

Relationship between  
Inequality and Economic Growth

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# 1 Introduction

This survey examines the relationship between income inequality and economic growth, a topic that has generated extensive and often conflicting empirical evidence. While parts of the early literature suggest a positive association between inequality and growth, subsequent studies have produced mixed results. This paper reviews three influential empirical contributions that adopt distinct methodological approaches to this question. By comparing their data choices, identification strategies, and key findings, the survey highlights the main methodological challenges in this literature and discusses how these differences help explain the divergent empirical results.

## 2 Forbes — A Reassessment of the Relationship between Inequality and Growth

A large part of the empirical literature concludes that income inequality negatively affects economic growth. However, other studies find a positive relationship, suggesting that the sign of the inequality–growth relationship is not robust across empirical specifications. In particular, the estimated effect of inequality appears to depend strongly on exogenous factors such as initial income levels and political institutions. Forbes (2000) challenges the prevailing view by arguing that the negative relationship between inequality and growth may be less common than widely believed.

One explanation for the mixed empirical findings is the presence of measurement error in inequality data. In particular, underreporting of income at the top or bottom of the distribution may bias estimates of inequality and, in turn, distort the estimated relationship with growth. In addition, omitted variables correlated with both inequality and economic growth—such as institutional quality or human capital accumulation—can lead to biased estimates of the inequality coefficient in either direction. A further

complication is that the growth effects of policies affecting income inequality are theoretically ambiguous, making causal interpretation difficult.

To address concerns related to data quality, Forbes (2000) employs the Deininger and Squire (1996) high-quality inequality dataset in a panel-data framework. By focusing on within-country variation over time and controlling for unobserved country-specific heterogeneity, Forbes estimates the short- to medium-run relationship between changes in inequality and economic growth. The results indicate that increases in income inequality are positively and significantly associated with economic growth over these horizons.

Despite the improved consistency of the Deininger and Squire dataset, its use comes at the cost of a substantially reduced sample size. The limited coverage is particularly pronounced for developing countries, which were underrepresented in early inequality datasets. Moreover, the reliance on five-year averaged data restricts the analysis to relatively short time horizons. With the availability of longer and higher-quality inequality series today—especially for developing economies—future research could exploit extended panels and alternative aggregation strategies to reassess the robustness of Forbes’s findings.

### **3 Barro — Inequality and Growth in a Panel of Countries**

Barro (2000) discusses four main channels through which income inequality may affect economic growth and investment: credit-market imperfections, political-economy mechanisms, sociopolitical unrest, and differences in saving behavior. Using data over three decades from 1965 to 1995, Barro conducts an empirical analysis similar in spirit to Forbes (2000), examining the relationship between inequality, growth, and investment. As in Forbes, inequality is measured using the Deininger and Squire (1996) dataset. However, the high-quality subset of this dataset contains relatively few observations. To mitigate this limitation, Barro augments the sample with additional observations that

appear nationally representative but lack clearly identified primary sources.

Unlike Forbes, who exploits within-country variation over time, Barro's identification relies primarily on cross-country variation. Estimating regressions with the Gini coefficient as the main measure of inequality, Barro finds that the average relationship between inequality and economic growth is close to zero. He then allows for heterogeneity by interacting inequality with real GDP per capita, effectively splitting countries into low- and high-income groups. The results indicate a negative relationship between inequality and growth among low-income countries, while the relationship becomes positive for high-income countries.

Barro further addresses potential confounding factors by including a wide range of control variables, such as schooling, regional dummies, institutional indicators (including democracy), and measures of trade openness. His results suggest that greater openness is associated with higher levels of inequality. In addition, Barro examines the role of investment as an indirect channel, arguing that inequality may influence growth partly through its effect on investment behavior.

Despite the inclusion of numerous control variables, Barro's approach does not fully resolve concerns regarding omitted-variable bias, as many controls are themselves endogenous and measured with error. Moreover, the use of GDP per capita to define heterogeneous effects raises interpretational challenges. Since economic growth directly affects income levels, GDP per capita may not cleanly capture the underlying mechanisms—such as financial development or institutional quality—that condition the inequality–growth relationship. Consequently, grouping countries solely by income level risks conflating structurally heterogeneous economies that differ substantially in political institutions, financial systems, and education levels.

## 4 Ostry, Berg Tsangarides — Redistribution, Inequality, and Growth

Ostry et al. (2014) provide a more recent contribution to the literature by examining the medium-term relationship between redistribution, inequality, and economic growth. The authors employ panel growth regressions as well as growth-spell duration models, using lagged values of key variables as instruments to address potential endogeneity. Their main findings can be summarized as follows: more unequal societies tend to redistribute more; lower net inequality is associated with faster and more sustained economic growth; and redistribution, on average, does not appear to have a negative effect on growth.

The authors emphasize the difficulty of disentangling correlation from causality in the relationship between inequality and redistribution. Redistribution may alter individual incentives, as higher taxation can reduce labor supply among high-income individuals, while transfers may weaken work incentives among lower-income groups. Redistribution is defined as the difference between market (pre-tax and transfer) inequality and net (post-tax and transfer) inequality. Over the full sample period, overall inequality remains broadly stable; however, when the sample is split into OECD and non-OECD countries, net inequality is found to have increased primarily in OECD economies.

Empirically, the paper documents a significant negative relationship between net inequality and subsequent growth in income per capita, alongside a positive but relatively weak association between redistribution and growth. Recognizing that inequality, redistribution, and growth are jointly determined, the authors control for a range of standard growth determinants, including physical and human capital accumulation, external shocks, institutional quality, and trade openness. The inclusion of these controls does not materially alter the main results: inequality appears harmful to growth, while there is no robust evidence that redistribution is growth-reducing.

A key limitation of the analysis is the measurement of redistribution as the difference between market and net inequality, which does not capture how transfers are implemented or which groups benefit from them. As a result, important differences in policy design across countries are obscured. Moreover, inequality and redistribution are highly persistent and closely linked to slowly evolving institutions. Consequently, their lagged values may still affect current economic growth through channels other than contemporaneous inequality or redistribution, potentially weakening the validity of the instruments and limiting the causal interpretation of the results.

## 5 Conclusion

Taken together, Forbes (2000), Barro (2000), and Ostry et al. (2014) show that differing empirical strategies can lead to markedly different conclusions about the relationship between income inequality and economic growth. While all three emphasize the importance of data quality and measurement error, they differ substantially in identification strategies, time horizons, and definitions of inequality, which helps explain the heterogeneity of their findings.

In particular, the estimated effect of inequality on growth varies with the time horizon considered: short- and medium-run analyses may yield positive or weak effects, whereas longer-run perspectives and measures of growth sustainability tend to find a negative association. Despite these advances, establishing a clear causal relationship remains difficult due to endogeneity, persistence in inequality measures, and data limitations. Looking forward, the growing availability of longer and higher-quality inequality series, along with broader coverage of developing economies, may help future research provide more robust causal evidence on the mechanisms linking inequality and growth.

## References

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