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Comparison of Equality and Levels of Wellbeing across the Former USSR Countries Pre and Post Dissolution

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Introduction

Previous researches concerned mainly with micro-equality in human development. We believe that macro-equality levels as well important to address the variations of wellbeing across united or local areas. Macro-equality sometimes reflects the micro-equality level in areas where different population groups live in different areas. Inequality across local areas might initiate conflicts between marginalized areas and the federal governments. For these reasons and others, there is a need for more emphasis on macro-equality issues; and for developing robust indicators to measure it.

The case of the dissolution of USSR states is a good example to examine the pre and post macro-equality in human and economic development across these countries, and to find out the gainers countries, and the losers ones. Moreover, this would be a good chance to evaluate the merits and shortcomings of unity and dissolution.

Definition of Concepts

We would introduce in the paper the following definitions to differentiate between macro-equality and variability; and to classify different types of macro-equality: Macro-equality concept is concerned with linked subdivisions which are tied by inter-beneficial commitments, for example states or districts; whereas variability is concerned with independent units, for example countries. We classify Macro-equality into four types: enforced, induced, inertial and chance. Enforced equality is developed by deliberate actions. Induced equality is developed by association of the concerned variable with other variables. Inertial equality is the case where the variable has an upper bound; in this case the more the number of units approach this bound the higher the equality level across them. Chance, is the case where equality developed by pure chance; this is likely to be the case of independent units; the case which we defined as variability rather than equality. However, sometimes underdeveloped countries might be supported by international programs to be pushed towards fixed target of human development level. In this

case the achievements from these programs could lead to an equality level that can be described as enforced macro-equality.

Methodologies

We developed an index to measure macro-equality level in different variables within subdivisions of a region or between regions. We also developed a method to evaluate the improvement of equality across these units through time. The methodology of these developments was illustrated in two papers the first presented in the 2015 IARIW-CAPMAS Conference in Cairo taking Sudan as case example, and the second accepted for the 2018 IARIW general conference in Copenhagen, taking the ECC countries as case example. The key points of these methods are:

The mean values of the percentages of different variables' values from their totals would be equal for all variables provided that the numbers of cases are equal for these variables.

A Macro-Equality Index (MIE) with comparability validity was developed from the percent values and calculated as follows:

$MEI = SM - SSD$ where SM is the mean of the percentages denoted as standardized mean, and SSD is the standardized standard deviation of the percentages denotes as standardized standard deviation.

The maximum value of MEI equals SM when $SSD=0$, and the minimum value equals zero when $SM=SSD$. The percent of MEI from SM would be used when the total number of cases is not equal for all variables.

The Correlation Coefficient value (CC) was used to measure macro-equality development power of a variable across units through time by correlating (the values of the variable at the base year) and (their differences from the values at a future time). A complete equality would be attained when the CC value of this relationship equals -1. A complete inequality would result when the CC of this relationship equals +1.

Data

The HDI was used to measure human development levels. The values of this index for the pre and post former USSR countries have been obtained from UN website for the years 1990, 1995, 2000, and 2005 and from the World Bank website for the years between 1990 and 2017. As the year of dissolution of USSR states was 1991, the World Bank data captures data for the last year before dissolution (1990); the UN data includes the year 1990 and the year 1995 which was not far from the dissolution year. There are some gaps in the UN data for all years, and in WB data for the year 1990; however, we have managed to make best estimates.

Summary of finding and conclusions

Equality level in HDI across the former USSR countries started to decline in 1995 after four years of dissolution, and then it started to increase again in 2000 after 5 years from the beginning of its decline.

The decline in equality level after short time of dissolution in these countries was more likely due to the higher increase in HDI levels in more developed USSR countries compared to the less developed USSR countries. The increase in equality in the following five years could be attributed to the higher increase of the pace of human development levels in less developed USSR compared to the more developed USSR countries.

After around 20 years of dissolution equality started to fluctuate up and down yearly between 2010 and 2015 and then it increased with small pace during 2015-2017.

The fluctuation of levels of equality in 2010-2015 could be illustrated by the different levels of efforts of all USSR countries to improve their human developments levels. In the last period after 2015 when HDI values in these countries approached its upper limit the pace of increase of HDI decreased relatively for all countries which resulted in improvement of equality.

Macro-equality type changed through pre and post dissolution time from enforced equality during unity to chance equality after dissolution and finally to inertial equality when all levels of HDI approaches the maximum 100% level of equality.

As a general conclusion we found that although the unity of the former USSR countries was in favor of equality in human development levels across them, it was not in favor of the improvement of the levels of human development itself.

