



World Economic Situation and Prospects

Weekly Highlight

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Income inequality and economic growth

Efficiency and equality are two perennial issues economists have been pursuing for centuries. While some economists tend to study these two issues separately, others have indeed attempted to examine the relationship between efficiency and equality. For example, when focusing on the relationship between GDP growth and income inequality, economists are split on their views.

One group of economists believe income inequality has positive effects on economic growth, as inequality can provide incentives for innovation and entrepreneurship, and can also increase saving and investment. In contrast, another group argues that inequality is detrimental to economic growth because inequality can impede the building of human capital (education and health) and it also leads to political and economic instability that discourages investment. In the middle, some economists suggest the relationship may be nonlinear: increases in inequality from low levels can enhance growth, but as inequality rises beyond a certain range it will hamper growth.

In order to provide empirical evidence for the debate on the relationship between inequality and growth, most recently in an IMF Staff Discussion Note entitled “Redistribution, inequality, and growth”,² the authors analysed a large dataset covering some 150 countries in 40 years. As shown in figure 1, they found a negative correlation between income inequality and future growth (10 years later). This suggests that income inequality leads to low and unsustainable growth. Stimulated by their study, we attempt to test whether there are other alternative relationships between inequality and growth.

As shown in figures 2-4, when we adopted a step-wise approach to analyse the correlation between income inequality and future growth for different ranges of income inequality, we found that the correlation would remain positive until the Gini coefficient moves up to 42% before turning negative afterward. Thus, our result seems to support the nonlinear hypothesis that income inequality can go along with economic growth (or at least not be harmful to growth) when the degree of income inequality is modest, but when inequality increases to relatively high levels, it will be detrimental to growth. In this sense, our result qualifies the outcome of the IMF Note, suggesting that policies for reducing inequality should be mostly focused on countries with a high degree of income inequality, rather than universally.

Given the availability of the huge dataset, more sophisticated analyses can be carried out. For example, for the given value of a Gini coefficient at about 40 per cent, GDP growth varies in an extremely wide range, from -8 per cent to 10 per cent (figure 1), implying that there must be other important factors that have had significant influence on the relationship between inequality and growth. With a high degree of heterogeneity among the 150 countries and in the span of 40 years, we have to take into account country-specific factors, such as the differences in domestic economic and political institutions and the stage of development in analysing the relationship between income inequality and growth. More importantly, we also need to keep it in mind that income inequality is just one of many facets of inequality and GDP growth is, at best, an approximate of the broader economic efficiency. The quest for efficiency and equality continues.

Figure 1
Growth and Gini coefficient
(full sample)
(Growth = 3.997 - 0.0479 * Gini)

Figure 2
Growth and Gini coefficient
(Gini less than 30 per cent)
(Growth = 0.827 + 0.0615 * Gini)

Figure 3
Growth and Gini coefficient
(Gini less than 40 per cent)
(Growth = 1.727 + 0.0287 * Gini)

Figure 4
Growth and Gini coefficient
(Gini less than 50 per cent)
(Growth = 3.484 - 0.0322 * Gini)

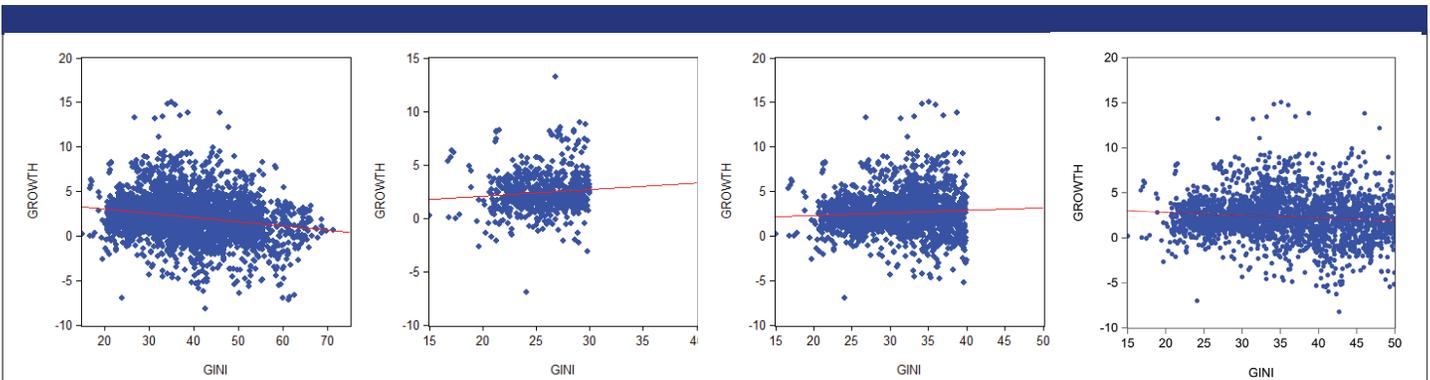


Figure 1 - Source: Jonathan David Ostry, Andrew Berg and Charalambos G. Tsangarides (2014), “Redistribution, inequality, and growth”, IMF Staff Discussion Note 14/02 (Washington, D. C.: International Monetary Fund), February, available from <http://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf>.

Figures 2, 3, 4 - Source: UN/DESA.

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² Jonathan David Ostry, Andrew Berg and Charalambos G. Tsangarides (2014), “Redistribution, inequality, and growth”, IMF Staff Discussion Note 14/02 (Washington, D. C.: International Monetary Fund), February, available from <http://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf>. The dataset used for this weekly highlight was kindly provided by the quoted authors.