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CHAPTER 24

ECONOMIC PERFORMANCE, POVERTY, AND INEQUALITY IN RICH COUNTRIES

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1 Introduction

Poverty scholars have long emphasized the role of economic performance in poverty reduction (Brady 2009; Gordon 1972). In her masterful history of twentieth-century American poverty scholarship, O’Connor (2001) highlights the prevailing, recurring concern with economic growth and the business cycle. Indeed, there has seemingly always been a group of scholars stressing economic and job growth as the key strategies to combat poverty. For instance, in the series of volumes reviewing American poverty research that emanate from the Institute for Research on Poverty, there has routinely been a chapter on economic performance or business cycles (e.g., Blank 1994, 2009; Ellwood and Summers 1986; Freeman 2001; Tobin 1994). Also, many contemporary scholars emphasize the primacy of economic performance for alleviating poverty (Blank 2000, 2009; Bluestone and Harrison 2000; Balke and Slottje 1993; Sawhill 1988; Williams 1991). For instance, the first sentence of Blank, Danziger, and Schoeni’s (2006:1) book on working poverty reads: “Fluctuations in the economy have a strong effect on the extent of poverty and well-being among low-income families.”

The central thesis of this research is that poverty rises and falls with the business cycle and economic performance. By the business cycle, we are referring to macroeconomic fluctuations in economic growth, unemployment, and employment. Scholars typically conceive of economic performance as slightly broader than the business cycle, and incorporate longer term economic development (typically captured by rising gross domestic product [GDP] per capita) and perhaps the industrial composition of the labor force. The reasons why economic performance matters are straightforward. Higher economic growth and a lower unemployment rates result in more individuals
employed. Because a job is one of the most effective ways to remove a household from poverty (Rainwater and Smeeding 2004), macroeconomic performance should directly influence individual poverty. Moreover, as unemployment declines and economic growth increases, this means firms are hiring, there is greater demand for workers, and wages are likely to rise. As a result, improving economic performance should reduce poverty among the employed as well. In short, there have always been strong arguments for why macroeconomic context matters to poverty.

Despite the long-standing interest in and intuitive logic of these relationships, there has been some fluctuation in exactly how important economic performance is to poverty (Freeman 2008; Haveman and Schwabish 2000). For example, writing in 1986 about the United States, Ellwood and Summers (1986:79) argued that “[e]conomic performance is the dominant determinant of the poverty rate” (emphasis added). In the late 1980s and early 1990s however, American poverty researchers began to question whether economic performance was as good a predictor of poverty as it had been in the past (Blank 2000; Blank and Blinder 1986). Nevertheless, by the late 1990s, economists returned to emphasizing the salience of economic performance. While economic performance was not as effective at reducing poverty in the 1970s and 1980s, Haveman and Schwabish (2000) conclude that economic performance became more effective again in the 1990s. As they write (p. 425), “Strong economic growth and high employment again appear to be effective antipoverty policy instruments.” Similarly, Blank (2000) writes: “A strong macroeconomy matters more than anything else,” and “the first and most important lesson for anti-poverty warriors from the 1990s is that sustained economic growth is a wonderful thing” (pp. 6, 10).

While impressions of the effectiveness of economic performance have fluctuated in the United States over time, there is even greater variation in the effectiveness of economic performance across rich countries (Brady 2009). This variation partly reflects the varying definitions and meanings of poverty across countries. Because most international researchers use relative measures of poverty while U.S. researchers often use the official measure of poverty, this could account for differing conclusions about the effectiveness of economic performance (DeFina 2004). In addition, countries differ massively in their social policies and institutions, and these social policies and institutions are likely to interact with and mediate the effects of economic performance (Lohmann 2009). As a result, and like many questions regarding poverty, there are reasonable bases for expecting that conclusions drawn from the United States do not necessarily generalize to other rich countries.

As illustrated by the temporally and cross-nationally varying effectiveness of economic performance, a rich literature on economic performance and poverty exists. Although poverty researchers have consistently been interested in questions regarding economic performance, there is a fair amount of debate within the field.

This chapter reviews the literature on how economic performance influences poverty in rich countries. In terms of economic performance, we examine the effects of the business cycle, economic growth, unemployment rates, and GDP per capita. While the principal focus of our essay is on poverty, because of the close links between income
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poverty and income inequality, we also incorporate literature on income inequality. Because Wade’s chapter in this volume explores the role of economic growth and economic development in poverty and inequality in developing countries, we concentrate on rich countries. The first section explains the statistical models used to estimate the effects of economic performance on poverty. We concentrate on panel regression models across countries and within countries over time. We devote attention to the particular challenges of panel estimation, stationarity, measurement error, and causality. The next sections discuss studies assessing the effects of economic performance on poverty and income inequality. We consider both studies of within-country and between-country variation. Therefore, a central focus of our review is to highlight the methodological challenges and uncertainties regarding the effects of economic performance on poverty.

2 Statistical and Econometric Issues

The “canonical” model has poverty (or an income distribution statistic) $y$ be a linear function of a vector of $L$ control variables $z$ (including an intercept) and a vector of $K$ variables that measure economic progress $x$ for a country $i$ in year $t$:

$$y_i = x_i' b + z_i' g + a_i + e_i$$

(1)

The dependent variable might be vector valued, in which case the parameter vectors $b$ and $g$ would be matrices. For now, we focus on a single income distribution statistic (i.e., scalar-valued $y$). The term $a$ is an intercept that varies across countries. The error term $e$ captures deviations of $y$ from its expected or projected value, given $x$, $z$, and, possibly, $a$, and is most often assumed to have a constant variance $s^2$. It is in general unnecessary to assume $e$ to be normally distributed. If it were, conditional on $x$, $z$, and $a$, the dependent variable would also be normally distributed, which, considering the dependent variables we discuss are income distribution statistics, might be an odd assumption to make. The parameters of main interest are the coefficients on the economic variables, $b$.

Note that the aforementioned postulates two-dimensional data—the country and time dimensions—but it can easily be extended to include groups within countries as well. For instance, some scholars analyze variation across states or cities and over time (within countries). The country-year dimensions are sufficient for the discussion here, however. Note also that the parameters $b$ and $g$ are assumed to be constant across countries (and time). However, the earlier setup is sufficiently general to allow for the possibility of varying coefficients—for example, by adding country interactions in $x$ and/or $z$ so we do not need to discuss that option separately here.

There are many problems in estimating the parameters in equation (1) that are well understood, such as whether the country intercept $a$ is correlated with either $z$ or $x$ (or parts thereof, the “fixed” vs. “random” effects cases). We discuss later a number of issues that affect the possibility to obtain accurate estimates and perform accurate statistical
inference on the parameters. We discuss, in order, “traditional” panel-data issues (random vs. fixed effects; multilevel models); panel problems related to time series (unit roots, cointegration, dynamic models); problems related to the measurement of both dependent and explanatory variables (measurement errors, proxy variables, sampling and correlated samples); and, finally, whether coefficients can be given causal interpretations.

**Fixed or Random Effects**

For consistent estimation of $b$ and $g$, the data must be reasonably well behaved. In general, we would treat $x$ and $z$ to be fixed, that is, nonstochastic, although it is often sufficient to make the other random variables in the model conditional on those. A key question is whether $a$ can be treated as a “random” or “fixed” effect. This terminology is a little misleading, although well established and refers to whether $a$ has a zero correlation with $x$ and $z$ (note that it need not be independent).

If $a$ is “fixed,” the parameters cannot be consistently estimated by applying least-squares to equation (1) directly as this leads to omitted-variable bias. The solution is to take the mean- or first-differences of the data. Which of these is preferable depends on the properties of the error term $e$—if they are serially uncorrelated, the two are equivalent for purposes of estimating $b$ and $g$, but the two procedures induce somewhat different dependence between consecutive observations that need to be taken into account in calculating the variance matrix of the estimator.

It is well-known that the presence of fixed, as opposed to random, effects can and should be tested for using a so-called Hausman test. The Hausman test relies on asymptotic results (Hausman 1978). Cross-country time series typically have both a small number of countries and relatively short time series. It is not clear how well the Hausman test performs in small samples so some caution needs to be applied. However, mean and first differencing of the data typically disposes of a lot of variance in both the dependent and explanatory variables, so it is prudent to carefully statistically test for the presence of fixed effects.

A possibly underappreciated problem is that the contrasting of only a fixed versus random effects model against each other in the context of equation 1 may mask other problems of misspecification. For instance, suppose there are both a country-level intercept and a country-level trend (random or fixed), or that the coefficients on the other variables vary by country. It is hard to tell a priori how the Hausman test will perform and doing more diagnostic checking is probably a good idea.

**Stationarity and Cointegration**

The typical application in examining the importance of economic performance for poverty involves a relatively small number of time periods. The chief reason for this is
that internationally comparable time series on poverty tends to stretch back no further
than 1970 or so. Moreover, many data sources do not provide annual information. Perhaps for
these reasons, the time series properties of y, x, and z are often not discussed at length.

In the time-series statistics and econometrics literatures, it is well-known that if
each of two time series $y_t$ and $x_t$ are integrated, regressing $y$ on $x$ will result in regres-
sion results that appear to indicate a very strong relationship between the two even
if, in fact, they are unrelated. It is possible for two or more integrated time series to
be associated despite their being integrated, a phenomenon known as cointegration,
when they share at least one common so-called stochastic trend. Detecting both inte-
gration and cointegration requires analysts to use regression techniques and statistical
tests that have nonstandard properties—in the sense of what applies to stationary data
(Hendry 1995).

Problems associated with applying methods to study potentially nonstationary data
on income distribution and its covariates are discussed critically by Parker (2000).
Jäntti and Jenkins (2010) suggest the use of parametric models that may be more ame-
nable to time-series methods than the “raw” income distribution, such as poverty rates
or Gini coefficients, which are often logically bounded (and cannot therefore be coin-
tegrated with unbounded variables).

There is by now a substantial body of statistical methods that allow for the analysis
of the time-series properties of cross sections of time series (Arellano 2003; Hsiao
2014; Cameron and Trivedi 2005). These include tests for whether a collection of
country-level times series $x_{it}$ should be considered integrated, and how to test for and
estimate cointegrated models in panel data. The important point here is that, even
if working with short time series (i.e., $T$ is small) that may suffer from low statistical
power, the problems caused by nonstationarity (of the particular type of integrated-
ness) are present even in very short time series. They may just be hard to detect and
deal with, but they lead to distorted statistical conclusions all the same. Moreover, in
most of the applications we are considering in this chapter, both $n$ and $T$ are small.

Measurement Errors

The conventional wisdom about how measurement errors in the variables in a regres-
sion equation affect estimates is that only measurement errors in the right-hand-side
variables ($x$ and $z$) are cause for concern. Measurement errors in the dependent vari-
able $y$ are considered to lead to decreased explanatory power for the regression—that is,
lower $R^2$—but not lead to inconsistent parameter estimates. It is useful to recall that
the conventional wisdom applies to “classical” measurement errors, meaning here errors
that are independent of (not only orthogonal to) the true values and that have a con-
stant variance. It is well-known that such errors in explanatory variables cause down-
ward bias in the parameter estimates.
Measurement errors in one variable also lead to inconsistencies in the parameter estimates for other variables (sometimes referred to as "contamination bias") and lead to inflated estimates of the residual variance.

However, classical measurement errors— independent of the true value and constant variance— should be considered a best-case scenario. Suppose, for instance, that one of the explanatory variables is the unemployment rate. The estimate of the unemployment rate is

$$\hat{U}_t = \frac{\text{unemployed}}{\text{# labor force}} = \frac{U_t}{L_t}$$

(2)

However, $U$ is a sum of binomial variables, the variance of which are $u(1-u)$ so the standard deviation of $\hat{u}$ is $(u(1-u)/L)^{1/2}$. This renders the measurement errors affecting the observed variable both heteroscedastic— its variance varies from year to year and across countries with both sample size and the true level of unemployment— and makes it, of course, a function of the true value of the unemployment rate, so the two cannot be independent.

To make matters potentially worse, suppose that the unemployment rate (a right-hand-side variable) is estimated from the same data as both another right-hand-side variable— say, the share of single-mother families— and the dependent variable— say, the poverty rate. Then measurement errors are nonclassical and correlated across variables. However, it is possible that measurement errors of the type discussed here— those due to sampling— are small enough to be safely ignored. Even if they are not, they can easily be estimated so that both the estimator and its variance’s inconsistency can be corrected by using the known error variances.6

In the case of variables that measure business cycles and economic performance, which are under discussion here, sampling errors are not necessarily the main concern.7 For both national accounts data and inflation, the key issue is if the empirical measurements capture the true underlying data. National accounts data in particular are subject to frequent revisions, even decades after initial publication. The standard deviations of such revisions are typically of an order of magnitude comparable to (but somewhat smaller than) the standard deviations of prediction errors (Öller and Tallbom 1996).

**Causality**

The possibly most difficult question discussed here relates to whether the relationship between the economic variables and the income distribution statistics can be considered causal. To the best of our knowledge, there is no study that utilizes quasi-experimental evidence of the sort now popular in empirical economics (Angrist and Pischke 2008). An example of this would be a study that compares the effect of an employment shock induced by, for instance, the closure of a large establishment on local poverty or inequality rates, using nearby localities that have not experienced a plant closure as a control group. The problem is partly that one cannot randomly assign
Economic performance to places. Moreover, the problem is also that most “random” economic shocks that could be exploited as instruments or discontinuities are probably correlated both with the independent variable (economic performance) and the outcome (poverty) in a variety of observable and unobservable ways.

However, even the much less demanding concept of Granger causality, which addresses the predictive capacity of different time series for each other, has received little attention in these types of models. One fairly common strategy employs models with fixed effects for both states/countries and time. For example, Brady and colleagues (2013) utilize two-way fixed-effects models to assess the effects of state-level economic growth, unemployment, and GDP per capita for individual-level working poverty in the United States from 1991 to 2010. In their analyses, fixed effects are included for U.S. states and for years, which allows them to net out the stable unobserved differences between states and the generic changes over time.

3 Empirical Literature

Although this Handbook examines a variety of conceptualizations and measures of poverty, here we concentrate primarily on income poverty. Although a few scholars have examined the effects of economic performance on other measures of poverty (e.g., consumption, Meyer and Sullivan 2011), most studies of economic performance have focused on income poverty. That said, this does not mean we need to exclusively examine poverty indices. Models that account for the parameters of parametric distribution functions, such as Metcalf (1969), Thurow (1970) or, recently, Jäntti and Jenkins (2010), can be used to examine the importance of economic progress on poverty. Models that account for the evolution of inequality indices, such as Beach (1977) or Blinder and Esaki (1978), can also be used in conjunction with other information to draw inferences of how poverty varies with economic performance.

We also focus on studies that use regression models and leave aside studies that use decomposition methods, such as shift-share analysis. This is not always a straightforward distinction to make, as decomposition analyses can often easily be rephrased in terms of regressions. The studies we examine can be categorized along many different dimensions: which countries are covered; which time periods are covered, and whether time periods are compared; analyses on between- and/or within-country variation; which measures of poverty are utilized; whether the analyses account for inequality; whether the study focuses on business-cycle indicators alone or in combination with structural aspects of the economy (e.g., the sectoral distribution); whether economic performance is evaluated for poverty overall or decomposed for specific demographic groups; and what control variables are considered. Perhaps above all, previous studies vary considerably in how they address the aforementioned methodological issues and challenges.
We start by discussing studies that explicitly model income poverty and then discuss (more briefly) studies that focus on income inequality. The focus of the inequality studies is what we can learn from the determinants of inequality about income poverty. While not necessarily a lot, some of the findings can be used to deduce how economic progress or cyclical variation affects income poverty. The review of the literature that follows is also organized by whether the studies are comparative or examine only one country.

3.1 Within-Country Studies—Poverty

Perhaps the most prolific and visible literature on economic performance and poverty within countries concentrates on the United States. As noted, many have written about how the business cycle and economic performance shape trends in U.S. poverty (e.g., Balke and Slottje 1993; Blank 1994, 2000, 2009; Blank and Blinder 1986; Ellwood and Summers 1986; Freeman 2001; Hall 2006; Tobin 1994; Williams 1991). Several studies examine historical trends in the United States as a whole, others examine regional variation over time, and still others pool regional or state and temporal variation. As mentioned, much of the literature debates how the effects of economic performance on poverty have changed over time.

In one example, Gundersen and Ziliak (2004) conclude that economic performance has substantial effects on poverty in the United States. They (2004:78, 83) write, “Aggregate business cycle and economic growth do, in fact, ‘lift all boats.’ A strong macroeconomy at both the state and national levels reduces the number of families with incomes below the poverty line and the severity of poverty.” Similar to other studies that find the unemployment rate is the most important aspect of economic performance (e.g., Williams 1991), Gundersen and Ziliak (2004:73) find: “A one-percentage-point decrease in the unemployment rate leads to a 4.5% decline in the short-run poverty rate.” Analyzing the United States between 1963 and 2008, Meyer and Sullivan (2011) find that both income and consumption poverty are negatively associated with the unemployment rate and GDP per capita. Using data on regions in the United States over time, Freeman (2008) finds that poverty is sensitive to unemployment rates and growth. Hence, these studies conclude that poverty does follow the business cycle and is sensitive to macroeconomic conditions.

In one of the more recent contributions, Blank (2009) analyzes the relationship between economic performance and poverty in the United States over a 44-year period. Blank (2009:63) argues forcefully and unequivocally: “Maintaining a high-employment economy, with stable or growing wages and jobs that are readily available to less-educated workers, continues to be the most important anti-poverty policy for this country.” Reflecting the methodological discussions above, she estimates a regression model with the dependent variable of poverty (for the entire United States, and for specific groups like single mothers, families, children, race/ethnic minorities, etc.). Blank concentrates much of her focus on the coefficient for the macrolevel
unemployment rate, and how this coefficient changes over time. She also adjusts for the lagged dependent variable, earnings inequality, and the declining value of the poverty threshold, among other factors. From her analysis, she concludes that there is a strong positive relationship between the unemployment and poverty rates. Specifically, a two-point rise in the unemployment rate leads to a 0.9 point increase in the poverty rate. The unemployment rate had a much weaker relationship with poverty in the 1980s but became more influential in the 1990s and 2000s. She also finds that unemployment has a particularly strong effect on the poverty of children, blacks, and single mothers. Blank (2009:84) ultimately concludes: “these regressions demonstrate that poverty remains very responsive to the economic cycle.” From this evidence, she argues: “Maintaining a strong economy and low unemployment is most important for the long-term economic well-being of low-wage workers . . . the best policy we can pursue for the poor is to keep unemployment low and the economy strong” (p. 86).

In contrast, a few scholars are more skeptical. DeFina (2004) concludes that the effects of economic performance depend heavily on the particular poverty measure used. For several reasonable alternative poverty measures within the United States, DeFina finds no effect of the unemployment rate but a strong effect of earnings growth. Analyzing individuals nested in U.S. states from 1991 to 2010, Brady and colleagues (2013) find that a state’s unemployment rate is positively associated with relative working poverty. However, contrary to expectations, they find that economic growth is surprisingly (and robustly) positively associated with working poverty. They also find no effect of a rising state-level GDP per capita.

There are far fewer time-series-based studies of the determinants of poverty within countries outside the United States. This reflects, at least in part, the fact that because of the War on Poverty in the United States, there are both long time series of poverty and a policy-oriented interest in understanding it evolution over time. A recent exception is Ayala, Cantó, and Rodríguez (2013) who examine the effects of the business cycle (in terms of both unemployment and inflation) on poverty in Spain using regional and quarterly data. They find that the unemployment rate increases and inflation decreases poverty. They also find that the effects depend on the concentration of unemployment within the household. Their evidence further suggests that the poverty-increasing effect of unemployment is magnified in cyclical downturns, that is, the impact is asymmetric.

3.2 Comparative Studies—Poverty

There is a rich tradition in comparative welfare state research to use regression-based methods to examine the determinants of poverty across countries (in general, using time series of cross sections or multilevel models of individuals nested in countries). As the term suggests, the focus is often on how welfare states and political arrangements are related to poverty. Typical welfare state covariates include the generosity of different kinds of welfare state benefits; the relative sizes of traditionally vulnerable population groups, such as single-mother households or the elderly; the political composition (in
terms of Left, Center, and Right parties) of governments; and measures of the strength of labor unions, such as union density. Many of these studies also inform us about economic performance—typically measured by both business cycles and long-term economic performance, such as recent economic growth and unemployment—and measures of economic structure, such as the sectoral distribution of either production or the labor force. However, in this literature, economic performance is often treated as a set of control variables rather than the true object of interest. Moreover, this literature has generally found that the welfare state is more important than economic performance for poverty.

Within his broader study of poverty across rich democracies, Brady (2009) uses data from the Luxembourg Income Study (LIS 2015) to compare different explanations for variations in poverty rates across countries. His analyses show that the sectoral distribution of employment, especially the share in manufacturing, significantly influences poverty. Also, female labor-force participation significantly reduces poverty. Brady also shows that economic growth reduces poverty, while productivity and unemployment are insignificant in all models. Even though he provides evidence of some effects for economic performance and economic structure, the primary objective is to estimate the importance of the welfare state.

Scruggs and Allan (2006) estimate both relative and absolute (defined using price deflators, PPPs and 40 percent of U.S. median income in 1986 as the poverty line) poverty across countries from the mid-1980s to 2000. They use data on disposable income from the LIS. Part of the contribution of their work is to examine not only national accounts based aggregates, such as income per capita, economic growth, and central government spending, but also to include specific measures of the generosity of the welfare state. All their regressions include market income poverty, income per capita, union density, legislative veto points, liberal or socialist regime, and income growth rate across the past five years. These measures are often insignificant, with signs that vary, but seem to have greater impacts on absolute than relative poverty. For instance, neither market income poverty nor economic growth have a particularly consistent or large effect on relative poverty, but the coefficients are largely statistically significant and are the expected sign for absolute poverty (positive for market income poverty, and negative for income per capita). The main object of interest in their paper, however, is the scores for unemployment, sickness, and pension benefit generosity.

Also using data from LIS, Misra and colleagues (2012) compare how household- and country-level, family-policy variables affect the poverty of partnered and single mothers. It is something of a stretch to think of things like average employment, family allowances, parental leave generosity and childcare availability as measures of economic performance—indeed, hitherto we have considered them measures of the welfare state. Moreover, the data are at the individual level when we have mostly considered country-level outcomes. Nonetheless, what emerges from their results is that family allowances and employment levels are important, and largely similar, determinants of poverty for both partnered and unpartnered mothers. To the extent that
employment is influenced by economic performance, it could indirectly influence the poverty outcomes they study.

Brady, Fullerton, and Cross (2009) use individual-level data on working-age adults to estimate multilevel models that incorporate country-level and individual-level variables to predict the incidence of individual relative poverty based on disposable income. The individual-level covariates include household structure, household employment, and presence of the elderly and children. The country-level variables include economic growth, unemployment, and manufacturing employment, as well as a welfare state index. The latter is composed of (relative to GDP) social welfare expenditures, social security transfers, and government expenditures, as well as public health spending as share of total. The welfare state index turns out to be substantially and statistically significantly related to lower poverty, whereas the economic variables do not appear to be consequential.

On balance, some comparative research finds that economic performance is just as, if not more, important as the welfare state to poverty. For example, Hauser and colleagues (2000) argue that unemployment is more important than social policy in explaining trends in poverty in Western Europe. Brady and colleagues (2009) find that the country-level variables welfare state generosity and union density significantly reduce individual-level poverty. However, they also find that individual-level employment is the most powerful predictor of individual-level poverty. Similarly, Brady and colleagues (2010) do not find powerful direct effects of economic performance on working poverty. However, they do find that having multiple earners in the household is an important individual-level predictor of working poverty. They also find that economic performance clearly influences whether an individual is in an employed household. Because individual-level employment (or having multiple earners) is likely driven partly by economic performance, economic performance likely still indirectly, but powerfully, shapes poverty.

Despite these contributions, there are good reasons to suspect that welfare states and other institutions mediate and moderate the effects of economic performance on poverty. For example, a few studies examine the recent economic crisis of 2008 and assess whether this sharp change in economic performance had adverse effects on poverty. Using the EU-SILC, De Beer (2012) finds substantial variation across the EU in how at-risk poverty responded to the crisis.

### 3.3 Related Research on Income Inequality

As mentioned, the literature on income inequality is also relevant here because income poverty and income inequality are closely connected. As a result, we now review some of the research on how economic performance is related to income inequality.

The typical study examines a time series of annual data on either the income shares of quintile or quartile groups, or some inequality index such as the Gini coefficient, where the income shares and inequality indices are usually estimated from household
survey data. The dependent variables are regressed against a number of macroeco-
nomic variables, possibly including both contemporaneous and lagged values (e.g.,
Burniaux et al. 2006). The findings from these studies are reviewed by Parker (1998)
and their methods are discussed critically by Parker (2000).

Most of the earlier studies, including Metcalf (1969), Thurow (1970), Beach (1977),
and Blinder and Esaki (1978), used data for the United States. Other studies include
(1982) and Beach and McWatters (1990) using Canadian data. These studies have typi-
cally found that unemployment had a regressive impact on the income distribution and
that inflation had no statistically significant association with it.

Studies such as Ashworth (1994), Parker (1996), and Mocan (1999), were motivated
by the premise that, if the explanatory variables are nonstationary, then the estimators
of the regression parameters have nonstandard distributions. The argument was that
statistical inference that mistakenly uses standard asymptotic results could and did lead
to erroneous conclusions. The authors applied the framework of dynamic economet-
rics (Hendry 1995) to the analysis of macroeconomic variables and income quantile
group shares or inequality indices. Specifically, they examined whether each time series
had a unit root and if this was the case, they proceeded to model their cointegration
relations.

It can be inappropriate to examine whether inequality indices and income shares
have unit roots, because most commonly used indicators of inequality have logical
bounds. It may also be inappropriate to assume that the relationship between income
inequality and macroeconomic variables is linear. One of the lessons of Metcalf (1969),
Thurow (1970), and McDonald (1992) is that by regressing the distributional param-
eters on macroeconomic variables one may incorporate nonlinear relationships between
distributional characteristics, such as the Gini coefficient, and macroeconomic factors
even though the estimating equations are linear.

There is a large literature on the determinants of inequality within countries. Studies
have been done on the United States (e.g., Nielsen and Alderson 1997), and the United
Kingdom (Jäntti and Jenkins 2010; Taylor and Driffield 2005). Interesting within-
country studies have also been done on many individual countries, such as South Korea
(Lee, Kim, and Cin 2013), and Australia (Leigh 2003; Gaston and Rajaguru 2009). Like
the poverty literature, there is also a large literature comparing inequality across coun-
tries. Although this literature is less focused on short-term variation in the business
cycle, it has often emphasized the role of long-term economic development and sec-
torial change. Because economic performance contributes to such long-term economic
developments, it stands to reason that economic performance could be relevant to
cross-national variation in income inequality. Moreover, even though this literature
also finds that welfare state and labor market institutions are essential, this does not
mean economic performance is irrelevant.

For example, Gustafsson and Johansson (1999) examine factors that caused the rise
in household income inequality in rich democracies to vary over time. Broadly, they
find that five key variables drove the rise in income inequality: employment in industry,
imports from developing countries, public consumption, unionization, and the size of the youth population. Because the sectoral composition of the economy is important, economic performance likely plays a role in variation in income inequality.

Focused on detecting the role of economic globalization, Alderson and Nielsen (2002) find that foreign direct investment (FDI), North-South trade, and immigration have played key roles in driving up income inequality. Direct investment affects income inequality by (1) accelerating deindustrialization, (2) weakening the bargaining position of labor, and (3) altering the distribution of income between labor and capital and the demand for unskilled labor. North-South trade and net migration also positively affect income inequality. Alderson and Nielsen also conclude that the recent inequality experience of rich countries is associated with (1) the long-term labor force shift from the agriculture to the nonagricultural sectors; (2) demographic transition; (3) the continuing spread of education with development; (4) deunionization; (5) the decline of wage-setting coordination; (6) variation in the degree to which welfare states decommodify labor; (7) the growth of female labor-force participation; and (8) deindustrialization. Interestingly, they find that strongest effect on inequality corresponds to the share of the labor force in agriculture. Though slightly less important than labor market and welfare state institutions, they conclude that FDI, North-South trade, and immigration did contribute to the rise in income inequality.

Even among studies emphasizing the role of politics, economic performance remains important. For example, Pillai (2011) shows that income inequality is closely related to the level of democracy. Low-income countries benefit from increased trade. As the countries move toward free trade, income inequality tends to fall. Still, per capita GDP also tends to have an inverse relationship with inequality in all the data sets analyzed. FDI does not seem to be playing the role the literature specifies for it. It creates more inequality and furthers the divide rather than working toward reducing it in low-income countries.

4 Conclusion

This essay examines how economic performance and the business cycle influence poverty in rich countries. For a long time, there has been an extensive literature on how poverty is shaped by economic growth, unemployment rates, economic development, and labor market structure. This literature also has strong links to literatures on welfare states and income inequality. Much of the interest in the effects of economic performance on poverty has been fueled by links between American public policy, the War on Poverty, and academic poverty research. The literature features within-country studies of over-time variation, cross-sectional between-country studies, studies pooling historical and cross-national variation, and increasingly, multilevel studies of individuals nested in countries and time.
There has been considerable debate about how much, when, and under what conditions economic performance drives poverty. American poverty researchers often highlight the relationship between economic performance and the official U.S. poverty rate or absolute measures of poverty, material deprivation, and consumption. The U.S. literature stands out for being most optimistic about the poverty-reducing effects of improved economic performance. For instance, a number of studies provide evidence that official U.S. poverty is strongly associated with the unemployment rate and economic growth. International scholars often fail to find as robust relationships when studying other countries besides the United States, comparing between rich countries, or studying relative poverty and other outcomes. Instead, such researchers tend to find the welfare state is more important than economic performance and that economic performance has only a relatively modest effect on poverty. Even within the United States, it is widely understood that there has been substantial over-time fluctuation in the strength of the relationship between economic performance and poverty. On balance, however, comparativists have increasingly acknowledged that economic performance surely affects individual employment, and individual employment is one of the most important predictors of individual poverty. Therefore, economic performance likely has some contextual, albeit often indirect, influence on the probability of individual or household poverty. Just how large this effect is, and how this effect compares with other contextual influences on poverty, continues to warrant further research and scrutiny.

This essay devotes considerable attention to the statistical models used to estimate the effects of economic performance on poverty. We concentrate on panel regression models across countries and within countries over time and discuss the particular challenges of panel estimation, stationarity, measurement error, and causality. Like many literatures, our view is that scholars should be more aware of the assumptions behind their models and the limitations of their statistical evidence. Progress is occurring in statistically untangling how economic performance and poverty are related, however, the literature still lacks the sorts of stronger causal evidence that is increasingly prominent in empirical economics. Even in the event that scholars can come closer to identifying the causal effects of economic performance, it will remain important to scrutinize even more fundamental methodological issues. We especially highlight the absolutely essential role of careful measurement and sound comparison. Racing ahead to identify causal effects will not be nearly as productive if it comes with sacrificing measurement and comparison.

We conclude by highlighting one central weakness in the literature: the tendency for advocates of economic performance to inflate their conclusions. Especially among American poverty researchers, one routinely finds bold rhetoric about how economic performance and/or the business cycle “have a strong effect on the extent of poverty” (Blank et al. 2006:1); “is the dominant determinant of the poverty rate” (Ellwood and Summers 1986:79); “matters more than anything else” (Blank 2000:6); “is a wonderful thing” (Blank 2000:10); “do, in fact, ‘lift all boats’” (Gundersen and Ziliak 2004:78, 83); “continues to be the most important anti-poverty policy for this country” (Blank
It is noteworthy that one does not find such strong rhetoric in the international literature or in literatures using alternative measures of poverty. Indeed, there is a rather striking imbalance between the strong American rhetoric for economic performance on one side, and the methodological, measurement, and cross-national caution on the other side.

Indeed, our literature review shows that many studies fail to find unequivocal support for the power of economic performance to shape poverty. A broader perspective incorporating literature on the welfare state and income inequality provides even less certainty about the effects of economic performance. Therefore, one limitation of the literature is that proponents of economic performance have not sufficiently engaged with critical studies about the effects of economic performance. More generally, the literature would benefit from greater methodological rigor and caution. At a minimum, future scholars can improve the literature with (a) more depth about the assumptions and limitations of the statistical models used in these literatures; (b) more study of cases besides the United States; (c) more attention to alternative measures of poverty and the limitations of the official U.S. measure; (d) more cross-national comparison; (e) more consideration of the interactive influence of welfare states and political institutions; and (f) more incorporation of the indirect influence through individual employment.

For research on economic performance to advance, we need to move beyond triumphant rhetoric about economic growth. One promising direction is to more fully utilize the extensive cross-national data sets like the Luxembourg Income Study to scrutinize the effects of economic performance on various measures of poverty in many countries in many time periods.

The next generation of research on economic performance has the potential to be more international, more interdisciplinary, and more responsive to skepticism. To the extent that research follows such a path, there are strong reasons to believe we can gain an even better understanding of how economic performance shapes poverty.

Notes

1. First differencing makes two consecutive observations correlated but induces no further correlation. Mean differencing makes all observations within a country correlated across each other.
2. An exception to this is the World Top Income Database (Atkinson et al. 2011). See, for example, Roine, Vlachos, and Waldenström (2009) for a study that uses those data.
3. The periodicity of different data sources is discussed in Section 3.
4. Note that the time series properties of $e$, while related to those of $y$, are not the main worry for stationarity.
5. More precisely, parameter estimates can easily be shown to be downward inconsistent, that is, converge improbability not to the true values of the parameters but to a constant that is closer in absolute value to zero than then true value.
6. See Cameron and Trivedi (2005); see also Jäntti and Jenkins (2010) for an application.
7. Curiously, even though important cyclical variables, such as the rate of inflation, build on sampled data (in the case of inflation, on prices of sampled goods), sampling errors are rarely discussed, which contrasts sharply with data on employment.
8. The U.S. studies include Blank and Blinder (1986) who also examine the poverty rate, and Cutler and Katz (1991) who also examine the effects on consumption inequality. The studies by, for example, Mocan (1999), Ashworth (1994), and Parker (1996) used methods of dynamic econometrics discussed in this chapter.

References


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