2008	12.6	2			13.2			13.1			14.7
Romania	2009	12.5	2.1			13.7			13.5			15.2
Romania	2010	11.1	2.1			12			12.4			12.9
Romania	2011	10.6	2.1			11.2			12			11.7
Romania	2012	10.3	2.1			11.2			11.5			11.9
Russian Federation	1994	3.8	1.3	3							3.7	
Russian Federation	1995	4	1.2			7						
Russian Federation	1996	7.6	1.2			30.5			25.2			
Russian Federation	1999	3.9	1.1			27.9						34.5
Russian Federation	2000	3.7	1.1			23			16.4			
Russian Federation	2001	1.5	1.1		12.6							3.1
Russian Federation	2002	0.2	1.1									22.7
Russian Federation	2003	3.2	1.1									
Russian Federation	2004	3.9	1.1			16.2						20.1
Russian Federation	2005	2.2	1.1			10.6			9.8			
Russian Federation	2006	3.8	1.1									
Russian Federation	2007	4.8	1.1						0.9			
Russian Federation	2008	5.7	1.1									
Russian Federation	2009	2.6	1.1			7						6
Rwanda	1997	14.7	3.9	16.3	13.9	14.8	22.1	13.6	18.1	6.9	14.2	7.1
Rwanda	2005	17.5	4.5	16.9	17.8	35.3	15.4	16.8	34.7	19	21	34.6
Rwanda	2010	22.4	3.8	34.1	19.7	28.8	30.4	20.6	26	35.8	20.7	32.9
Senegal	2011	11.8	4.1	9.8	6.5	21.8	7.6	5.6	19.3	27.3	10.1	26.3
Serbia	2008	11.7	2.7	37.7	6.2	14	39.7	5.9	12.7	34.8	7.1	16.1
Sierra Leone	2003	4.2	4.3		6.4	15.2		6.6	11.9		6.4	29.4
Sierra Leone	2011	4.1	5.5	5.5	4.4	3.5	3.2	3.9	3.8	9.5	7	1.9
Singapore	1998	12.5	4.1	7.3	9.9	10.7	3.7	10.1	10.3	3.1	8.9	10.5
Slovak Republic	2003	9.2	1.9			10.2			10.3			10.3
Slovak Republic	2005	8.3	1.7									
Slovak Republic	2006	8.9	1.7			9			9.7			
Slovak Republic	2007	9.6	1.8			9.6			9.4			10.7
Slovak Republic	2008	8.6	1.7			8.2			8.2			
Slovak Republic	2009	8.8	1.8			8.1			8.9			
Slovak Republic	2010	8.7	1.9			8.5						8.2
Slovak Republic	2011	8	1.9			7.9						8.2
Slovak Republic	2012	8.5	1.9			8.2			8.6			9.4
Slovenia	2005	8.6	2.8		4.8	12			12.6		5.5	12.6
Slovenia	2006	9.7	2.6	6.1	4.6	13.2		4.1	13.6	33.2	5.3	14.3
Slovenia	2007	9.7	2.5	1.4	1.7	13.3	3.6	1.5	12.9		3.3	15.3
Slovenia	2008	10.2	2.4			13.2			13			14.8

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Slovenia	2009	9	2.4			11.5			12.7			12.5
Slovenia	2010	9.9	2.4			12.2			13.9			13.1
Slovenia	2011	9.3	2.3			11.6			11.8			13.1
Slovenia	2012	9.6	2.4			11.7			12.2			13.3
Solomon Islands	2005	6	4.2	4.9	0.2	11.9			12.9	16.3	1.1	9.7
South Africa	2000	16.4	4.4	10.4	12.3	28.7	8.6	11.5	29.2	10.5	14.8	29.2
South Africa	2000	17.1	4.3	8.7	12.2	30.5	8	11.4	30	8.7	14.3	32.5
South Africa	2001	16.5	4.3	12.8	13.1	27.8	12.4	12.3	27.3	13.4	14.7	30.2
South Africa	2001	17.1	4.3	12.3	14	27.6	13.1	13.6	27.1	11.1	15.1	30.1
South Africa	2002	20.4	3.3	16.3	14.8	34.2	14.1	12.9	31.4	16.3	18.3	37.1
South Africa	2003	18.7	3.4	16.2	13.5	25.6	17.7	12.8	24.3	19.7	15.1	27.2
South Africa	2003	16.8	4.3	11.1	13.1	29.9	10.5	12.5	29.3	11.8	14.3	32.6
South Africa	2003	15.9	4.2	9.2	8.3	38.4	9.4	8.8	36.9	10.8	7.8	43.2
South Africa	2004	15.9	3.5	11.3	10.9	29.2	13.9	10.8	26.7	7.7	12.9	33.5
South Africa	2004	15.7	4.1	9.9	11.4	29.3	9.7	11.9	28.4	10.2	12.1	32.4
South Africa	2004	15.9	4.3	6.4	10.9	32.2	4.9	11.4	30.9	5.8	11.5	36.1
South Africa	2005	15.7	3.9	8.5	11.2	27.2	9	10.4	26.2	6.6	13.2	30.5
South Africa	2005	15.6	4	10.7	10.4	29.4	10.2	10.7	29.1	10	11.5	31.8
South Africa	2005	6.8	2.9	3.4	5.9	4.2	0.3	3.4	24.8	3.8	6.4	2.3
South Africa	2006	16.1	4	12.1	11.2	27.2	13.2	10.8	27	10.2	12.3	29
South Africa	2006	3.4	2.9		2.3	11.4	6.3	1	15.9		2.6	3
South Africa	2006	16	3.9	10.2	11	28.9	12.5	10.4	28.6	4.9	13	30.8
South Africa	2007	16.3	3.9	6.8	11.2	29.9	6	11.1	31.5	6.6	12.6	30
South Africa	2007	5	2.8	8.6	3.5		18.1	2.8		7	3.7	
South Africa	2007	15.7	3.8	9.8	10.6	27.2	9.6	9.8	25.3	9.2	13.1	30.6
South Africa	2008	6.6	2.9	9	3.9		1.4	0.8		12.8	5.3	
South Africa	2009	19	3	18.2	10.8	35.8	35.3	10.5	35.4		12.5	36.4
South Africa	2010	19.1	3	14.8	11.4	32.9	4.5	11.7	31.8	15.4	11.3	35.2
South Africa	2011	21.1	3	8.9	12.3	39.5	3	12.5	40.2	20.4	12.7	39.5
Spain	2004	7.2	3.6			10.6			9.1			14.4
Spain	2005	7	3.7			11.4			9.9			15.3
Spain	2006	6.9	3.7			10.7			9.4			14
Spain	2007	6.9	3.6			10.7			9.3			14.2
Spain	2008	7	3.6			10.5			8.9			13.6
Spain	2009	7.9	3.5			12			10.1			15.3
Spain	2010	8.4	3.5			12.2			10.7			15.2
Spain	2011	7.7	3.5			11.5			9.8			15
Spain	2012	7.8	3.4			11.6			9.7			14.9
Sri Lanka	1993	23.8	1.6	11.8	17.1		12.5	17.5		6.3	18.1	
Sri Lanka	1994	24.4	1.5	18.3	13		16.4	13.3		16.7	13.3	
Sri Lanka	1995	26.1	1.5	17.9	12.7		12.8	11.2		16.8	15.3	
Sri Lanka	1996	9.8	3.9	5.3	8.6	18.6	1.5	7.8	19.1	2.1	10.3	19.6
Sri Lanka	1998	9.7	3.8	4.6	7.8	21.1	2.6	7.2	21.7	0.4	8	23.1
Sri Lanka	1999	8.9	3.7	4.7	7.7	18.3	1.9	6.6	19.9	2.9	9.6	17.2
Sri Lanka	2000	10.2	3.7	4.1	8.8	21.9	3	7.3	22.3		12.2	23.2
Sri Lanka	2001	9.9	3.6	3.5	9.2	15	6	7.9	14.5		11.4	16.7
Sri Lanka	2002	10.3	3.8	4.6	8.8	18.1	3	7.8	19.6	0.3	10.6	18.5
Sri Lanka	2003	8.5	3.8	3.8	7.1	16.7	2.7	6.6	16.3		7.9	19
Sri Lanka	2004	8.6	4.2	5.9	8.8	14.9	3.5	7.8	14.5	1	12	16.7

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Sri Lanka	2006	12.8	3.3	3.7	9.2	14.5		8.5	13.8	2.9	10.3	17
Sri Lanka	2006	9.5	4	5.7	5.9	15.1	6.3	5.5	14.4	0.9	5.7	19.4
Sri Lanka	2008	10.3	3.8	6.5	6.7	15	3.7	6.1	13.4	3	8.5	21.1
Sri Lanka	2009	9.5	3.7	5.8	5.6	14.1	6.4	5.2	13.2		4.3	20.7
Suriname	1999	9	4.5	3.8	9.4	13.9		10.1	14.1	8.8	8.5	15.3
Swaziland	2000	14.8	4.4		11.2	23.5		11.3	21.3		12.5	27.4
Sweden	2004	5.7	2.6			7.4			7.3			8.9
Sweden	2005	4.4	2.5			5.7			6.7			6.9
Sweden	2006	4.6	2.6			6.5			6.7			7.8
Sweden	2007	4.7	2.5			6.6			6.6			8.2
Sweden	2008	4.6	2.4			6.3			6.6			7.8
Sweden	2009	4.4	2.4			5.6			6			7.2
Sweden	2010	4.2	2.4			5.2			5.2			6.8
Sweden	2011	5.2	2.4			5.4			6.1			6.5
Sweden	2012	4.7	2.4			5.6			5.3			7.5
Switzerland	2011	11.8	3.1		10.3	13.6		12.1	11.2	2	8.1	12.5
Switzerland	2012	11.6	3.1		10.2	13.6		11.8	11.1		8.6	12.4
Syrian Arab Republic	2004	4.4	5.6	8.9	3.4	7.4	5.4	3.5	6.8	17.1	5.8	8.5
São Tomé and Príncipe	2000	7.4	3	16.2	2.4		11.1	0.5		9.8		
São Tomé and Príncipe	2010	8.4	3.2		7.9						10.8	
Tajikistan	2003	9	2.8	9.2	2.1	12.9	5.4		8.9	2.9	2.8	16.2
Tanzania	2000	15.2	3.2	25.4	12.7	14	20.4	12.6	12.2	39.6	13.6	26.9
Tanzania	2006	15	3.8	27.9	13.3	16.7	24.3	11.8	18.2	34.6	17.8	13.6
Tanzania	2009	18.4	3.7	33.4	14.1	23.7	28.5	10.8	23.7	24.8	22.2	23.7
Tanzania	2011	16.6	4	14.6	15	19.4		12.6		4.8	18.3	18.7
Thailand	1977	10.3	4	9.9	9.4	13	5.3	7.8	11.9	5.8	12.6	15.6
Thailand	1981	9.9	4.1	11.3	9.7	21.5	9.2	8.3	21.5	7.1	12	22.3
Thailand	1982	10.6	4	13	10.7	21.8	9.8	9.1	21.5	8.9	13.2	23
Thailand	1983	10.8	4.3	14.4	10.4	16.2	15	8.5	15.4	7.7	13.2	18.4
Thailand	1984	10.3	4.3	16.4	8.9	16.2	12.1	7.6	15.9	10.5	10.9	17
Thailand	1986	10.7	4.6	13.8	10.3	14	13.6	9	13.1	7.8	10.9	17.5
Thailand	1987	10.8	4.4	11.6	9.5	15.4	9.4	8.1	14.1	7.4	11.3	18.8
Thailand	1988	10.6	4.6	11.4	9	16.5	9.4	7.8	14.2	8.6	9.8	21.2
Thailand	1989	10.8	4.4	13.8	9.4	14.2	13.9	8.2	12.8	8.2	10.3	18.2
Thailand	1990	18.1	4.4	22.4	19.1	16.8	19.6	15.6	18.9	12.6	22.8	14.7
Thailand	1990	18.1	4.4	22.4	19.1	16.8	19.6	15.6	18.9	12.6	22.8	14.7
Thailand	1991	11.1	4.3	13.5	9.4	15.7	14.2	8.6	14.6	7.1	9.7	18.4
Thailand	1994	14.6	4.6	26.3	12.9	17.4	28.1	11.6	18.7	14.3	13.8	17.2
Thailand	2000	16	4.8	19.2	15.7	20.3	17.4	14.5	21.3	13.5	16.5	19.8
Thailand	2002	15.7	4.7	17.5	13.5	20.5	18.5	11.6	21.6	12	15.3	19.8
Thailand	2006	14.5	4.7	12.8	12	22.5	14.7	10.5	22.9	6.6	13.5	23.2
Thailand	2009	13.6	4.7	9.7	10.5	22.7	6.8	9.5	23.4	7.8	11.3	23.3
Thailand	2011	9.4	4.8	3.2	5.4	17.2	2.7	4.6	16.6	1.4	5.9	19.2
Timor-Leste	2001	5.5	4.7									
Timor-Leste	2007	7.3	4.6	25.7	4.8	8.2	26.8	5.8	8	20	0.8	7.3
Togo	2006	9.6	4.9	16.8	5.1		9.6	5.7		25.9	4.5	
Togo	2011	12.2	5.3	15	8.2		2.8	5.7		11.6	12.1	
Tunisia	2001	8.5	5.2	12.3	8.1	17.4	11.4	7.9	16.7	11.4	8	18.7
Turkey	2002	10.8	4.2	13.8	8.2	18.3	10.6	7.6	18.1	7.9	11.1	19.5

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Turkey	2002	12	3.9	20.2	9.8	13.6	15.2	8.7	12.9	10.9	15.3	15.9
Turkey	2003	11.4	3.9	15.5	8.7	14.5	9.4	8.1	14	10	12.4	16.8
Turkey	2003	10.1	4.2	12	7.5	17.6	9.4	6.9	17.5	2.6	11.2	18.6
Turkey	2004	11	4	18.2	8.5	12.9	11	7.4	12.1	14.7	12.6	15.5
Turkey	2004	8.5	4.2	9.8	6.1	15.5	7.1	5.5	15.3	5.1	9.6	16.3
Turkey	2005	8.7	4.3	11.2	5.8	16	8.9	5.3	15.8	6.3	8.9	16.9
Turkey	2005	10	3.9	15.8	7.3	12.6	11.3	6.5	12.4	8.2	10.7	14.4
Turkey	2006	9.1	3.8	11.2	6	13.2	10.5	5.8	12.7	2.1	7.7	16
Turkey	2006	8.6	4.3	8.5	5.5	16.4	7.2	5	16.4	1.6	8.7	17.4
Turkey	2007	8.5	4.3	8.3	5.1	16.6	6.5	4.6	16.6	2.8	8.1	17.7
Turkey	2007	9.9	3.9	11.9	7.3	13.7	10.2	5.9	13.3	3.2	13.4	15.6
Turkey	2008	8.6	4.4	8.3	5	17	7.3	4.5	17.1	1.5	8.5	17.6
Turkey	2008	10	4	15.4	7.1	12.3	13.3	5.9	11.7	5.5	11.4	16.2
Turkey	2009	9.2	4.3	7.7	5.2	17.8	7.8	4.6	18.1		8.9	18.3
Turkey	2009	11.3	4.1	15.2	8.2	14.6	14.5	7	13.7	2.4	12.6	18.2
Turkey	2010	9.3	4.3	6.5	5	18.5	5.2	4.4	18.8	1.7	8.4	19
Turkey	2010	10.7	4.1	14.2	7.3	14.7	8.9	5.9	14.5	10.1	11.7	17
Turkmenistan	1998	7.2	2.6		10.7	8.3	7	1.5	5.5		15.8	12.7
Tuvalu	2010	13.4	3.2									
Uganda	1992	9.6	4.7									
Uganda	2005	16.9	4.5	19.7	15	23.4	13.9	14.3	23.4	13.5	17.3	24.1
Uganda	2010	15.9	4.5	24.8	16.7		22.2	16.3		31.9	18.8	
Ukraine	2000	10.8	2.7	10.1	8.1	12.1		7.8	13.6	26	8.6	11.5
Ukraine	2001	9.6	2.4	6.6	4.1	7.8	7.5	3.9	10.4			
Ukraine	2002	8.6	2.3					4				
Ukraine	2003	8.4	2.3	3.5	7.2	7.3		8		1.2	5.9	7.4
Ukraine	2005	6.8	2.2					5.1				
United Kingdom	2005	8	2.4									
United Kingdom	2006	7.6	2.5									
United Kingdom	2007	10.8	2.2									
United Kingdom	2008	11.8	2.3									
United Kingdom	2009	11.4	2.4									
United Kingdom	2010	9	2.4									
United Kingdom	2011	11.3	2.4									
United Kingdom	2012	11.9	2.3									
United States	1990	11.8	2.6	4.1	3.6	12.2	6.6	5.9	11.7		3.8	12.9
United States	2000	12.4	2.6	1.6	4.5	12.7	3.3	6	12.9		5	13.5
United States	2005	13.8	2.7		4.7	14.8		5.9	14.9		6	16.1
United States	2010	13.3	2.8		4.8	14.6		6.1	15.1		5	15.7
Uruguay	1989	9.2	3.7	8.3	6.7	11.1	1.6	6.3	10.8	5.6	7.3	11.9
Uruguay	1992	9.7	3.7	10.3	5.8	16.7	11.4	5.5	17.6	4.6	6.4	17.7
Uruguay	1995	10.6	3.7	7.6	6.4	17.5	8.8	6.3	18.4	4.8	7	18.3
Uruguay	1996	10.9	3.8	11	6.5	17.9	14	6.6	18.9	5.5	6.9	18.5
Uruguay	1997	10.9	3.7	6.5	6.4	17.7	3.6	6.4	18.4	10.9	6.8	18.2
Uruguay	1998	10.5	3.7	8.8	5.8	18	16.7	6	18.4		5.7	19.2
Uruguay	2000	10.7	3.7		5.6	18.6	3.3	5.7	19.4		5.6	19.3
Uruguay	2001	11.2	3.8			18.3			19			18.7
Uruguay	2002	10.9	3.9			17.3			18.2			17.3
Uruguay	2003	11.1	3.9			17.9			18.5			18.4

Economy	Year	A	B	C	D	E	F	G	H	I	J	K
Uruguay	2004	11.5	3.9			18.2			18.7			19.1
Uruguay	2005	11.4	3.8			17.7			17.3			18.8
Uruguay	2006	11.2	3.8	4.4	5.6	19.2	5.3	6	19.9	4	5.6	20.1
Uruguay	2007	11.3	3.8	4.4	5.7	19.4	4.5	6	19.2	5.9	6	21.1
Uruguay	2008	10.1	3.8	7.1	5.2	17	9.3	5.6	18.7	3.7	5.8	17.7
Uruguay	2009	11.1	3.8		5.4	18.2		5.6	17.2		6.2	20
Uruguay	2010	10.9	3.7	9.9	5.4	18.9	11.2	5.3	18.6	8.6	6.5	20.6
Uruguay	2011	10.2	3.8	8.5	5	17.2	8	5	16.6	13.6	6.1	19.2
Uruguay	2012	9.8	3.6	4	4.8	15.7	5.4	4.5	15.4	2.5	6.1	17.5
Venezuela, RB	1989	9.5	4.2	12.8	7	15.4	13.1	6.3	15	14.3	9.6	16.3
Venezuela, RB	1992	8.1	4.3			0.8			0.8			0.8
Venezuela, RB	1995	8.3	4.2	10.7	5.6	14.5	11.6	5.6	14.4	11	7	15.3
Venezuela, RB	1998	8.8	4.2	8.8	5.5	15.9	9.6	5.6	16.6	8.9	6.9	16.5
Venezuela, RB	1999	9.1	4.3	9	6	16	10.6	5.8	15.5	4.9	7.9	17.7
Venezuela, RB	2000	7.5	4.4	6.7	4.9	13.7	6.3	5	12.7	8.6	5.2	15.2
Venezuela, RB	2001	9.2	4.3	8.6	5.2	17	9	5.1	16.3	8.6	6.4	18.5
Venezuela, RB	2002	9.5	4.3	9.4	5.8	16.8	9.6	5.7	16.4	10.7	6.9	18.1
Venezuela, RB	2003	9.1	4.3	8.8	5.7	15.9	8.9	5.6	15.7	9.3	6.7	16.9
Venezuela, RB	2004	8.9	4.3	9.9	5.7	14.9	9.8	5.5	14.9	12.1	6.8	15.7
Venezuela, RB	2005	8.2	4.3	10.3	5.2	13.5	10.2	5	13.3	12.7	6.8	14.7
Venezuela, RB	2006	7.3	4.3	8.1	4.3	12.6	8.2	4.1	12.3	10.8	6.3	14.2
West Bank and Gaza	1998	1.4	3.9	7.9	0.7	0.1	4.5	1.1	0.2	11.3	0.3	12.7
West Bank and Gaza	1999	1.8	3.8	6.1	1.2	0.2	3.7	1.4	0.4	7.8	2.9	12.7
West Bank and Gaza	2000	1.6	3.9	5.8	0.5	0.7	3.2	0.8	0.7	9.7	3.5	11.5
West Bank and Gaza	2001	0.7	3.9	1.5		1.6			1.9	8.9	2.3	4.8
West Bank and Gaza	2002	2.8	3.9	11.6		5.1	9		5.1	10		14.5
West Bank and Gaza	2003	3	3.9	10.5	0.4	4.2	9.9	0.7	4.1	5.6	1.3	12.9
West Bank and Gaza	2004	4.3	3.9	11	1	5.6	6.3	1.3	5.4	22.6	3.1	15
West Bank and Gaza	2005	4	3.8	17	1.1	5	11	1.2	5.3	22.6	2.6	14.4
West Bank and Gaza	2006	5	3.9	13.4	1.7	5.8	12.4	1.9	5.7	6.7	1.8	17.6
West Bank and Gaza	2007	5	3.8	8.4	1.6	5.9	7.4	1.7	6	1.1	4.5	12.9
West Bank and Gaza	2008	3.8	3.8	28.7	0.2	5.5	29.7	0.9	5.2	14		21
Yemen, Rep.	2005	5.4	3.9		3.8			3.7			8	
Zambia	1998	12.9	3.4	9.2	10.6	12	9.5	10	12.4	6.3	13.2	9.7
Zambia	2003	19.2	3.2	13.6	12.1	24.2	14	11.6	25.6	10.3	13.7	23.4
Zambia	2010	12.6	4		8.2	18.2		9.5	19.6	2.9	8.1	16.6

A	educyT	Return to another year of schooling
B	edusdT	Standard deviation of return to another year of schooling
C	educyL_P_T	Returns to education total primary
D	educyL_S_T	Returns to education total secondary
E	educyL_T_T	Returns to education total tertiary
F	educyL_P_M	Returns to schooling male primary
G	educyL_S_M	Returns to schooling male secondary
H	educyL_T_M	Returns to schooling male tertiary
I	educyL_P_F	Returns to schooling female primary
J	educyL_S_F	Returns to schooling female secondary
K	educyL_T_F	Returns to schooling female tertiary

References

The word processed describes informally reproduced works that may not be commonly available through libraries.

- Acemoglu, Daron, and Joshua Angrist. 2001. "How Large are Human Capital Externalities? Evidence from Compulsory Schooling Laws." In Philippe Aghion and Steven Durlauf, (eds.), *Handbook of Economic Growth*. Amsterdam: Elsevier.
- Banerjee, Abhijit V., and Esther Duflo. 2005. "Growth Theory through the Lens of Development Economics." In Philippe Aghion and Steven Durlauf, (eds.), *Handbook of Economic Growth*. Amsterdam: Elsevier.
- Barro, Robert J., and Jong Wha Lee. 2013. "A New Set of Education Attainment in the World: 1950-2010." *Journal of Development Economics* 104(C):184–98.
- Becker, Gary. 1964. *Human Capital: A Theory and Empirical Analysis*. Cambridge, MA: National Bureau of Economic Research.
- Becker, Gary, and Barry R. Chiswick. 1966. "Education and the Distribution of Earning." *American Economic Review* 56(1/2):358–69.
- Card, David. 1995. "Earnings, Schooling and Ability Revisited." *Research in Labor Economics* 14:23–48.
- Chiswick, Barry R. 1988. "Differences in Education and Earnings across Racial and Ethnic Groups: Tastes, Discrimination, and Investments in Child Quality." *Quarterly Journal of Economics* 103(3):571–97.
- Colclough, Christopher, Gaeta Gandhi Kingdon, and Harry A. Patrinos. 2010. "The Changing Patterns of Wage Returns to Education and its Implications." *Development Policy Review* 28(6):733–47.
- Denison, Edward F. 1967. *Why Growth Rates Differ?: Post-War Experience in Nine Western Countries*. Washington, DC: Brookings Institution.
- Dougherty, Christopher. 2005. "Why Are the Returns to Schooling Higher for Women than for Men?" *Journal of Human Resources* 40(4):969–88.
- Duflo, Esther. 2001. "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." *American Economic Review* 91(4):795–813.
- Freeman, Richard. 1976. *The Overeducated American*. New York, NY: Basic Books.

- Garcia-Mainar, Inmaculada, and Victor M. Montuenga-Gomez. 2005. "Education Returns of Wage Earners and Self-Employed Workers: Portugal vs. Spain." *Economics of Education Review* 24:161–70.
- Goldin, Claudia, and Solomon Polacheck. 1987. "Residual Differences by Sex: Perspectives on the Gender Gap in Earnings." *American Economic Review* 77(2):143–51.
- Harmon, Colm, Hessel Oosterbeek, and Ian Walker. 2003. "The Returns to Education: Microeconomics." *Journal of Economic Surveys* 17(2):115–56.
- Ichino, Andrea, and Rudolf Winter-Ebmer. 1999. "Lower and Upper Bounds of Returns to Schooling: An Exercise in IV Estimation with Different Instruments." *European Economic Review* 43(4-6):889–901.
- Jensen, Robert. 2010. "The (perceived) Returns to Education and the Demand for Schooling." *Quarterly Journal of Economics* 125(2):515–48.
- King, Elizabeth M, Claudio E. Montenegro, and Peter F. Orazem. 2012. "Economic Freedom, Human Rights, and the Returns to Human Capital: An Evaluation of the Schultz Hypothesis." *Journal of Economic Development and Cultural Change* 61(1):39–72.
- Krueger, Alan B. 1993. "How Computers Have Changed the Wage Structure: Evidence from Microdata." *Quarterly Journal of Economics* 108(1):33–60.
- McNaab, Robert, and George Psacharopoulos. 1981. "Racial Earnings Differences in the UK." *Oxford Economic Papers* 33(3):413–25.
- Mincer, Jacob. 1958. "Investment in Human Capital and Personal Income Distribution." *Journal of Political Economy* 66(4):281–302.
- , 1974. *Schooling, Experience and Earnings*. New York: Columbia University Press for the National Bureau of Economic Research.
- Montenegro, Claudio E., and Maximilian Hirn. 2009. "A New Disaggregated Set of Labor Market Indicators using Standardized Household Surveys from around the World." World Bank. Available on line at: https://openknowledge.worldbank.org/bitstream/handle/10986/9033/WDR2009_0015.pdf?sequence=1. Washington, DC. Processed.
- Patrinos, Harry A., and Chris Sakellariou. 2006. "Economic Volatility and Returns to Education in Venezuela." *Applied Economics* 38(17):1991–2005.
- Psacharopoulos, George. 1972. "Rates of Return on Investment in Education around the World." *Comparative Education* 16(1):54–67.
- , 1973. *Returns to Education: An International Comparison*. Amsterdam, San Francisco: Elsevier and Jossey-Bass.

- , 1985. "Returns to Education: A Further International Update and Implications." *Journal of Human Resources* 20(4):583–604.
- , 1989. "Time Trends of the Returns to Education: Cross-National Evidence." *Economics of Education Review* 8(3):225–31.
- , 1994. "Returns to Education: A Global Update." *World Development* 22(9):1325–43.
- , 1995. *The Profitability of Investment in Education: Concepts and Methods*. Washington, DC: World Bank.
- Psacharopoulos, George, and Richard Layard. 1979. "Human Capital and Earnings: British Evidence and a Critique." *Revises of Economic Studies* 46(3):485–503.
- , 2012. "Rates of Return to Investment in Education: An International Comparison." World Bank, Human Development Network. Washington, DC. Processed.
- Psacharopoulos, George, and Harry A. Patrinos. 2004. "Returns to Investment in Education: A Further Update." *Education Economics* 12(2):111–34.
- , 2014. "Returns to Investment in Education: A Review and Further Update." World Bank. Washington, DC. Processed.
- Schultz, Theodore W. 1961. "Investment in Human Capital." *American Economic Review* 51(1):1–17.
- United Nations Development Program (UNDP). 2011. *Human Development Report 2011. Sustainability and Equity: A Better Future for All*. New York, NY: Palgrave Macmillan.
- Wolfe, Barbara, and Robert H. Haveman. 2002. "Social and Nonmarket Benefits from Education in an Advanced Economy." Paper presented at the Conference Series Proceedings, Federal Reserve of Boston 47: 97-142. Boston.
- World Bank. 2012. *World Development Report 2013: Jobs*. Washington, DC: World Bank.
- , 2014. *International Income Distribution Database (I2D2)*. Washington, DC: World Bank.