Stuck In The Tunnel:
Is Globalization Muddling The Middle Class?

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ABSTRACT

Our objective in this paper is to assess how middle-income groups are faring with the global turn to the market. We suggest some simple measures of the middle—the size and income shares of households around the median (75/125%)—and their income status relative to wealthier counterparts. Our results point to genuine distributional stress for middle-income households, as well as public perceptions of such stress. They also suggest the need for new measures to capture distributional trends that are masked by aggregate measures. We posit that the fate of those in the middle merits new attention, as their political support and economic participation are critical to sustainable, market-oriented growth and poverty reduction in the long-term.

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Introduction

The beginning of the 1990's brought much optimism about the global turn to the market and its potential to increase prosperity worldwide, and particularly in the developing world. A decade later, the outlook is more mixed. The optimism is supported by the record of dozens of countries in adopting market-oriented reforms, reforms which stabilized high and hyper levels of inflation, achieved positive if not high levels of growth, and reduced absolute poverty. Yet it is also tempered by the more checkered record of the reforming countries in improving skewed income distributions and protecting their citizens from external shocks and volatile international capital flows.[1]

Indeed, concerns about the latter have resulted in a questioning of the market-oriented policy recipe known as the Washington Consensus by its very architects. And while no one but the harshest of critics advocates a return to closed, planned economies, there is a remarkable lack of consensus on what is necessary to consolidate the reform process and make the globalized economy more responsive to the needs of the majority of its citizens. The authors of the Washington Consensus are now in search of a new paradigm. Why?

In this paper we explore the possibility that globalization has caused the most distributional stress for what we commonly refer to as the "middle class", the large group of households that are neither wealthy nor poor, but that form the backbone of both the market economy and of democracy in most advanced societies.[2] The effects of the global turn to the market have generally been positive for the income groups at the extreme ends of the spectrum—the poor benefiting from reduced inflation and in many countries new emphasis on increased spending for basic health and education, the wealthy from access to a much wider range of consumer goods. Yet the large and often poorly defined group in the middle has had very mixed rewards: increased upward mobility for some sectors, particularly skilled labor and the younger members of the workforce, but increased uncertainty and downward mobility for others. Moreover, as we will show below, many members of the middle income group that have "made it" economically (their own household income has increased substantially) in the last decade of

[1] For trends in inequality in developing countries see, for example, Birdsall (2000b).

[2] Recent work by William Easterly, for example, finds that a "middle class consensus" distinguishes development successes from failures. He defines a middle class consensus as a high share of income for the middle class and a high degree of ethnic homogeneity. See Easterly (1999). Mateju (1996), meanwhile, shows that in the Czech Republic and its Central European neighbors, respondents who consider themselves middle class (rather than working class or wealthy) are less likely to vote for extremes of the political spectrum. Benabou and Ok (1998) find that in the US, most voters are unlikely to vote for redistribution even when they are well below mean income, because they expect to be at or above it in the future. One could interpret this loosely as having "middle class" aspirations.

market liberalization—in countries such as Russia and Peru—turn out to be among those who report, ironically, that they are losing out.

We posit that understanding what is happening in the "muddled middle" of the income distribution in the new market economies, as well as how those in the middle perceive their past progress and future prospects, is key to ensuring that globalization works for the majority and is politically sustainable. We pose the question: should growth and development policies that are more explicitly focussed on the middle be more central to the post-Washington Consensus development paradigm?[3]

Our objective is not to wring our hands for those in the middle. Nor do we want to question the achievements that the market-oriented reform process has yielded for the emerging market economies. In fact, we firmly believe that the turn to the market has produced significant and irreversible benefits for many societies, and most importantly for the poor of those societies, who suffered disproportionately from distorted policy frameworks, low rates of growth, and high levels of macroeconomic volatility.[4] We have documented both the benefits and the shortcomings of those reforms extensively elsewhere.[5] Our objective here is more modest: to explore how more recent global trends are affecting those in the middle, and to suggest new concepts and measures to assist in that exploration.

We begin with discussion of who the "middle class" are. We define a middle-income group that does not necessarily fit prior notions of the "middle class," and discuss the size of this group and its command over total national income across countries. We then explore the impact of four globalization-related trends on this group: the changing role of the state; increased economic volatility; new inequality driven by relative gains at the top; and the globalization of consumption standards. We conclude with a discussion of the impact of these global trends on middle strata attitudes about the market and perceptions of how they are faring economically.

The Middle Class and the Middle Strata: Advanced, Transitional and Developing Countries

In the middle of the 19th century, as industrialization was changing the structure of economies and societies in Europe, Marx defined two classes, the capitalists and the workers. It was not long after that sociologists and political theorists began distinguishing a third group, including self-employed skilled craftsmen and leaders of the learned professions, those who in the production process "supply intellectual and bureaucratic work; or any type of job and small capital"; those who look to the future and thus see saving and education as essential; and/or those

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[3] This is a relevant question even where the majority does not directly determine electoral outcomes, because democracy is weak or absent, or because as political voice as well as economic assets are unequally distributed; on the latter see Benabou (1996).

[4] Indeed, anecdotal evidence from Brazil suggests that while the poor were devastated by inflation and reaped major benefits from stabilization, the middle sectors had protected themselves from inflation through mechanisms such as overnight deposits. The rise in interest rates that was necessary to protect the Real and minimize inflation during the 1997 crisis, however, was disastrous for those with consumer debt and housing mortgages, i.e. the middle.

[5] For detail, see Birdsall et al. (1998).

who based on income, job security and opportunities for upward mobility, are neither the poor, nor the working class, nor the rich, but the “middle class”.[6]

Early definitions of the “middle class” were thus closely tied to new kinds of production and to the resultant changes in the mix and status of occupations, which in turn implied a minimum level of education and income. Since then, gradual additional change in the structure of economies has led to change in the mix of occupational categories that sociologists and other students of society have seen as constituting the middle class. But in general, occupational categories, especially when combined with some information on education, have provided a basis for defining the middle class that has been broadly understood and reasonably comparable across countries (even given large differences in average incomes among countries).[7] By any of these definitions, the middle class in the more advanced industrializing economies of Western Europe and North America was for most of the 20th century much larger than that in the colonies and other developing countries, where large proportions of the workforce had low levels of education and worked in agriculture.

Today the middle class by the traditional definition is still, as we shall see, smaller in the developing countries of the world. But in occupational terms it is much larger than it used to be; for example few of the economies of Latin America and East Asia could be classified as primarily rural or agricultural, and most have fairly substantial industrial and service sectors. At the same time, the opening of economies, technological change, the constellation of other factors we call globalization, are changing traditional occupational categories and altering the relative value and status of different types of education.

So we depart from our traditional approach of looking at the “middle class” with a fixed definition across time and space, based on some combination of occupation and education. Instead use a relative income measure to look at the households that are, literally, in the middle of the income distribution in each country, i.e. in each country, households with per capita income in the range of 75 and 125 percent of the median household per capita income. We do not pretend that this measure captures any fixed notion of the “middle class.” What it does capture—literally—is the middle strata in income terms in each country.[8]

There are several advantages to this approach:

- It allows us to compare the size of our group across countries and within countries over time. The alternative categorization sometimes used by economists is the two middle quartiles of the income distribution, or the third and fourth (richest) quintiles of the distribution. The shortcoming of these categorizations is that the size of the group is by definition fixed. Our approach is made possible by the increasing availability of comparable household survey data and the increasing ease of analysis afforded by the computer.

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[6] These three definitions are, respectively, from Bagu (1949); Goldthorpe et al. (1976); and Weber (1947).

[7] Perhaps because the category seemed so obvious, we have had no luck in finding any quantitative information on the size and income share of the middle groups in the industrializing economies of Europe and North America in the 18th and 19th centuries.

[8] Nelson (2000) uses the term “middle strata” to refer to the middle quintiles of households, ranked by wealth.

- It avoids the problem just noted—that rapidly changing occupational categories with industrialization and now the information revolution make any definition based on occupation obsolete or irrelevant in many settings. There is also the simple reality that current data on occupation in household surveys is not defined in a way that is comparable across countries.

- While it can be used to compare the middle strata across countries, it also carves out a reference group that is relevant within countries.

In each country we look at the size of the group (as a share of total population), its share of income, and the relationship between its share and size. This group's share in total population depends on the extent to which the tails of the income distribution are large relative to the middle; a higher share implies a larger middle group. The group's share of income will not necessarily correspond to their share of the total population—though the greater the income share the greater the "salience" of this middle group in terms of its contribution to economic production and its command over consumption. Finally, the households in this group are not necessarily households of "average" per capita income; in countries with a high share of households below a poverty line and a highly skewed distribution at the top, this group will typically have income below the average and it may even include some households defined in their country as "poor."[9]

Table 1 demonstrates how the middle strata compare across countries using information from the most recent available household survey for each country.[10] The share of population is lowest, at about 22 percent, in Latin America; and highest, at about 42 percent in the transitional economies. Among the advanced economies, and in Taiwan, the share is generally above 30 percent, but ranges widely from a low of 24 percent in the U.S. to a high of 49 percent in Finland.[11] The share of income, given population, is systematically lower in Latin America. The middle strata have the largest shares of income in the Czech Republic and Austria. Brazil, Panama, and Russia are at the other extreme.

Table 2 shows per capita GNP, average household per capita income and the absolute income range of the group in the middle.[12] Using our definition, based on relative income within countries, the income of a "middle" individual in low-income Brazil is obviously lower in absolute terms than that of one in Taiwan. Below we discuss the notion of an "international" or global middle-income group.

In Latin America, where the distribution of income is highly concentrated at the top, the difference between mean and median income is so great that even the most well off of our middle group of households have income well below the average. But even in high-income

[9] This is not the case for any country for which we have data (Table 2), but could be the case in South Asia and Africa, using our definition.
[10] With the possible exceptions of Russia, and the United States, these surveys are reasonably comparable across countries; the income variable has been constructed the same way from household survey information.
[11] U. S. figures are authors' calculations based on the Current Population Survey (1999); Russia figures are based on household per capita income data from the Russian Longitudinal Monitoring Survey for 1995/96 and 1997/98.
[12] We use income in purchasing power parity terms, which minimizes differences between rich and poor countries since it corrects for the lower costs of non-tradables in the latter.

countries, most households in this middle group have below-average income.[13] Differences across countries in the absolute income of the middle, and differences by country in the distance between median and mean income, illustrate how distant can be the middle from our conventional notion of the middle class, and how likely it is that the middle group as we generally envision it occupies much higher rankings in the income distribution of developing compared to developed countries.

Table 3 provides information on percentage changes in the shares of population and income for those countries for which we have data for at least two points in time. The figures for the high-income countries show a mixed trend. In countries perceived as having liberalized their markets—the US, UK, Sweden—the middle group has shrunk. Between 1992 and 1999 the US middle group shrank by almost 10 percentage points, bringing it to 24 percent of the population—the same percentage share as Costa Rica's middle group in 1997.

Our data support a study of transitions into and out of the "middle class" in the US by Greg Duncan. Using absolute level thresholds based on common income-to-needs ratios—the ratio between the household income and the poverty line—he concludes that the U.S. middle class shrank in the 1980s and the beginning of the 1990s.[14] He reports elsewhere that middle-income families became more likely to move up and down in the 1980's, but that correspondingly fewer poor families moved up or rich families down into the middle groups than in previous decades.[15]

In contrast to the United States, Canada, Germany, the Netherlands and Spain—four countries with large welfare state systems in place and low levels of inequality—have experienced an increase in the size and income shares of their middle-income group.

A dramatic shrinking of the middle group during the 1990s shows up in the transition economies. Poland experienced the highest percentage decrease in the population share, - 15 points. Russia (for the years 1995-97) also shows a decrease, particularly in the income share, despite starting the 1990s with a relatively small middle-income group by both measures (see Table 1). In contrast to the transition economies, the middle group in Latin American countries has experienced a substantial increase in its size as well as in its income share. These countries started, of course, from a much lower base. During the observed period, most countries in Latin America have transformed their economies—from state-led to market-driven.

Finally, there is no obvious association between the growth of GNP per capita for the period and changes in the size of the middle group. The middle grew substantially in Brazil and

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[13] Another finding from Table 2 is the large difference between GNP per capita figures, obtained at the aggregate level, and average income ones. The latter have been calculated from household surveys, and are consistently smaller than the former, by an average ratio of 1:1.7. This has been observed also in the past and is a consequence of the differences in the definition of *product* and *income*. A large amount of this discrepancy is unexplained, even though corporate earnings may play an important role.

[14] The thresholds for the definition of the middle strata are constructed using arbitrary ratios between income levels and the poverty line. See Duncan et al. (1996)

[15] Unpublished Duncan paper, referred to by Krugman (1992).

Peru over periods with at best modest growth, and shrank in Poland.[16] However, in general, things got worse in the low-growth transitional economies and better in Latin America.

Of course our simple income-based analysis cannot capture the full picture. Many positive and possibly offsetting negative trends will not be reflected in per-capita income and per capita income growth. We turn now to some exploration of the implications of recent globalization-related trends for this group.

The Changing Role of the State

One of the most distinctive features of the globalization process has been a marked change in the role of the state, with a dramatic scaling back of state involvement in the productive sectors in most countries and some shift in the direction and scope of social programs. The most visible effect for the middle-income households has come in the form of reductions in traditional middle-class job opportunities. White-collar occupations for which a secondary education was sufficient and which guaranteed a "middle-class" standard of living for large numbers of people in most developing economies were primarily but not exclusively found in the public and parastatal sectors. Many developing countries have trimmed their public sector in order to achieve fiscally sustainable growth and remain competitive at an international level.

Reductions in the size of the civil service and privatization of state-owned enterprises resulted in the elimination of millions of secure jobs in the last decade. Figure 1 suggests that since 1985 the percentage of workers employed in public sector jobs has been decreasing for most countries. Not surprisingly, transitional economies (in our sample for Figure 1 Bulgaria and Russia) had the highest initial levels, as well as the most dramatic declines. With the exception of Tunisia and Guatemala, all the countries in the sample show decreasing shares in public sector employment.[17]

Other evidence from Latin America indicates that the loss of secure jobs in government and state-owned enterprises has not been compensated by increases in private sector jobs. Unemployment rates were higher in the mid-1990s compared to early 1990s in most countries (the exceptions are Central America, where the *maquila* industries have grown, and Peru and Bolivia).[18] Even those public sector workers that kept their jobs probably lost ground in relative terms. In Peru gains in income in the period 1989-96 were three times greater for private compared to public sector workers.[19]

In addition, ILO data show an increase in "unprotected" jobs in the 10 countries with comparable figures covering the last decade or so.[20] Unprotected jobs are those in which workers have no written contract and no social benefits. The increases do not necessarily that

[16] In the period observed (1986-95) Poland experienced extreme macroeconomic fluctuations: GDP per capita grew five percent in 1985, plummeted by -10 and -7 percent in 1990 and 1991, to a steady recovery thereafter with 8 percent growth in 1995.

[17] The authors are grateful to Guy Pfeffermann of the IFC for providing these data.

[18] IDB data cited by Rodrik (1999).

[19] Authors' calculations based on data for Lima only in Saavedra, 1998.

[20] Rodrik (1999) compiled the ILO data.

imply workers are worse off—they may receive higher hourly wages. However they do imply workers enjoy less security. In Latin America the decline in "protected" jobs has almost certainly affected middle-income workers most, as workers from the 40 percent of poor households were never among those protected in the first place.

In some countries, the middle-income group has also been affected by less visible trends in public expenditures, as the focus of public expenditure shifted from universally available public services to targeted programs for the lowest income households. The effort to ensure that public expenditures reach the poor is important. But in countries where the shift has occurred and provided very clear benefits for the poor—as in Chile and Peru—it has come as much at the expense of middle-income as of wealthy households, as increased expenditures on programs for the poor have been financed largely by the value-added tax, which is not progressive, or by a reallocation of existing expenditures.[21] In other countries—Czech Republic, Egypt, Mexico, and Brazil, for example—where the middle class was the main beneficiary of social spending on such programs as secondary and university education—these and other services deteriorated in quality as public funding failed to keep up with enlarged programs. Wherever the wealthy for the most part do not rely on public services, such as transportation and emergency hospital care—as in many countries in the developing world—reductions in quality and coverage of services have a stronger impact on middle income groups.[22]

The shift from reliance on defined-benefit, pay-as-you-go pension systems to full or partial reliance on funded defined-contribution systems (in Chile, Argentina, Peru, Uruguay, Poland, and Hungary among others) has eliminated the most regressive elements of traditional pension systems. But it has also hurt middle-income workers, at least in relative terms.[23] Middle-income workers are likely to accumulate lower benefits over their lifetimes compared to higher income workers, and at the same time they are unlikely to fall below the contribution level that qualifies them for additional government support or for minimum pensions. They thus often retire on pensions that are at or just above the minimum pension level.

The dual effects of trends in public sector employment and in the allocation of public expenditures are well demonstrated by recent trends in the Czech Republic. There, as in other countries that have implemented far-reaching market reforms, the rewards to those in the "traditional" middle class, working in the public sector, fell relative to wealthier and more educated individuals working in the new private sector. For the 1988-1996 period, household income grew 19 percent for those in the top decile and 7 percent for those in the bottom income decile. Yet for those in deciles 4 through 6, it fell by an average of 17 percent. Public social expenditures, meanwhile, show an increase for those at the bottom at the expense of those in the middle: the bottom decile's share grew from 27 percent of all social benefits in 1988 to 29 percent, while the average for deciles 4 through 6 fell from 16 percent to 14 percent.[24]

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[21] Cowan and de Gregorio (2000), show for Chile income gains due to public social spending of 39 and 28 percent for the two poorest quintiles, compared to 20 and 10 percent for the 3rd and 4th quintiles (Table 8.4). For a summary of the targeting approach and its effects, see Van de Walle and Nead (1995).
[22] For detail, see Graham (1998).
[23] And possibly in actuarial terms, though that is less clear.
[24] For detail, see Vecernik (1999). See also Mateju (1996).

This shift in the benefits of public programs also shows up in some developed economies. In writing about the "missing middle" in the U.S., Theda Skocpol posits that while the right focuses on curbing government and cutting taxes, and the left on defense of existing government programs for helping particularly worthy groups such as children, "the middle has been left outside contemporary social policy debates". She describes the middle as the "vast bulk of ordinary American families who live by wages and salaries, espouse moderate social values, and struggle with the new stresses that families must face."[25] This description depicts the middle group—and its position in the social policy debate—in most emerging market countries as well.

Volatility, Vulnerability, and Mobility

The second globalization-related trend that has affected those households in the middle of the income distribution is increasing macroeconomic volatility related to greater engagement in the global economy and thus vulnerability to external shocks—fluctuations in external capital flows in particular.

Banking crises are not new – and their costs in output losses have been historically high in all countries. But with the surge in capital inflows to emerging markets in the 1990s, the increasing intermediation by domestic banks of those flows (in contrast to the past), and the linking of banking to currency crises, the sense if not the reality of economic insecurity has risen. In East Asia, it was the urban working and middle-class that was particularly hard hit by the 1997-98 financial crisis. In Korea, Thailand and Indonesia, job losses were greatest in urban construction and financial services. In Thailand and Indonesia agriculture absorbed displaced urban workers; in Korea, where the agriculture and informal urban sectors are now tiny, unemployment doubled.[26] Real wages declined dramatically—by 9 percent in Korea, 6 percent in Thailand and 34 percent in Indonesia. Birdsall and Haggard (2000) suggest that the groups that were hit hardest in the crisis, though relatively well-off in Indonesia—the top 40 percent of households by income—and relatively poor in Korea—in the bottom 20 percent—were in fact "middle class" in their own societies, in terms of employment status and living standards. In these countries and in Thailand, there is little doubt that the aftermath of the financial crisis is a newly insecure middle class.

In Latin America, the return to growth in the 1990s after the "lost decade" of the 1980s has brought modest income gains on average, but increasing economic insecurity for middle income households. In addition to job losses and greater job insecurity, the region's low savings rate and consequent dependence on capital inflows have meant that monetary and exchange-rate policy necessarily must be shaped to meet the demands of external creditors. At least in the short run, domestic employment and social program needs are often subordinated. The most visible manifestation has been the resort to high interest rates to sustain capital inflows and avoid capital flight (and to protect exchange rates and thus banks with foreign currency liabilities)—in Mexico in 1995 and in Brazil in 1997-1998. Unlike the wealthy, who often have access to the international financial system, middle income households usually must rely on domestic banks.

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[25] See Skocpol (1999).
[26] Birdsall and Haggard (2000) provide details.

Rodrik shows that real average wage volatility also increased in the 1990s, especially in Mexico, Peru, and Venezuela, primarily due to economy-wide macroeconomic shocks.[27]

The increases in uncertainty with global integration—and their effects on individual and household insecurity—have been greater in developing than in industrial countries. There is also more volatility in general in developing countries: output growth, real wages, employment, and the terms of trade all vary more.[28] In addition, because of their dependence on capital inflows, developing countries are less able, during economic downturns, to resort to higher fiscal deficits to stimulate the economy and to use high interest rates to protect their currencies.[29]

The result has almost certainly been high and growing fear of downward mobility among those in the middle strata. The few studies that examine mobility at the household level are suggestive.[30] In Indonesia, data on the variability of annual household spending suggests many households in the middle of the income distribution have a high probability of having been poor, or becoming poor. Assuming 20 percent of households are poor, an additional 30 percent are "vulnerable" to becoming poor over three years. Moreover, separating the sample between urban and rural households, the urban households—on average less poor—are nearly as vulnerable as the rural ones.[31] In China in the second half of the 1980s, the distinction between being poor and being non-poor disappears for almost half of all households. Though only 6.2 percent of the population was poor throughout the period, nearly 50 percent was poor during at least one year. The corresponding figures for Zimbabwe (1993 to 1996) are 11 and 60 percent.[32]

Data following panels of households in several countries of Latin America also reveal a great deal of movement up and down the income ladder. Opportunities are increasing with market reforms but so are insecurities. Panel data from Peru allow a comparison with the U.S. that suggests the greater economic vulnerability of the middle group in the former. Table 4 compares positional mobility (i.e. across groups defined in relative terms) in the two countries. In Peru, those in the richest quintile in 1990 have a probability of 55 percent of remaining there after six years, while almost 48 percent of those in the middle quintile moved down during that period. In the U.S., for a period of ten years, 59 percent of those in the top quintile remained there, while only 34 percent of those in the middle quintile moved down.[33]

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[27] Rodrik (1999) Table 5.
[28] Easterly et. al (1999).
[29] Hausmann et al. (1999).
[30] The study of mobility is an area which has been much further developed by sociologists than by economists. For a study of the state of the art in economic mobility studies and how the existing concepts and measures apply to the emerging market countries, see Birdsall and Graham (2000).
[31] Pritchett, et. al (2000).
[32] Ethiopia more closely fits the commonly though wrongly conceived pattern. The figures there are 25 and 30 percent, 1994-97. Baulch and Hoddinott (forthcoming).
[33] The data show strong upward positional mobility in Peru for the bottom quintiles and a relative deterioration for the middle quintiles. In part this reflects the benefits that stabilization had for the poor, who were least able to protect themselves from the negative effects of hyperinflation of the late 1980's, as well as changes in opportunity generated by positive rates of growth that followed stabilization, and indeed the highest rate in the world (14 percent in 1994) for one year of the period. It may also reflect the government's efforts to re-direct public expenditures to the poorest groups though those increases in real income would not show up in these data on household money income.

In short, even where the transition to markets and to globalization has brought absolute income gains for middle-income households, and upward mobility in relative terms, it has also brought downward mobility for some and increased risk of downward mobility for many. Rags to riches stories are possible, but so are middle to rags stories.[34]

Top-Driven Inequality and Middle-Income Stress

Comparing the 1990s to the 1980s, inequality (measured most commonly by the Gini coefficient) has been increasing in most transition economies, and in many developing countries.[35] This is the case in many countries where average incomes have risen and poverty has declined. We explore in this section the extent to which top-driven inequality, that is inequality associated with relatively greater increases at the top of the distribution, has made the middle groups relatively (even though not always absolutely) worse off.

Two factors associated with globalization may be driving top-driven inequality. One has been widely discussed, and for some countries, amply documented. That is a rising wage premium to skilled, educated workers—as a result of some combination of skill-biased technological change, and trade-induced changes in demand for skills.[36] In the extreme this has led to the so-called winner-take-all economy, in which there is almost no limit to the price top entertainers, athletes and CEOs can command.[37]

The second is a possible increase in wealth at the top, perhaps because more open capital markets enhance opportunities for high returns. In addition, taxes on mobile capital (to the extent they were effective) are probably declining,[38] while in developing countries, shallow financial sectors and underdeveloped capital markets may be limiting investment opportunities for small savers and borrowers.

Top-driven inequality: causes and consequences in Latin America

In Latin America, inequality rates are especially top-heavy: they are driven primarily by gaps between the top decile and the rest of the distribution, including the 9th decile.[39] The single

[34] We are limited in our ability to document changes over time due to the absence long-term panel data for most emerging market countries. Evidence from the U.S. shows an increase in downward mobility in the 1980's and 1990's. See Fields in Birdsall and Graham (2000). In the emerging market countries, meanwhile, a number of accounts of mid-level managers in the East Asian countries getting dressed for work and sitting in the park all day rather than admit to their families that they were unemployed, and in Latin America of respected university professors and public civil servants driving taxis to make ends meet suggest that this widespread downward mobility is a relatively novel phenomenon. Rodrik (1999), provides one of the few systematic accounts of increased risk and insecurity in these countries.

[35] Cornia (1999); Birdsall (2000b); Kanbur and Lustig (1999).

[36] On the U.S. see Burtless (1999). On Latin America see Duryea and Székely (1999).

[37] Frank and Cook (1995). Behrman et al. (2000) show that for Latin America, among market reforms, it is more open capital accounts that contribute to widening wage differentials by level of education.

[38] Tanzi (2000).

[39] While in many Latin American countries the richest 10 percent earn three times what the next richest 10 percent earn, in the USA, UK, and Canada, this difference do not exceed 1.6. If one compares points other than the top tail of the distribution for Latin America to other developed countries, meanwhile, the region has lower inequality than much more equal developed countries. Székely and Hilgert (1999).

most important characteristic which defines top decile households is that most adults in those households have at least some university education.[40] In Brazil, for example, the average 25 year old in the tenth decile (of the distribution defined in terms of household income per capita) has 11 years of education; the average in the ninth decile is only 8 years (implying that many 25 year olds in this decile have not attended secondary school) and the average in the middle two deciles in not even five years.[41] On average there is a 2:1 ratio between mean schooling of 25-year-olds in the top decile and those in the middle. The difference in the U.S. is much smaller: adults in the top decile have only 1.2 times the mean number of school years as those in the middle deciles.[42]

The education data from Latin America illustrate a more general point. Wherever there is a history of low enrollment, recent increases in enrollment will increase inequality in the distribution of education. If demand for the relatively skilled increases faster than supply, those with scarce skills will enjoy increasing returns to those skills in the labor market; overall inequality of education will then generate top-driven inequality of income. Latin America is an extreme case. Within Latin America, however, even a country like Costa Rica, with a longer and deeper history of widespread education, has nearly a 2:1 ratio between the education of adults in top and middle deciles.

Yet the real issue is not only or primarily the historic extent of top-driven inequality. It is the increase in that inequality—and the effects on frustrated expectations of middle-income households. Figures 2a and 2b illustrate that over the last several years, returns to higher education in Latin America have risen dramatically relative to returns to secondary and primary education.[43] They also show a general trend of decreasing relative marginal returns to secondary education. It seems the reference bar has shifted upwards. While in the 1960's and 1970's a secondary education was sufficient to attain a stable job and a "middle-class"—and indeed fairly privileged—standard of living, by the 1990's it neither guaranteed a well paying job nor protection from falling into poverty. As noted above, many of those with completed secondary schooling (rather than higher levels) were public sector workers; in 1990 there were far fewer public sector jobs, and they were also less desirable.[44]

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[40] IDB (1998). A recent study of Latin American households finds that the profile of the average individual in the top 10 percent of the distribution is closer to the prototype of a highly educated professional earning labor income than it is that of a capital owner living on profits. While this does not imply that Latin American inequality is not driven by a small number of individuals at the top of the distribution earning profits from capital investments (particularly as household surveys do not document this type of income very accurately), it suggests the extent to which skilled labor has gained relative to other groups. See Székely and Hilgert (1999).

[41] IDB, 1998, Appendix Table 1.2.III.

[42] For this comparison we use household survey data for Latin America (see Table 1) and for the U.S. the Current Population Survey (CPS), March Supplement, 1998. Data here refer to all adults; the difference in the ratios would be greater for 25 year-olds, as education levels have increased substantially in Latin America in recent decades. Data from the CPS are calculated after constructing an equivalence scale for educational attainment categories (below 9th grade = 6 years; 9th to 12th grade = 10.5; High-school = 12; Some college = 14; B.A. = 16; M.A. = 18; Professional deg. = 19; Ph.D = 24).

[43] On changes in returns to education in Latin America, see Duryea and Szekely, 1998, and Behrman, Birdsall, and Szekely (2000). Differentials in returns to education are also rising in Eastern Europe; see Terrell, 2000; Vecernick, 1996; Rutkovski, 1999.

[44] Finally, in a context of extreme levels of macroeconomic volatility, even education may be an insufficient buffer from significant downward mobility. Indeed, the only variable which was sufficient to prevent downward mobility during this period in Peru was access to income transfers from abroad. Herrera (1999); Glewwe and Hall (1995).

A recent study on intergenerational mobility in Brazil is consistent with relative losses of secondary school graduates. It suggests that workers in 1973 were much better off than their parents, almost independently of their education. In those years a new working urban class was benefiting from rapid growth. In contrast, Brazilian workers in 1996 were only better off than their parents to the extent that their educational level had increased substantially. In the early stages of industrialization, mobility was structural in nature: opportunities were created by a fast growing economy. More recently, mobility has become more “circular”: a consequence of more competitive labor markets and larger wage gaps based on education and skills.[45]

Findings from an anthropological study of households in three Rio de Janeiro shantytowns, surveyed in 1968 and revisited in 1999, support the same conclusion. Most parents felt that their children had a better life than they did because they had more education and a higher standard of living. Yet children’s responses demonstrated substantial frustration because, despite higher levels of education and access to consumer goods, they were unable to break out of their parent’s occupational categories. The latter usually hinges on obtaining a university education, an objective which is elusive for most low-income Brazilians.[46]

<u>Measuring middle income stress</u>

Three problems arise in adequate measurement of top-driven inequality. The first is that labor income is poorly measured at the top. For Latin America, Székely and Hilgert (1999) report that on average in the 16 countries for which information is available, the total income of the ten richest households in the survey is very similar to the average wage of a middle manager.[47] Studies of tax administration in developing countries also suggest substantial underreporting of labor income, often through extensive use of legal exemptions and deductions.[48] Second, in all countries, income from wealth is undercounted, if counted at all. Third, typical measures of income distribution do not necessarily reflect changes in the income of middle relative to high-income households. For these reasons, we believe that any measure designed to capture the relationship between high and middle income households will be conservative in measuring the difference, as well as changes in that difference.

With these issues in mind we define a measure reflecting this relationship which we call “middle income stress.” The most widely used measure of income inequality, the Gini coefficient, does not necessarily capture this relationship. Though sensitive to income changes in the middle of the income distribution, it reflects change in the middle relative to the bottom as well as the top.[49]

Table 5 shows two measures of stress. The first compares the median income of the population that generates the top 50 percent of total income to the median income for the total

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[45] See Pastore and do Valle Silva (2000).
[46] The 1999 survey was a pilot which interviewed only a sub-sample of the original 200 households. See Perlman (1976) and Perlman (1999).
[47] In 10 countries, the average income of managers is actually higher than the income of the 10 richest households.
[48] Shome (1999); Tanzi and Zee (2000).
[49] The Wolfson polarization index measures the degree to which income is concentrated at the top and bottom.

population. We examine changes in this measure as a way to gauge stress on the "middle strata", positing that stress increases as the gap between the median income and the median of the top 50 percent increases. The numerator provides a crude measure of the consumption standard for those households able to command 50 percent of total consumption in their economy—be they 7 percent of households as in Brazil or 34 percent as in Sweden. The ratio varies across countries both as an increasing function of the absolute distance between income at the top and in the middle, and as an increasing function of the share of income of the richest households. The alternative indicator compares product per capita for those in the top income (or expenditure) quintile relative to those in the middle 3rd and 4th quintiles. Note that while the majority of the observations are income-based, most African data are obtained using expenditure-based quintiles, thus likely underestimating inequality and, in this case, middle income stress.[50]

The medians-based measure is more sensitive to existing gaps between those at the top and the middle income group. In the high-income and transitional economies, it tends to be lower than the alternative indicator, reflecting the relatively greater size and income share of the middle strata in those countries. In Latin America and in Russia, it is higher. In those countries, the median income of the top 50 percent of households is often higher than the average income of the top quintile. In addition, the median of the whole sample is as a rule lower than the average income for the two middle quintiles, so the denominator is lower.

In Table 6, we compare our measure across select countries over time (using the longest available period for each country) to capture trends over the market reform period. We also compare trends in our measure with trends in the Gini coefficients.[51]

Changes in middle income stress are usually though not always in the same direction as changes in the Gini (in both cases, more positive is worse); in a few countries, the magnitude of changes seems to differ (we have no formal measure of the statistical difference in the changes). In a few of the high-income countries, most notably in the UK and the US, middle income stress by our measure has increased, as it has in all of the transitional economies for which we have the necessary data. In Latin America in contrast, where top-driven inequality is very high, middle-income stress has declined. The decline in Latin America is consistent with the increase in the size and income share of the middle strata, given its low starting point. Thus it may be that market reforms there, though hurting the traditional "middle class", are contributing to the enlargement of the middle-income group, as some formerly poor move up via new "market-friendly" income generating activities.[52]

Indeed, in most countries of Latin America the measure of middle-income stress increases less or declines more than does the Gini coefficient. (The exceptions are Panama and Costa Rica; the latter started with lower top-driven inequality than most other countries in the region—Table 6) Chile and Peru, both countries that have undergone major economic reforms, and Brazil, which in the period shown managed a dramatic stabilization program, show marked

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[50] Data are from Deininger and Squire (1996), and for additional countries from the WIDER/UNDP World Income Inequality Database.
[51] We also compared our measure to trends in the Wolfson polarization index, and to changes in the measure mean over median income. In both cases the results were similar to those of the Gini coefficients.
[52] Birdsall (2000a).

declines in our stress measure, and Mexico, another reforming country shows a decline in stress despite the increase in its Gini. In addition, Hungary and Poland, the two countries of Eastern Europe that began economic reforms earliest, do less badly by our stress measure than they do via the Gini.

While this is an exploratory exercise, it suggests that middle income stress can fall in countries where the Gini measure of inequality is rising. The traditional indicator shows only part of the picture. At the extreme, the countries where the Gini has decreased yet where we observe an increase in the measure of middle income stress provide evidence of an increasing gap in the standards of living specific to the top compared to those in the middle. Panama and Russia are the two most extreme cases.[53]

Evidence from the trends in our sample of countries is consistent with our story about the effects of reforms on the middle. Generally the wealthy have done very well, and the poor have also made absolute gains. The fate of the middle—at least in relative terms—is much more muddled. At the same time, the distance between the middle and their reference groups at the top of the distribution has increased in absolute terms.

The effects of these trends in inequality for the middle resemble those of Hirschman's "tunnel effect".[54] He makes an analogy between increases in inequality in the development process and the lanes in a traffic jam in a tunnel. If nothing moves, everyone is mildly frustrated but the situation is stable. When one lane begins to move, it gives the others hope because it serves as a signal of future progress. But if time passes and only that one lane is still moving, those in the other lanes get increasingly frustrated and may eventually resort to more radical behavior—like jumping the median strip.

With globalization, the middle sectors are in the tunnel, and some lanes—the most skilled and educated ones—have begun to move very fast, while the others are left stalled in the jam. The initial evidence that we have (discussed below) suggests that the fast paced movement in some lanes is resulting in frustration among the groups that are progressing less rapidly if at all. One explanation for the "jam" in the tunnel is that education levels that once provided opportunities to attain a spot in the fast lanes in the past are no longer sufficient for upward occupational mobility.

These trends for those in the middle are coupled with a very real and new threat of falling into poverty due to externally driven volatility. Thus it should not come as a surprise that the middle sectors are feeling "squeezed", a perception that will be evident in our middle-income respondents' evaluations of their economic progress during periods of market reform.

[53] Even though Costa Rica shows similar dynamics it represents a special case since its levels with respect to Latin America and to the overall sample are not very high (they are comparable to those in the US).
[54] Hirschman (1996).

The Globalization of Consumption Standards

A fourth globalization driven trend is the widespread diffusion of information about consumer goods and consumption standards across countries and cultures. It has added another source of distributional "stress" which is, arguably, most intense for middle-income households.

Prior to global economic integration, the dividing line between the rich and the middle was based on income standards within individual societies. Yet the spread of information and the opening of markets allowing imports of many more consumers goods have introduced absolute standards of consumption which cross national boundaries, and are visible if not attainable for the majority of citizens in new market economies. Most citizens have access to television (and increasingly the internet), and are deluged on a daily basis with advertisements for imported products, such as designer jeans, Nike shoes, and McDonald's hamburgers, as well as with television shows that depict lavish lifestyles as the norm (even though most of them in reality are far from the average for the U.S. or any other industrialized economy). In the 1990s multinationals producing and exporting "global consumption goods" have significantly expanded their sales and operations in developing countries. This trend involves not only production—cheap labor—but more recently the exploitation of new consumer markets. In 1995-98 for example, Nike revenue grew by 6 percent in Europe, and 23 percent in the U.S., compared to 82 percent in Asia/Pacific and 91 percent in America/Canada and other regions. And between 1991 and 1996, the number of McDonald's increased by 60 percent in the industrial countries, and by 307 percent in the developing countries.[55]

It is likely that consumption standards are rising faster than have average real incomes of the middle-income households in many new market economies. Reaching the global standard is obviously much more difficult for middle-income households (defined as in the 75 to 125 percent of the median income) in a poor country than in a middle income one. The absolute income differences among countries add to the pressures of relative income differences within countries.

Related to this, there is also a new international market for skilled labor. Young PhDs and technocrats in many emerging market countries are often able to obtain high paying jobs in finance or in universities in the developed countries at salaries that are much higher than those in similar sectors at home. Multinational companies, meanwhile, are increasingly outsourcing entire production lines to the new market economies, such as computer programming to New Delhi or state of the art hardware manufacturing to San Jose, and pay wages which are typically higher than the average for the home country. And as in the case of rising consumption standards, relative differences within countries become less important than absolute differences in skill and education levels among them in determining the potential of middle-income individuals to participate in this fast-growing sector of the globalized economy.

While the very poor in most countries are still concerned with making absolute income gains to increase consumption of basic commodities and essential services, those in the middle are more likely to be aware of international consumption standards and to evaluate their own

[55] Data from the Nike, Inc. Annual Report to the Securities and Exchange Commission (8/29/1996); and UNDP (1998).

economic progress with them as a reference. Indeed, most international comparisons of subjective well-being find that once a certain level of basic consumption standards is met, relative income differences matter more to respondents' evaluations than absolute ones do.[56]

The Global Economy and Middle Strata Perceptions

We have suggested how various globalization-related trends are likely to be putting a squeeze on middle-income groups. What effect if any is there on the attitudes of the middle to the new global economy?

Sound, time series data on perceptions in the developing economies are rare. We report here results of analyses panel studies in two settings: Peru, 1985-99, and Russia, 1995-99. In Peru, the data permit comparison of respondents' subjective assessments of their well-being with their actual experience of household expenditure change between 1985 and 1997.[57] For Russia we performed the same analysis, comparing 1995/99 income mobility patterns to 1999 perceptions of mobility and well-being.

In both countries, a surprising finding is that a large proportion of respondents who enjoyed income gains report that they were not better off. Of those respondents in Peru that had income increases during the period of 100 percent or more, 63 percent responded that their current economic situation compared "very negatively" or "negatively" to that of the recent past and to that of their parents. Only 11 percent of those with the greatest income gains assessed their economic situation positively compared to that of the past.[58]

More relevant for our theme, in Peru, across income quintiles defined in 1997, the middle groups are the most frustrated. In terms of absolute income trends, 29 percent of those in the bottom two quintiles and 60 percent of those in the third and fourth quintiles had income gains. Of these upwardly mobile respondents, 43 percent of the poorer respondents assessed their situations negatively, compared to 71 percent of middle income respondents, and 47 percent of the richest (Table 7).

Our "frustrated middle" in Peru—the upwardly mobile respondents in the third and fourth income quintiles that responded negatively—were, on average, slightly less educated than the non-frustrated upwardly mobile group in the same quintiles, but had experienced more absolute income gains than the non-frustrated group. This highlights the extent to which negative responses are driven by factors other than absolute income gains. It also suggests that there is an awareness of the limitations that lack of education—and in particular higher education—may pose to further upward mobility.

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[56] For empirical evidence of the effects of this trend on individuals evaluations of their economic progress, see Graham and Pettinato (1999). Richard Easterlin's classic work on "happiness", meanwhile, was the first comprehensive comparison of subjective well being levels across developed and developing countries. See Easterlin (1974).

[57] The perceptions study was conducted in 1998 and repeated in 1999. The periods covered in both countries were periods of substantial macroeconomic instability and policy change.

[58] For more details see Graham and Pettinato (2000).

In Russia as in Peru, a similar negative view held among the upwardly mobile with 72 percent of those (very few) with income gains of 100 percent or more reporting negative assessments.[59] Yet the highest degree of frustration is among the poorest respondents, perhaps reflecting the extent to which downward mobility has been the predominant trend in Russia, in contrast to Peru.[60] The Russian survey also included a question which asked respondents to place themselves on a ladder representing their society, with the poorest being on the first step and the wealthiest being on the ninth step. Those in deciles two to six tended to place themselves lower on the ladder than did those in the first (lowest) income decile. Figure 3 summarizes the results, and suggests that frustration is higher among groups in the lower middle of the distribution than at the very bottom.[61]

What explains the frustrations of our middle-income achievers? There are several possibilities, including recall problems in assessing past earnings, particularly for non-salaried workers; differences among rural and urban respondents, with the latter much more willing to make extreme statements; and the effects of non-economic events, such as elections. And the high levels of volatility in both countries during the periods observed no doubt highlighted risk and the absence of guarantees that even large income gains were permanent in nature.

An additional factor may be the pressures of global markets. In unequal societies which have adopted international consumption standards, the reference point for the upwardly mobile may seem unattainable regardless of absolute income gains. Most studies of subjective well being find that, except for the very poor, relative income differences matter more than absolute ones. It is no surprise that the middle strata rather than the poor in our sample are the most frustrated with their gains.[62]

The role of relative differences is highlighted by all of the trends we have described. The middle group is one in which some members have made large gains and others have suffered large losses; which suffers the consequences of volatility directly; and whose reference point is very affected by globalization of consumption standards and by top-heavy income inequality.

The unhappy perceptions of middle-income respondents may be relevant to the political sustainability of market policies. Studies in Eastern Europe, for example, find that subjective perceptions are more important in influencing voter behavior than objective trends are.[63] The same studies find that higher levels of education and upward mobility determined by a shift in occupation from public to private sectors (rather than within a public bureaucracy) was more likely to result in support for market policies. The differential fates—and perceived fates—of

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[59] The survey, the Russia Longitudinal Monitoring Survey covering around 2000 households in 1995-98, has been conducted in Russia since 1991 by the Russian Institute of Nutrition, the University of North Carolina at Chapel Hill, and the Institute of Sociology of the Russian Academy of Sciences, with support from the World Bank, US AID, and the National Science Foundation, among others.

[60] Also, the upwardly mobile poor (over 33% income increases) may still be recovering from steep, pre-1995 income declines (Table 7).

[61] The U-shaped result in Figure 3 seems to be driven by responses among adults below age 30 and over age 50.

[62] Cross country studies conducted in the 1980's and a more recent study conducted in Switzerland find a greater importance for relative income differences, and accord little importance to absolute increases over time. See Easterlin (1974), and Frey and Stutzer (1999).

[63] See the chapter by Mateju on Eastern Europe in Birdsall and Graham (2000).

those in the middle could well result in different levels of support for the market among their ranks.

To assess support for market reforms among different income groups, we analyze data from the 1998 Latinobarómetro, a cross-country public opinion survey of over 17,000 individuals in 17 countries in Latin America.[64] Using household-level indices of wealth, education, and attitudes toward market reforms developed by Graham and Pettinato (1999),[65] and an index of country reform developed by Lora (1998) and updated by Morley et al. (1999),[66] we estimate an equation of the form:

PRO-MARKET REFORM INDEX = *f* (*WEALTH, COUNTRY REFORM STATUS, WEALTH* * *COUNTRY REFORM STATUS*)

Table 8 shows the results. Compared to the poor, the middle income and the rich are more supportive of market reforms; and the rich are about three times as supportive (columns 1 and 2). Once the extent of reform at the country level is included (column 3), the position of the middle income group is indistinguishable from that of the poor. In other words, everyone, including the middle, is less enthusiastic where reforms are greater. That the middle drives this attitude change is shown by the negative sign on the interaction coefficient (of the reform index and the middle strata dummy—column 4).

On the other hand, in countries where reform is more recent (column 5 includes a dummy variable for countries that had substantial increase in their reform index in the 1985-95 period), overall attitudes are positive (column 5). Again, it is the middle group driving the positive attitude (the interaction variable in column 6). The middle group can be seen as more sensitive to the economic environment—a kind of magnifier, both positive and negative, of the overall pattern of support for reform.

In general the public, including those in the middle strata, tends to be more supportive of market reforms early in the process, when the collective memory of post reform crisis is stronger and the benefits of reducing inflation are most evident.[67] As reforms are consolidated, the public, especially those in the middle, becomes more critical and pays more attention to issues such as distribution, volatility, job insecurity, and the other trends discussed throughout this paper. These are the very trends which, as we have discussed, appear to create the greatest distributional stress for those in the middle.

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[64] The survey is coordinated by MORI (Market and Opinion Research International), a leading public opinion research agency, and financed by the EC and the Inter-American Development Bank, among others.

[65] The wealth index is based on the respondent's household possessions and characteristics, and was standardized on a 0-1 range. The pro-market index is a summary indicator of pro-market attitudes, and was constructed aggregating eight responses to questions regarding preferences towards the private sector and market forces. As alternatives to the wealth index, we also used dummy variables for middle income and rich constructed using the interviewer's assessment of the standard of living of the respondent; and dummy variables for middle income and rich based on the education level of adults in the household—as a measure of permanent income. Our results (not shown) using these alternative measures are similar and consistent with those reported.

[66] The five components of the *structural reform index* are financial sector reform, capital account liberalization, trade openness, tax reform, and privatization. For more details see Morley et al. (1999). A caveat is that the reform index has significant time lag problems, as some of the most extensive reformers, such as Chile, began their reforms prior to the time period covered by the index.

[67] For a regionwide analysis of these trends, see Graham and Pettinato (1999).

We have not made any explicit effort to model the political significance of middle income households. But it is probably some function of the size of the middle group and the extent to which the group is subjected to increasing stress. The middle income group we have defined, while relatively small in Latin America, is growing in size, and its degree of "middle income stress" is falling. These results may well be the healthy outcome of economic reforms there. The problem in Latin America, however, is that the absolute amount of stress is relatively high for this group, and they appear to be leading the fatigue with reform that shows up in attitude surveys. In Eastern Europe, the size of our middle group is much larger—obviously the heritage of formerly socialist economies—and thus may have more political salience to start with. And the group is under stress—not only is its size and share of income shrinking with respect to the population as a whole, but its absolute income relative to our "top" income group (that controls 50 percent of all measured household income) is also declining.

Conclusions

Globalization and market reforms are coming under increasing criticism worldwide – as evidenced by public protests against free trade and the international financial institutions in the developing countries. Not surprisingly, the architects of the Washington Consensus are struggling to find a new consensus on a next stage of policies that can both consolidate the worldwide turn to the market and correct for its weaknesses or imbalances. An important component of that stage should be to develop policies that nurture the development of a market-friendly middle.

Our objective in this paper has been to assess how middle-income groups are faring with the global turn to the market and to economic integration. We have also suggested some simple measures of the middle: the size and income-share of household around the median; and their income status relative to their richer counterparts. Our results point to genuine distributional stress for middle-income households, as well as public perceptions of such stress. They also suggest a need for the development of new and better measures to capture distributional trends that are masked by traditional aggregate measures.

Our initial results should inspire policymakers and the international donor community to pay attention to the effects of economic policies on those in the middle of the distribution as well as on the poor. This is the case not only because a healthy market economy requires the active involvement of middle groups—as stakeholders, entrepreneurs, skilled workers, and consumers.[68] It is also the case because the success of market reforms in a competitive global economy requires sustained political support from those in the middle. It is difficult to imagine that the kinds of reforms critical to market-based economies in the developing and transitional world can be sustained over long periods if the middle income strata is not growing and if those in the middle perceive themselves to be losing as a result of reforms. While the poorest have the greatest need and clearly merit attention, in the end it is the political support and economic

[68] For discussion of how market reforms can be designed to foster more active economic participation of the poor and middle-income households, see Graham (1998); for a discussion of the relative neglect of this point in the development and economic reform literature see Birdsall (2000a).

participation of those in the middle that will be critical to market-driven economic growth and thus to poverty reduction in the long run.

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TABLES AND FIGURES

Table 7. Subjective Mobility Assessments Among the Upwardly Mobile*

Peru, 1999	Perception of mobility			
	Negative	Indifferent	Positive	Total
Poorest	42.9%	35.7%	21.4%	100.0%
Middle Income	70.6%	17.6%	11.8%	100.0%
Richest	47.4%	26.3%	26.3%	100.0%

Russia, 1999	Perception of mobility			
	Negative	Indifferent	Positive	Total
Poorest	84.3%	6.9%	8.8%	100.0%
Middle Income	72.9%	16.6%	10.5%	100.0%
Richest	63.5%	25.0%	11.5%	100.0%

Note: "Poorest" is quintiles 1 and 2; "Middle Income" is quintiles 3 and 4.
* Households who have experienced percentage income changes of more than 30%.

Source: Data are from Peru pilot surveys (Cuanto S.A.); Graham and Pettinato (1999) defined a "frustrated" middle as those who'd had positive income gains but reported being worse off economically.

Table 2. Middle Strata Income Levels (latest available observed year)

country	year	GNP per capita	Average Income	Middle Strata Income* thresholds	
				bottom	*top*
High Income		**18,775**	**10,909**	**6,935**	**11,558**
Australia	1994	18,210	10,264	6,282	10,470
Austria	1987	14,880	8,644	5,941	9,902
Belgium	1992	19,970	9,161	6,251	10,418
Canada	1994	20,190	13,671	8,684	14,474
Denmark	1992	19,300	10,369	7,076	11,794
Finland	1995	18,510	10,129	6,760	11,267
France	1994	20,310	11,704	7,279	12,132
Germany	1994	19,710	11,024	7,202	12,004
Ireland	1987	8,850	3,332	2,939	4,899
Israel	1992	14,530	8,608	5,065	8,445
Italy	1995	19,590	9,047	5,692	9,488
Luxembourg	1994	27,990	15,097	9,870	16,450
Netherlands	1994	19,050	10,284	6,553	10,921
Spain	1990	12,220	5,707	3,548	5,913
Sweden	1995	18,500	10,454	7,483	12,472
Switzerland	1992	23,540	15,980	10,149	16,916
Taiwan**	1995	12,838	8,587	5,296	8,826
United Kingdom	1995	19,450	11,739	6,989	11,648
United States /a	1999	29,080	23,478	12,699	21,165
Transition Economies		**5,555**	**3,632**	**2,732**	**4,552**
Czech Republic	1992	8,590	3,701	2,520	4,200
Hungary	1994	6,190	2,797	1,779	2,965
Poland	1995	5,700	3,082	1,942	3,237
Russian Fed. /b	1997	4,280	5,978	5,309	8,849
Slovak Republic	1992	6,050	2,672	1,897	3,156
Latin America		**7,200**	**4,697**	**1,649**	**2,748**
Brazil	1996	6,250	4,563	1,326	2,211
Chile	1996	11,620	8,803	3,016	5,027
Costa Rica	1997	6,510	4,326	1,926	3,210
Mexico	1996	7,660	2,883	1,000	1,666
Panama	1995	6,580	5,373	1,718	2,864
Peru	1997	4,580	2,232	908	1,513

* Household per capita income, converted from local currency units into PPP$.
** Due to the lack of data, we used US$ exchange rate for the thresholds, and 1996 GNP pc in US$.
Source: LCU figures calculated from Luxembourg Income Survey, with the exception of /a/ the US, Current Population Survey, and /b/ Russia, Russian Longitudinal Monitoring Survey. Conversion factors are obtained from the World Development Indicators.

Table 3. Changes in the Size of the Middle Strata (1980s vs 1990s)

country	years	% Change in MS population share	% Change in MS income share	Period average GNP pc growth
High Income		**-0.5**	**0.5**	**1.95**
Australia	1985-94	-5.9	-1.7	1.70
Austria	1987	n/a	n/a	1.54
Belgium	1985-92	5.3	10.0	2.23
Canada	1987-94	7.5	4.3	0.69
Denmark	1987-92	8.7	11.1	0.79
Finland	1987-95	0.6	-3.5	0.83
France	1989-94	-1.6	-5.5	1.00
Germany	1984-94	0.8	8.4	0.21
Ireland	1987	n/a	n/a	4.77
Israel	1986-92	-1.0	-3.7	2.47
Italy	1986-95	-7.9	-4.7	1.86
Luxembourg	1985-94	2.2	-2.7	2.83
Netherlands	1987-94	6.4	3.4	2.01
Spain	1980-90	3.4	23.4	2.53
Sweden	1987-97	-12.4	-13.9	0.47
Switzerland	1982-92	10.0	17.6	0.99
Taiwan*	1981-95	-3.2	-4.3	6.21
United Kingdom	1986-95	-12.9	-17.7	1.94
United States a/	1992-99	-9.4	-11.6	2.08
Transition Economies		**-7.1**	**-8.6**	**-4.26**
Czech Republic	1992	n/a	n/a	-6.49
Hungary	1991-94	-12.6	-16.9	-2.66
Poland	1986-95	-15.3	-15.3	1.07
Russian Fed.	1992-95	6.4	10.8	-10.16
Russian Fed. /b	1995-97	-7.0	-12.9	-2.46
Slovak Republic	1992	n/a	n/a	-7.12
Latin America		**11.0**	**20.6**	**2.49**
Brazil	1988-96	13.7	18.5	-0.09
Chile	1987-96	-1.4	18.3	6.57
Costa Rica	1991-97	3.8	2.9	2.15
Mexico	1989-96	-0.4	12.5	1.11
Panama	1991-95	19.8	18.8	3.68
Peru	1985-97	30.5	52.3	1.54

* For Taiwan GDP pc growth was used

Source: data calculated from LIS (a/ from CPS; b/ from RLMS)

Table 4. Positional Mobility in the United States and in Peru

United States, 1979-1989

1979 Q	**1989 Q** Bottom quintile	II	III	IV	Top quintile	DOWN	NDM*	UP
Bottom quintile	**61.0**	23.8	9.5	4.6	1.1	..	39.0	39.0
II	22.9	**33.2**	27.7	13.5	2.9	22.9	67.0	44.1
III	8.3	25.2	**29.5**	25.7	11.4	33.5	70.6	37.1
IV	4.6	13.0	23.0	**33.2**	26.2	40.6	66.8	26.2
Top quintile	2.7	4.9	10.8	22.8	**58.8**	41.2	41.2	..
	100.0	100.0	100.0	100.0	100.0			

Source: Mishel at al. (1999)

Peru, 1990-1996

1990 Q	**1996 Q** Bottom quintile	II	III	IV	Top quintile	DOWN	NDM*	UP
Bottom quintile	**43.5**	30.6	15.3	8.2	2.4	..	56.5	56.5
II	22.6	**15.5**	29.8	23.8	8.3	22.6	84.5	61.9
III	22.6	25.0	**22.6**	19.1	10.7	47.6	77.4	29.8
IV	7.4	23.8	20.2	**25.0**	23.8	51.4	75.2	23.8
Top quintile	4.8	4.8	11.9	23.8	**54.8**	45.3	45.3	..
	100.0	100.0	100.0	100.0	100.0			

Source: Herrera (1999)

The numbers in the cells show the percentage of those in the row quintile in the initial year who ended up in the colum quintile in the final year or, alternatively, the *probability* of that movement

*"NDM" indicates non-directional mobility: determined by the percentage of those who move "away" from their original quintile, in both directions.

Table 5. Measures of Middle Income Stress

Latest available figures (end 1980s, 1990s)

country		year	median top50% / median	year	yQ5 / [(yQ3+yQ4)/2]
East Asia and Pacific					
China		1992	n/a	1992	2.00
Indonesia		1990	n/a	1990	2.28
Malaysia		1989	n/a	1989	3.22
Philippines		1988	n/a	1988	3.16
Taiwan	a/	1995	1.89	1993	1.88
Thailand		1992	n/a	1992	3.53
Latin America and the Caribbean					
Bolivia			n/a	1990	2.64
Brazil	b/	1996	7.32	1989	4.99
Chile	b/	1996	4.35	1992	3.53
Colombia			n/a	1991	3.27
Costa Rica	b/	1997	2.99	1989	2.80
Guatemala			n/a	1989	4.33
Honduras			n/a	1992	3.54
Jamaica			n/a	1991	2.60
Mexico	b/	1996	4.39	1992	3.38
Panama	b/	1995	4.67	1989	3.75
Peru	b/	1997	4.14	1989	2.89
Venezuela			n/a	1989	2.72
Middle East and North Africa					
Algeria			n/a	1988	2.62
Egypt			n/a	1991	2.18
Jordan			n/a	1987	2.34
Tunisia			n/a	1990	2.48
High Income and OECD					
Australia	a/	1994	2.06	1990	2.36
Austria	a/	1987	1.44	1987	1.64
Belgium	a/	1992	1.50	1992	1.68
Canada	a/	1994	1.81	1991	1.85
Denmark	a/	1992	1.49	1992	1.62
Finland	a/	1995	1.55	1991	1.62
France	a/	1994	1.81		n/a
Greece			n/a	1988	2.01
Germany	a/	1994	1.57		n/a
Hong Kong			n/a	1991	2.78
Ireland	a/	1987	2.03	1987	2.12
Israel	a/	1992	2.13		n/a
Italy	a/	1995	1.89	1991	1.76
Korea, Rep. Of			n/a	1988	2.22
Luxembourg	a/	1994	1.65		n/a
Netherlands	a/	1994	1.85	1991	1.76
New Zealand			n/a	1990	2.22
Norway			n/a	1991	1.76
Portugal			n/a	1990	2.02
Singapore			n/a	1988	2.57
Spain	a/	1990	1.85	1989	1.68
Sweden	a/	1995	1.43	1992	1.67
Switzerland	a/	1992	1.63		n/a
United Kingdom	a/	1995	2.07	1991	2.09
United States	a/	1991	2.12	1991	2.05
United States	c/	1999	n/a		n/a

Table 5 (continued)

country		year	median top50% / median	year	yQ5 / [(yQ3+yQ4)/2]
Europe and Central Asia					
Bulgaria			n/a	1992	1.99
Czech Republic	a/	1992	1.35	1994	1.97
Hungary	a/	1994	1.77	1991	1.79
Poland	a/	1995	1.75	1992	1.82
Romania			n/a	1989	1.58
Russian Fed.	a/	1995	2.76	1996	1.82
Slovak Rep.	a/	1992	1.30	1992	1.62
Turkey			n/a	1987	2.83
South Asia					
Bangladesh			n/a	1992	1.93
India			n/a	1992	2.19
Pakistan			n/a	1991	2.03
Sri Lanka			n/a	1990	2.04
Sub Saharan Africa					
Ghana			n/a	1992	2.23
Guinea			n/a	1991	2.61
Guinea-Bissau			n/a	1991	3.61
Kenya			n/a	1992	4.45
Lesotho			n/a	1987	3.91
Mauritania			n/a	1988	2.36
Mauritius			n/a	1991	2.27
Nigeria			n/a	1992	2.77
Senegal			n/a	1991	3.75
Sierra Leone			n/a	1989	3.79
Uganda			n/a	1992	2.76
Zambia			n/a	1991	2.82
Zimbabwe			n/a	1990	4.55

Note: Income is household percapita disposable income for LIS data, household percapita income for the rest
The first measure is calculated using the median income of those who earn the top 50% national income and the median income for the entire national sample. The second compares product per capita for the top income or expenditure quintile to the average product pc of the 3rd and 4th quintiles

Sources:
a/ Calculations based on Luxembourg Income Study (yearly disposable household pc income)
b/ Calculations based on national household surveys (monthly household pc income)
c/ Calculations based on Current Population Survey (yearly household pc Income)
The last two columns are figures (with corresponding year) from the WIDER Inequality database

Table 6. Changes in Middle Income Stress and Gini Coefficients: 1980s-1990s

country	period	MIS*	Gini Coefficient
High Income		**0.6%**	**1.6%**
Australia	1985-94	-2.6%	2.4%
Austria	1987	n/a	n/a
Belgium	1985-92	-1.1%	-19.6%
Canada	1987-94	-0.4%	-6.1%
Denmark	1987-92	-4.8%	-10.2%
Finland	1987-95	3.0%	2.7%
France	1989-94	3.7%	5.9%
Germany	1984-94	-3.7%	1.8%
Ireland	1987	n/a	n/a
Israel	1986-92	1.0%	-0.1%
Italy	1986-95	0.1%	7.5%
Luxembourg	1985-94	3.0%	26.4%
Netherlands	1987-94	6.5%	8.3%
Spain	1980-90	-4.6%	-5.7%
Sweden	1987-97	-3.1%	-5.0%
Switzerland	1982-92	-8.9%	-8.0%
Taiwan*	1981-95	-0.6%	-0.6%
United Kingdom	1986-95	14.3%	21.2%
United States	1992-99	8.9%	6.1%
Transition Economies		**10.8%**	**14.2%**
Czech Republic	1992	n/a	n/a
Hungary	1991-94	10.2%	12.3%
Poland	1986-95	8.8%	19.0%
Russian Fed.	1992-95	5.9%	3.6%
Russian Fed. /b	1995-97	18.6%	21.9%
Slovak Republic	1992	n/a	n/a
Latin America		**-11.4%**	**-4.7%**
Brazil	1988-96	-15.2%	-4.9%
Chile	1987-96	-23.3%	-5.0%
Costa Rica	1991-97	0.3%	3.3%
Mexico	1989-96	-3.5%	4.1%
Panama	1991-95	0.2%	-3.9%
Peru	1985-97	-27.2%	-21.9%

* Calcualted as the ratio of the median income of the top 50% income households and the total median

Table 7. Subjective Mobility Assessments Among the Upwardly Mobile*

Peru, 1999	Perception of mobility			
	Negative	Indifferent	Positive	Total
Poorest	42.9%	35.7%	21.4%	100.0%
Middle Income	70.6%	17.6%	11.8%	100.0%
Richest	47.4%	26.3%	26.3%	100.0%

Russia, 1999	Perception of mobility			
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Poorest	84.3%	6.9%	8.8%	100.0%
Middle Income	72.9%	16.6%	10.5%	100.0%
Richest	63.5%	25.0%	11.5%	100.0%

Note: "Poorest" is quintiles 1 and 2; "Middle Income" is quintiles 3 and 4.
* Households who have experienced percentage income changes of more than 30%.

Source: Data are from Peru pilot surveys (Cuanto S.A.); Graham and Pettinato (1999) defined a "frustrated" middle as those who'd had positive income gains but reported being worse off economically.

Table 8. Pro-Market Reform Preferences in Latin America, 1998.

Independent variables	1	2	3	4	5	6	7
Age		0.0003	ns	ns	-0.0002	-0.0002	ns
Male		0.028	0.030	0.030	0.031	0.031	0.030
Education Level		0.012	0.015	0.015	0.013	0.013	0.015
Middle Income Dummy /a	0.030	0.020	ns	0.158	ns	-0.012	0.168
Rich Dummy /a	0.100	0.075	0.058	0.056	0.053	0.053	0.058
Reform Index (1995) /b			-0.436	-0.298			-0.360
Late reformer dummy /b					0.031	ns	0.024
Reform Index * MI Dummy				-0.192			-0.213
Late reformer * MI Dummy						0.033	0.031
constant	0.527	0.454	0.825	0.712	0.477	0.484	0.752
R^2	0.018	0.034	0.048	0.048	0.037	0.039	0.060

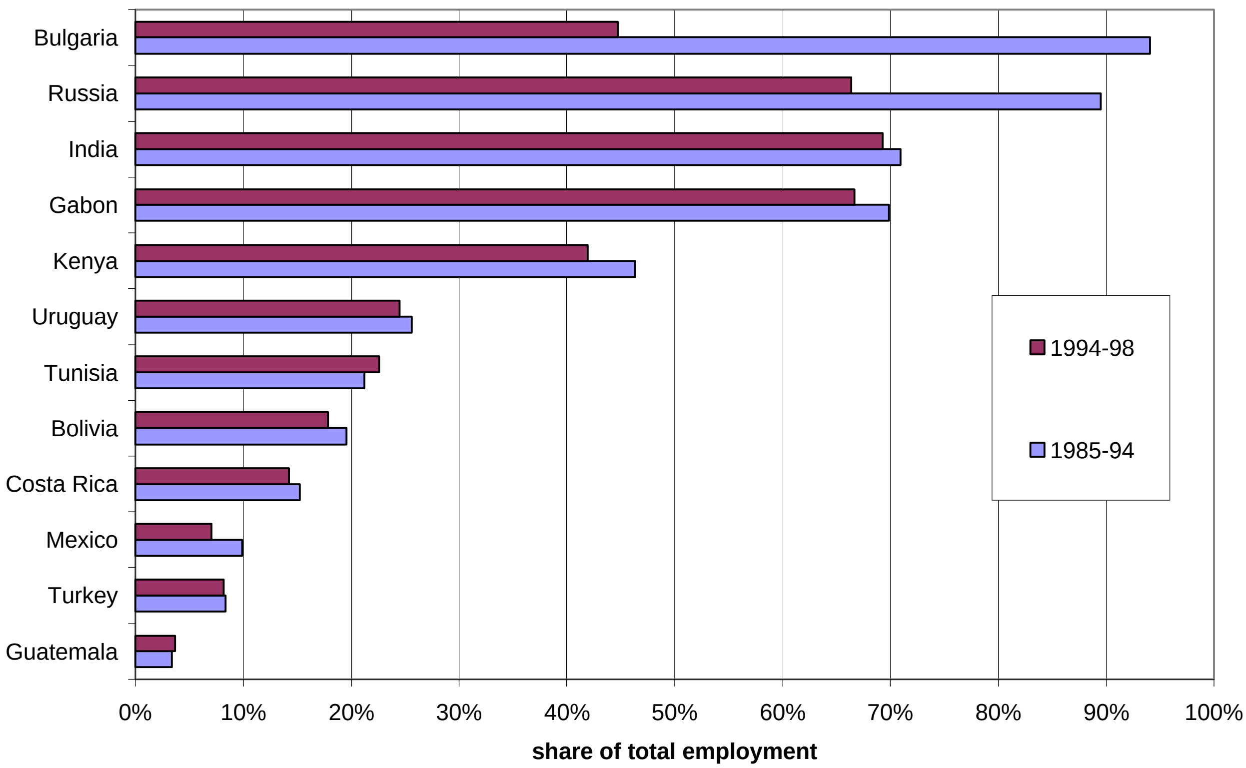
Sources: calculations using Latinobarometro 1998; reform index from Morley et al. (1999).

Note: regressions 1 and 2 calculated using country fixed effects. The rest using OLS. All coefficients are significant at the 95+% level unless otherwise noted with "ns"

a/ Dummy variable, based on a constructed 0-1 Wealth Index derived from household possessions and standard of living information (Mid. Income= 0.45<Index<0.9; Rich = Index>0.9)

b/ Structural Reform Index from Morley et al. (1999). Reform Index refers to the level of the Index in 1995 (latest observation); Late Reformer is a dummy for those countries that have increased their index by more than 60% in the 1985-1995 period.

Figure 1. Public Sector Employment Share. 1985-94, 1994-98. Selected Countries



Source: IMF (forthcoming)

Figure 2a

Marginal Returns to Education in
Latin America in the 1990s

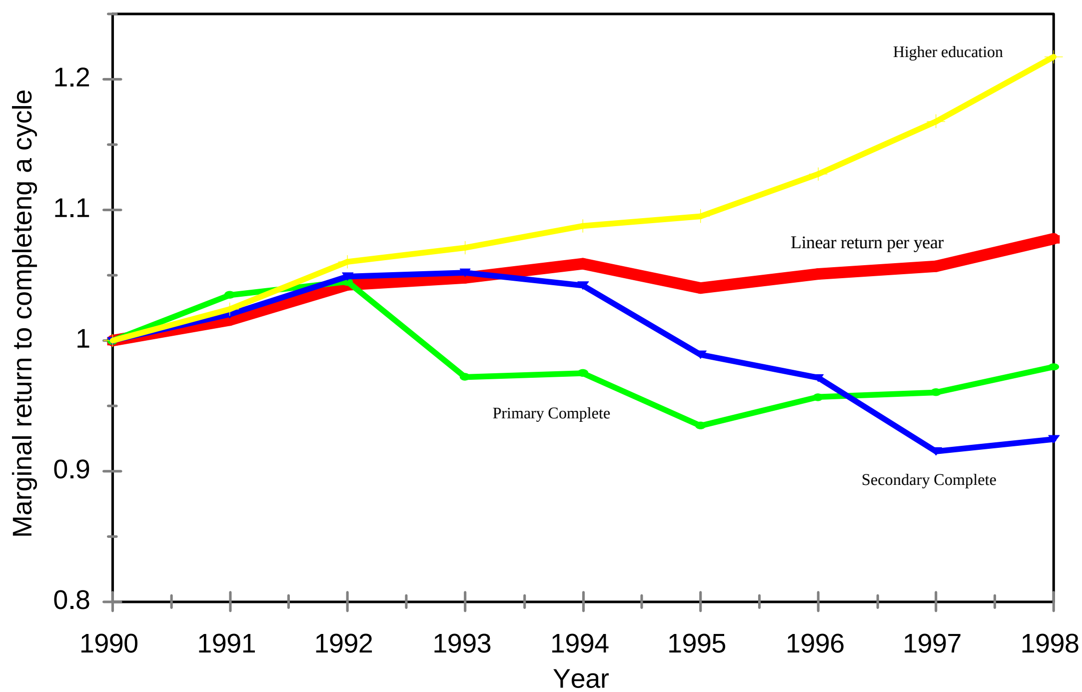
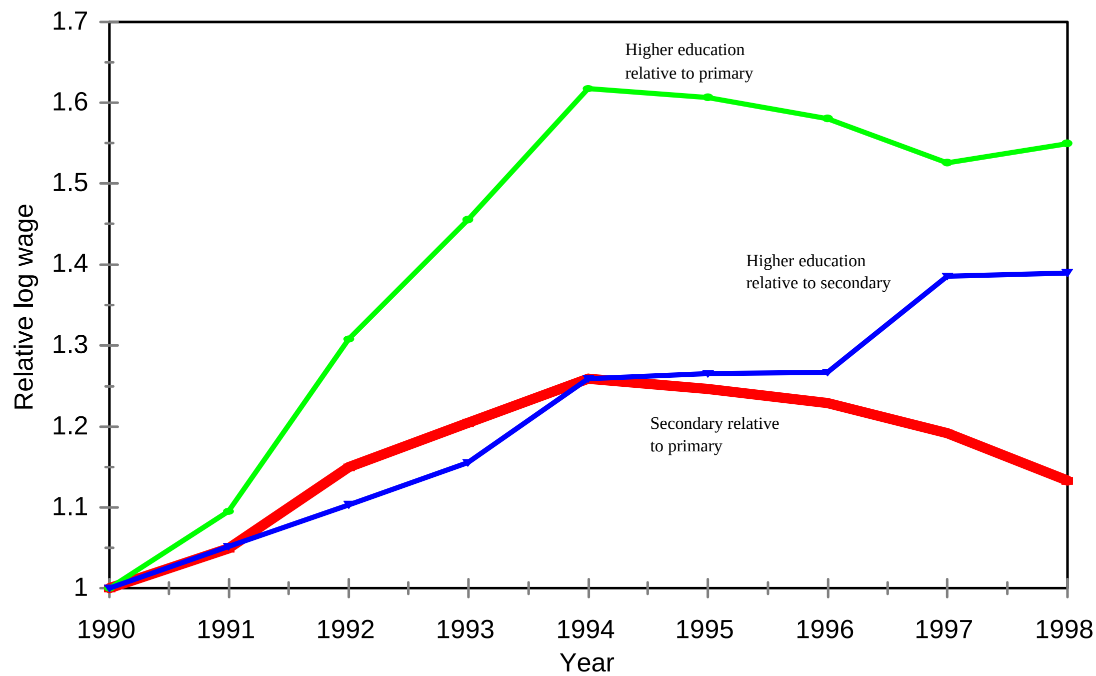


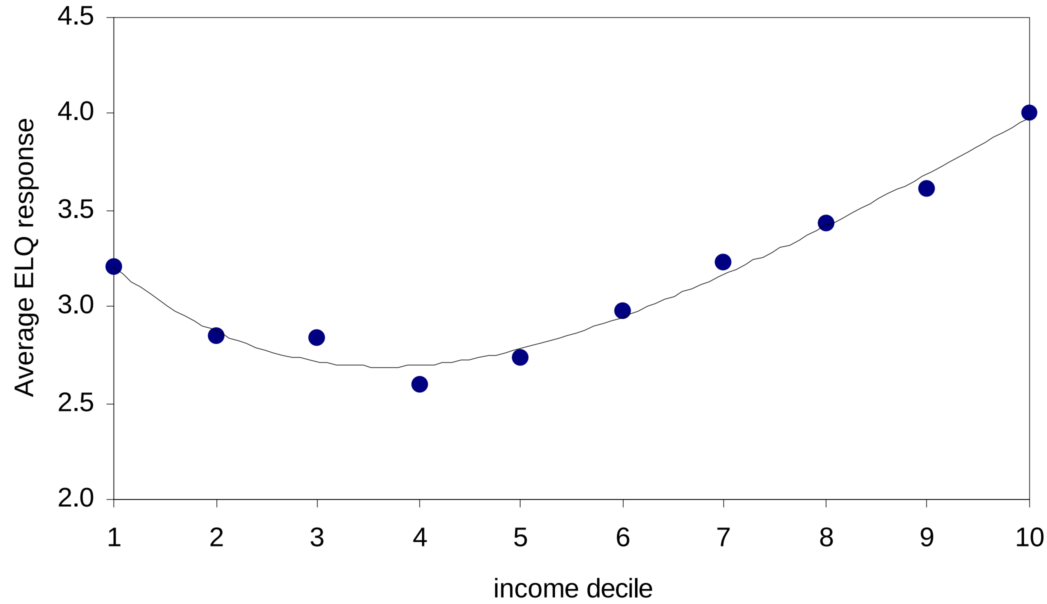
Figure 2b

Wage Differentials in
Latin America in the 1990s



Source: Behrman et al. (2000).

Figure 3. Average ELQ* by income decile
Russia, 1998/99



Source: Graham and Pettinato (2000).

* ELQ is the Economic Ladder Question, where respondents where asked to rank themselves on a ten-step ladder, where the poorest are in step number 1. The figures on the vertical axis are the mean response by income decile.