Comments on “Growth, Inequality and Social Welfare: Cross-Country Evidence” by Dollar, Kleineberg and Kraay

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General comments

• Nice paper.

• Well-written.

• Pretty clear and transparent in its objectives and procedures.

• Nice intuition and clear explanation of the analytical framework and of the analytical results.

• Paper obviously linked to previous results in Dollar and Kraay (2002) and Dollar, Kleineberg and Kraay (2013).
Problem

• However ....

• I have a problem with the interpretation and relevance that they give to some of their results and with the strength of some of the main conclusions that are inferred from the paper.
Main conclusion

From the abstract:

“... we find that **most of the cross-country and over time variation in changes in social welfare is due to changes in in average incomes. In contrast, the changes in inequality observed during this period are on average much smaller than changes in average incomes, are uncorrelated with changes in average incomes, and have contributed relatively little to changes in social welfare.”
Decomposition of social welfare growth

• A key result in this paper:

\[ \frac{dW}{W} = \frac{d\mu}{\mu} + \sum_{i=1}^{n} \delta_i \frac{dS_i}{S_i} \]

• Growth in social welfare can be additively decomposed into growth in average incomes and a weighted average of changes in income shares.
• From the previous result, we know that the slope coefficient of a OLS regression of growth in social welfare on growth in average income is given by:

\[ 1 + COV\left(\frac{d\mu}{\mu}, \sum_{i=1}^{n} \varepsilon_i \frac{ds_i}{s_i}\right) / VAR\left(\frac{d\mu}{\mu}\right) \]

• If the slope of such regression turns out to be 1, this implies that the slope coefficient of a regression of changes in inequality on growth is 0.
Key empirical results

Two key empirical results:

• Estimated slope of regression of SW growth in average income growth cannot be rejected to be equal to 1.

  • which implies the “absence of any statistical significant correlation between changes in average income and changes in inequality that are relevant for the social welfare measures we consider.”

• Regarding the variance decompositions, the authors conclude: “for most social welfare functions, the variation in growth in social welfare is due to growth in average incomes.”
Share of the Variance of Social Welfare Growth Due to Aggregate Income Growth for Different SWF

<table>
<thead>
<tr>
<th>Sen Index</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>90%</th>
<th>40%</th>
<th>20%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High income</td>
<td></td>
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<tr>
<td>Middle Income</td>
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<td>Low Income</td>
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</table>
• Aggregate income growth explains a smaller share of the variance of social welfare growth as we move from SWF that put low emphasis on the bottom part of the distribution (such as the Sen Index, the Atkinson (1) or the bottom 90%) towards those that give more weight to this part of the distribution (such as the Atkinson (3) or the bottom 10 or 20% variants).

• In the case of Atkinson (3) and Bottom 10%, the contribution of changes in relative incomes is higher than that of aggregate income growth.

• Therefore, the choice of SWF matters.
• Within variants, the contribution of income growth to the variance of SW growth is always smaller for low income countries than for high income countries.

• This means that inequality changes are more relevant for SW growth in low income countries.

• This result seems not trivial considering the objectives and the countries where the The World Bank is more present.
Share of the Variance of Social Welfare Growth Due to Aggregate Income Growth for Different SWF

<table>
<thead>
<tr>
<th></th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sen Index</td>
<td>0.9</td>
<td>0.87</td>
<td>0.93</td>
</tr>
<tr>
<td>Atkinson (1)</td>
<td>0.9</td>
<td>0.87</td>
<td>0.93</td>
</tr>
<tr>
<td>Atkinson (2)</td>
<td>0.85</td>
<td>0.83</td>
<td>0.89</td>
</tr>
<tr>
<td>Atkinson (3)</td>
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<td>0.74</td>
<td>0.79</td>
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<tr>
<td>90%</td>
<td>0.9</td>
<td>0.88</td>
<td>0.94</td>
</tr>
<tr>
<td>40%</td>
<td>0.92</td>
<td>0.87</td>
<td>0.94</td>
</tr>
<tr>
<td>20%</td>
<td>0.93</td>
<td>0.86</td>
<td>0.94</td>
</tr>
<tr>
<td>10%</td>
<td>0.94</td>
<td>0.85</td>
<td>0.95</td>
</tr>
</tbody>
</table>
• Over time, and regardless of the SWF analyzed, the contribution of income growth (inequality) to the variance of SW growth has diminished (increased).

• This result could explain the recent worldwide concern with inequality that it is also described in the text.
• Now, it must be said that all of these results are acknowledged in the paper, but they are not necessarily given enough emphasis nor they are incorporated (or not strongly enough) into the conclusions.

• For example,

“One consistent pattern, however, is that the share of the variance of growth in social welfare due to growth in average incomes declines slightly as we move from the 1980s to the 1990s to the 2000s.”
Is it a sampling variation problem?
Last but not least ...

• Finally, it is likely that by using Household Surveys the authors might be underestimating the variance of inequality and therefore its contribution to the variance of social welfare growth.

• Example: Mexico
Thanks!