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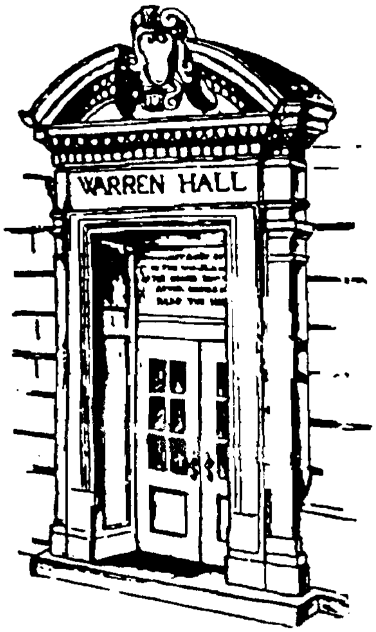

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THE EVOLUTION OF THINKING ABOUT POVERTY: EXPLORING THE INTERACTIONS

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Abstract

This paper considers the evolution of thinking about poverty since Rowntree's classic study of poverty in England at the turn of the last century. It highlights the progressive broadening of the definition and measurement of poverty, from command over market-purchased goods (income) to other dimensions of living standards such as longevity, literacy and healthiness, and , most recently, to concerns with risk and vulnerability, and powerlessness and lack of voice. The paper argues that while there is a correlation between these different dimensions, this broadening changes significantly our thinking about strategies to reduce poverty. A broader definition expands the set of policies that are relevant to the reduction of poverty. But the broadening also emphasizes that poverty reducing strategies must recognize the interactions among the policies--the impact of appropriately designed combinations will be greater than the sum of the individual parts.

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I. INTRODUCTION

Eradicating, or at least reducing, poverty lies at the heart of development economics. While development seeks to benefit all members of society, the poor command our special attention. Any reasonable definition of poverty implies that significant numbers of people are living in intolerable circumstances where starvation is a constant threat, sickness is a familiar companion, and oppression is a fact of life. In Alfred Marshall's words, "The study of the causes of poverty is the study of the causes of degradation of a large part of mankind."[1] Improving the lives of the poor must be at the top of our agenda.

What does development economics have to say about reducing poverty? And how has thinking evolved over the last quarter of a century? This paper explores these issues through the evidence and analysis available in the literature in general and through the World Bank's World Development Reports on poverty.[2] These reports, drawing on evidence from around the world, summarize contemporary thinking on the subject and are therefore useful instruments for assessing progress in our understanding of the problem and our ability to solve it.

The breadth of the topic requires some selectivity. We focus on two questions. How should poverty be defined and measured? And, what policies and strategies reduce poverty so defined? The questions are of course related – the definition of poverty drives the choice of policies. To organize the discussion, we take advantage of the fact that the definition of poverty has broadened over the last quarter of a century, and, as it has broadened, so the relevant set of

[1] Marshall, A. "Principles of Economics", p3, eighth edition, 1925.

policies has expanded. Beginning with a focus on command over market-purchased goods (income), the definition of poverty has expanded to embrace other dimensions of living standards such as longevity, literacy, and healthiness. And, as we learn more about and from the poor, the concept has developed further to reflect a concern with vulnerability and risk, and with powerlessness and lack of voice. Our review of the evolution of thinking about poverty leads us to two broad conclusions.

First, broadening the definition of poverty does not change significantly who is counted as poor – at least not as far as aggregate measures are concerned. While this is a simplification, and we can find evidence to the contrary in the literature, it reflects the fact that the many aspects of poverty – income, health, political rights, and so on – are often closely correlated. While aggregate measures may be largely unaffected, the broader definitions allow a better characterization of poverty and the terrible hardships burdening the poor, and therefore increase our understanding of poverty and the poor. This deeper understanding will often be critical to the design and implementation of specific programs and projects to help people escape poverty.

Second and related, broadening the definition of poverty changes significantly our thinking about strategies to reduce poverty. In part this is obvious. A broader definition naturally expands the set of policies that are relevant to the reduction of poverty. As more aspects of poverty are recognized, so more policies become relevant to fighting poverty – moving beyond income to include health, for example, introduces a new set of policy instruments. But, there is another, more subtle and important consequence. The various aspects of poverty interact in important ways, such that policies do more than simply add up – for example, improving health increases income-earning potential, increasing education leads to better health outcomes, providing safety nets allows the poor to take advantage of high-return,

[2] World Development Reports, 1980 and 1990. A new report on poverty will be issued in 2000.

high-risk opportunities, and so on. Poverty-reducing strategies must recognize the interactions among policies – the impact of appropriately designed combinations will be greater than the sum of the individual parts. The interaction between the various dimensions of poverty is a theme that runs throughout this review.

These two issues – definition and strategy – are explored in more depth in the following sections as we trace the historical evolution of poverty through its various manifestations. Section two looks at the definition of poverty as it emerged from the pioneering efforts of Rowntree at the turn of the century. His focus on income (or expenditure) led naturally to a strategy based on growth in national income. But growth in national income will only help the poor if they share in that growth. The key interaction then was the link between growth in national income and changes in inequality, and a fear that progress on one front (growth) would lead to setbacks on the other (inequality) with uncertain implications for the poor.

Section three explores the incorporation in the 1980s of other dimensions of poverty – longevity, literacy, healthiness. This brought new policies into play but also revealed two new interactions. One was within the new set of policies – healthier children perform better at school; better educated mothers have healthier families and so on. And the other was between progress in human development and increases in national income. From one perspective better health and education can be viewed as an investment in human capital that, like investment in physical capital, should yield a return in the form of increased income. From another perspective better health and education can be seen as improvements in the quality of life in their own right. Indeed, in this view growth in national income only has value to the extent that is leads to longer lives, better health, and greater literacy. Either way, there is an interaction between the two sets of outcomes.

In section four we incorporate the findings from the analysis of panel data and from a range of participatory techniques that have recently come to the fore and which seek to elicit views about poverty from the poor themselves. This has led to today's concern with risk and vulnerability, powerlessness, and lack of voice. Here too important interactions emerge. Reducing exposure to risk offers an immediate benefit to the otherwise vulnerable but it also provides a platform to escape long-run poverty – lower exposure to risk frees the poor to engage in riskier, but more profitable, production and investment strategies including investing in their children's education. Similarly, giving the poor voice reduces their sense of isolation, an immediate benefit. But once they have a greater say in the selection and design of programs to assist them, then they are also more committed to implementation. In direct opposition to the isolation the poor often endure, successful implementation of income-earning projects, health programs, and safety nets calls for inclusion and active participation in a wide range of circumstances.

We conclude in section five by restating the central proposition of this review. As the definition of poverty has expanded and new dimensions have been introduced, the degree of interaction among the elements has also increased because each element contributes to well-being in the broad but also contributes to the achievement of other elements. With this perspective as background, section five offers some views on the most important outstanding issues in need of further research.

II. INCOME AND CONSUMPTION

Conventional Measures

According to normal usage poverty is "The state of one who lacks a usual or socially acceptable amount of money or material possessions."[3] This definition contains two important ideas. First, the definition of poverty will be different at different times and in different societies – what is "socially acceptable" in, say, India may differ from that in the U.S.A. And second, the focus is on the ability to purchase goods and services (money) or on their ownership (material possessions). As we shall see, many attempts to measure poverty incorporate these two ideas.

Benjamin Seebohm Rowntree, an early measurer of poverty, arrived at a "socially acceptable" amount of money by estimating the budget required "to obtain the minimum necessaries for the maintenance of merely physical efficiency"[4] appropriate to the specific circumstances of the City of York at the turn of the century. Based on the nutritional content of various foods and their local prices, Rowntree concluded that fifteen shillings would provide the minimum budget for food for a family of six for one week. Adding an allowance for shelter, clothing, fuel, and other sundries, he arrived at a poverty line of twenty-six shillings for a family of six that implied a poverty rate of almost 10 percent in York. While this same approach has been used in other countries and other times, the resulting poverty line is sensitive to local circumstances.

Thus, the Indian and U.S. poverty lines are based more or less on this approach, yet when both are expressed in 1985 PPP dollars, the latter is ten to twenty times as large as the former, depending on the size of the household. This difference reflects the tendency for poverty lines to change over time within countries as average incomes rise and views about the "minimum necessaries" evolve. A study of poverty lines – budgets for "minimum subsistence" – used in the

[3] Merriam-Webster's Collegiate Dictionary (1995).

U.S.A. in the period 1905 to 1960 found that they rose 0.75 percent in real terms for each 1.0 percent increase in the real disposable income per capita of the general population.[5] Thus, compared with the absolute poverty threshold established by Mollie Orshansky for 1963, minimum subsistence budgets before World War I were, in constant dollars, between 43 and 54 percent as large; by 1923, a "minimum subsistence level" was 53 to 68 percent as large. An "emergency" budget during the Depression year of 1935 was 65 percent, and a low-income line for 1957 was 88 percent of Orshansky's threshold.

That popular conceptions of the amount needed to "get along" rise with increases in overall incomes is neatly captured in a quotation from 1938: "A standard budget worked out in the [1890's], for example, would have no place for electric appliances, automobiles, spinach, radios, and many other things which found a place on the 1938 comfort model. The budget of 1950 will undoubtedly make the present one look as antiquated as the hobble skirt."[6] As technology progresses and the general standard of living rises, three effects have an impact on poverty: new consumption items, initially viewed as luxuries, come to be seen as conveniences and then as necessities; changes in the way society is organized may make it more expensive for the poor to accomplish a given goal – say, when widespread automobile ownership leads to a deterioration in public transportation; and finally, general upgrading of social standards can make things more expensive for the poor, as when housing code requirements that all houses have indoor plumbing add to the cost of housing.

Once a poverty line has been established, it could be applied to data on incomes or on expenditure. Most analysts favor expenditure. In many cases, expenditure is far easier to measure. It also has a conceptual advantage. If incomes vary over time in fairly predictable ways (as they are likely to do in a rural economy, say), households can to some extent smooth

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[4] Rowntree, 1910, p.86.

their living standards from income variability. Anand and Harris (1994) address the choice of a welfare indicator using data from Sri Lanka. They conjecture, and find, that income is a noisy indicator of "permanent" income, while household total expenditure per capita is less noisy and thus preferred.[7]

Within this broad approach, many attempts have been made to improve estimates of poverty lines and overcome a host of conceptual and empirical difficulties.[8] The value of this effort depends on the use to be made of poverty lines and hence the required level of precision. We discuss and judge some of these efforts from the perspective of two possible uses of poverty lines – as a means of measuring poverty worldwide and monitoring changes over time, and as a means of designing specific actions oriented towards the poor.

A commonly used poverty line for monitoring progress in reducing poverty worldwide is the dollar-a-day measure introduced in the 1990 World Development Report. Based on the poverty lines actually used in several low-income countries,[9] this poverty line is expressed in 1985 PPP dollars and refers to household expenditure per person. This measure has several well-known deficiencies – it does not allow for cost-of-living differentials within countries (Ravallion and van de Walle, 1991), it does not distinguish between transient and chronic poverty (World Bank, 1990), it only values goods and services delivered through the market (van de Walle and Nead, 1994), it does not consider intra-household allocation of expenditure (Haddad and Kanbur, 1990), it deals in only a rudimentary fashion with differences in household size and composition (Lanjouw and Ravallion, 1995), and so on. Techniques exist to handle most of these concerns

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[5] Cited in Fisher, 1996.
[6] Cited in Fisher, 1996.
[7] They go on to argue that household food expenditure is an even better indicator of permanent income.
[8] For useful surveys, see Callan and Nolan, 1991, and Lipton and Ravallion, 1995.
[9] In 1985 PPP prices, the 1990 WDR used a range of income, from $275 to $370 per person a year, to permit cross-country comparison. The range spanned the poverty lines estimated for a number of countries – Bangladesh, the Arab Republic of Egypt, India, Indonesia, Kenya, Morocco, and Tanzania.

but only at a cost and only with appropriate data. The relevant question therefore is: when is it reasonable to ignore these complications and when are they critical?

The broad elements of the answer are clear. As far as overall monitoring is concerned, the important issue is the extent to which the quantitative significance of these deficiencies changes through time or differs across countries. While it is important to keep these factors in mind, their significance must be judged against our ability to measure poverty with any precision even in the best of circumstances. Measurement errors arising from different survey techniques, samples, timing, and so on make it doubtful that efforts to deal with some of the deficiencies noted above will greatly improve our ability to monitor progress in reducing poverty in the broad. Or, to put the same point differently, current methods, crude as they are, may well be adequate. Gauging the robustness of results through careful use of sensitivity analysis can provide some reassurance. This is all the more important in that the deprivation of someone living just above the poverty line is almost as severe as that of a person just below it. For this reason, it makes sense to use more than one poverty line.[10]

It is reassuring that the use of more than one line generally gives the same overall picture regarding the worldwide distribution of poverty and how it is changing over time. Table 1 illustrates this point for two poverty lines – one identifying the poor and the other the extreme poor as defined in the 1990 World Development Report. Whichever poverty line one uses, the incidence of poverty is highest in South Asia and sub-Saharan Africa and lowest in the Middle East and North Africa and East Asia. Similarly, whichever poverty line one uses, between 1985 and 1990 the incidence of poverty fell in South Asia, but increased in Latin America and sub-Saharan Africa. The survey data underlying these numbers cover 80 percent of the population in developing countries. Extrapolating to the total population, the higher of the two poverty lines, the widely used dollar-a-day poverty line for one individual at 1985 U.S. prices, indicates that about 1.3 billion people, or one in three, were living in poverty in the developing world in 1990.

Table 1: The Incidence Of Poverty

Poverty Line (1985 PPP$/person/month)	$21.00		$30.42	
Year	1985	1990	1985	1990
Region (% of population)				
• South Asia	36.76	33.31	60.84	58.60
• Sub-Saharan Africa	31.65	33.44	51.40	52.89
• Latin America	13.23	17.21	23.07	27.77
• East Asia	4.89	4.86	15.72	14.71
• Middle East & North Africa	1.33	0.54	4.49	2.52
Total	**18.25**	**17.79**	**33.88**	**33.52**

Source: Chen, Datt, and Ravallion, 1994.

The importance of precise measures of poverty increases when we turn to the design of specific, poverty-reducing actions because equal treatment of equals is one of the fundamental principles of public policy. Take the issue of rural-urban differentials in the cost of living. People migrating from rural to urban areas in a developing country may find themselves facing an entirely new set of prices, especially for housing and food staples. For example, according to Ravallion and van de Walle (1991), average dwelling rents in 1981 were six times higher in urban Java than in rural Java. Incorporating such huge differences into location-specific poverty lines can of course change the focus of poverty-oriented actions from rural to urban areas. But, the quality of the dwelling stock is often better on average in urban areas, and, once allowance is made for this, Ravallion and van de Walle conclude that the appropriate differential is much

[10] Dominance conditions are a more formal solution to the problem of uncertainty about the poverty line (Atkinson, 1987).

smaller – about 10 percent between urban and rural Java.[11] Thus, adjusting for cost-of-living differences may be important to ensure equal treatment of urban and rural dwellers, but the adjustment will usually be much less than that suggested by a simple comparison of prices.

Similarly, failure to allow for differential access to goods and services that are not purchased in the market can lead to misleading assessments of poverty. Thus, two equally poor households according to the dollar-a-day definition could have quite different levels of wellbeing if they have different degrees of access to free or heavily subsidized goods and services, or if they have different degrees of access to public goods. For example, the subsidy received by the poorest decile of the urban population through their use of hospitals and primary health centers in Indonesia in 1987 was twice that received by the poorest decile of the rural population (van de Walle, 1994). Similarly, if poor people are depleting common resources, the conventional estimates will overlook increases in pauperization. For example, Jodha (1995) points to the loss of common property resources in dry regions of India. Between 1950 and the early 1980s common areas declined by 31 to 55 percent in the study villages. One can see a manifestation of narrowed options for succeeding generations in the premature harvesting of trees to make up for the reduced availability of plant material, a process which is not reflected in the national accounts.

Assume that we have handled cost-of-living differentials and similar problems such as differences in household size and composition,[12] and that we have identified two equally poor households during the survey period. But if one household is experiencing a temporary fall into poverty while the other is chronically poor, the appropriate policy responses towards the two households should probably be quite different. Specifically, alleviation of chronic poverty

[11] Ravallion and van de Walle (1991).

[12] The choice of an "equivalence scale" that sets a proportion for children's needs versus those of adults can change commonly held views about poverty. For example, if economies of size are sufficiently strong then the negative relationship between size of household and expenditure per person can be reversed (Lanjouw and Ravallion, 1995).

demands increases in the poor's physical and human capital, or in the returns to their labor, while insurance and income-stabilization schemes are more appropriate for transient poverty. That said, instruments and objectives cannot be so easily segregated. The existence of an effective safety net or access to credit to smooth income fluctuations also has potentially important implications for the ability of the chronically poor to escape poverty, as we shall see.

Available panel data suggest that movement into and out of poverty is large. For example, data from the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) survey of six Indian villages from 1975 to 1983 showed that 50 percent of the population were poor in a typical year but only 19 percent were poor in every year (World Bank, 1990). Thus, a substantial core of chronically poor co-exists with considerable movement into and out of poverty. Jalan and Ravallion (1998) present a number of findings about rural China using panel data for six years, 1985 to 1990. They find that transient poverty, defined as the poverty that can be attributed to intertemporal variability in consumption, accounts for 37 percent of total poverty for those households that were below the poverty line on average. However, the extent of transient poverty drops to a negligible amount for households whose mean consumption is more than 50 percent above the poverty line. The authors also found that about half of mean poverty is attributable to variability in consumption in the poorer provinces, while in a relatively well-off province with higher average consumption it was much higher, at 84 percent of mean poverty.

The distinction between transient and chronic poverty has emerged as an important issue in the context of the East Asian crisis. The traditional concentration of poverty in Indonesia, the hardest-hit country, is in rural areas. Rural poverty has been declining in Indonesia, but in 1997 it was still at 12.4 percent, compared with 9.2 percent in the urban sector – with the result that 70 percent of Indonesia's poor were in rural areas in 1997 (Poppele et al. 1999). But the immediate impact of the crisis has fallen on the financial sector and the corporate sector and can, therefore, be expected to generate additional poverty in urban areas. Evidence in support of this view is now beginning to appear. A survey of 2,000 households suggests that incomes in urban areas have fallen by one third, whereas in rural areas the decline has been less than 15 percent (Poppele et al.1999). Allocating income support schemes – such as public works programs – according to the pre-crisis distribution of poverty would have missed many of the newly poor in urban areas.

Imagine that we have constructed poverty lines that truly treat equal households equally. Does this necessarily imply the equal treatment of equal individuals? The answer depends on how households allocate income or food to individual household members. To test the quantitative importance of moving from household-based measures to individual-based ones, Haddad and Kanbur (1990) use data on calorie intake by individuals based on 24-hour recall by the mother in a sample of rural households in southern Philippines. They find that ignoring within-household inequality understates total inequality – for example, the Gini index increases by about 35 percent when the base moves from households to individuals. On the other hand, rankings across groups producing different crops or having different tenurial status were not affected by the change in base.

The way in which households allocate income among members can have a significant impact on policy formation and implementation. In the unitary model,[13] which assumes a single utility function that governs the household as a whole, policymakers can only shift household allocation by shifting relative prices. Other models move away from the notion of income-pooling and a common utility function and assume instead that household members engage in a bargaining process or else behave independently (Manser and Brown 1980, McElroy and Horney

[13] Singh, Squire, Strauss (1986).

1981, Alderman et al 1995, Haddad et al., 1997). In these models, the impact that public transfers have on welfare may be affected by the identity of the recipient. In support of this, Thomas (1990) shows that the impact of non-labor income accruing to women in Brazilian households on per capita calorie and protein intake, fertility, child survival, and weight-for-height for children less than eight years old is different from what would have occurred had the income accrued to men. For example, unearned income accruing to the mother raises the probability of child survival by 20 times that of a similar increase in the unearned income of the father.

Similarly, if information is not pooled, then it matters to whom policy initiatives are directed. Faulty policy assumptions may result in the nonadoption of, say, new technology, or the adoption of projects that make a group worse off. For example, in the Dominican Republic, a reforestation initiative assumed that men and women used wood for the same purposes, and consequently only consulted men. Only mid-way through the project were women consulted, and it turned out that their needs for fuelwood were not met by the project — and it was too late for those needs to be addressed.[14]

The many difficulties of measuring poverty along conventional lines notwithstanding, the endeavor has seen considerable progress in the last 25 years thanks to the expanding availability of household surveys. Between the World Bank's first progress report on poverty in 1993 and its second one in 1996, the number of low-income and middle-income countries with household data on income or expenditure more than doubled from 31 to 71 (World Bank, 1996). This availability of household surveys of some form or other has improved our knowledge of poverty substantially and clarified the links between growth in national income and changes in inequality, the issue to which we now turn.

[14] Fortmann and Rocheleau (1989) in Haddad, Hoddinott and Alderman (1997).

Growth, Inequality, and Poverty

Those who viewed poverty as a lack of income or commodities naturally turned their attention to the expansion of per capita income -- economic growth -- as a potential strategy to reduce poverty. The only question was whether income expansion accrued as much to the poor as to the rest of society, or whether it left them behind. In 1955, Simon Kuznets called attention to the consideration of economic growth and income inequality, describing it as "central to much of economic analysis and thinking."[15] He examined the question with about 5 percent empirical information and 95 percent speculation, by his own account, suggesting explanations for – and theoretical arguments against – his scant data.[16] What is now known as the Kuznets curve or Inverted U Hypothesis comes from a hypothetical numerical exercise. The idea is that primarily agricultural economies start out with an initially equitable distribution with a low average, but that as they develop, portions of the population migrate to other sectors with greater inequality but higher averages. Initially, this causes inequality to worsen. But, as countries continue to progress, more of the rural sector moves out of agriculture and inequality eventually decreases. This picture was largely based on Lewis's dual economy theory (1954). In his numerical example, Kuznets observed that the share of the lowest portion of the population fell in all cases (but no such pattern was found in his data).

Kuznets based his speculation on longitudinal data from the development of industrialized countries, but many subsequent estimations used cross-country data to explore the hypothesis.[17] These studies found a pattern of significant increases in inequality as income levels rose, with ambiguous effects for poverty reduction, ranging from absolute impoverishment to slower than average gains. Later studies criticized the cross-country exercises for ignoring

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[15] Kuznets (1955).
[16] Most of his figures are from the United States, United Kingdom, and Germany, with some references to India, Prussia, Ceylon, and Puerto Rico (op. cit.).
[17] Ahluwalia et al. (1979), Paukert (1973), Chenery and Syrquin (1975) and Ahluwalia (1976).

country-specific effects and measurement differences, and also looked at newly available country time-series data.[18] The Kuznets U faded from view, leaving the conclusion that inequality and income are not systematically related according to some immutable law of development.[19] Thus, one study of 49 countries finds that there is no statistical relationship between inequality and income in forty cases (more than 80 percent of the sample). Four out of the remaining nine exhibited a U-shaped relationship rather than the inverted U hypothesized by Kuznets. So the Kuznets curve appeared in only 5 out of 49 countries.[20] Nor does there seem to be a simple relationship between inequality and growth. Chen and Ravallion (1997) found that inequality was not correlated with growth in mean consumption in 43 spells, a spell being a period for which two household surveys are available for a country.

In place of the Kuznets curve, the recent literature points to a different empirical regularity. As more time series data become available, it appears that aggregate inequality as measured by, say, the Gini index does not typically change dramatically from year to year. In fact, one study of panel data for 49 countries found that 91.8 percent of the variance in inequality was due to cross-country variance while only 0.85 percent was attributed to variance over time.[21] The same study also showed that few countries exhibited statistically significant trends over time. Thirty-two out of 49 countries revealed no trend, while 10 showed an increasing trend in inequality and 7 a decreasing one (Li, Squire, Zou, 1998). This is not to say that inequality does not change. Obviously it does and in some cases – China, Eastern Europe, UK – quite rapidly. Nevertheless, for many countries over long periods of time inequality is surprisingly persistent. And where inequality has changed rapidly, it has increased. We do not have solid evidence of rapid reductions in inequality. For the seven countries where inequality decreased in the Li,

[18] Anand and Kanbur (1993), Bruno et al. (1998), Deininger and Squire (1998).
[19] In his review of income distribution and development, Kanbur (1998) describes this conclusion as the "emerging consensus".
[20] Deininger and Squire, 1998., p.279.

Squire, and Zou sample the average rate of decrease was 0.3 Gini points a year. This implies that it would take about 60 years for a country with Latin American levels of inequality to move to the average of all developing countries.

That said, even small changes in aggregate inequality can have a significant impact on poverty. It is difficult to establish a simple formula relating changes in aggregate measures of inequality such as the Gini index to changes in poverty. Thus, the Gini index can increase or decrease and leave poverty unchanged if the distribution above the poverty line changes. And, poverty can increase or decrease without any change in the Gini index if there are appropriate offsetting changes in distribution among the non-poor. To explore the impact of inequality on the poor, we need to specify the change in distribution more precisely.

One specification that has received some attention[22] assumes that the Lorenz curve shifts by a constant proportion of the difference between the actual share of total income accruing to each income group and equal shares. This leads to analytically tractable elasticities of the Poverty Gap with respect to the Gini index.[23] Using the poverty line of one dollar a day, the elasticity can be as high as 8.2 (Brazil), 12.6 (Chile), and even 21.1 (Thailand). For countries with lower incomes and hence more poverty, however, the elasticities are much lower – 0.82 (India), 0.76 (Uganda), and 0.40 (Zambia). Nevertheless, the experience of two countries reveals the significance of sustained falls in inequality over time. From the early 60s to the early 90s, Thailand saw its Gini index rise by 0.31 Gini points a year; Norway saw its fall by a similar amount – 0.34 Gini points a year. In Thailand, the incomes of the poorest quintile grew at half

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[21] Li, Squire, and Zou, 1998, p.4.

[22] See Kakwani, 1980 and Lipton and Ravallion, 1995.

[23] The poverty gap is defined as the amount of transfer (perfectly targeted) required to bring every one up to the poverty line expressed as a proportion of the poverty line times the total population.

the rate of mean per capita income; in Norway they grew almost 80 percent faster than the mean.[24]

Moreover, while there is no evidence of any systematic link between inequality and the level of income, nor between inequality and the rate of growth (see evidence cited above), there may be a reverse relationship from initial inequality in income or assets to growth. Clarke (1996) conducts one of the most careful econometric studies in the literature and finds a strong negative and statistically significant effect of initial inequality in income on future growth. He concludes that a reduction in inequality from one standard deviation above the mean to one standard deviation below would increase the long-run growth rate by 1.3 percentage points a year. In contrast, subsequent research using higher-quality data have found a positive impact of initial inequality on growth (Li and Zou, 1998 and Forbes, 1998).

While the evidence on initial income inequality may therefore be mixed, several authors have found a strong relationship between growth and the initial distribution of various types of assets. For example, Birdsall and Londono (1997) find that the initial distribution of human capital affects future growth, while Deininger and Squire (1998) find that the initial unequal distribution of land reduces future growth. One thing to be careful of in these aggregate growth regressions is the possibility of an aggregation bias. Ravallion (1998) found such a bias to be quite large, and a consistent micro model of consumption growth at the farm-household level indicated a far more harmful effect of asset inequality on consumption growth. These conclusions point to the possibility of identifying redistributive policies that increase growth and could therefore yield a double benefit for the poor.

[24] Authors' calculation using the Deininger-Squire data base.

From Mechanical Relationships to Policy

Searching for a mechanical link between inequality and income is not likely to be fruitful. There exist too many different experiences. Nor does such an approach lead to policy insights (Kanbur, 1998). Both growth and inequality are outcomes of economic policies as well as institutional capacity, and are subject to external trends and shocks. Moreover, there is now a substantial empirical literature on the range of factors that influence growth (Barro and Sala-I-Martin, 1995, Easterly, et al., 1993) and a smaller one on the factors influencing inequality (Bourguignon and Morrison, 1990, Li, Squire, Zou, 1998). It is odd, however, that analysts have typically looked for mechanical links when investigating growth and inequality jointly, largely ignoring the role of policy. And when they have investigated the role of policy, they have usually looked at growth and inequality separately. Yet the key piece of information from the policy-makers' standpoint is how policies influence both growth and inequality.

Policies to help the poor should examine how to increase growth and improve equality at the same time, or at least how to mitigate inequality-generating growth with pro-poor measures. Lundberg and Squire (1999) demonstrate the importance of examining the impact of policy on both growth and inequality. They estimate separate "standard" growth and inequality equations based on the existing literature. These regressions reveal one common variable – education— that is significant in both equations. Education involves a trade-off -- it reduces growth but improves inequality. This is immediate confirmation that the separate treatment of growth and inequality could be quite misleading from a policy perspective.

The estimation of separate standard models indicates that three variables – openness, civil liberties, and land distribution – are exclusively significant either to growth or to equality. This suggests that the policy maker has ample room to choose a package of policies that benefits both growth and equality. But the three variables are mutually exclusive by assumption. Lundberg and Squire rerun the standard regressions but now they include all variables in both equations. In the joint model, land distribution and civil liberties are confirmed as mutually exclusive variables but openness now signifies a trade-off – it increases growth but worsens equality. Lundberg and Squire conclude that, at least for these simple models, the independent analysis of growth and inequality produces potentially misleading, or at least incomplete, results for the policy maker. Their results also suggest, however, that, even when growth and inequality are analyzed jointly, there are still likely to be mutually exclusive variables implying a degree of flexibility for the policy maker.

Lundberg and Squire also examine the joint determination of growth and inequality in more realistic specifications. Openness, financial depth, and land redistribution emerge as policies that consistently spur growth across different specifications. They also find that with the significant exception of openness to trade these policies benefit equality, although these results do not hold for all specifications and their quantitative impact is small. Indeed, a general result emerging from this analysis is that growth is much more sensitive than equality to policy interventions. For example, the elasticity of growth with respect to the index of openness is –0.33; with respect to inequality, it is 0.01. In no case does a variable have a relatively larger influence on inequality than growth. This is consistent with historical experience: growth rates are much more volatile than inequality.[25]

These results illustrate the importance of treating growth and inequality together. A strong growth performance with even a relatively modest reduction in inequality will have a tremendous impact on the incomes of the poor. Historical evidence supports this view. Data from the early 1960s to the early 1990s show that both Indonesia and Taiwan experienced rapid growth and at least no deterioration in inequality – for both countries inequality fell but the trend

[25] See Easterly et al. (1993) on growth and Li, Squire and Zou (1998) on inequality.

was not statistically significant. During this period, the poorest quintile in Indonesia saw their incomes increase at a rate of 4.8 percent a year; in Taiwan the poorest quintile did even better – an annual rate of growth of 5.8 percent.[26]

Understanding the policies and development strategies of these countries should provide valuable guidance for other countries. The 1990 World Development Report pointed to: a stable macroeconomic environment (to encourage private investment), relatively undistorted sectoral terms of trade (to avoid bias against agriculture), relatively undistorted factor markets (to avoid capital intensive production), and public provision of infrastructure especially to rural areas (to avoid urban bias). Another feature underlying the success of these countries was their emphasis on human development. They invested heavily in the education and health of their populations as a contributing factor to growth but also as a benefit in its own right. We look at this additional dimension of poverty in more detail in the following section.

III. HUMAN DEVELOPMENT

Measuring Human Development

A recent survey of poverty concludes that: "The generally preferred indicator of household living standards is a suitably comprehensive measure of current consumption, given by a price-weighted aggregate over all marketed commodities consumed by the household from all sources (purchases, gifts, and own production)."[27] This carefully worded statement summarizes well the conventional view on measuring poverty. In principle, this definition captures the value of publicly provided goods and services that are often supplied free of charge or else are highly subsidized as long as there is a relevant market price. In practice, however, this may not always be done. There are many such goods and services, but two which are almost

[26] Authors' calculations using the Deininger-Squire data set.

always supplied in this manner are basic education and health services. Moreover, the definition fails to capture public goods – spraying swamps to eliminate malaria for example – many of which influence health outcomes. Because the level and quality of basic education and health services, including public goods, varies significantly across countries, most analysts recommend the inclusion of social indicators in arriving at an overall assessment of living standards. For example, the 1990 World Development Report "supplements a consumption-based poverty measure with others, such as nutrition, life expectancy, under 5 mortality, and school enrollment rates."[28]

The key word in the preceding quote is 'supplements'— the social indicators are providing information not captured in conventional measures of poverty. Command over market-purchased commodities is important but so is access to public goods. An alternative approach treats income (or expenditure) as an input to other, more fundamental goals. For example, the focus of the 1980 World Development Report "is on *absolute* poverty – a condition of life so characterized by malnutrition, illiteracy, and disease as to be beneath any reasonable definition of human decency."[29] This represents a marked difference from conventional definitions in that it does not mention income or expenditure but focuses on wellbeing as revealed by nutritional status, educational attainment, and health status. To be sure, income may be important to the realization of these outcomes, but there is no universal or guaranteed transformation of income into these outcomes and, according to this view, it is the outcomes that count.

This view has received intellectual support from Sen's definition of poverty in terms of "capabilities".[30] Sen calls a capability the substantive freedoms people enjoy to lead the kind of life they have reason to value, such as social functioning, better basic education and healthcare,

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[27] Lipton and Ravallion, 1995, p.2573-4.
[28] World Bank (1990), p. 26.
[29] World Bank (1980), p. 32.
[30] Sen (1981) and (1984).

and longevity.[31] The arguments in favor of the capability approach are that: poverty can be characterized by capability deprivation, since these are intrinsically important while low income is only instrumentally significant; low income is not the only influence on capability deprivation; and the impact of income on capabilities is variable among different communities, families, and individuals. It is interesting to note that there is a connection going from capability improvement to greater earning power and not only the other way around. This points to the importance of a citizenry well-prepared to take advantage of economic opportunities.

The United Nations Development Program has played the leading role in defining poverty in terms of human development and has introduced several measures including the Human Development Index and, of particular relevance to the present discussion, the Human Poverty Index (HPI). This index concentrates on three aspects of human deprivation – longevity, literacy, and living standard. Longevity is measured by the percentage of people who die before age 40, literacy by the percentage of adults who are literate, and living standard by a combination of the percentage of the population with access to health services, the percentage of the population with access to safe water, and the percentage of malnourished children under five. While information on each aspect is valuable, aggregation into a single index raises a host of serious issues. Apart from the loss of policy-relevant information, aggregation requires the arbitrary selection of weights, a feature subject to considerable criticism in the literature.[32]

Unlike the conventional poverty measures discussed above, the HPI at best ranks countries across the world. Because they are national means – like GDP per capita – they tell us nothing about the poor. While governments are presumably interested in the life expectancy of all their citizens, just as they are presumably interested in the incomes of all members of the population, a special focus on poverty requires that we look at those who can expect to live the

[31] Sen (1999).

fewest number of years. National averages do not allow ranking of households within countries. And, as such, they cannot be used to distinguish the poor from the non-poor. This, of course, reflects the absence of household surveys that allow the computation of relevant distributions. For some measures of human development, however, household-level data are beginning to become available. Wherever such information is available, households that are poor according to an expenditure-based measure invariably score badly on other indicators of wellbeing. Tables 2 and 3 illustrate this point.

Table 2 shows that the poorest households by income level in five Latin American countries attain fewer years of education than richer households. In the poorest households the number of years of education for 25-year-olds ranges from about one half to one fifth of that attained by their counterparts in the wealthiest households. In each country, the number of years of education increases steadily as one moves up the income scale.

Table 2: Average Years Of Education For 25 Year Olds By Income Level Data From Recent Household Surveys For Five Latin American Countries

Decile	1	2	3	4	5	6	7	8	9	10
Chile	6.24	6.88	7.09	7.40	7.69	8.16	8.47	9.80	10.88	12.83
Brazil	1.98	2.49	2.97	3.41	3.66	4.40	4.49	5.98	7.43	10.53
Mexico	2.14	2.95	3.78	4.15	4.78	5.66	6.06	7.24	8.89	12.13
Peru	3.87	4.17	4.95	5.69	6.60	7.05	7.66	8.28	9.04	10.80
Venezuela	4.66	4.94	5.27	5.72	6.23	6.68	7.20	7.78	8.58	10.81

Source: Facing up to inequality in Latin America, Inter-American Development Bank, 1998.

[32] See, for example, McGillivray and White (1993), and Ravallion (1997) on the subject of the similar Human Development Index.

Table 3 reveals an almost identical (but opposite) picture for sickness and wealth in developing countries. The very poor are generally much sicker than the rest of the population. For the sample of Asian and African countries shown in Table 3 the proportion of children born in the past 5 years but no longer living is between 3 and 6 times larger for the poorest decile than for the richest decile. In two of the countries – Tanzania and Uganda – almost half the children born in the poorest decile in the past five years have died. As with education but in reverse, the table reveals a steady decline in this measure of child mortality as wealth increases.

Table 3: Proportion Of Children Who Were Born In The Past 5 Years Who Are No Longer Living, By Wealth

Decile	1	2	3	4	5	6	7	8	9	10
Bangladesh	0.19	0.13	0.10	0.09	0.08	0.10	0.07	0.09	0.09	0.06
Indonesia	0.25	0.14	0.08	0.06	0.06	0.05	0.05	0.05	0.04	0.04
Madagascar	0.25	0.14	0.13	0.10	0.1	0.10	0.10	0.09	0.08	0.08
Pakistan	0.18	0.10	0.10	0.09	0.09	0.07	0.08	0.07	0.07	0.06
Tanzania	0.49	0.18	0.13	0.14	0.11	0.10	0.08	0.07	0.07	0.09
Uganda	0.48	0.19	0.16	0.14	0.13	0.09	0.12	0.09	0.09	0.07

Source: Bonilla-Chacin and Hammer, 1999, from Demographic and Health Surveys (DHS) conducted by the MACRO corporation for USAID.

It should not be concluded from this evidence that the identification of the poor according to different dimensions of poverty will lead to exactly the same results. A study using data collected in 1985 in Côte d'Ivoire showed relatively modest correlations between different measures of poverty. Of the 30 percent of the population identified as poor by a measure based on consumption per capita adjusted for family composition, less than half were so identified where the criterion was the average education level of adults (Glewwe and van der Gaag, 1990).

A similar conclusion emerges from a study of six developing countries – "Individuals with lower incomes on average also have lower welfare in other dimensions... However, it is also noticeable that the correlations are rather modest – income usually explains very little of the variation in non-money metric welfare indicators" (Appleton and Song, 1999, p.25). This study, however, makes no allowance for family composition in arriving at its measure of per capita consumption. Thus, while there is clearly an overlap -- those who lack income are also those who are less well educated and suffer more sickness -- the correspondence is less than complete and can, in some cases, be quite small.

We saw earlier that the poor, on balance, gain from broad-based growth (they certainly have little to gain from contraction or stagnation). From this perspective then a poverty-reducing strategy that does not give a central role to equity-improving growth is unlikely to be successful. How should the strategy change if the definition of poverty is expanded to incorporate human development as measured by, say, life expectancy or literacy? This extension captures important dimensions of poverty that are otherwise missed by conventional income or expenditure measures especially as used in applied work. It serves to remind us that there are additional policy instruments that need to be kept in mind. Moreover, there are important interactions at play – both among various elements of human development and between those elements and growth.

The Seamless Web

A society faced with the task of providing social services to the poor may well wonder where to begin. The lives of the poor are ringed with a tangle of vicious circles, with the virtuous circles seemingly hovering just out of reach. These interactions have been recognized for some time. WDR1980, for example, stresses that the "different elements of human development are key determinants of each other" (p.68) and speaks of the "seamless web of interrelations" (p.69).

Efforts to improve on past performance in delivering social services are better informed than ever about these interactions.

For example, many studies have shown that mothers' education has a strong positive effect on their children's health. We now know that this occurs because education enables the mother to obtain and process information. Thus, a study using data from northeastern Brazil for 1986 shows that parents who regularly made use of the mass media had healthier children as measured by height for age. Once variables for use of the media are included, mother's years of schooling no longer have an independent effect. One interpretation of this result is that education is necessary for mothers to process information, but that access to relevant material through the mass media is necessary for education to have an effect on child health (Thomas, Strauss, and Henriques, 1991). A study using data for Morocco from 1990-91 provides support for this interpretation. It found that a mother's basic health knowledge had a direct effect on child health, and that education and access to media were shown to be the vehicles for acquiring that knowledge (Glewwe, 1997).

And there are many studies showing that better health improves school attendance and performance. Often, however, these studies use cross-sectional data and rely on recall. To overcome this problem, a recent study uses longitudinal data to investigate the impact of child health and nutrition on school enrollments in rural Pakistan. Unlike most other work, these data allow the authors to relax the assumption that child health and nutrition is predetermined rather than determined by household choices. Their preferred point estimates indicate that child health/nutrition is three times more important for enrollment than conventional approaches would suggest (Alderman et al., 1997). They also find that the effects are larger for girls than for boys. While this study demonstrates that better child health and nutrition induces greater schooling, its methodological point increases our confidence in the results of previous work indicating a positive effect on performance as well.

Human Development and Growth

In addition to the interrelations among various aspects of human development, there are important linkages between human development and income earning capacity – income is a major determinant and outcome of human development. The specific way in which the poor participate in growth tends to be through increased or more productive use of "their most abundant asset," labor. But part of the intrinsic characteristics of poverty – lack of education, poor nutrition and health – also contribute to functional effects on their capacity to work. Some of the links that either enhance or impair the poor's capabilities may give an idea of the multifarious interactions between human development and growth. For example, a well-nourished person can work more, thereby earning more and both consuming more and saving more, ensuring future nourishment and work capacity. Similarly, a person with primary education can take a higher-paying job, ensuring the ability of her children to attend school. We briefly illustrate from the extensive empirical literature on these links.

Drawing on data from a survey of 1,725 households in Conakry, Guinea in 1990, Glick and Sahn (1997) examine the impact of education on labor earnings by sector of employment. Two results are noteworthy. First, education raises the earnings of men and women in the three sectors examined – self employment, private wage employment, and public wage employment. Thus, even in a very low-income urban area such as Conakry the benefits of schooling are clearly visible. And second, the authors note that the informal sector (which overlaps with the small enterprises of the self-employed) is expected to be an important source of job growth in Africa. Even here, earnings are shown to increase with level of education. For example, completing primary schooling raises the hourly enterprise profits for self-employed women by 30 percent.

Measures of nutritional status and health status have also been shown to have positive impacts on wages and productivity. Moreover, these impacts are greater for the poor than the non-poor. Strauss and Thomas (1997) show that controlling for a range of factors taller men in the U.S.A. earn more – a one percent increase in height is associated with a 1 percent increase in wages. The same relationship for Brazilian males is much more powerful – the same 1 percent increase in height implies a 7 percent increase in wages. In their survey of the literature, Strauss and Thomas (1998) conclude that improvements in health do result in increases in productivity and wages and, more importantly for present purposes, the "effects are likely to be greatest for the most vulnerable – the poorest and those with little education."

Without these basic building blocks, the poor are unable to take advantage of income-earning opportunities that come with growth.[33] At the same time, society suffers the loss of their potential contributions. Therefore, the provision of basic social services, besides being important in its own right, constitutes an important element in the growth of a society. As one would expect, national comparisons do indeed indicate a broad correlation between income levels and life expectancy, literacy, infant mortality and so on. But growth in income by itself does not necessarily translate into improvements in health status or educational attainment; nor does improved health or better education necessarily lead to increases in income.

For example, there are some striking outliers from the general correlation between income and other measures of wellbeing. The 1994 Human Development Report showed Sri Lanka, Nicaragua, Pakistan, and Guinea all with per capita incomes in the $400-$500 range, but life expectancies of, respectively, 71, 65, 58 and 44 years, and infant mortality rates of, respectively, 24, 53, 99 and 135 per 1000 live births. Outliers often provide valuable insights but there are at least two interpretations in this case.

First, the resources generated by growth may not be used in a way that promotes improvements in other indicators. Growth provides an opportunity but that opportunity has to be seized. Anand and Ravallion (1993) provide support for this view. For a sample of 22 countries, they show that the observed relationship between improvements in life expectancy and increases in mean income disappears once measures for income-poverty and public spending per capita on health are introduced. This suggests that growth in mean income translates into improvements in life expectancy only if growth reduces poverty (increases in the income of the poor are critical to significant improvements in life expectancy) and if adequate provision is made for public healthcare. It is the way in which the fruits of economic growth are used that is critical. Sri Lanka has used its income effectively in this view, whereas Guinea has not.

But there is a second interpretation as well. The structure of incentives and the complementary investments to ensure that society, and especially the poor, reap maximum benefit, including increased incomes, from investment in education and health may not be in place (Squire, 1993). There is evidence in support of this view especially for education. Thus, cross-country regressions suggest that the impact of growth in educational capital on growth in GDP per worker are "consistently small and negative" (Pritchett, 1996). Pritchett squares the circle between the apparently positive effect of education at the individual level and its apparently insignificant effect at the aggregate level by distinguishing between rent seeking and productive activities (Murphy, Shleifer, and Vishny, 1991). If the returns to being educated are to be found at least in part in rent seeking then the individuals receiving education will enjoy

[33] For example, Ravallion and Datt (1999) show that non-farm economic growth in India's states was less effective in reducing poverty in states with poor basic education.

increases in income but national income will not necessarily rise. According to this view, countries like Sri Lanka have enjoyed the immediate benefits of better health and more education but have not realized the increases in income that could accompany them.

The argument that growth does not necessarily translate into social progress and the argument that improvements in health and education do not necessarily lead to higher incomes can, of course, be turned around. Where countries have used the benefits of growth to finance basic healthcare and access to education for all, and where countries have put in place incentive structures and complementary investments to ensure that better health and education lead to higher incomes, the poor have benefited doubly – they are healthier and better educated, and they have increased their consumption. The 1990 World Development Report made progress on these two fronts the foundation of its two-part strategy, arguing that they were mutually reinforcing and that one without the other was not sufficient.

Most of the East Asian countries, prior to the recent crisis, illustrate what can be achieved. Poverty fell dramatically in East Asia from 1975, when roughly six out of ten East Asians lived in absolute poverty, to 1995, when only about two did. At the same time, and in part propelling these achievements, governments invested in human capital through public expenditures on education and health. Over the same 20-year period, life expectancy increased by more than 9 years, the average years of education rose by 60 percent, and infant mortality fell from 73 per thousand births to 35.[34] While these achievements may be eroded to some extent during the current crisis, their lasting impact will still represent a degree of progress not seen elsewhere.

Several recent empirical studies at the household level using panel data provide further support for a strong interaction between human development and growth in incomes. For

[34] Population-weighted averages for Indonesia, Korea, Malaysia, Philippines, Thailand, and Taiwan.

example, a panel of 891 households in Peru was studied during the period 1994 to 1997. The study found that the higher the education of the household head in 1994, the larger the growth in per capita expenditures in the subsequent period (Chong and Hentschel, 1999). Similarly, panel data for 2,678 Vietnamese households covering the period 1993 to 1998 came to the same conclusion – while on average those households whose head had no education saw expenditure per capita decline, on average all households whose head had primary education or more saw per capita expenditure increase, with the increase for those with upper secondary education being three times that for those with primary education (Zaman 1999).

Incorporating other dimensions of poverty – longevity and literacy – into our definition expands considerably the range of policy instruments available to alleviate poverty. Even if their incomes do not increase, policies that improve the health of individuals and increase their capacity to absorb and exchange information improve the quality of their lives. But, and this is the lasting lesson of pre-crisis East Asia, where policies and programs to improve health and expand education are combined with government action designed to promote investment and broad-based growth, the benefits to the poor are that much greater. Additional country-level research to illuminate the appropriate balance between policies for countries at different levels of development would yield valuable lessons. Transferring such lessons to the countries of sub-Saharan Africa and South Asia, home to 70 percent of the world's poor, still remains an important challenge in the fight to reduce poverty. Yet even as this challenge goes unanswered, new challenges are coming to the fore. The risks to the poor and non-poor alike of large fluctuations in capital flows are now abundantly visible in East Asia. And, as we shall explore in the next section, risk manifests itself in a multitude of forms as far as the poor are concerned.

IV. VULNERABILITY AND VOICE

Asking the Poor

Conventional measures of poverty draw heavily on the statistical information contained in household surveys combined with a more or less arbitrary cut-off separating the poor from the non-poor. An alternative empirical approach to measuring poverty involves asking people what, to them, constitutes poverty. Initial investigations along these lines were designed to elicit information about an expenditure-based or income-based poverty line. For example, respondents might be asked: what income would they consider to be the minimum needed to make ends meet?[35] More recent work – participatory poverty assessments – are much more open-ended, interactive and qualitative and allow people to describe what constitutes poverty in whatever dimension they choose.

Participatory surveys are designed to learn how individuals from various social groups assess their own poverty and existing poverty reduction strategies; how various survival strategies operate; which government poverty reduction strategies people prefer; and which they are prepared to support. The findings are meant to refocus, elaborate, or validate conclusions drawn from conventional poverty assessments.[36] At the same time, participatory poverty assessments pay special attention to process with the aim of engaging a range of stakeholders, generating involvement, maximizing local ownership and building commitment to change. Each one is different, reflecting the country context, the time available and the information needs of policymakers.[37] Thus, the specific questions each one addresses will vary widely.

[35] See for example Goedhart, et al. (1977) and Hagenaars (1986).
[36] Salmen (1995).
[37] Narayan and Nyamwaya (1996).

The World Bank began systematically requiring a poverty assessment of each country as a result of the findings of the 1990 WDR.[38] Poverty assessments use a variety of sources to diagnose structural causes of poverty. Taking their cue from researchers such as N.S. Jodha, Robert Chambers, and Lawrence Salmen who had been asking the poor for their own assessments of their economic status, the poverty assessments began in 1993 to include participatory surveys of their own. The participatory poverty assessments draw their methodology from other analytical instruments used in the World Bank: beneficiary assessments, designed to obtain client feedback, and participatory rural appraisals, which involve the stakeholders in forming a rapid understanding of a particular location. As of July 1998, 43 policy-oriented participatory surveys had been undertaken at the World Bank, with at least ten more now underway. Of the 43 completed participatory assessments, 28 were in Africa, 6 in Latin America, 5 in Eastern Europe, and 4 in Asia.

Although expressed in many different ways, two aspects of poverty that emerge from participatory assessments and which are not captured in conventional surveys seem especially important. One is a concern with risk and volatility of incomes, and is often expressed as a feeling of vulnerability. In talking about their situation, the poor detailed the ways in which fluctuations, seasons, and crises affected their well-being. From these descriptions, we come to understand the particular importance of poverty not just as a state of having little, but also of being vulnerable to losing the little one has. The poor also described their interactions with government employees and institutions, revealing another important aspect of life in poverty: lack of political power. This lack of voice and political rights, often described as a sense of powerlessness, is the second dimension of poverty revealed by participatory assessments and is described by some as the most fundamental characteristic of poverty.

[38] World Bank (1991).

Vulnerability "has two sides: the external side of exposure to shocks, stress and risk; and the internal side of defenselessness, meaning a lack of means to cope without damaging loss".[39] Outside sources of risk range from irregular rainfall and epidemics to crime and violence, as well as the structural vulnerability of homes and civil conflict. During the civil war in Tajikistan, economic activity in the affected areas ground to a halt, and in its aftermath, women without grown males to protect them still felt particularly vulnerable. Thus, the poor perceived peace and security as the highest priority, even over better food and shelter. With peace, people in Tajikistan felt that the economic and political situation would improve and so would physical security (World Bank, 1998a). Faced with a great deal of risk, the poor try to minimize their vulnerability to disaster by diversifying their income. For example, in Kenya, the poor engage in activities such as small-scale subsistence farming, peddling and hawking, manual labor, illicit brewing, welding and cobbling, and operating small-scale businesses. But as we shall see, these kinds of coping mechanisms are inadequate.

The poor suffer from risk because they lack the means to protect themselves adequately against it – this is what makes them vulnerable. If a contingency occurs, the poor have few assets to dispose of in addressing the problem, or the depletion of those assets must plunge them further into long-term poverty. And they often cannot borrow to meet their needs. In Kenya, only 4 percent of the poor had access to credit through banks and another 3 percent through cooperatives, mainly because property requirements exclude them. Thus the poor in Djibouti, Zambia, and Tajikistan associate poverty with insecurity, uncertainty, and vulnerability.[40]

The Zambia participatory poverty assessment points out that definitions of poverty and vulnerability at the local level often pick out characteristics that refer to people who are at or beyond the margins of the local community, since an entire village community may well be

[39] Chambers (1995).

below a standard national "poverty line" measure, but most will still conceive of themselves as coping. Frequently the idea of a secure livelihood is perceived as more important than maximizing income, and thus the local understandings of people about their livelihoods have more to do with vulnerability than poverty (World Bank 1994, p. 34). For example, the report presented evidence that growing a wide spread of crops in terms of both food supply and cash income reduces the vulnerability of populations to both environmental and market-based shocks and reduces the seasonal dimension of vulnerability as well. Still, common characteristics associated with the rural poor are a combination of age, childlessness and social isolation for widows and divorcées, illustrating how vulnerability means lacking the means to cope.

In Cameroon, the poor in all regions distinguish themselves from the non-poor on five main criteria: the presence of hunger in their households; fewer meals a day and nutritionally inadequate diets; higher percentage of their meager and irregular income being spent on food; non-existent or low sources of cash income; and a feeling of powerlessness and an inability to make themselves heard (World Bank, 1995). This last factor can be seen in concrete terms by the inability of most poor in Cameroon to obtain an identity card, which makes them legally nonexistent, unable to vote, barred from work, travel, and economic activities such as having a bank account or obtaining a loan. One retired man in Yaoundé, the capital, said: "The more time passes, the more poor we become; on top of that, we have no security anymore, everywhere we are insulted, pushed aside; and we here are poor, even the government ignores us (Mfoulou et al., 1994 p. 139)." A widow announced, "Everywhere, health, food, and school is for the bigwigs who took all the money… (p. 140)." Thus, while income or income-related dimensions of poverty feature prominently, the participatory approach unearths the poor's concern with isolation and powerlessness.

[40] World Bank (1994, 1997 and 1998a).

Economically marginalized groups tend to be socially marginalized as well, so that they are disadvantaged with respect to both resources and power.[41] In Kenya, Cameroon, Gabon, and Zambia, the poor reported that they felt powerless and unable to make their voices heard. In Gabon and Zambia, the government carried out projects without consulting the communities that were meant to benefit from them, and in Kenya the poor complained that district officials tended not to go to villages or only passed through quickly without talking to the poor about their problems. Interviews with those officials revealed that they were unaware of basic characteristics of the lives of the poor; for example, they didn't know that health clinics regularly charged fees to the poor (Narayan and Nyamwaya 1996).

Where there is interaction between those in power and the poor, it can be very lopsided. A 1995 participatory poverty assessment in Mexico found that custom dictated a patron-client relationship between politicians and the people, called clientilismo, in which political leaders provide services or favors in exchange for votes. This trading is the only way that the poor acquire land, housing, and urban infrastructure such as water and electricity. The system of strong vertical channels has led many to perceive a lack of opportunities to act individually or as a collective group in their own interests and undermined their willingness to take any initiatives.

The evidence cited above gives a flavor of the complexity and diversity in people's views about poverty. Their views on the causes of poverty and its cures can influence public efforts in ways that may be overlooked by conventional surveys. Their insights indicate actions with high benefits for poor people for relatively low financial costs. For example, access to healthcare emerges as a high priority for the poor in rural and urban communities in Zambia. Yet, the poor consistently complained that staff in hospitals and clinics were rude and arrogant to them (World

[41] Salmen (1995). He goes on to say that in-depth listening to the poor would reveal whether getting out of poverty is more a problem of lack or absence of representation or lack of material resources, an issue of key importance in poverty reduction.

Bank, 1994). In response to the findings of the participatory poverty assessment, the World Bank's Social Fund supported some of the priorities identified by communities, and a health project now includes cost recovery conditions as identified in the assessment: drought-stricken areas are exempt from paying health fees, and the Ministry of Health has increased resources allocated to rural areas in an effort to empower and decrease the frustration of health workers (Robb 1999). The same participatory survey revealed a problem with respect to school fees, uniforms, books and materials for rural households. These expenditures typically occurred in the pre-harvest season when incomes are low and available cash is needed for emergency stocks of food to cover the period up to the harvest. This pointed to the need for stretching school expenses over the year or shifting them to another point in the year, policies which the Ministry of Education is now considering (Robb 1999).

Thus, participatory surveys can enrich our understanding of the poor and lead to public action that is perceived by the poor to be of benefit to them. That said, these extensions – especially vulnerability and powerlessness – probably do not change our view of who is poor significantly. This is difficult to establish in any precise way. As is the case with indicators of human development, we do not have household-level measures of vulnerability or powerlessness and so cannot distinguish the poor (in these dimensions) from the non-poor. Moreover, measures of exposure to risk could be very high for individuals with very large incomes. This is clearly not what people have in mind when they refer to vulnerability.

Empirical evidence on the overlap between these measures of poverty and a consumption based one are scare. The one frequently cited study – Jodha (1988) – has been questioned by Moore, Choudhary, and Singh (1998). Jodha claimed that the majority of households who had experienced a decline in income by at least five percent between 1963-66 and 1982-84 in two villages in Rajasthan reported that they were better off according to several other criteria such as lesser resort to "emergency" income-earning strategies. Moore et al., point out that the provision of many public services had improved over this period. Piped drinking water had been provided for example. They also question the evidence on the decline in private income. Moore et al., comment "There is no convincing evidence that the poor place a very high value on independence, respect, or personal autonomy if that is to be traded off against food when they are hungry" (Moore et al, 1998, p. 17).

Since vulnerability and powerlessness emerge clearly from participatory surveys, one way of testing whether conventional measures of poverty coincide with measures based on vulnerability or powerlessness is to ask whether conventional surveys and participatory surveys identify the same people as poor. In Kenya, for example, we can compare the findings of the 1995 participatory survey using "wealth ranking" with those of a 1992 National Welfare Monitoring Survey based on an established poverty line.[42] Where cluster sampling was carried out carefully (and drought did not seriously affect the district in the intervening years), the estimates of poverty from the participatory survey end up being virtually identical to estimates from the national survey. In the district of Bomet, the two estimates were 64 percent (participatory) and 65 percent (national); in Busia, the respective numbers were both 68 percent, and in Nyamira, they were both 54 percent.

As more points of comparison become available, the conclusion suggested by the Kenyan example will be confirmed or else modified. One interesting comparison comes from fieldwork in Lugazi, Uganda. The authors administered a questionnaire to 384 households, and conducted a series of participatory community meetings throughout Lugazi with attendance ranging from 50 to 225 people. The purpose of both exercises was to ascertain willingness to pay for improved water and sanitation service levels. The results are broadly similar. For example, the

[42] Narayan and Nyamwaya (1996).

household survey indicated that one third of households would connect to a piped water supply at the specified price, while the community meetings suggested that one quarter might do so. The authors argue that these differences are not significant from a policy perspective. They also note, however, that the two approaches resulted in samples with significantly different socioeconomic characteristics – despite "best practice" techniques in both cases different samples of individuals were consulted (Davis and Whittington, 1998). Their results both point the way and suggest the need for additional research to identify the relative strengths and weaknesses of different approaches and how best to make use of conventional surveys and participatory approaches.

Coping with Risk

We have spoken of health and education for the poor as important components of a poverty-reducing strategy in their own right and as essential building blocks to help the poor increase their incomes. Underlying this we can identify other factors that provide the platform for reducing poverty. In particular, actions that reduce risk or provide insurance against risk expand the range of opportunities available to the poor and position them to take better advantage of strategies to reduce poverty whether it be with respect to health, education, or income-earning possibilities. How does recognizing the importance of risk influence poverty-reducing strategies?

Increasingly, we are realizing that even such victories as the poor can achieve in improving their lot, no matter how virtuously linked to increasingly better outcomes, ultimately suffer from excessive fragility. Risks associated with being poor may wipe out hard-won gains overnight. Indeed, as we have seen, one of the most common features alluded to in contemporary descriptions of poverty is risk. In many cases, risk prevents the poor from undertaking possibly high-return activities. The problem of risk has at least two dimensions, then: keeping the poor in low-risk, low-return activities, and endangering what they already have. The usual remedies for risk – borrowing and insurance – are rarely available to the poor and their absence lies at the heart of many of the disadvantages the poor must face.

A well-known study of money lenders in Chambar, Pakistan in the early 1980s illustrates the problem in the credit market. Money lenders invest considerable time and effort in ascertaining the creditworthiness of would-be borrowers. Lacking collateral, the poor require more scrutiny than others. Even if an applicant successfully overcomes this hurdle (the rejection rate was around 50 percent), the money lender usually begins with a small loan to test the waters. The combination of high administrative cost and small loan leads inevitably to high interest rates. The average rate charged by money lenders in Chambar was 79 percent a year (Aleem, 1993). At these rates, the poor are effectively excluded. Similarly, insurers lack a reliable means of assessing effort on the part of those seeking insurance especially in agricultural contexts and thus cannot identify the real cause of, say, a crop failure (Hazell et al., 1986).

The lack of credit and insurance bear heavily on the poor. For example, a study of rural households in south-western China for the period 1985-90 found that the loss of one year's income due to crop failure led on average to a 10 percent decline in consumption in the following year for the richest third of households. This is significant but manageable. In contrast, for the poorest tenth of households the average decline was a devastating 40 percent in the year following a crop failure (Jalan and Ravallion, 1999). Similarly, in the South Indian villages intensively surveyed over 10 years by ICRISAT the average coefficient of variation of household income was 40 percent; for farm profits it was over 125 percent (reported in Morduch, 1995).

Poor households react to income volatility in two ways. They may adopt production plans or employment strategies to reduce their exposure to the risk of adverse income shocks even if this entails lower average income. And, in addition to such efforts to smooth income, they may also try to smooth consumption by creating buffer stocks, withdrawing children from school, and developing informal insurance and credit arrangements. These efforts are both costly and inadequate. The cost arises because the poor face a bitter trade-off: they can accept risk that could lead to disastrous fluctuations in consumption, or minimize risk in ways that perpetuate poverty. And their efforts are inadequate because risks remain especially at the village, region, or national level against which the poor themselves are unable to insure. We illustrate these points briefly.

With respect to costs, Morduch uses the ICRISAT data to show that households which are more vulnerable to income shocks devote a smaller share of their land (9 percent) to risky, high-yielding varieties compared with about 36 percent for households with better access to coping mechanisms (Morduch, 1990). And Jacoby and Skoufias (1997) show that when hit by a drop in income, poor households withdraw their children from school. They find that a 10 percent decline in agricultural income across agricultural seasons leads to a fall in school attendance of about five days in a sample of six Indian villages. Thus, whether they reduce income or reduce schooling, these and other coping mechanisms, although providing some protection in the short run, limit their long-run prospects of escaping poverty.

And with respect to inadequacy, informal mechanisms of insurance are unlikely to be able to cope with systemic risk. In four Muslim villages near Zaria in northern Nigeria, a 1988-89 survey revealed the importance of informal credit transactions – over one half of the households had both borrowed and lent during the survey period, and only one tenth of households had neither borrowed not lent. Loans between villages, however, are much less prevalent than loans within villages. And yet more than half the variation (58 percent) in agricultural output in the region was caused by aggregate shocks that affected entire villages. No matter how good the within-village insurance mechanisms, villagers were unable to protect themselves from one of the biggest sources of risk (Udry 1990 and 1994).

To counteract the effects of crises on the poor, governments must provide safety nets to cushion the blows and keep the way open for the future. Their ability to do so is benefiting from two recent innovations. The information problems that so plague credit and insurance markets are being overcome through group screening and monitoring and through self-revelation of information.

The costs of collecting information (see the Chambar example above) and enforcing repayment can be significantly reduced through group lending. Since groups of poor people may know quite a bit about each other and have many opportunities to interact and enforce their social expectations of each other's behavior, such groups may apply for joint loans and monitor each other to ensure repayment. Thus the information burden to the lender is significantly reduced and the poor pay less for the uncertainty lenders have about them. This idea, pioneered by Grameen Bank in Bangladesh, has now spread in various forms to many countries. About ten million households worldwide are served by microfinance programs. Repayment rates are high – Grameen, for example, boasts a repayment rate above 95 percent. Interest rates are lower than those in the informal market, and more than 30 programs operate without any subsidy at all (Morduch, 1998a).

As one might expect, not all programs are equally successful in all dimensions. Thus, the programs that have been most successful in reaching the poor remain far from financial sustainability. Grameen Bank, for example, has reached over two million borrowers, 94 percent of whom are women, by charging relatively low rates of interest – 20 percent a year. To operate without any subsidies, however, Grameen would have to increase interest rates to 33 percent a year (Morduch, 1998a). Group-lending schemes have succeeded where others had failed, in providing credit to the poor, but, as Morduch (1998c) notes a large number still face the problem of high operating costs. He goes on to propose two options. Focus on simple programs to reach the poor such as the simplified administrative procedures and 'minimalist credit' approach practiced by Bangladesh's Association for Social Advancement[43] Alternatively, or jointly, governments and donors could undertake to subsidize the administrative costs of programs with significant poverty-focussed outreach. The relevant issue here is whether subsidies used for this purpose are a better way of helping the poor than subsidies used for other purposes and that calls for careful evaluation of the impact of alternative actions.

As far as group-lending is concerned, the evidence is mixed. Some find evidence of substantial benefit. Pitt and Khandker (1998a) for example estimate that household consumption increases by 18 taka for every 100 taka lent to a women and by 11 taka for every 100 taka lent to a man. They also find evidence that access to credit improves the borrowing household's ability to smooth consumption across seasons (Pitt and Khandker, 1998b). However there is also evidence that significant rises in consumption arise primarily for moderately poor households who borrow beyond a threshold loan size (Zaman 1998).[44] Using the same data as Khandker and Pitt and correcting for a possible error in their selectivity correction, Morduch (1998b) finds no increase in consumption but does find evidence of consumption smoothing.

Even if the benefits of group-lending are limited to consumption smoothing, this may lead to long-run gains that are not being captured in the surveys currently available. As we have noted above, the ability to smooth consumption is important not only for its immediate benefit but because it may help households pursue longer run strategies to escape poverty that might otherwise be considered too risky. The issue of interlinkages is also evident in another way.

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[43] The term 'minimalist' credit, where only loans are provided, contrasts with the 'integrated credit' approach practiced by BRAC in Bangladesh where some loans are supplemented with a package of extension services, training and marketing support.

[44] Zaman (1998) estimates this threshold as 10000 taka in cumulative loans.

There is evidence that participation in micro-credit programs leads to an improvement in nutritional indicators and on children's schooling (Khandker 1998) and that access to credit has an 'empowering' effect on female borrowers giving them greater control of various aspects of their lives (Hashemi et al. 1996).[45]

Savings offer another means of smoothing consumption. While many of the microfinance schemes have not focused on savings mobilization, some successful schemes are emerging. Bank Rakyat Indonesia (BRI) introduced a saving program called SIMPEDES in 1986 that offers modest interest rates but allows withdrawals at any time. It also runs a lottery, with the chances of winning linked to the size of deposits. By 1988, over 4 million poor households were participating. This increased to 16 million by the end of 1996 (Morduch, 1998a). As a result, BRI has access to a relatively cheap source of funds amounting to $3 billion in 1996, and households can accumulate assets as well as smooth consumption.

A second important innovation is self-revelation of information. This has been used effectively in public works schemes. For example, in Chile, a large public works program in the wake of a major crisis in the 1980s succeeded in part because it set wages low enough to ensure that the most needy were the main participants.[46] A World Bank project in Argentina in 1997 offered low-wage work on community projects in poor areas, and more than half the participants were from the poorest 10 percent of the population.[47] These and many other examples now provide a convincing argument that the basic approach has merit. Issues now revolve around how to keep administrative costs down and how to draw the balance between asset creation and insurance. Programs that offer guaranteed employment provide the greatest insurance but may not create the most productive assets.

[45] Hashemi and Schuler (1996) develop an empowerment index made up of indicators such as female mobility, ownership and control over resources, decision-making over household purchases etc. They show that borrowing from Grameen and BRAC has a significant impact on empowerment controlling for a range of other factors.
[46] World Bank (1998b).

Public insurance schemes may displace private efforts. That is why it is important to understand people's preferences for allocating time. For example, Datt and Ravallion (1994) investigate the opportunity costs to participants in rural public works projects in two Indian villages. In one, the public works participants mostly shift their time out of being unemployed, so that their opportunity costs are low and their net benefits from the program are high. In the other village, public-works employment mostly replaces wage labor and own-farm work, leading to a substantially higher opportunity cost and lower net benefits. Similarly, Cox and Jimenez (1998) consider whether the motive for private transfers in Peru is altruism or exchange; this is important because such motivation can influence the effects of public income transfers. Indeed, they find that social security benefits "crowd out" private transfers: receiving social security reduces the probability of receiving a private transfer by about six percent. The response is stronger in the Philippines, where Cox and Jimenez (1995) found that private transfers would be 37 percent higher in the absence of retirement income. While these factors should be borne in mind when designing public action, there are two reasons to persevere with public schemes. First, as we see from these examples, the offset is not one-for-one. And second, insurance against village-wide or region-wide risks is unlikely to be accomplished through informal mechanisms.

The East Asian crisis has served to underscore the importance of safety nets in a most dramatic and unfortunate way. Countries like Indonesia had neither the financial resources nor the administrative mechanisms to deal with the fall-out of the crisis. Actions being taken now will strengthen safety nets and social security throughout the region. But there is a lesson for macroeconomic policy here as well. The degree of risk in macroeconomic policy has to be managed in light of the ability to protect citizens in the advent of a crisis and the extent to which

[47] World Bank (1999), p. 126.

international action limits the likelihood of a crisis (Stiglitz, 1998a and 1998b). Absent an adequate domestic safety net and international restraints on investors, the risks in liberalizing financial markets and capital accounts are great.

Many of the participatory poverty surveys reviewed earlier pointed to a concern with risk. Other evidence points to the costs of various actions that the poor take to offset risk or deal with its consequences. At the same time, there is a growing but as yet incomplete body of evidence regarding public action to alleviate this dimension of poverty. While not all the evidence points in the same direction and further evaluations are clearly needed, experience suggests that a combination of public works programs, group-lending schemes subsidized where necessary, and simple deposit schemes offer the poor at least some support in dealing with risk.

From Isolation to Participation

Recent theoretical contributions show how the median voter in a high-inequality, democratic society can achieve a more redistributive policy stance through the vote albeit at the cost of slower growth (Persson and Tabellini, 1994). What is wrong with this picture as a characterization of actual events in developing countries over the last 25 years? Apart from the inconclusive empirical evidence, the theory assumes that most countries were democracies so that the vote determined policy, and that, once determined, policy could be effectively implemented. Neither of these statements captures the reality of developing countries over the last quarter of the century.

For a start, even as late as 1990, fewer than half the countries in the world were democracies. Moreover, inequality in many high-inequality countries is largely a consequence of the disproportionate share of income received by the richest decile. In the high-inequality countries of Latin America, the richest decile captures 40 percent of national income. Whether through the political process or outside it, this concentration of economic power must give a small percentage of the population a tremendous capacity to influence the formulation of policy and if not its formulation then its implementation. For example, Anand and Kanbur (1991) note that as the targeting of the Sri Lankan rice ration was improved, so it was allowed to be eroded by inflation with little or no protest. Those with the power to protest were not benefiting from the ration, so the erosion in its value actually freed up resources for other uses which might be to their benefit.

The spread of democracy – the number of countries with electoral democracies increased from 76 in 1990 to 117 in 1995 – and the increasing commitment to respect civil and political rights – 140 countries have so far ratified the International Covenant on Civil and Political – are opening the way to a larger say for the poor in policy-making.

"Ownership" has been shown to be a key factor in the success or failure of structural adjustment loans. A study of 81 adjustment operations supported by the World Bank between 1980 and 1992 developed a measure of borrower ownership. The measure included the locus of the initiative for the program, the level of intellectual commitment of key policy-makers, the expression of political will by top leadership, and, of most interest for present purposes, efforts to build consensus. The last element assessed the extent to which the government had undertaken a broad public campaign to elicit support for the program. In the 16 cases when local ownership was considered to be very high, 15 of the operations were judged to be successful. And in the 17 cases when local ownership was very low, only 3 operations were judged to be successful (Jayarajah and Branson, 1995). While these and similar results point to the importance of ownership, they do not tell us the extent to which the poor were consulted.

The impact of the poor's voice is more apparent at the project level. Top-down solutions have often failed. Over the last decade, development practitioners have become increasingly aware that the poor have better knowledge of their situation and their needs, and can therefore contribute to the design of policies and projects intended to better their lot. And once they have a say in design, they are also more committed to implementation. In direct opposition to the isolation the poor often endure, successful implementation calls for inclusion and active participation in a wide range of circumstances.

Development practitioners have come to a consensus that participation by the intended beneficiaries improves project performance. Many examples now exist of the value of participation. In Indonesia, the Government and an aid organization, CARE, shifted their focus to community demand as the key selection criterion for water supply and sanitation projects, with control shifted to communities. Over the period 1979-1990 the combined cash contributions of CARE and the Indonesian government dropped from approximately 80 percent of project costs to about 30 percent. Communities had provided all cash contributions for physical construction for more than three-fourths of the projects, and most had successfully operated and maintained their systems. Many communities had also helped neighboring groups to develop their own systems (Narayan 1994).

In addition to case studies, econometric evidence leads to the same conclusion. In a careful study of 121 rural water supply projects in 49 countries, Isham, Narayan, and Pritchett (1994) found that 7 out of every 10 projects succeeded when the intended beneficiaries took an active part in project design, but that only 1 in 10 succeeded when they did not. Government support for a participatory approach greatly increased the likelihood of participation. Case studies of some of these projects confirmed the importance of participation. Phase I of the Aguthi Rural Water Supply Project in Kenya did not involve community members. The project ran into construction delays, cost over-runs, and disagreement over payment methods. To get the project back on track, local leaders and project staff organized stakeholder conferences. With community involvement, Phase II of the project was completed on time and within budget (Narayan, 1994).

The interactions between voice and other development outcomes and between risk and other development outcomes are perhaps less well understood and researched than the links between growth and inequality and between growth and human development that were discussed earlier. Nevertheless, the evidence available to date suggests that these are areas that warrant further attention.[48] They have the potential to increase greatly the effectiveness of project and program implementation by giving the poor more say in matters, and, by reducing exposure to risk, they have the potential to provide the poor with the security to explore high-return activities that may have been outside their reach in the past but may also be their best hope for escaping poverty. Information failures lie at the heart of both.

IV. OUTSTANDING ISSUES

How would Benjamin Seebohm Rowntree assess the evolution of thought over the last quarter of a century from the perspective of his investigation into poverty in the City of York at the turn of the century? We think he would have three reactions. First, surprise that the basic approach to measuring poverty used by him almost 100 years ago is still very much a feature of how we measure poverty today. Second, agreement that life expectancy, literacy, and morbidity are key aspects of wellbeing and that the poor in the City of York suffered in all these dimensions. Indeed, he devotes a chapter to the relation of poverty to health. Rowntree states that "the death-rate is the best instrument for measuring the variations in the physical well-being of the people," and finds that "the mortality amongst the very poor is more than twice as high as amongst the best paid section of the working classes." Greater infant and child mortality as well

[48] See, for example, Rodrik (1999) and Kaufmann, Kraay and Zoido-Lobaton (1999).

as more general illness and physical under-development all afflicted the poor of York in Rowntree's time.

His third reaction, toward the notion of giving the poor voice and providing them with safety nets, is nuanced. Though his object was "to state facts rather than to suggest remedies" he remarks that "the suffering may be all but voiceless," and also that even if all persons in poverty over 65 received old age pensions, it would only reduce poverty by about one percent". He criticizes the inadequacy of the work-houses and relief administration, and notes that the very poor often cannot afford to insure against illness -- but he makes only passing, vague mention of the prospect of the poor organizing politically or the State changing its power relations to the individual. In all, Rowntree exhibits a surprising modernity, stressing the importance of education (especially for women, acclaiming the benefits of capacity-building public service, and describing the interconnecting, cyclical nature of poverty, where outcomes become also causes.

Looking back from our vantage point of today, how should we assess the evolution of thinking? While the different methods of defining and measuring poverty will inevitably identify different groups as poor, the evidence suggests that the differences may not be that great. Their real contribution is not to measurement, but to strategy; the way in which poverty is defined drives the strategy for dealing with it. One obvious aspect of this arises immediately from the broadening of the definition – more policy instruments become relevant to the task of reducing poverty. A less obvious aspect arises from the interactions among different aspects of poverty which, in turn, calls for a careful integration of policies.

When the focus was confined to income, the key interaction was between growth in the mean and changes in equality. As the definition expanded to include health status, literacy, and so on, the key interaction became that between efforts to increase income and efforts to improve these other dimensions of wellbeing. And when the definition was further extended to embrace risk, vulnerability, and voice, then safety nets, access to credit, and participation emerged as critical to the poor's ability to take advantage of risky, poverty-reducing opportunities and to shape economic policy and programs to their benefit.

And looking forward, what are the key outstanding areas in need of additional research? We close with two suggestions. First, additional research is still required to increase our understanding of the interactions identified in this review. We began by claiming that the appropriate package of policies would have a greater impact than the sum of their parts because of these interactions. While we have presented evidence of this, more information about the best combinations of policy for countries with different problems and different capacities would be of great value. In our view, this calls for careful, in depth country case studies to explore how different policy packages have or have not benefited the poor.[49] And second, we have seen how information failures and knowledge gaps may have undermined the access of the poor to credit and insurance and limited their role in the design and implementation of policies and projects. Again, we gave examples of where these problems seemed to have been overcome through development of new institutional arrangements but we lack a full assessment of these innovations. We suggest that the other priority, therefore, is the careful evaluation of these institutional innovations to find out what works and why.[50]

[49] Taiwan provides good examples from the early work of Fei, Ranis, and Kuo (1979) to the more recent work of Chu (1995). Preliminary papers emerging from a research project on income distribution managed by Francois Bourguignon and Nora Lustig also illustrate the type of detailed analysis that can be undertaken at the country level. See Ferreira and Paes de Barros (1999) for Brazil; and Bouillon, Legovini, and Lustig (1999) for Mexico.
[50] Good examples to date include work on microfinance (Morduch, 1998b, for example) and on public employment schemes (Datt and Ravallion, 1994). Preliminary papers emerging from a research project on income distribution managed by Francois Bourguignon and Nora Lustig also illustrate the type of detailed analysis that can be undertaken. See Ferreira and Pues de Barros (1999) for Brazil; and Bouillon, Legovini, and Lustig (1998) for Mexico.

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