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Macroeconomic Performance and the Poverty Rate: A Return to Normalcy?

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Abstract

Since the mid-1980s, several important studies have established the statistical relationship between the poverty rate and overall economic performance. Most of these studies focused on the apparent break in this relationship beginning in the late 1970s or early 1980s. In this paper, we present the results of our study of the relationships reported in these studies, using annual time-series data on macroeconomic variables such as the unemployment rate and per capita GDP growth from 1959 through 1997. Like these earlier studies, we too find that economic performance seems to have had a smaller antipoverty effect during the 1970s and 1980s than it did in earlier years. However, our estimates suggest that the weakened growth-poverty relationship may have been an aberration of this period, and that the "normal" relationship of the 1960s has again been reestablished in the 1990s. This is true even after accounting for changes in earnings inequality over the entire period.

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I. INTRODUCTION

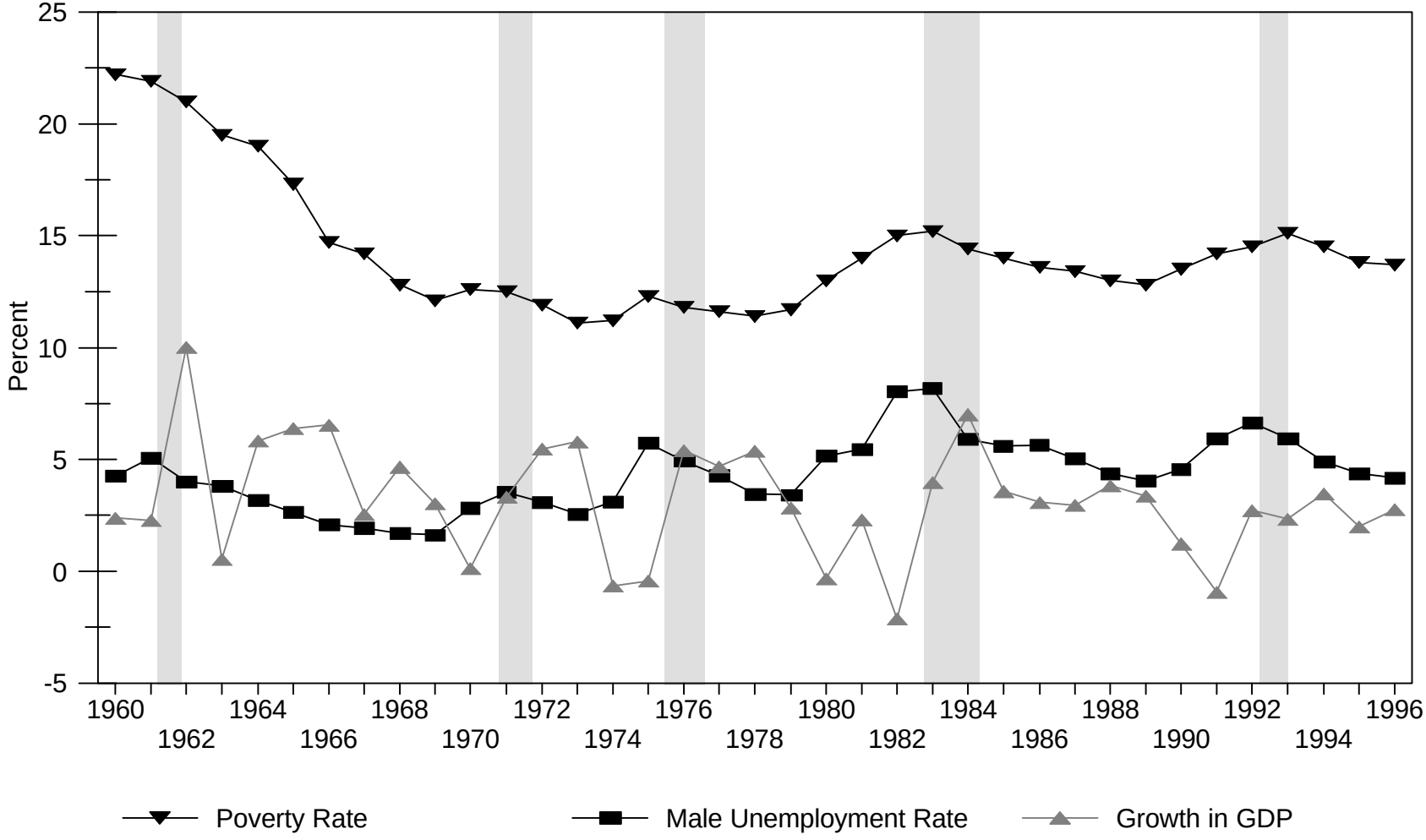
The decade of the 1960s witnessed the longest economic expansion in U.S. history. Since then, however, the economic terrain has not been so smooth. The U.S. economy has experienced the oil crisis of the 1970s, the long and deep recession of the early 1980s, the long expansion of the late 1980s, the recession of the early 1990s, and the long and sustained growth of the past 6 years.

As Figure 1 indicates, since 1960 the nation's poverty rate has roughly reflected these changes in economic performance, rising in times of high unemployment and recessions, and falling during periods of prosperity. During the 1960s, for example, the nation's poverty rate fell as the economy expanded; "trickle down" was the conventional wisdom of the time. A growing and prosperous economy was believed to be the nation's most effective antipoverty policy instrument, and research studies documented this relationship (Aaron, 1967). In that decade, real GDP grew by almost 50 percent, the male unemployment rate fell from 6.4 percent to 2.8 percent, and the poverty rate dropped from 22.2 percent in 1960 to 12.1 percent in 1969.

Beginning in the early 1970s, however, this seemingly robust relationship between macroeconomic performance and the poverty rate seemed less clear. For example, while real GDP grew by approximately 35 percent during the 1970s, the poverty rate dropped only slightly—from 12.5 percent to 11.5 percent. During the 1980s, the link between economic growth and the poverty rate was even less apparent. Over the entire decade, real GDP grew about 30 percent. However, the poverty rate at the end of the period was no lower than at the beginning; after the rate rose steeply during the recession of the early 1980s, it receded very slowly during the ensuing recovery.

The early 1990s saw another steep rise in the poverty rate, accompanying the recession of that period; by 1992 the rate nearly reached the peak of the early 1980s. Since this recession, the nation has

FIGURE 1
Macroeconomic Performance and the Poverty Rate, 1960–97



Source: U.S. Department of Commerce, *Survey of Current Business*, October 1994, Table C-51.
Note: Gray bars represent recessionary periods.

experienced an uninterrupted 6-year run of economic growth. The overall civilian unemployment rate has fallen from 7.5 percent to less than 5 percent over the period, and the rate of growth of GDP has averaged over 3 percent per year. This performance has been reflected in the nation's poverty rate, which fell from nearly 15 percent in 1992 to about 13 percent in 1997.

Since the mid-1970s, then, the nation's record of progress against poverty has been mixed. With the exception of the period of economic growth following the deep recession of the early 1980s, the trend in the poverty rate has been largely positive since that time. While trends in unemployment and GDP growth seem consistent with changes in the poverty rate over the early part of the period, few consistent patterns are in evidence over the past 25 years.

Since the mid-1980s, several important studies have established the statistical relationship between the poverty rate and overall economic performance. Most of these focused on the apparent break in this relationship that seemed to begin in the late 1970s or early 1980s.[1] In this paper, we first review this literature; then we report the results of our study of the relationships reported in these studies, using time-series information extended through 1997. Like these earlier studies, we too find that economic performance seems to have had a smaller antipoverty effect during the 1970s and 1980s than it did in earlier years. However, our estimates suggest that this weakened growth-poverty relationship may have been an aberration of this period, and that the "normal" relationship of the 1960s has again been reestablished in the 1990s.

II. ECONOMIC PERFORMANCE AND THE POVERTY RATE: THE PAST LITERATURE

The earliest exploration of the macroeconomic-performance/poverty-rate relationship is that by Blank and Blinder (1986), who produced time-series regression estimates using annual observations from 1959 (the first year official poverty rates were calculated) to 1983, with the nation's poverty rate (for families and for individuals) as the dependent variable. The explanatory variables were chosen to reflect

a variety of aspects of the macroeconomic environment thought to affect the poverty rate.[2] The prime-age male unemployment rate and the inflation rate were included as standard macroeconomic variables thought to differentially affect higher- and lower-income people, and these were the central focus of the study. The ratio of total government transfers to persons to GDP was included to capture the effect on the poverty rate of rapid expansion of government transfers, especially during the period before 1980. Also included were the ratio of the poverty line (for a family of four) to mean household income (to reflect the fact that an absolute poverty line "falls relative to mean income in times of real growth, an effect that almost by definition will decrease poverty" [page 188]), and the lagged poverty rate to capture the dynamic effects of macroeconomic shocks.

Both the unemployment rate and the inflation rate were positively related to the poverty rate, with the quantitative effect of the unemployment rate substantial. A 1 percentage point change in the unemployment rate was related to a 0.7 point change in the poverty rate and was statistically significant. The authors concluded that "unemployment, not inflation, has the strongest bearing on the well-being of the poor." The empirical approach of this study provided the framework adopted in later estimates.

Cutler and Katz (1991) presented annual time-series estimates from models similar to those of Blank and Blinder, using data extended to 1989. Table 1 (columns 1 and 2) presents their estimates suggesting a break in the traditional macroeconomic-performance/poverty-rate relationship during the 1980s. The first model relates macroeconomic performance (the unemployment and inflation rates) to the poverty rate, controlling for the position of the poverty line in the income distribution. A variable describing the trend in the poverty rate in the post-1983 period is also included to reflect the increase in poverty rates between 1983 and 1989 that is not explained by the macroeconomic variables. The second model also includes the lagged poverty rate.

As in the Blank and Blinder study, the unemployment rate is positively related to the poverty rate, and is statistically significant. The size of the coefficient ranges from 0.36 to 0.45, implying a

TABLE 1
Macroeconomic Performance and the Poverty Rate: The Early Studies

	(1) Cutler/ Katz (1991) (1959–1989)	(2) Cutler/ Katz (1991) (1959–1989)	(3) Blank (1993) (1959–1989)	(4) Powers (1995) (1984–1992)
Constant	—	—	-5.44	-5.1
			(4.246)	(4.185)
Poverty line/mean income	0.699	0.371	0.386	0.366
	(0.027)	(0.067)	(0.103)	(0.111)
Lagged poverty rate	—	0.479	0.337	0.371
		(0.098)	(0.116)	(0.119)
Inflation rate	-0.085	0.05	0.076	0.081
	(0.041)	(0.040)	(0.041)	(0.049)
Unemployment rate	0.454	0.358	0.646	0.584
	(0.057)	(0.046)	(0.262)	(0.224)
Post-1983 trend	0.539	0.316	—	—
	(0.076)	(0.073)		
Government transfers/GDP	—	—	-0.293	-0.278
			(0.261)	(0.237)
Dummy variable (post-1982 =1)	—	—	-9.112	-3.41
			(11.462)	(2.39)
Government transfers/GDP*dummy variable	—	—	1.338	0.787
			(1.105)	(0.247)
Male UR * dummy variable	—	—	-0.925	-0.748
			(0.320)	(0.190)
Inflation + dummy variable	—	—	—	-0.039
				(0.149)
Adjusted R^2	0.982	0.990	0.988	0.986
Number of observations	30	30	30	33

somewhat smaller impact than in Blank and Blinder. The coefficient on the post-1983 trend variable is positive and significant in both models (0.54 in the base model and 0.32 when the lagged poverty rate is also included), suggesting an increase in the poverty rate between 1983 and 1989 of between one-third and one-half percentage point annually that is not explained by macroeconomic changes. From this, they conclude that the relationship between macroeconomic growth and the poverty rate in the post-1983 period was quite different than in the earlier period.[3]

Blank (1993), also using time-series data through 1989, presents additional evidence of a changed macroeconomic-performance/poverty-rate relationship in the post-1983 period. Column 3 of Table 1 is the same basic model as Cutler and Katz but adds (1) a variable measuring the ratio of government transfers to GDP, (2) a dummy variable for the years from 1983 to 1989, and (3) the 1983–1989 dummy variable interacted with both the male unemployment rate and the transfer policy variable. The coefficient on the unemployment rate is 0.65, which is close to that in the Blank and Blinder study. However, when the unemployment rate is interacted with the post-1993 dummy variable, it appears to have the opposite effect in the post-1983 period than in the earlier period.[4] These estimates also support the conclusion that macroeconomic performance had lost its antipoverty bite in the post-1983 period.[5]

A more recent study of this issue is by Powers (1995), who extends the time-series data through 1992. Her results, shown in column 4 of Table 1, provide additional support for the hypothesis of a broken or badly eroded macroeconomic-performance/poverty-rate relationship during the 1980s. The coefficients on the macroeconomic variables are consistent with prior studies. The coefficient of 0.58 on the unemployment rate suggests that a 1 percentage point decrease in the unemployment rate was associated with about a one-half percentage point decrease in the poverty rate during the years prior to 1983. The coefficient on the inflation rate is small and positive and marginally significant, and that on the government transfer variable is negative.

Powers interacts the macroeconomic variables with a dummy variable for the period after 1982 to test the hypothesis that the relationship between these variables and the poverty rate changed during the 1980s. These coefficients indicate a reversal of the effect of macroeconomic performance during the post-1982 period. For example, the coefficient on the interaction variable indicates that during the postrecession expansion of the 1980s, a decrease in the unemployment rate is associated with an *increase* in the poverty rate [0.584 + (−0.748) = −0.164].

Two other studies have also presented results that support the hypothesis of a changed macroeconomic-performance/poverty-rate relationship during the 1980s. Blank and Card (1993) examined the relationship between regional unemployment rates, wage rates, the dispersion of wage rates, and poverty rates from 1968 to 1991. They concluded that marked changes in the operation of the labor market during the 1980s—in particular, wage rate stagnation (related to the slowdown in productivity growth) and growing wage inequality—accounted for the changed impact of macroeconomic factors on the poverty rate.

Finally, Tobin (1994) related changes in the nation's poverty rate to changes in real wage growth and unemployment, arguing that both of these macroeconomic indicators are important determinants of poverty.[6] He finds that models relating macroeconomic performance to poverty in the period prior to 1982 predict lower poverty rates during the post-1982 period than were actually observed, and also concludes that a break in the normal pattern occurred during the 1980s.[7]

III. HAS THERE BEEN A RETURN TO NORMALCY?

These research studies, then, strongly suggest that the "normal" economic-performance/poverty-rate relationship was greatly weakened, or in fact "broken," during the 1980s. An interesting question is whether this situation has persisted into the 1990s or whether the traditional relationship has again been reestablished. In this section, we extend the time-series data through 1997[8] and ask if, indeed, the 1980s

pattern was a deviation from the normal relationship and if in the 1990s "normalcy" has returned. We first explore the "drift" in the poverty rate after the 1980s and follow this by exploring the effect of the unemployment rate on the poverty rate in different periods. Then, using the same models, we ask if the effect of changes in the growth of GDP on the poverty rate yields the same conclusion regarding a changed relationship. Next, we estimate more full-blown models that incorporate both of these macroeconomic indicators. Finally, we introduce a variable measuring changes in earnings inequality and ask if this phenomenon affected the poverty rate, and if introducing it into the estimates changes the conclusion regarding the pattern of macroeconomic effects.

A. Has the "Drift" in the 1980s Persisted into the 1990s?

In a number of earlier studies, a post-1982 trend variable was used to determine if the poverty rate changed in this period apart from what would have been predicted by the macroeconomic variables (see, for example, Cutler and Katz, 1991; Powers, 1995). These studies find a coefficient on the post-1982 variable of about 0.2, suggesting an upward drift of the poverty rate during this period of 0.2 of a percentage point per year.

Using time-series data through 1997, we extend this model; the results are presented in columns 1 and 2 of Table 2. Column 1 attempts to directly test for a changed trend in poverty persistence. We divide the time after 1982 into two periods, one that ends in 1992 and the other that encompasses the 1993–1997 period. We also add a dummy variable designed to capture a poverty rate "level" difference for these two periods. The estimates indicate that each of the two post-1982 periods has an average poverty rate that exceeds what is predicted by the model, and that the rate in the most recent period exceeds what would be expected by 3 percentage points. The coefficients of interest are the trend variables, indicating that the poverty rate drifted up during the 1982–1992 period by about 0.18 of a percentage point per year after controlling for a variety of macroeconomic factors, nearly identical to the estimate in Cutler and Katz. However, the coefficient on the trend variable for the period after 1992 is

TABLE 2
Unemployment and the Poverty Rate: Authors' Estimates

	(1) 1959–1997	(2) 1959–1997	(3) 1959–1997
Constant	-9.336 (1.558)	-14.949 (3.705)	-17.942 (2.429)
Poverty line/mean income	0.427 (0.081)	0.624 (0.142)	0.705 (0.103)
Lagged poverty rate	0.431 (0.105)	0.292 (0.132)	0.196 (0.109)
Inflation rate	0.077 (0.037)	-0.0002 (0.059)	-0.019 (0.044)
Unemployment rate	0.221 (0.066)	0.058 (0.118)	0.347 (0.117)
1973–1981 dummy	—	—	0.874 (0.477)
1982–1992 dummy	0.613 (0.453)	0.507 (0.444)	1.943 (0.771)
1993–1997 dummy	2.928 (0.727)	2.141 (0.085)	0.157 (1.095)
UR * 1973–1981 dummy	—	—	-0.456 (0.133)
UR * 1982–1992 dummy	—	—	-0.484 (0.118)
UR * 1993–1997 dummy	—	—	-0.041 (0.185)
Entire-period trend	—	0.107 (0.064)	0.178 (0.033)
1982–1992 trend	0.182 (0.039)	0.099 (0.062)	—
1993–1997 trend	0.064 (0.117)	-0.074 (0.141)	—
Number of observations	38	38	38
Adjusted R^2	.985	.985	.991

substantially smaller than this, suggesting that during the most recent period the poverty rate has drifted upward by only about 0.06 of a percentage point per year after controlling for macroeconomic conditions.[9]

Column 2 adds a trend variable for the entire period to the model estimated in column 1. The coefficient on this trend variable indicates an upward drift in the poverty rate by about 0.1 of a percentage point per year since 1960, after controlling for the macroeconomic variables included in the model. The coefficient on the 1983–1992 trend variable indicates an *additional* upward drift of 0.1 of a percentage point per year during this period. However, after 1992, the poverty rate has shown a very small additional upward drift of 0.03 of a percentage point per year, after accounting for the entire-period upward trend. Again, after controlling for macroeconomic performance (unemployment rate), the strong upward trend of the poverty rate in evidence during the 1980s appears to have been muted or eliminated in the period after 1992.

B. Has the Antipoverty Effectiveness of the Unemployment Rate Changed over Time?

A second test of changes in the effect of macroeconomic performance on the poverty rate across periods is possible by interacting the unemployment rate with period-specific dummy variables for the periods of interest. Column 3 of Table 2 presents estimates of this differential interperiod effect. In this estimate, we include the entire-period trend variable, dummy variables for three periods after 1972, and the three dummy variables interacted with the unemployment rate. The coefficients on the interaction variables indicate that, relative to the early period (1960–1972), the unemployment rate had an unexpected *negative* impact on the poverty rate during both the 1970s and the 1980s (the coefficients are −0.456 and −0.484, respectively, both of which exceed the coefficient on the entire-period unemployment rate variable).[10] However, for the most recent period, the coefficient on the interaction variable is a very small −0.041, leading us to conclude that the effect of the unemployment rate on the poverty rate in this period is about what it was in the pre-1972 period.[11]

C. The Poverty Rate and the Growth of GDP

Though the unemployment rate would seem to be more proximate to the poverty rate than a macroeconomic indicator reflecting the growth of the entire economy, we ask if the patterns observed for the unemployment rate exist when the growth rate of GDP is used as the macroeconomic indicator.

A regression of the poverty rate on the rate of GDP growth for various periods[12] yields the following coefficients:

1960–1975	−0.247
1976–1982	−0.119
1983–1992	−0.167
1993–1997	−0.232

The pattern is indeed suggestive. While the early period shows a strong relationship between economic growth and the poverty rate, the link is substantially reduced during the entire middle period. However, after the recession of the early 1990s, the expected relationship seems to have reappeared: the −0.232 estimate for the 1993–1997 period approximates that for the pre-1975 period.[13]

Table 3 presents estimates for the three models shown in Table 2, but with the GDP growth rate lagged by 1 year replacing the unemployment rate. Column 1, which includes both dummy variables and trend variables for the two post-1982 periods (1982–1992 and 1993–1997), again suggests that the 1982–1992 period experienced upward drift of the poverty rate. However, after 1992 the poverty rate has, if anything, drifted *downward* from that predicted by the model, which is even stronger evidence of a changed macroeconomic-performance/poverty-rate relationship in the most recent period than is revealed in Table 2.

As in Table 2, column 2 of Table 3 adds the entire-period trend variable to the estimation. The coefficient on this variable is almost identical to that in Table 2 and indicates that after controlling for macroeconomic factors, the poverty rate has drifted up by about 0.1 of a percentage point per year since 1960. An *additional* upward drift of 0.08 of a percentage point per year is recorded for the 1982–1992 period. However, after 1992, the poverty rate has drifted downward by about 0.1 of a percentage point

TABLE 3
Lagged GDP Growth and the Poverty Rate: Authors' Estimates

	(1) 1959–1997	(2) 1959–1997	(3) 1959–1997	(4) 1959–1997
Constant	-9.792 (1.841)	-14.912 (2.476)	-17.303 (2.594)	-16.821 (2.807)
Poverty line/mean income	0.451 (0.092)	0.622 (0.103)	0.687 (0.107)	0.651 (0.119)
Lagged poverty rate	0.453 (0.122)	0.313. (0.121)	0.292 (0.121)	0.300 (0.119)
Inflation rate	0.131 (0.038)	0.010 (0.055)	-0.023 (0.056)	-0.009 (0.051)
Unemployment rate	—	—	—	0.236 (0.130)
UR * 1973–1981 dummy	—	—	—	-0.296 (0.085)
UR * 1982–1992 dummy	—	—	—	-0.229 (0.093)
UR * 1993–1997 dummy	—	—	—	0.002 (0.150)
Lagged GDP growth	-0.072 (0.029)	-0.030 (0.030)	-0.086 (0.039)	-0.064 (0.035)
Lagged GDP growth * 1973–1981 dummy	—	—	0.130 (0.060)	0.080 (0.044)
Lagged GDP growth * 1982–1992 dummy	—	—	0.121 (0.060)	0.101 (0.048)
Lagged GDP growth * 1993–1997 dummy	—	—	-0.069 (0.316)	-0.237 (0.213)
1973–1981 dummy	—	—	-0.802 (0.363)	—
1982–1992 dummy	1.508 (0.344)	0.649 (0.437)	-0.349 (0.570)	—
1993–1997 dummy	3.739 (0.706)	2.154 (0.853)	0.395 (1.132)	—
Entire-period trend	—	0.113 (0.041)	0.187 (0.039)	0.192 (0.033)
1982–1992 trend	0.140 (0.044)	0.079 (0.045)	—	—
1993–1997 trend	-0.041 (0.125)	-0.108 (0.114)	—	—
Number of observations	37	37	37	37
Adjusted R^2	.978	.982	.982	.987

per year, after accounting for the entire-period upward trend. Again, there is a suggestion that, after accounting for the effect of macroeconomic performance, the upward drift of the poverty rate in evidence during the 1980s has been reversed in the most recent period.

Column 3 of Table 3 corresponds to its counterpart in Table 2, again with the lagged GDP growth rate substituted for the unemployment rate. The entire-period trend variable is included in this specification; the coefficient of 0.187 suggests an upward trend in the poverty rate over the post-1960 period consistent with Table 2 estimates. In this model, the coefficient on the lagged GDP growth rate interacted with the dummy variable for the most recent period is negative (–0.069), reinforcing the negative overall effect of the lagged GDP growth rate (–0.086). The sum of the two coefficients indicates that, after accounting for other macroeconomic variables, a 1 percentage point increase in the lagged GDP growth rate is associated with a reduction of 0.15 of a percentage point in the poverty rate in the recent period. This result contrasts with that of the 1973–1981 and 1982–1992 periods in which the positive coefficients (0.130 and 0.121) on the interaction variables more than offset the negative coefficient on the lagged GDP growth rate, indicating that during the period from 1973 to 1992, increases in the GDP growth rate were associated with *increases* in the poverty rate. Again, these results suggest that the normal macroeconomic-performance/poverty-rate relationship is again in evidence during the most recent growth period.

D. Unemployment, GDP Growth, and the Poverty Rate

Column 4 of Table 3 presents the results of a model that includes both the unemployment rate and the lagged GDP growth rate as macroeconomic determinants of the poverty rate. These variables are also interacted with dummy variables for the three periods (1972–1981, 1982–1992, and 1993–1997); the entire-period trend variable is also included. The coefficient on the entire-period trend variable suggests an upward drift of the poverty rate of about 0.19 of a percentage point per year, which is slightly larger than the other estimates. The unemployment rate is positively associated with the poverty rate (0.236),

and lagged GDP growth is negatively associated with the poverty rate (−0.064). For both the 1973–1981 and 1982–1992 periods, the negative coefficients on the unemployment interaction variable (−0.296 and −0.229, respectively) virtually offset the overall coefficient, suggesting that the unemployment rate is unrelated to the poverty rate during the 1973–1992 period. However, the situation is reversed for the most recent period; the slightly positive coefficient on the interaction variable during the 1993–1997 period (0.002) suggests that the effect of the unemployment rate on the poverty rate during this time is about as strong in the recent period as it was in the years prior to 1973. The sum of the overall unemployment rate coefficient and that for the most recent period interaction variable indicates that since 1992 a 1 percentage point decrease in the unemployment rate is associated with a decrease in the poverty rate of 0.23 of a percentage point.

The overall pattern is similar in the case of the lagged GDP growth interaction variables. Both of the earlier period interaction coefficients are positive, and more than offset the negative coefficient on the lagged GDP growth variable. Again a perverse positive relationship is in evidence during the 1970s and 1980s. However, the magnitude of the coefficient on the interaction variable for the 1993–1997 period is substantial (−0.237), indicating that the positive GDP-growth/poverty-rate relationship was stronger in the recent period than is generally revealed in the model. The sum of the interaction coefficient for this period and the overall coefficient on the GDP growth variable suggests that in recent years, a 1 percentage point increase in the GDP growth rate is associated with a decrease of 0.3 of a percentage point in the poverty rate.

E. Does Labor Market Inequality Matter?

These estimates suggest that during the 1970s and 1980s, macroeconomic performance was not closely associated with the poverty rate, but that the expected relationships are again in evidence in the most recent period. One possible explanation for this pattern may be that changes in labor market performance over the period, in particular the growth in earnings inequality, may have offset the effects

of economic growth on the reduction in poverty. While this possibility has been raised in earlier discussions,[14] it has not been formally introduced into the analysis of the macroeconomic-performance/poverty-rate linkage.

Table 4 presents a series of estimates of the relationship of labor market inequality to the poverty rate over the 1963–1996 period, using the variance of the logarithm (Vln) of earnings of all workers as the indicator of labor market inequality.[15] In column 1, the simple relationship between earnings inequality and the poverty rate is shown. This relationship is positive and significant, suggesting that increases in earnings inequality are associated with increases in the poverty rate. Hence, some of the aberrant patterns observed over the 1970s and 1980s could be due to changes in earnings inequality.

In column 2, we include the base set of variables (save the ratio of the poverty line to mean income, which is also a proxy for changing inequality), dummy variables for the 1982–1992 and 1993–1996 periods, trend variables for these two periods, the entire-period trend variable, and the labor market inequality variable.[16] The inequality variable is again positively related to the poverty rate, although the magnitude of the coefficient has dropped from that shown in column1. As in Tables 2 and 3, the entire-period trend coefficient is positive, indicating upward drift of the poverty rate over the 1963–1996 period. Consistent with prior results, the coefficient on the trend variable for the 1982–1992 period is positive, even after controlling for the entire-period trend effect. And, as before, the most recent period indicates a downward trend in the poverty rate, after controlling for the macroeconomic indicators included in the model.

In column 3, we add the unemployment rate and lagged change in GDP variables (the two central macroeconomic indicators), and also interact these variables with period-specific dummy variables.[17] As in prior estimates, the unemployment rate is positively, and lagged GDP is negatively, related to the poverty rate. The coefficient on the earnings inequality variable is very small when this full set of macroeconomic variables is included in the model, as is that on the entire-period trend variable. Taking

TABLE 4
Earnings Inequality, Macroeconomic Performance, and the Poverty Rate: Authors' Estimates

	(1) 1963–1996	(2) 1963–1996	(3) 1963–1996
Constant	3.251 (4.460)	-6.524 (4.120)	-0.228 (2.775)
Lagged poverty rate	—	0.873 (0.092)	0.914 (0.068)
Inflation rate	—	0.170 (0.073)	0.187 (0.060)
VAN earnings	5.933 (2.529)	3.711 (2.519)	-0.758 (1.517)
Unemployment rate	—	—	0.605 (0.199)
UR*1973–1981 dummy	—	—	-0.363 (0.143)
UR*1982–1992 dummy	—	—	-0.316 (0.158)
UR*1993–1996 dummy	—	—	-0.112 (0.262)
Lagged GDP growth	—	—	-0.057 (0.061)
Lagged GDP growth* 1973–1981 dummy	—	—	0.009 (0.078)
Lagged GDP growth*1982–1992 dummy	—	—	0.037 (0.086)
Lagged GDP growth*1993–1996 dummy	—	—	-0.308 (0.387)
1982–1992 dummy	—	-0.209 (0.874)	—
1993–1996 dummy	—	1.746	—
Entire-period trend	—	0.018 (0.055)	0.016 (0.037)
1982–1992 trend	—	0.159 (0.124)	—
1993–1996 trend	—	-0.196 (0.276)	—
Number of observations	34	34	34
Adjusted R^2	.120	.906	.943

into account the interaction variables, the poverty rate is estimated to have decreased by about 0.25–0.3 of a percentage point for each percentage point decrease in the unemployment rate during the 1973–1992 period; however, during the most recent period the response of the poverty rate to the unemployment rate appears to be nearly twice as large. Similarly, a 1 percentage point increase in the GDP growth rate was associated with small decreases in the poverty rate during both 1973–1981 and 1982–1992 (0.05 and 0.02 of a percentage point, respectively), but with a larger decrease of 0.37 of a percentage point in the most recent period.[18] These patterns are consistent with the view that the weakened connection between macroeconomic performance and poverty so emphasized by recent research may in fact be an aberration associated with the decades of the 1970s and 1980s, rather than a permanent break in the pattern.

V. CONCLUSION

Most economists now agree that, beginning in the mid-1970s but especially after 1980, the strong historical relationship between broad measures of macroeconomic performance (e.g., per capita real GDP growth and unemployment rates) and the nation's poverty rate was no longer in evidence. However, there is less agreement regarding what might have led to this decreased antipoverty bite of macroeconomic factors.

Echoing Card (1991), Blank (1993) took the position that the source of the change was *not* the decrease in the generosity and accessibility of welfare and public income support benefits (these benefits only moved poor people closer to the poverty line, but not out of poverty even before the reductions), *nor* the changing demographic composition of the poor population (even though the poor population had become increasingly populated by single mothers with children, they were at least as responsive to economic growth as other groups), *nor* by changes in the way poverty was measured after 1980, *nor* by the availability of jobs for low-skilled people. Rather, the reduced antipoverty bite of economic growth was "entirely due" (Blank's wording) to the stagnation of average real wages and the reduction in wages

for those workers with low skills. The argument here is that economic growth was continuing to do its job, but that its impacts were being undone by adverse labor market developments.

Other observers do not minimize the effect of sagging wage rates for low-skilled workers and the accompanying inequality, but they have emphasized that other factors also seem to be at work. For example, Tobin (1994) noted the increases in the number of unemployed and discouraged workers among youths, especially those of color, suggesting changes in job opportunities for these low-skilled groups. Moreover, Gottschalk and Danziger (1993) and Lerman (1995) found a sizable effect of changes in family headship patterns on the poverty rate. And, both Blank (1993) and Powers (1995) noted the role of reduced income transfer generosity after the early 1980s. This evidence suggests that these factors may also have played a role in explaining the observed break in the economic-performance/poverty-rate relationship during the 1980s.

Our estimates, however, suggest that the historically strong relationship between macroeconomic performance and the poverty rate had eroded during the 1970s and 1980s; even after controlling for changing labor market inequality, the unemployment and GDP growth rates appear to have had a smaller effect during this period (Table 4). However, our estimates also suggest that this relationship may well have reestablished itself. Strong economic growth and high employment may again be the nation's most effective antipoverty policy instrument.

While such a conclusion may be reassuring, it rests on a relatively small number of data points in the post-1992 period, and this period may itself be an aberration. Moreover, future developments may again offset the ability of the tide of economic growth to raise all boats. Skill-biased technological change could contribute to growth that generates but little in the way of increased earnings for low-skilled workers. Continued increases in labor force participation of youths, immigrants, and others with relatively low experience could also restrain wage growth in entry-level jobs. Persistent growth in female-headed families, and especially the movement of many of them from welfare to work as a result

of the 1996 federal welfare reform legislation, could also counteract the antipoverty effect of economic growth. Finally, when the value of cash welfare benefits (which enter directly into the numerator of the poverty measure) decline or disappear as this legislation envisions, their contribution to poverty reduction will also evaporate. In the face of such trends, the nation could again see solid macroeconomic performance that does not reduce poverty.

APPENDIX

Variables and Sources

Poverty Rate - percentage of persons living below the poverty level. Source: *Statistical Abstract of the United States*. From data set for 1959–1992 used in Powers (1995), updated through 1997.

Poverty Line - weighted average poverty thresholds for families of four. Source: Bureau of the Census. From data set 1959–1992 used in Powers (1995), updated through 1997.

Mean Family Income - income of families in 1996 dollars (all races). Source: Bureau of the Census. From data set 1959–1992 (with corrections) used in Powers (1995), updated through 1997.

Male Unemployment Rate - unemployment rate for males (all races), ages 25 to 54. Source: *Statistical Abstract of the United States*. From data set 1959–1992 used in Powers (1995), updated through 1997.

Real Gross Domestic Product - real GDP (billions of chained [1992] dollars). Source: *Economic Report of the President–1998*.

Variance of Logarithm of Earnings - Variance of the natural log of the "annual wage and salary income of all persons, 16 years and over, with positive wage and salary income" (Levy and Murnane 1992, reporting results of estimates in Bluestone, 1989). Updated through 1996 using Current Population Survey extraction data set.

Inflation Rate - Consumer Price Index for all items (CPI-U). Source: *Economic Report of the President–1998*. From data set used in Powers (1995), updated through 1997.

Notes

[1]See especially Blank and Blinder (1986), Cutler and Katz (1991), Blank (1993), and Powers (1995).

[2]The models were not viewed as measuring causal relationships, or as reflecting a structural economic model of the determination of the poverty rate.

[3]Cutler and Katz (1991) also explore the effect of the macroeconomic variables on three age-specific poverty rates. The unexplained increase in poverty after 1983 was statistically significant for children and families headed by a working-age person, but not for the elderly. The coefficient on the estimate of the children's poverty rate suggests that the children's poverty rate in 1989 was 5 percentage points higher than expected. When the authors relate the macroeconomic indicators to the income distribution, using models similar to those in Table 1, the post-1983 trend variable indicates a large change in income shares that is not explained by the macroeconomic variables, especially for those in the lowest quintiles.

[4]The sum of the coefficients on the unemployment rate (0.646) and the unemployment rate interacted with the dummy variable (−0.925) is −0.279. The combination of the coefficient on the public transfer variable and that variable interacted with the post-1983 dummy variable also suggests a changed relationship between this variable and the poverty rate between the two periods.

[5]Blank further examines this "break" by analyzing the effect of macroeconomic performance on the poverty rate of six different demographic groups. The lower responsiveness of the poverty rate to macroeconomic factors in the post-1983 period held for all six groups examined: all persons, children less than 18 years old, the elderly (older than 64), all families, female-headed families, and black families. And, while growth in the 1980s did affect some groups more than others, no group's poverty rate responded more strongly to economic growth than in the 1960s. For example, while the expansion in the 1960s had a substantial effect in reducing the black poverty rate during this period, virtually no effect was recorded in the post-1983 period.

[6]Unlike the prior studies, Tobin estimated his time-series models as first differences, constraining the constant term to be 0.

[7]Tobin also finds that prior relationships describing minority and youth unemployment rates, and minority and youth "discouraged worker" patterns, seem not to hold in the post-1982 period, with both shifts indicating deterioration in labor market opportunities for these high-poverty groups in the latter period. He cautiously and uncomfortably attributes this result to structural labor market factors.

[8]The definitions of the variables and their sources are presented in the Appendix.

[9]While the upward drift for the 1982–1992 period is positive and significant, that for the most recent period is not. The small number of observations for the 1993–1997 period contributes to the high standard error on this variable. This problem will affect most of our estimates for the recent period. While our discussion emphasizes the coefficient estimates, our findings can only be tentative, given the relatively small number of observations in the post-1992 period.

[10]The coefficients on the interacted variables are to be interpreted as "adjustments" to the overall coefficient on the unemployment rate. Hence, negative coefficients on the interaction variables indicate a reduced effect of the unemployment rate during the indicated period.

[11]The sum of the coefficient on the unemployment rate (0.341) and on the unemployment rate interacted with the dummy variable for the period after 1992 (0.187) is 0.528.

[12]We broke the period since 1960 into a standard set of subperiods that characterize the American economy since 1960. We lump the 1960–1975 years into a single period, suggesting that the oil price increases of the early 1970s separate it from the stagflation years of 1975–1982. The 1983–1992 period reflects the growth years between the major recession of the early 1980s and that of the early 1990s. The period from 1993 through 1997 reflects the most recent period of economic growth.

[13]Powers (1995) reported this relationship using more restrictive time-series data from 1960 to 1989 and concluded: "During the 1960s, a 1 percent increase in the annual growth of GDP was typically accompanied by a .4 percentage point reduction in the poverty rate. In the 1970s, however, the effect of GDP growth on poverty reduction was slightly more than half that amount, and this weaker relationship persisted throughout the 1980s."

[14]See Card (1991), who noted this possibility in his discussion of Cutler and Katz (1991).

[15]We have taken the estimates of this value in Levy and Murnane (1992), taken from Bluestone (1989), for the years from 1963 to 1987. We supplemented this published series with direct estimates of this value from the public use files of the Current Population Survey for 1988 through 1996. Hence, our estimates reported in this section do not include data from 1997, in contrast to estimates in Tables 2 and 3.

[16]This model is parallel to the column 2 models in Tables 2 and 3.

[17]This model is parallel to that in column 4 of Table 3.

[18]Card (1991) suggested that the connection between macroeconomic performance and poverty still existed during the 1980s, but that it was obscured by the increase in income inequality. Our results suggest that, after controlling for changing inequality, macroeconomic performance continued to have an impact on the poverty rate during this period; however, its antipoverty bite was reduced from its historic norm.

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