

When endowments and opportunities
don't match:

Understanding chronic poverty

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Abstract

Attempts to understand the causes of chronic poverty have largely centred on the concept of the poverty trap. In this perspective, the main focus is on the paucity of initial wealth or endowments, which under certain plausible conditions can create a trap from which a poor person will find it hard to escape without help from outside. While acknowledging the value of insights gained from this perspective, this paper proposes to draw attention to a different perspective that can also prove useful in both understanding the causes of chronic poverty and looking for its solution. Instead of focusing on the level or the magnitude of endowments possessed by the poor, this new perspective focuses on the structure or composition of endowments. The crucial insight offered by this perspective is that chronic poverty can arise not just from low level of endowments but also from a mismatch between the structure of endowments possessed by the poor and the structure of opportunities open to them. This paper is an attempt to elaborate on this insight and to draw out some of its implications, especially its implication for the relationship between growth and poverty.

Key words: chronic poverty, poverty traps, structural mismatch, endowments and opportunities

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1. Introduction

Recent attempts to understand the causes of chronic poverty have centred largely on the concept of the poverty trap. In this perspective, the main focus is on the paucity of initial wealth or endowments, which under certain plausible conditions can create a trap from which a poor person will find it hard to escape without help from outside. While acknowledging the value of insights gained from this perspective, this paper proposes to draw attention to a different perspective that can also prove useful in both understanding the causes of chronic poverty and looking for its solution. Instead of focusing on the level or the magnitude of endowments possessed by the poor, this new perspective focuses on the structure or composition of endowments. The crucial insight offered by this perspective is that chronic poverty can arise not just from low level of endowments but also from a mismatch between the structure of endowments possessed by the poor and the structure of opportunities open to them. This paper is an attempt to elaborate on this insight and to draw out some of its implications.

Section 2 sets the scene by offering a formal characterization of chronic poverty, and in the process it also tries to clarify the distinction between chronic and transitory poverty more precisely compared to the usual way this distinction is drawn in the literature. Section 3 constitutes the core of the paper in which the new perspective is introduced and its implications are analysed. First, the point is made that chronic poverty can exist even without a poverty trap. Next, an attempt is made to examine the genesis of chronic poverty, in which the idea of a mismatch between endowments and opportunities plays an important role. Finally, the relationship between economic growth and chronic poverty is discussed in the light of the notion of the structural mismatch discussed earlier. Section 4 offers some brief concluding observations.

2. Characterization of chronic poverty

Chronic poverty is essentially a dynamic concept – the idea of a time dimension is inherent in it. And yet the standard literature on chronic poverty seldom brings out the time dimension explicitly. How long does a person have to be poor in order to be counted as chronically poor? This would seem to be a natural question to ask but is rarely asked. A particular strand of the literature, which equates the concept of chronic poverty with that of poverty trap, implicitly assumes an indefinitely long time span. The very concept of a trap implies that a person will never escape poverty unless some exogenous event helps him to break out of the trap. Suppose, however, that there is no such trap for some poor person, so that under the prevailing circumstances he should be able to break out of poverty, given sufficient time. But he only has a finite life span and an even shorter working life. So even if he could in theory escape poverty given sufficient time, in reality he may never do so because the time required could be longer than he can reasonably expect to live or be fit enough to work. For all practical purposes, he too should be counted as chronically poor even though he may not be caught in a trap from which there is no endogenous escape route. The concept of chronic poverty must, therefore, explicitly incorporate the idea of a life span – strictly speaking, the span of working life.¹

Yet another essential feature of the concept of chronic poverty is the recognition that income is subject to stochastic variation. This feature is of course is duly recognized in the standard literature; indeed it is with reference to such variation that chronic poverty is generally distinguished from transitory poverty. I would argue, however, that the manner in which this

¹ Throughout this paper, we shall focus exclusively on the so-called 'working poor', leaving out poor people outside the labour force – such as the very young or very old or disabled people – for whom the problem of poverty is qualitatively different in nature, and calls for a rather different kind of analysis.

distinction is generally made is not rigorous enough. Typically, a person is said to suffer from transitory poverty if his income sometimes falls below the poverty line and sometimes rises above the poverty line, whereas a chronically poor person is said to be one whose income is always below the poverty line. The basic idea behind this way of looking at the distinction is sound enough, but the way it is formulated lacks rigour. Consider, for example, a person whose income occasionally rises above the poverty line but remains below it most of the time. It seems reasonable to argue that such a person should be counted as chronically poor for all practical purposes, but the standard definition does not allow it.

In defence of the standard procedure, one could argue that if a person's income goes above the poverty line from time to time, he is probably living pretty close to the poverty line even if staying below it most of the time. That is possible, and if true this may disqualify him from being classified as extremely poor or ultra-poor in some sense but from not from being classified as chronically poor. It is important to keep the concepts of extreme poverty and chronic poverty separate. Extreme poverty relates to the notion of the depth or intensity of deprivation, whereas chronic poverty relates to the duration of deprivation. In the real world, there may be considerable overlap between the two concepts – many of the chronically poor people may be found to be extremely poor as well. But for analytical purposes the two concepts must be kept distinct, allowing for the possibility that some people suffering from chronic poverty (in terms of duration) may be only moderately poor (in terms of intensity).

By combining the two features – viz. time dimension of deprivation and stochastic variation of income – it is now possible to formalize the notion of chronic poverty. Let the income of a person at any point in time t be denoted by Y_t , which depends on two sets of factors:

- a) A set of observable individual-specific variables such as age, gender, assets, education, skills, etc. and observable household-level variables such as the number of dependents, the size of household labour force, etc. We call it the endowment set of the individual and denote it by D_t .
- b) A set of observable variables exogenous to the individual and the household. These could be village level or community level or national level or even global level variables that affect the income of the person one way or the other. Denote this set by X_t .

Some of the endowments (D) may be time invariant (e.g. gender), others may have a deterministic time trend (e.g. age) and yet others may be amenable to choice on the part of the individual (e.g. physical assets, skills, etc.) The endowments that are amenable to choice will, in general, depend upon three sets of factors: the value of all the D variables in the preceding time period (D_{t-1}), income of the preceding period (Y_{t-1}) and the set of exogenous factors (X_t).

Then the income generation process over time can be described by the following recursive system of dynamic equations:

$$Y_t = F(D_t, X_t) + e_t \tag{1}$$

$$D_t = G(Y_{t-1}, D_{t-1}, X_t) + \varepsilon_t \tag{2}$$

Where, G is a vector of functions – with one function for each element of H_t – and e_t and ε_t are random error terms, with all the classical properties of white noise. It is through these error terms that stochastic variation is introduced in the income generation process.

Because of stochastic variation people may move in or out of poverty from time to time, and even a chronically poor person may occasionally rise above the poverty line, but what distinguishes him from the transitorily poor is that more often than not he would be expected to remain below the poverty line. The expression 'more often than not' is obviously rather vague, but there are several possible ways of making it precise. One simple way of doing so is to think in terms of expected income $E(Y_t)$. If the timepath of expected income is such that

it always stays below the poverty line (Z), then we would expect a person's actual income to be below the poverty line more often than not. That is the approach we take below in order to define chronic poverty.

Let τ denote the point in time at which the existence of chronic poverty is being assessed and T denote the end-point of a person's working life. If the exogenous variables obtaining at time τ were to remain unchanged over the remainder of a person's working life – denoted by the interval $[\tau, T]$ – then the income generation process can be expressed as:

$$Y_t = F(D_t, X_\tau) + e_t; \quad \text{for all } t \in [\tau, T] \quad (3)$$

$$D_t = G(Y_{t-1}, H_{t-1}, X_\tau) + \varepsilon_t \quad \text{for all } t \in [\tau, T] \quad (4)$$

Note that taking expectation of income Y_t , conditional on D_t and X_τ , would eliminate the stochastic variation arising from different realizations of e_t , but it would still retain an element of stochastic variation arising from ε_t , which would operate through D_t . In order to eliminate that element of variation, so as to arrive at the essence of chronic poverty, we shall have to work with expectation of D_t rather than particular realizations of D_t . In other words, we shall have to think in terms of expectation of income conditional on X_τ and the expectation of D_t .

Let $D_t^* = E(D_t)$. Then the criterion by which we can identify the chronically poor is the timepath of $E(Y_t | D_t^*, X_\tau)$. The formal definition of chronic poverty can now be given as follows.

Definition: A person is chronically poor if $E(Y_t | D_t^*, X_\tau) < Z$, for all $t \in [\tau, T]$, where Z is the poverty line income, τ denotes the point in time at which the existence of chronic poverty is being assessed and T is the end-point of a person's working life.

The timepath of chronic poverty according to this definition is shown in Figure 1.2 To see exactly what this definition entails, recall that D_t^* contains two types of variables. There are some over which a person has no control, such as gender and age; these can be seen as part of a person's initial conditions. There are other variables over which the individual does have a degree of control such as accumulation of different types of assets and skills, size of the household, labour force participation and so on. The timepaths of the latter group of variables are determined by the person herself, presumably operating within some kind of optimizing decision framework under the constraints imposed by the initial conditions of Y and D and the status of exogenous variables X prevailing at the time of observation (τ). Thus considering both types of variables, the evolution of D_t^* as a whole can be seen to depend on the initial conditions (including preferences which guide the optimization process) and the state of the exogenous variables prevailing at the time of observation. This in turn implies that the evolution of the timepath of the conditional expectation of income $E(Y_t | D_t^*, X_\tau)$ also depends solely on the initial conditions and the state of the exogenous variables prevailing at the time of observation.

The formal definition of chronic poverty can now be translated informally as follows: A person is chronically poor if his initial conditions ensure that his income will fall below the poverty line more often than not for the rest of his working life, if the exogenous variables prevailing at the time of observation remain unchanged. This definition clearly involves a prediction about the timepath of income.

However, the prediction involved is not about how income will actually change over time. It is a conditional prediction which assumes that the state of exogenous variables prevailing at

² The timepath has been drawn as upward rising on the assumption that a rational person will try to accumulate some capital – either physical or human or both – to the extent permitted by his resources and in line with his subjective rate of time preference, which will enable him to earn higher income over time.

Figure 1 Chronic poverty

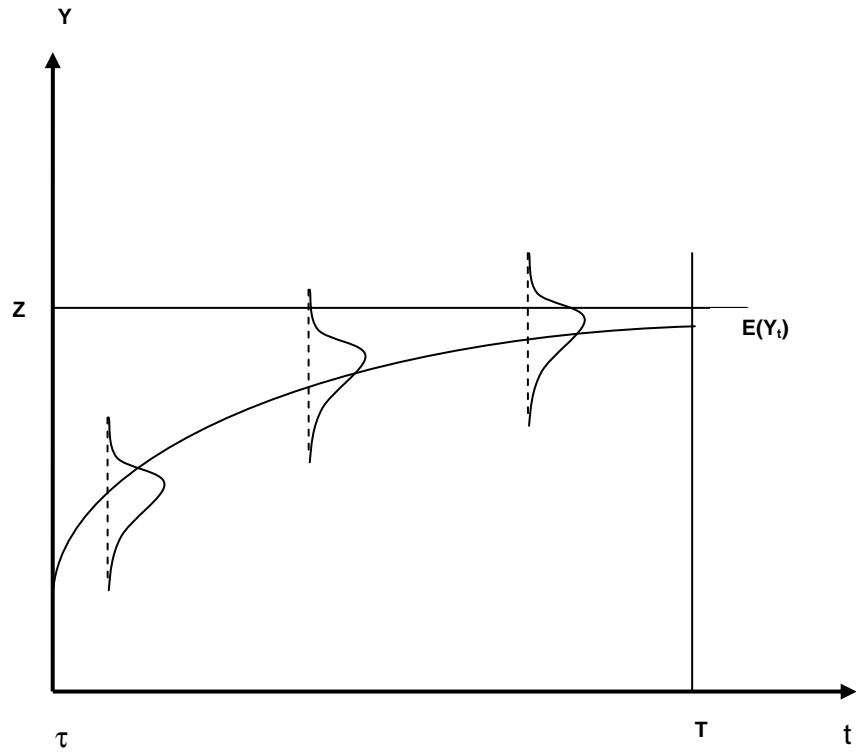
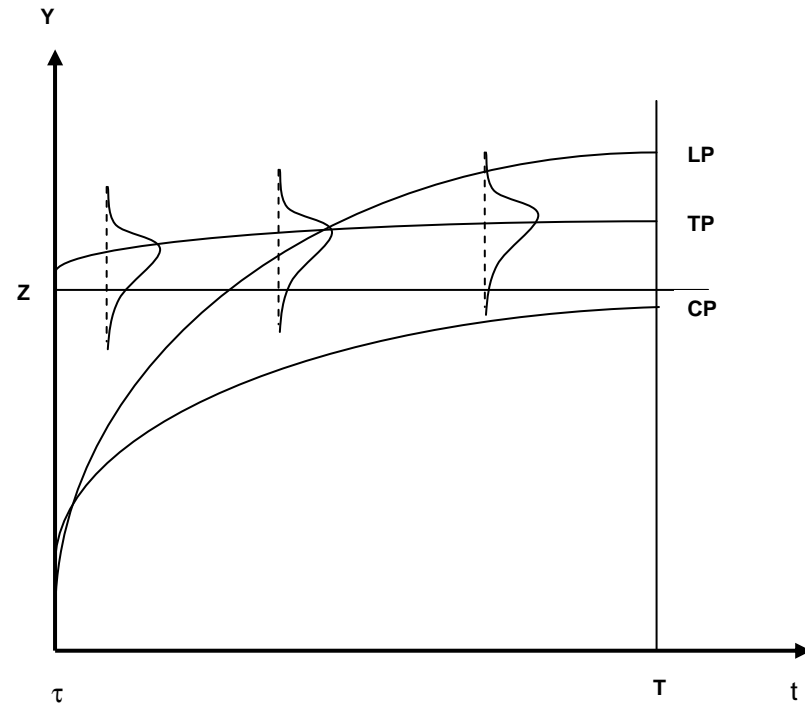


Figure 2 Varieties of poverty

CP → Chronic poverty
TP → Transitory poverty
LP → Life cycle poverty



the time of observation will remain unchanged for the remainder of a person's working life. In reality, the exogenous variables may change, which will alter the timepath of expected income and may even ensure that a person identified as chronically poor at the time of observation will escape poverty at some point in the future. Chronic poverty is thus not a statement about a person's actual future, but a statement about the income dynamics that the current state of exogenous variables can be expected to generate given the initial conditions of a person.

A salient feature of the definition given above is that it is forward-looking instead of being backward-looking. Much of the empirical literature on chronic poverty adopts a backward-looking view, trying to discern from panel data what kind of people have remained stuck below the poverty level over a given period of time. For policy purposes, however, it is the forward-looking view that must be of primary interest.

For the sake of completeness, we may now define transitory poverty in a manner analogous to chronic poverty. Transitory poverty refers to a situation where the timepath of (conditional) expected income always stays above the poverty line but sufficiently close to it so that the actual income would fall below the poverty line fairly frequently (but not most of the time), if the exogenous factors remained unchanged. In Figure 2, this case is demonstrated by the line TP, in contrast to chronic poverty, which is shown by the line CP.

It should be apparent that this way of defining the transitory poor involves a certain degree of ambiguity while trying to distinguish them from the non-poor. After all, the non-poor also would have a timepath of (conditional) expected income that always stays above the poverty line and if the (conditional) density function of income has a sufficiently long tail at the lower end, then they too might slip into poverty from time to time. The main difference with the transitory poor would be that they would have a higher timepath of expected income and would slip below the poverty line less frequently. That makes the difference one of degree rather than of different kinds of dynamics. The resulting ambiguity would, however, seem to be inherent in the concepts themselves – perhaps the difference between transitory poor and the non-poor is essentially one of degree rather than of substance.

Finally, it may be noted that the approach adopted here brings into light a rather different kind of poverty that is often lost sight of in the discussion on chronic versus transitory poverty. Consider the timepath of (conditional) expected income denoted by the line LP in Figure 2. This line is neither always below the poverty line or always above; instead it is below the poverty line for some part of the working life and above it for the rest. Obviously, it does not fit in the category of either chronic or transitory poverty, and it is certainly not the timepath of a non-poor person either. This is the case of lifecycle poverty. A person may experience poverty in the early part of life when the resources at his disposal, such as assets, skills, experience and labour force within the household, are not adequate to yield a sufficiently high income to live above the poverty line. However, over time as some or all of these resources increase through the process of accumulation and learning-by-doing, the same person may be able to escape poverty in the mature years of his working life.

3. Endowments, opportunities and the causation of chronic poverty

3.1 Chronic poverty with or without trap

The dominant form of theorizing, at least by economists, on the nature and causes of chronic poverty has centred on the concept of poverty trap. A person is said to be caught in a poverty trap when the endogenous dynamics of the economic system within which he operates does not offer any escape route out of poverty. In trying to discern the reasons for such trap-creating dynamics, the theories of poverty trap have drawn heavily upon the wider literature on the persistent poverty of nations that is observed in many parts of the developing world.

The causes of persistent stagnation are analysed predominantly within the framework of poverty traps at the national level, by drawing upon the insights of endogenous growth

theory.³ In turn, the insights gained from studying poverty traps at the national level are applied by some analysts to poverty traps at lower levels – e.g. the levels of a community, or a household or an individual.⁴

There is no doubt that the idea of poverty trap has much to contribute to our understanding of chronic poverty because there is, after all, something unmistakably chronic about being caught in a trap. However, there is a danger of being carried away by the novelty and elegance of poverty gap theories, derived in part from the novelty and elegance of endogenous growth theories, and being lulled into thinking that the poverty trap is all that there is to chronic poverty. As shown below, chronic poverty can exist even without a poverty trap.

In the framework developed in the preceding section, the idea of a poverty trap is best captured by a timepath of expected income that either hits a ceiling that lies below the poverty line or approaches it asymptotically. Formally, a poverty trap exists, if

$$E(Y_t | D_t^*, X_t) \leq W \leq Z, \text{ for all } t \geq \tau \quad (5)$$

where W is an asymptote that is no higher than the poverty line income Z and τ is the point in time at which the observation is being made.

Timepaths A and B in Figure 3 represent this case. In A, the conditional expected income actually hits the ceiling below the poverty line and in B it approaches the ceiling asymptotically. Obviously, if the dynamics generated by the combination of a person's initial endowments and exogenous factors lead to timepaths of expected income like these, then the person is caught in a poverty trap from which there is no escape unless there is some favourable change in the exogenous factors. Chronic poverty follows inevitably from such a trap.

The special feature of such a trap is that the persistence of chronic poverty becomes independent of the length of the working life or even the life span of a person. No matter how long a person lives and keeps on working, there is no way out of poverty, even with all the assets and skills he might accumulate along the way. In the asymptotic case, the accumulation of assets and skills will allow him to raise his income indefinitely, but it will do so at such a sharply diminishing rate that despite an ever-increasing income he will not be able to escape poverty – even if he were to live forever. This is chronic poverty with a vengeance!

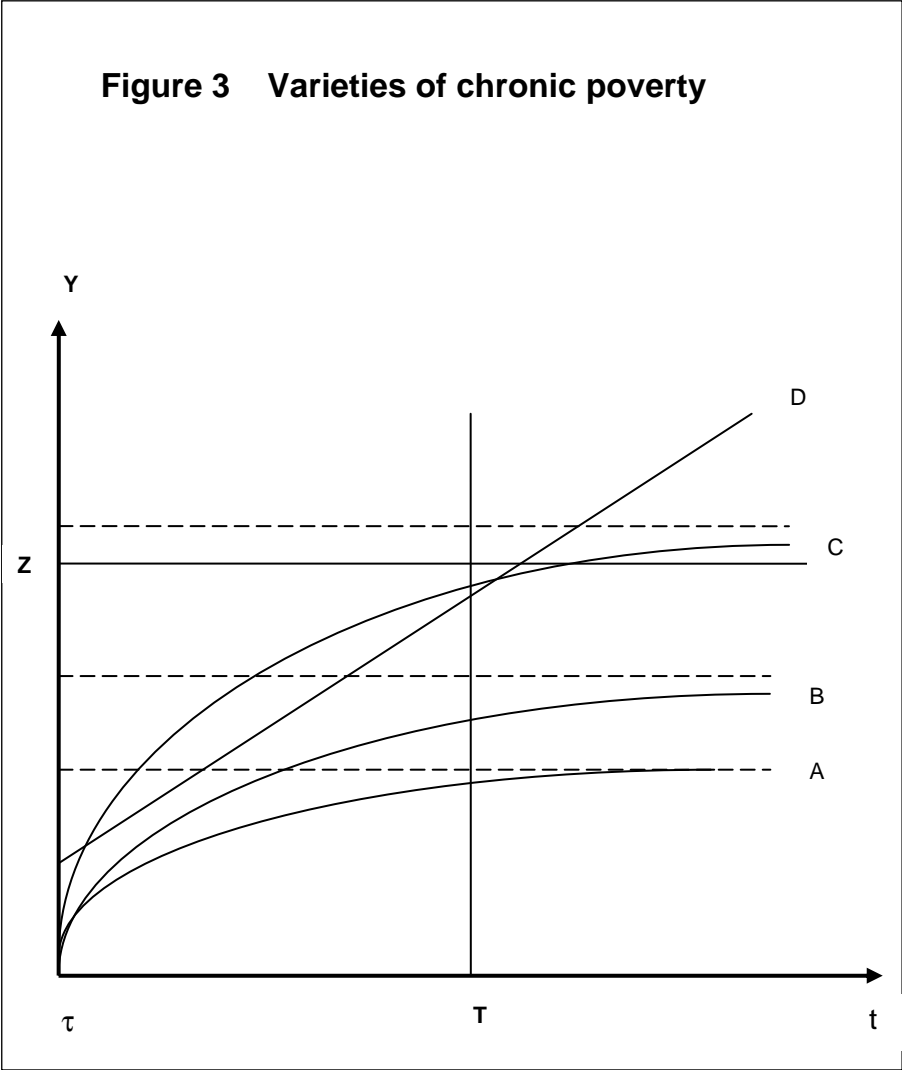
There is, however, a milder version of chronic poverty. In this case, either there is no ceiling to the timepath of expected income or if there is such a ceiling, then it lies above the poverty line. In other words, there is no poverty trap, and yet a person may live his life as chronically poor and die as one, only because the timepath does not rise above the poverty line during his lifetime. The timepaths C and D in Figure 3 represent this case.

There is a simple reason why this type of chronic poverty can exist. It is that people have a finite life. Even if the dynamics of the income generation process were such that it would some day take the expected income above the poverty line, a person simply may not live long enough to see that day. Chronic poverty would be the outcome. In their preoccupation with poverty traps, most analysts have failed to take adequate notice of this type of non-trap chronic poverty that has to do with the finiteness of human life. Perhaps the reason for this neglect lies in the fact that the literature on poverty trap at individual and household levels has drawn inspiration from the wider literature on persistent poverty at the level of the nation-state or large communities, where the idea of an infinite life span has more salience.

³ For a recent and comprehensive account of this literature, see Azariadis and Stachurski (2005).

⁴ See, for example, Barrett (2003); Barrett and Swallow (2003); Bowles et al. (2006), Carter and Barrett (2005).

In any given context, the set of chronic poor may be made up of both types of people – those who are caught in a trap and those who are not. The relative importance of the two types of chronic poverty is an empirical matter. On purely theoretical grounds, there is no reason for thinking that one type or the other will dominate. More importantly, as we argue below, for policy purposes this distinction does not really matter – what matters is the nature of the constraints the individual faces, which could be similar for those who are in a trap and for those who are not.



3.2 Causes of chronic poverty: macro versus structural constraint

Chronic poverty is a characteristic of the timepath of expected income generated by the constrained choices made by individuals at each point in time as to how to allocate his income between consumption and accumulation of assets of various types (including human capital), given the constraints of initial conditions and exogenous factors. The nature of the emerging timepath depends on the evolution of two sets of factors, viz. (i) the portfolio of assets, i.e. the quality and quantity of various types of physical, natural and human capital that a person can employ and (ii) rates of return on different types of assets. The evolution of the portfolio of assets itself will depend, however, on the rates of return earned (or expected

to be earned) on the assets because these rates will determine both the ability and incentives of a person to invest into different types of assets.

Therefore, the future income stream would depend essentially on the evolution of the rates of return, as determined by individual choices made under the constraints imposed by the initial portfolio of assets and the exogenous factors. In other words, the timepath of (conditional) expected income, which determines whether or not a person will be chronically poor, is primarily a function of the current and future rates of return on different types of assets. If a person is chronically poor, it must be because these rates of return are very low. This is true regardless of whether the person is caught in a poverty trap or not.

The varieties of constraints that may depress the rates of return can be usefully classified into two groups, viz. macro-level constraint and structural constraint, leading to two different types of chronic poverty. One way of seeing this distinction is to draw an analogy with the typology of unemployment. The distinction I wish to make here is analogous to the one between Keynesian or demand-deficient unemployment and structural unemployment. Keynesian unemployment arises from deficiency of aggregate demand at the macroeconomic level, which imposes an overall limit to how much employment can be sustained by the economy. Structural unemployment, by contrast, emerges not from the existence of an overall macroeconomic limit to employment but from mismatch between the supply side and demand side of the labour market. The mismatch consists in the fact that some workers may not possess the kinds of skills demanded by the changing structure of an economy; as a result, they fail to get employed.

The distinction I have in mind – between the types of chronic poverty caused by macro-level versus structural constraints – has something in common with these notions of overall limit and structural mismatch. There is one major difference, however. The overall limit in the present context originates not so much from deficient aggregate demand, which is essentially a short-run phenomenon, as from the limitations of market size, which can be a longer-term constraint. What is relevant here is the famous insight of Adam Smith that division of labour is limited by the size of the market.

The macro constraint, in the form of the size of the market, can be an important limiting factor on the rates of return. For instance, if the size of the overall market is small, then there will be limited opportunities for wage employment, resulting in low wages. In the case of self-employed poor, if the market in which they sell their products is small in size, any attempt to earn higher income by expanding the scale of operation may be subject to rapidly diminishing returns because in a small market more can be sold only by lowering the price. This will result in perennially low rates of return. If these rates happen to be lower than either the subjective rate of time preference or the rate of interest at which a person is able to borrow, new investments will not be made and the scale of production will not rise. Poverty will become chronic.

Striking evidence of how market limitations can prevent the poor people from escaping poverty has been found by studies on microfinance, for example. An early evaluation of the *Grameen* Bank found that as the scale of operation expanded, the rate of return fell rapidly (Hossain 1984). Many subsequent studies have found that quite often poor borrowers would not opt for borrowing at a higher scale even if the opportunity was offered to them, presumably because they were concerned about the falling rate of return. This implies that so long as the limitation of market size remains a serious problem, the timepath of expected income will not rise enough to enable the poor to escape poverty altogether.

The limitation of market size is like an envelope that sets a limit on how far individuals can go in their effort to improve their lot even if they had the means to advance further, and it is all-embracing in nature in the sense that it affects everyone although perhaps not equally. As the market size becomes bigger, the envelope is pushed forward, thereby expanding the opportunity set of everyone.

Structural constraint differs from the macro constraint of market limitation in two ways. First, it affects specific groups of people rather than economic actors in general. Second, the constraint arises not from the overall lack of opportunities but from a mismatch between the structure of opportunities that become available and the structure of endowments possessed by a specific individual.

An example can be given again from the field of microfinance. Studies on microfinance have found that even successful credit programmes consistently fail to serve one group of the poor, viz. landless wage labourers. In principle, the opportunities for microfinance are open to the landless wage labourers as well; in fact the *Grameen* Bank model was specifically designed to cater to the needs of the landless and near-landless people. The problem, however, is that wage labourers are unable to take advantage of the opportunities opened up by microfinance. The opportunities that are created are in the nature of self-employment – mainly in trading, but to a smaller extent in handicrafts and farming as well. This may help those who already have past experience in self-employment and have, through that experience, accumulated some human capital specific to their fields. The landless wage labourers, who have no such experience, do not possess this particular type of human capital. Since the structure of their endowments does not match the structure of expanding opportunities, they remain outside the reach of microfinance programmes.⁵

The problem of mismatch between endowments and opportunities is actually quite a pervasive one and manifests itself in many different ways. In a different context, this has been described as the ‘integrability’ problem (Osmani 2006). The idea is that as the economy grows and the overall economic opportunities expand, some people may find it difficult to integrate with the growth process since the structure of their endowments does not match the structure of opportunities that are being opened up. The mismatch can occur for a variety of reasons – some of them have to do with the nature of technology, some with economic organization and some with deeply rooted social and cultural practices.

An example of limited integrability arising from the mismatch between the skills demanded by an expanding economy and the skills possessed by the poor is offered by the recent attempts at economic liberalization by some Latin American countries. As these countries have tried to open up their economies, they have found that, unlike the countries in East and South East Asia which had opened up their economies earlier, their comparative advantage does not lie in the activities that are intensive in relatively unskilled labour. The emergence of the poor and populous countries such as China and India on the global scene has prevented Latin America from being competitive in these types of products. Instead, they have found their comparative advantage in activities involving technologies that use relatively more skilled labour (Wood 1997). The opening up of these economies has, therefore, led predictably to an expansion of these skill-intensive activities, but the poorest segments of the society have benefited rather little from this expansion so far, as they do not possess the skills that are needed by the expanding sectors.⁶ For them, the structure of endowments does not match the structure of opportunities.

Many of the disadvantages suffered by women in the economic sphere can also be seen as a mismatch between endowments and opportunities when gender is seen as an invariant endowment of a person. Culturally determined phenomena such as gendered stereotyping of occupations, time constraint imposed on women by the burden of combining productive and reproductive activities, and discrimination in various spheres of life render the integrability

⁵ Both the market limitation aspect and the structural mismatch aspect of the impediments to poverty reduction in the context of microfinance have been discussed in Osmani (1989).

⁶ The resulting phenomenon of widening wage differentials between skilled and unskilled workers has been analysed, among others, by Behrman et al. (2000).

problem especially severe for poor women.⁷ For instance, where poverty is concentrated mostly among women, and yet the types of jobs for which demand rises are culturally defined as men's jobs, poor women would benefit little from overall expansion of opportunities. This problem is especially acute in much of Africa, where crop production has acquired a gendered pattern – with many cash crops being identified as men's crops and subsistence food crops being identified as women's crops. As some of these countries move towards greater liberalization of trade and commercialization of agriculture, employment potential in the cash crop sector may receive a boost, but to the extent that gendered pattern of crop production remains a constraint, poor women will find it hard to take advantage of the new opportunities. The overall economy may expand but many rural women would still remain chronically poor because the structure of their endowments does not match the structure of opportunities.

It may be useful at this point to explore the relevance of the macro and structural constraints discussed above for the insights gained from the poverty trap literature. The essential feature of poverty traps is the existence of thresholds in the rates of return to assets. The thresholds have the important property that diminishing rates of return become increasing rates once the threshold is crossed. As more assets are accumulated, diminishing returns might set in again, but this may not be a problem because there may exist yet another threshold at a higher level after which increasing rates of return can be enjoyed again. Those among the poor who can cross the initial thresholds move out of poverty riding on the back of increasing returns; those who cannot, remain caught in a poverty trap.

The important question is why some people fail to cross the threshold. The answer lies in a combination of several factors. First, the livelihood strategies that would enable an individual to enjoy the increasing rates of return beyond a threshold usually involve some entry barrier, typically requiring lumpy investments. Second, those who are below the threshold to begin with do not earn a sufficiently high rate of return to be able to accumulate the capital necessary to overcome the entry barrier. Third, poor people are sufficiently credit-constrained not to be able to borrow the required capital. The combination of these three factors together ensures that those who start off below the initial thresholds are condemned to remain below the threshold – caught in a poverty trap.

Our discussion on macro and structural constraints is relevant to this story of poverty trap at several levels. First, once the notion of structural constraint is grasped, it becomes clear that the entry barrier to livelihood strategies offering increasing returns does not have to consist only in lumpy investments. It may arise simply from a mismatch between the structure of endowments and the structure of opportunities. If lumpy investment happens to be the barrier, then the root of the problem appears to lie in 'inadequate' assets in a quantitative sense – a person does not have enough assets to make the necessary investment. But if the mismatch creates the barrier, then the focus must fall not on the size or magnitude of endowments but on its structure or composition. For example, when a poor woman in Africa fails to make the transition from low-paying food crop production to high-paying cash crops, the barrier lies in the endowment of gender in the context of a society that has evolved a gendered pattern of crop production. Gender rather than lumpy investment acts as the entry barrier here. If lumpy investment were the problem, it could in principle be solved by either transfer of assets or by innovations in the credit market. But when gender is the problem, the remedy involves an altogether different kind of social action. The implication of all this is that the analytical underpinning of the concept of poverty trap needs to be extended far beyond the constraint of lumpy investment so as to consider structural constraints of various kinds if the concept is to make sense of chronic poverty more generally.

⁷ The specific disadvantages faced by poor women are discussed, among others, by DAW/UN (1999, 2001) and World Bank (2001).

Second, the poverty trap literature recognizes that there is nothing inexorable about the low and diminishing rates of return below the threshold and that appropriate changes in exogenous factors can lead to an improvement, even to an extent that escape from poverty trap might become possible, but exactly how this might happen is not clearly explained. A little reflection will show that what keeps the rates of return low and diminishing below the threshold is nothing other than either the macro constraint or the structural constraint discussed earlier. Softening of whichever happens to be the binding constraint in a particular context will help raise the threshold and thereby create the possibility of escape from poverty. Investigation of these constraints and identification of the binding constraint in specific contexts should, therefore, form an integral part of any enquiry into poverty traps.

Third, once it is understood that it is either the macro constraint or the structural constraint that lies behind the poverty trap, it also becomes clear that there is nothing special about poverty traps as an explanation of chronic poverty. These same constraints are also at the root of the non-trap type of income trajectories that fail to take a poor person above the poverty line during his working life even though they might have done so at some distant future if the person had lived long enough. In other words, there is no fundamental difference in the causal stories behind the trajectories A and B in Figure 3. Trajectory A leads to a trap while trajectory B does not, but both of them make a person chronically poor for much the same reasons. Therefore, especially from that point of view, it really does not matter whether a chronically poor person is caught in a trap or not. The much more important distinction relates to the causality of chronic poverty, viz. whether it is the macro constraint or the structural constraint that is binding in a specific context, because this will have a crucial bearing on the choice of policy response.

3.3 Economic growth and chronic poverty

The relationship between growth and poverty has been much discussed in recent times. There is an increasing recognition that while growth by itself may not be sufficient to bring about a rapid reduction of poverty, high and sustained growth is necessary at least for sustained poverty reduction. However, when it comes to chronic poverty, as distinct from poverty in general, there is sometimes a presumption that economic growth may not be of much help. Indeed, the whole research agenda on chronic poverty seems to be based on the premise that there is something very special about this type of poverty that at least weakens, if not nullifies, the potency of growth as a remedy. The increasingly common tendency to identify chronic poverty with poverty trap makes that presumption even stronger.

The analysis presented in this paper suggests, however, that growth is not necessarily impotent in reducing chronic poverty. Much depends on the causation behind the genesis of chronic poverty. The distinction made above between the macro constraint and structural constraint is especially relevant here. The impact of growth on chronic poverty would depend crucially on which of the two happens to be the binding constraint in a specific context.

First consider the case where the macro-level limitation of market size is the binding constraint – the envelope of opportunities available in the economic system is simply too crushing to allow most people to earn a high enough rate of return to whatever endowments they possess. For wage earners, it would mean fewer employment opportunities and low levels of wages; for the self-employed people, it would mean low rates of return in their respective lines of production. With determined individual effort, or with a bit of luck, a few people may still be able to break out of poverty, but so long as the market size continues to act as the binding constraint, there will be an overall limit on how many can break out.

It might be tempting to argue that the limitation of market size need not be taken to be invariant to individual efforts to move out of poverty. Since the overall economy is the sum of individual actors in the economy, it might be argued that if everyone tried to raise the scale of production and improve productivity at the same, then the market size itself will expand. But there is a problem here, identified more than half a century ago by the likes of Rosentein-Rodan and Ragnar Nurkse and analysed more rigorously in recent times by the likes of

Murphy et al. (1989) and others. Because of externalities, individuals would try to expand production only if they were confident that others would do so but not otherwise, and since the market mechanism by itself does not offer this assurance, everyone might end up not expanding enough. The problem is one of coordination failure that keeps the overall market small.

This is a case of poverty trap at the macro level. Several other sources of poverty trap at the macro (national) and meso (subregional or community) levels have been identified by recent research (Azariadis and Stachurski 2005; Bowles et al. 2006). We now know that for a variety of reasons constraints to expansion can be created above the level of individuals that may not be easily broken by individual effort alone. These reasons include not just market failure but also institutional failures of various kinds.

Higher-level poverty traps can be a major cause of chronic poverty at the individual level, whether or not individual poverty itself takes the form of a trap (i.e., regardless of whether the trajectory of expected income takes route A or route B in Figure 3). We have argued before that in order to explain chronic poverty, it is not essential to invoke the notion of poverty trap at the individual level, but we wish to emphasize now that poverty traps at higher levels may have a very big role to play in explaining chronic poverty at individual level. Empirically, this is more likely to be true for countries that are experiencing very sluggish growth and have pervasive chronic poverty at the same time.

In such cases, the main solution to chronic poverty can only be found by stimulating overall growth of the economy, by somehow neutralizing the forces that have been responsible for creating poverty traps at the macro and meso levels. As faster growth helps expand the market and pushes up the envelope of opportunities, those suffering from chronic poverty would find it easier to earn a higher rate of return on their endowments. In the process, they might be able to push up the trajectory of expected income rapidly enough to take it beyond the poverty line during their life time.

Matters are very different, however, if structural mismatch happens to be the binding constraint. Growth is still relevant here, but what matters in this case is not so much the rate of growth as the 'pattern of growth', by which we mean the combination of certain characteristics of the growth process, such as the sectoral pattern of growth, geographical distribution of growth, factor bias in the choice of technology, and so on, which together determine how the expanded opportunities offered by growth would affect different individuals and social groups. While the rate of growth has to do with the expansion of opportunities as a whole, the pattern of growth has to do with the distribution of those opportunities. Obviously, when the main reason for chronic poverty lies in the mismatch between endowments and opportunities, the distribution of opportunities matters more rather than expansion of opportunities in general. In this case, chronic poverty will be dented only by a pattern of growth that alters the structure of opportunities in a way that reduces the problem of mismatch i.e., brings the structure of opportunities in line with the structure of endowments of the chronically poor people.

Clearly, solving the problem of chronic poverty that stems from structural mismatch is a much more difficult proposition than dealing with chronic poverty that arises from the macro-level market constraint. For a start, it requires detailed knowledge of the nature of structural mismatch, which may be different for different groups of the chronically poor. More importantly, it requires a policy regime that is consciously designed to guide the growth process in a way that aligns the structure of opportunities more in conformity with the structure of endowments of the chronically poor. This is no simple task, but if pro-poor growth is to mean anything, this is what it must mean.

Actually, dealing with the problem of structural mismatch is even more demanding than what the preceding analysis suggests. There are two ends of the mismatch – opportunity is at one end and endowment is at the other. The pattern of growth operates at the end of opportunities, but there may be situations where acting on opportunities alone would not

suffice; actions might be needed at the endowment end as well. Indeed, acting at the endowment end may sometimes be the more cost-effective and durable method of tackling the problem of chronic poverty that stems from structural mismatch. Such actions would include targeted interventions of various kinds, such as redistribution of assets, special programmes for enhancing the human capital of specific groups of people, removing various kinds of entry barriers that certain groups of people might face while trying to access markets and government services, and so on. In general, the removal of structural mismatch would call for a two-pronged strategy of engendering an appropriate pattern of growth on the one hand and adopting the right kind of targeted interventions on the other.

4. Concluding observations

This paper has tried to offer a new perspective on the phenomenon of chronic poverty based on the notion of a mismatch between the structure of endowments possessed by the poor and the structure of opportunities open to them. This perspective has been examined by taking as the point of departure the current focus on poverty traps as the predominant analytical framework for understanding chronic poverty. While acknowledging the value of insights offered by the poverty trap approach, the paper has argued for the case for going beyond it, at least in two ways. First, it has been noted that chronic poverty can exist with or without a trap, and more importantly that for policy purposes it does not really matter whether a chronically poor person is caught in a trap or not. Second, in searching for causes of chronic poverty, the focus should be broadened from the level or magnitude of endowments, on which the poverty trap literature mainly concentrates, to include the structure or composition of endowments as well, to which the new perspective draws attention.

In the latter context, two broad types of causal forces have been identified, described as the macro constraint and the structural constraint. The macro constraint refers to the possibility that limitations of a small market may keep many people chronically poor by forcing down the rates of return on their endowments. The structural constraint refers to the problem created by a mismatch between the structure of endowments and the structure of opportunities. We have argued that the structural mismatch can be an important reason for the existence of chronic poverty, because the effect of a mismatch is to force down the rates of return on endowments.

The relative importance of the two types of constraints may vary in different contexts. When the macro constraint is binding, rapid rate of growth may help reduce chronic poverty quite satisfactorily. However, if the structural constraint is binding, then rapid growth by itself would not be of much help. What would matter more is the pattern of growth – in particular, whether the pattern of growth is such that it aligns the structure of opportunities for the poor more in conformity with their structure of endowments. In order to achieve this alignment better, the pursuit of an appropriate pattern of growth will have to be supplemented by targeted interventions so as to alter the structure of endowments.

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