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# How Should Policymakers Use Gender Equality Indexes?



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We look at the development of gender inequality in transition countries through the lens of the Gender Inequality Index (GII), which aims to capture overall gender inequality. Extending the measure back to 1990, we look at the development of the overall index as well as that of its components. We show that, even though gender inequality in transition countries for the most part has decreased since 1990, once overall development is taken in account these countries appear to fare better in 1990 than today. We also caution against relying exclusively on composite indexes to understand patterns of gender inequality. While the desire of policy makers to get one number that captures gender inequality development is understandable, weak correlations of the GII with other indexes (over years when multiple gender inequality indexes exist) as well as across sub-indexes suggests that such an approach has limitations. Finally, we emphasize the need to understand levels as well as trends and underlying mechanisms to better inform policy to improve gender equality.

## On Measuring Progress

When studying economic development, or any issue really, one faces the challenge not only of finding the right way to identify and measure what are often complex changes, but also of communicating the bottom line efficiently. This naturally leads to the search for a single metric according to which we can rank progress and follow it over time. In the realm of economic development the standard measure is GDP growth. But, of course, focusing only on GDP leaves out many important dimensions of development, such as health and education. In an attempt to capture these dimensions, while still arriving at a single number that measures development, the Human Development Index (HDI) was developed in the late 1980s. Since then, a number of alternative indexes capturing additional aspects of human wellbeing have been suggested; see the report by the “Commission on the Measurement of Economic Performance and Social Progress” (Stiglitz, Sen and Fitoussi, 2009).

Just as for overall development, there is great interest in single measures that capture the gender dimension of this development. Over the past decades a number of such “gender equality indexes” have been developed by international organizations such as the UNDP, the EIGE (European Institute for Gender Equality) and the WEF (World Economic Forum), to name a few.

These measures receive a lot of attention and in particular the reporting of country rankings tends to have an influence on political and policy discussions. The various indexes proposed differ in what dimensions they include (as will be explained below) and, much as a consequence of this, in the time periods they can cover. In some cases (as will also be shown below) it is possible to extend the time coverage of the indexes, but most of the times it is hard to recover the underlying data.

In this brief we summarize what the most popular indexes tell us about the development of gender equality in transition countries, contrasting these to Western European countries.<sup>1</sup> Whenever we have been able to find the underlying data, we also add to publicly available measures by extending indexes back to early 1990s. We then comment on the development of gender equality in transition countries and, perhaps most importantly, on why an indexes-based analysis should be interpreted with some care.

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<sup>1</sup> In contrast to a common perception, economists are generally well-aware of the limitations of GDP as a measure of welfare. In fact, the reference manual of national accounts, the SNA 2008, makes this explicit in stating that there is “no claim that GDP should be taken as a measure of welfare and indeed there are several conventions in the SNA that argue against the welfare interpretation of the accounts”.

<sup>2</sup> By “transition countries,” we refer to all countries that were part of the Soviet Union plus the Central and Eastern European countries that were heavily influenced by the Soviet Union before 1990 (not including Albania and former Yugoslavia). Starting from this, we – as will be made clear below – sometimes limit the set of countries further depending on data availability.



## Gender Equality Before 1990

As has often been pointed out, the Soviet Union and many of the countries in Eastern and Central Europe were, at least in some dimensions, forerunners in terms of promoting gender equality (e.g., Brainerd, 2000; Pollert, 2003; Campa and Serafinelli, 2018). This was mainly due to the high participation of women in the labor market as well as the (official) universal access to basic health care and education.

However, some scholars have suggested that not all aspects of gender equality were as advanced in the countries in the Soviet Union and in Central and Eastern Europe (Einhorn, 1993; Wolchik and Meyer, 1985). Even though women were highly integrated in the labor market, they were also still expected to take care of child rearing and house work (UNICEF, 1999). The gender pay gap and gender segregation in the labor market was also similar to levels found in OECD countries. In addition, despite the high number of women in representative positions in communist party politics, women were rarely found in positions of real power in the political sphere (Pollert, 2003).

Generally speaking, while the communist regimes succeeded in promoting women's access to the labor market and tertiary education, they failed to eliminate patriarchy (LaFont, 2001). Such a dichotomy gives rise to a broad set of questions regarding gender equality in transition countries as well as the measurement of gender equality in this context. What happened to gender equality, in relation to economic growth, during the transition, when new governments often broke with the tradition of promoting women's employment and education? Did gender equality enhanced by communism leave a legacy or did underlying patriarchic values characterizing many of the communist societies come to dominate? How should we regard developments of indexes that try to weight several components within a context, such as that of transition countries, where these components may move in different directions from each other, given the dichotomy characterizing gender relations?

## The Different Indexes

There are several different indexes that are often quoted in policy discussions. Two important measures are the Gender Development Index (GDI) and the Gender Inequality Index (GII), both calculated by the UNDP and reported annually in the Human Development Report (HDR). A third, more recent index that has received increasing attention is the World Economic Forum's global Gender Gap Index (GGI), which is published in the yearly Gender Gap Report. These three can serve as illustrations of what gender equality indexes typically try to capture.

The Gender Development Index (GDI) essentially measures gender differences in the Human Development Index (HDI). The HDI in turn aims to capture achievements in three basic dimensions of human development: health (measured by life expectancy), knowledge (measured by expected and mean years of schooling) and living standards (measured by GNI per capita). The GDI then basically tries to assess the relative performance in these three dimensions for men and women respectively. If health (or education, or income) in the population on average goes up, this improves the HDI. But to the extent that the improvements are felt differently by men and women, this will show in the GDI. There are several potential problems with the measurement of this index, especially when it comes to dividing GNI per capita between men and women (see e.g. Dijkstra and Hanmer, 2000); on the other hand, the index offers a transparent way to connect gender inequality to the HDI measure.

The other UNDP measure, the Gender Inequality Index (GII), was reported for the first time in the 2010 Human Development Report. It was created to address some of the perceived shortcomings of its forerunner, the Gender Empowerment Index (GEM) which had been introduced together with the GDI in



1995 (see e.g., Klasen and Schuler, 2011 for problems with GDI as well as GEM). The GII measures gender inequalities in three dimensions of human development: 1) reproductive health, measured by maternal mortality and adolescent birth rates; 2) empowerment, measured by representation in parliament and secondary education among adults; and 3) economic status, measured by labor force participation. As with the GDI, the areas of health, education, and economic empowerment are present, but the index also considers some aspects of health that are more directly relevant for women, and includes a component trying to capture political participation. The economic measure of labor force participation is also somewhat easier to interpret (and measure) than GNI divided between men and women. As for the GDI, GII country-values from 1995 are available on the UNDP website. Conveniently for our purpose, most of the underlying data that the index is based on are also made available from the UNDP for the years 1990, 1995, 2000, 2005, and every year between 2010 and 2015, with the only exception of female seat share in parliaments in 1990<sup>3</sup>. We downloaded the latter from the World Bank indicators database<sup>4</sup>. We also added information on the share of women in the 1990 Polish Parliament, from the Inter-Parliamentary Union<sup>5</sup>, and on the share of women in the 1990 Georgian “Supreme Council,” from Beacháin Stefańczak and Connolly (2015).

A third more recently developed index is the Global Gender Gap Index. This covers areas of political empowerment, health and survival, economic participation and educational attainment, as measured using 14 different variables. An indicator is available for each of the sub areas covered, which are then weighted together in an overall indicator of the gender gap. The Global Gender Gap Index is clearly more detailed and provides a more nuanced picture of existing gender gaps compared to the GDI or the GII. But this amount of detail also comes with potential costs; it is more difficult to interpret the overall index as there are more underlying components that may change simultaneously, and it is also more difficult to reconstruct the index back in time.

## What Does the GII Index Tell Us About Gender Equality in Transition Economies?

Among the above mentioned indexes, we focus on the GII here. Extending this measure when possible allows us to study gender inequality starting from 1990 for a limited set of countries (we expand the sample of countries when looking at different dimensions of the GII separately below).<sup>6</sup> Figure 1 reports values for the index in box plots, which show the index median, maximum, minimum, 75<sup>th</sup> and 25<sup>th</sup> percentile for two groups of countries: transition countries and Western-European countries. When interpreting Figure 1, recall that higher GII values imply more inequality.

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<sup>3</sup> <http://hdr.undp.org/en/data>

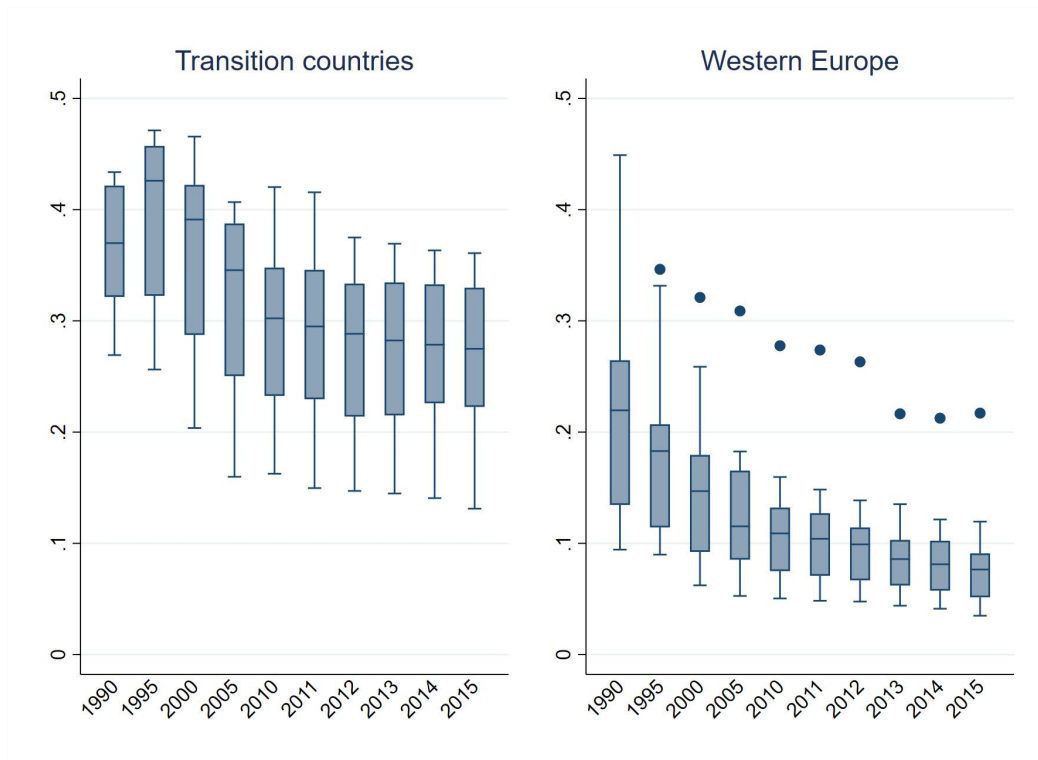
<sup>4</sup> <https://data.worldbank.org/indicator/SG.GEN.PARL.ZS>

<sup>5</sup> [http://archive.ipu.org/parline-e/reports/2255\\_arc.ht](http://archive.ipu.org/parline-e/reports/2255_arc.ht)

<sup>6</sup> For Western Europe these countries are: Austria, Belgium, Cyprus, Denmark, Finland, France, Greece, Iceland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland. The transition countries are: Armenia, Bulgaria, Georgia, Hungary, Poland, Romania, Russian Federation.



Figure 1. The Gender Inequality Index in transition countries and Western Europe, 1990-2015



Source: Own calculations based mainly on UNDP data.

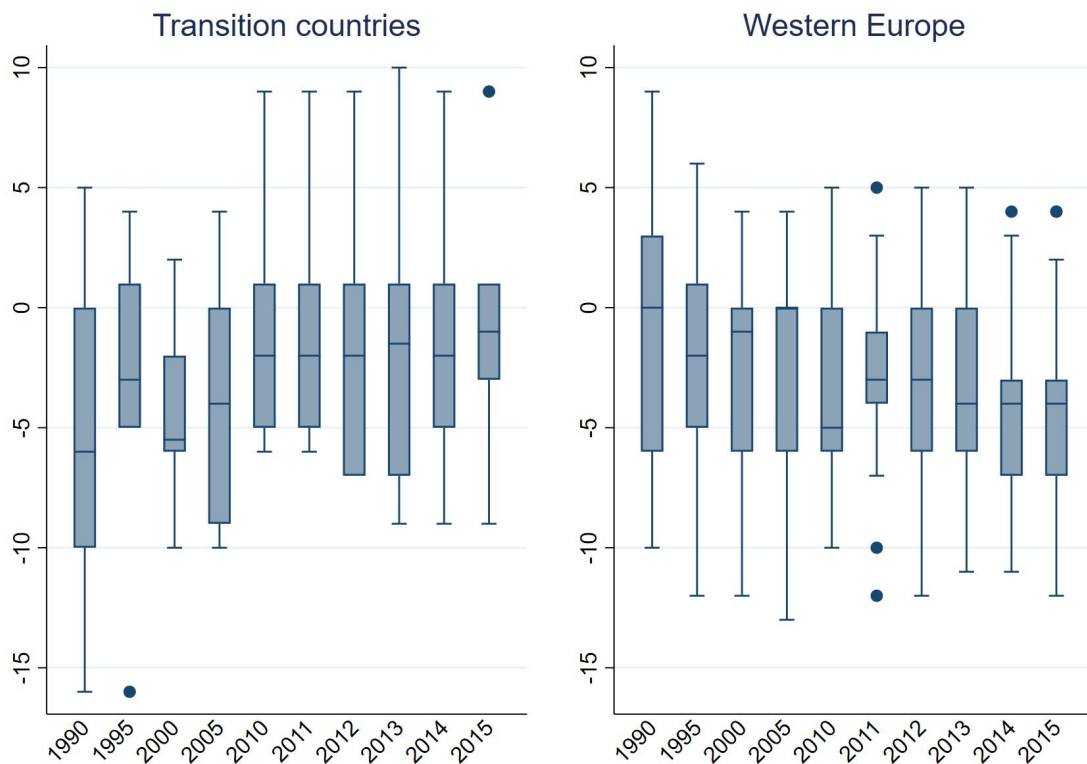
Figure 1 shows that based on the GII, median gender inequality is larger in transition countries than in Western Europe and has been so throughout the entire period since 1990. In both regions the index shows a decreasing trend, after an initial increase in 1995 in the transition countries. Below we will show that this is mainly due to a drop in female representation in national parliaments. The variance of the index scores has declined over time in Western Europe, while it remained mostly unchanged in the transition countries.<sup>7</sup>

This first piece of evidence from the data is somewhat at odds with the common notion that transition countries enjoy relatively low level of gender inequality. However, two qualifications are in order here. First, transition and Western European countries are generally at different levels of development. Figure 2 displays the country groups performance in relation to their level of human development. This is done by measuring the difference between their GII ranking and their HDI ranking among all the countries with non-missing GII values in the years considered. The larger the difference, the worse the group performance in terms of gender inequality in relation to its level of development.

<sup>7</sup> The outlier among Western countries is Malta.



Figure 2. Difference between Gender Inequality Index ranking and Human Development Index ranking in transition countries and Western Europe, 1990-2015



Source: Own calculations based mainly on UNDP data.

The trends of transition countries and Western Europe are now opposite. In the former group, in 1990 the median standing in terms of gender equality was better than that in human development; this difference appears to have narrowed over time, and it is close to zero in 2015. Western European countries have instead improved their gender equality in relation to their level of overall human development over the period studied. Put differently, the gains in human development made by former socialist countries since the transition have not translated into comparable gains in gender equality as measured by the GII index.

Second, it is also important to emphasize that, as noted above, according to several scholars the socialist push in favor of gender equality was directed only to certain spheres of women’s lives, namely their economic empowerment. This suggests that a composite index can mask important contrasting patterns among its components.

In Figures 3 to 5 we document that different variables indeed paint quite diverging pictures of gender inequality in transition countries.



Figure 3. Development of adolescent births and maternal mortality, 1990-2015

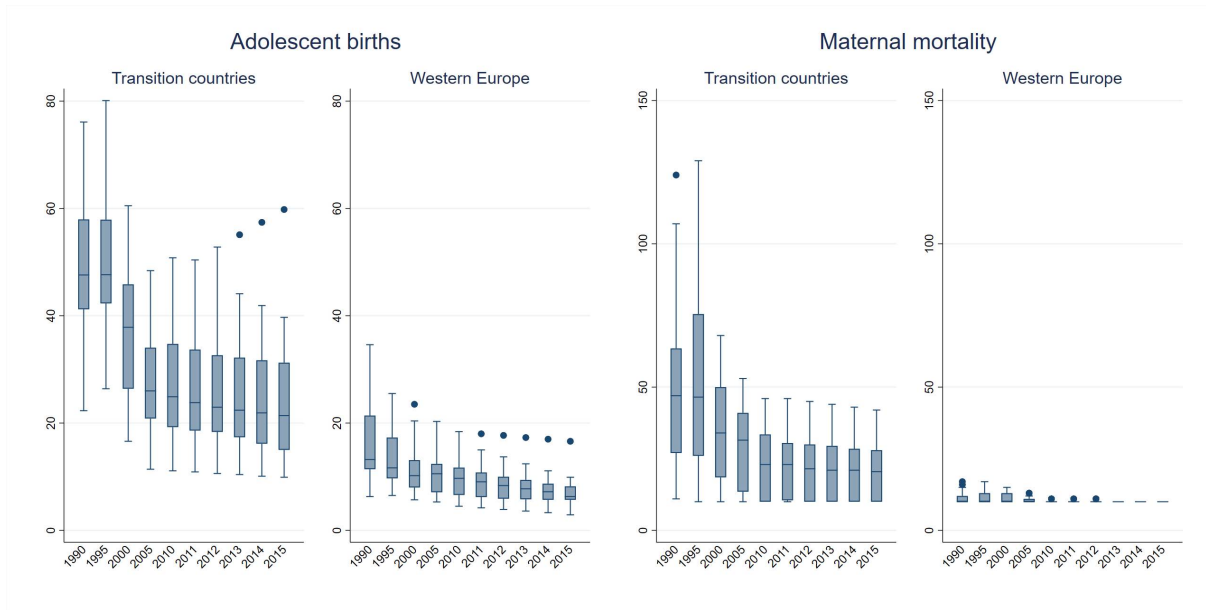
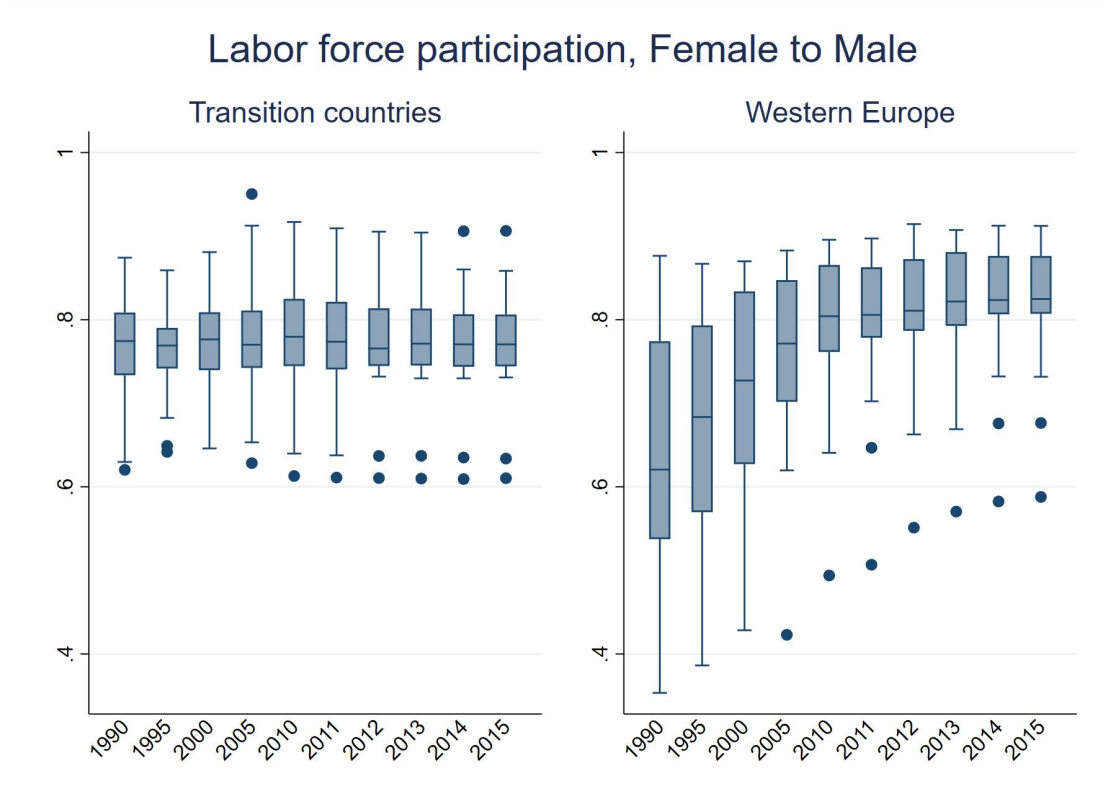


Figure 4. Development of secondary education and share of women in parliament, 1990-2015.



Figure 5. Labor force participation, 1990-2015



Source: Own calculations based mainly on UNDP data.

In each figure we display box-plots for the three areas covered by the GII: health (measured by teenage births and maternal mortality), empowerment (measured by secondary education and share of women in Parliament) and labor force participation. Looking at the different variables separately also allows us to increase the number of countries significantly, since for many countries only the seat share of women in parliaments is missing in 1990.

As the figures show transition countries in 1990 displayed relatively low levels of gender inequality in labor force participation and secondary education. Over the last 25 years, they have kept improving the latter, while the former has stalled, resulting in Western European countries displaying a higher median level of gender equality in labor force participation for the first time around 2010. Reproductive health, while improving since the transition, is still far from converging to Western European standards. Finally, political representation appears to be responsible for the increase in inequality immediately after the transition that we have noted in Figure 1. While it is hard to compare the meaning of representation in the context of 1990 totalitarianisms to that of the democratic regimes emerged later, during the regime change women de facto lost descriptive representation, which was sometime guaranteed in socialist times by gender quotas (Ostrowska, 1994).

In conclusion, breaking down the GII by its components shows that, while Western European countries have invariantly improved their levels of gender equality since 1990, the trend in transition countries depends on the measure one looks at: women maintained but did not improve their relative status in the labor force, they gained more equality in education and especially in terms of reproductive health, and lost descriptive political representation.





## What Does the GII Index (And Other Indexes) Not Tell Us?

The conclusion in the previous paragraph raises the question of which other areas of progress, stagnation or deterioration in gender equality in transition countries that might be overlooked in the GII index. Above, we have summarized two more indexes, the GDI and the Gender Gap Index, which focus on additional dimensions of gender inequality but are more limited in terms of time availability. For the time over which there is overlap between the available indexes, the correlation between the GII index and the GDI and the Gender Gap Index respectively, is roughly 0.60. Interestingly, such correlation is higher in the sample of western European countries (0.64 and 0.68 respectively); when the sample is limited to transition countries, the correlations are down to 0.40 and 0.50 respectively.

Several factors might account for the differences across indexes. Unlike the GII, both the GDI and the Gender Gap Index, for instance, include measures of income inequality. On the other hand, the GDI, as pointed out above, does not account for issues related to reproductive health and political representation. The Gender Gap Index is the only one to include, among the health measures, sex-ratios (typically defined as the ratio of male live births for every 100 female births). This turns out to be especially important for some of the transition countries: in the most recent Gender Gap Report, Georgia, Armenia and Azerbaijan remain among the worst-performing countries globally on the Health and Survival sub-index, due to some of the highest male-to-female sex ratios at birth in the world, just below China's. This goes hand in hand with very high scores in terms of gender equality in enrolment in tertiary education, for which each of these countries ranks first (at par with a few other countries), having completely closed the gender gap. In fact, women are more likely to be enrolled in tertiary education than men.

The relatively low correlation among the different indexes for the group of transition countries also deserves special attention, because it might be a direct consequence of the peculiar history of women's rights and empowerment in the region. Since some dimensions of gender equality were fostered through a top-down approach, rather than as the result of demands and needs expressed by an organized society, it is more likely that over the last thirty years elements of modernization coexisted with more traditional forms of gender inequality.

Finally, it is worth pointing out that none of the above indexes accounts for important dimensions of gender inequality such as: gender violence, division of chores in the household, political representation at the local level, and the presence of women in STEM's professions (where the largest job creation might happen over the next couple of decades). Once more, some of these measures might be particularly relevant for transition countries. Just to mention one example, gender violence is an urgent issue in a few of the countries in the area.<sup>5</sup> A case in point in this respect is Moldova: in 2017, the country ranked 30th out of 144 countries in the Gender Gap Index. Its rank for the sub-index called "Economic Opportunity and Participation" was 11.<sup>6</sup> The country performs especially well in terms of economic opportunity and participation because women not only participate in the labor market in almost equal rates as men, but they are also relatively fairly represented in professions traditionally less feminized elsewhere, such as "professional and technical workers" and "legislators, senior officials and managers." At the same time, gender violence appears quite prevailing in Moldova: according to the UN, in 2014 "lifetime prevalence of psychological violence" in Moldova was of 60%. Official country statistics also report that the

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<sup>5</sup> While explaining the sources of gender violence in the region is beyond the scope of this report, incidentally we notice that, according to recent research, female economic empowerment in a context where patriarchal values are dominant might backfire against women in the form of increased gender violence. See Tur-Prats, 2018.

<sup>6</sup> <http://reports.weforum.org/global-gender-gap-report-2017/dataexplorer/#economy=MDA>



percentage of ever-partnered women aged 15-65 years experiencing intimate partner physical or sexual violence at least once in their lifetime in 2011 was 46%.<sup>10</sup>

While limited in scope, the example above illustrates how some of the available indexes might not capture some important drivers of gender inequality in the region.

## Conclusion

In this policy brief we have reviewed some of the available gender inequality indexes that are commonly used in policy discussion as well as in policy-making.

We have then discussed gender inequality in transition countries focusing on one of these indexes, the Gender Inequality Index, whose span we have extended to the beginning of the transition period. Our analysis has highlighted some points to be mindful of when using comprehensive indexes to discuss gender inequality, especially in transition countries:

- 1) It can be fruitful to analyze gender inequality indexes in relation to levels of development. Some issues related to gender inequality, such as maternal mortality, are potentially addressed with a comprehensive strategy aimed at overall development. Conversely, other drivers of gender inequality, such as women's political empowerment or gender violence, might require more targeted policy interventions, since they do not necessarily go hand in hand with overall development.
- 2) While comprehensive indexes can be useful in terms of effective communication, it is often difficult to compress all the potential forms that gender inequality can take into a single index, especially over time. This is due to both conceptual issues and data limitations. Moreover, even when this is done, a comprehensive index can overshadow important sources of gender inequality if it is composed of sub-indexes that move in opposite directions.
- 3) The previous point can be especially relevant in the context of transition countries, which historically experienced a top-down approach to gender equality, the results of which in the long-term appear to be major advancements in some dimensions of women's empowerment and contemporary potential backlash in other dimensions. In the context of transition countries, for instance, it has been argued that low levels of female representation in political institutions can be the result of women's large participation to the labor market while division of roles in the household remained traditional. In the words of anthropologist Suzanne LaFont, "Women have been and continue to be overworked, and their lives have been over-politicized, the combination of which has led to apathy and/or the unwillingness to enter the male dominated sphere of politics. Many post-communist women view participation in politics as just one more burden."<sup>11</sup> In such a context, average values of an index on gender equality might mask high achievements in economic empowerment coexisting with lack of political representation.
- 4) Identifying policies to address gender inequality in transition countries might be especially difficult because, depending on the dimension that one focuses on, the challenge at hand is different: in terms of education and employment, the policy goal appears to be maintaining current levels of equality or increasing them from relatively high initial points; the type of policies to do

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10 UNFPA (2015). *Combatting Violence against Women and Girls in Eastern Europe and Central Asia*.

<https://eeca.unfpa.org/en/publications/combating-violence-against-women-and-girls-eastern-europe-and-central-asia>

11 LaFont, Suzanne (2001). One Step Forward, Two Steps Back: Women in the Post-Communist States. *Communist and Post-Communist Studies*, Vol. 34, pp 208.



so are likely different than those used in Western European countries in the last 30 years, where the challenge was rather how to increase equality from relatively much lower levels. Conversely, in other dimensions the challenge is how to make major leaps forward, which move transition countries closer to Western European standards: this is the case for sex-ratios, for instance, and reproductive health more in general. The importance of initial levels and trends for policy implications also showcases how crucial it is to acquire more historical knowledge of policies, institutions, and statistics.

Overall, policy discussions and policy-making should go beyond mere descriptions of what indexes and related international comparisons tell us about gender inequality. A better knowledge and understanding of all of the drivers of gender inequality, of their historical evolution, and of their connections both with overall development and among them, is crucial to give sound policy recommendations.

## References

- Beacháin Stefańczak, K.Ó. and Connolly, E.(2015), 'Gender and political representation in the de facto states of the Caucasus: women and parliamentary elections in Abkhazia'. *Caucasus Survey*, 3(3), pp.258-268.
- Brainerd, E. (2000), 'Women in Transition: Changes in Gender Wage Differentials in Eastern Europe and the Former Soviet Union', *Industrial and Labor Relations Review*, 54 (1), pp. 138-162.
- Campa, P. and Serafinelli, M. (2018), 'Politico-economic Regimes and Attitudes: Female Workers under State-socialism', *Review of Economics and Statistics*, Forthcoming.
- Dijkstra, A. and L. Hanmer (2000), 'Measuring socio-economic gender inequality: towards an alternative for UNDP's Gender-related Development Index', *Feminist Economics*, Vol. 6, No. 2, pp. 41-75.
- Einhorn, B. (1993), *Cinderella goes to market: citizenship, gender, and women's movements in East Central Europe*, London: Verso.
- Klasen, S. and Schuler, D. (2011) Reforming the Gender-Related Development Index and the Gender Empowerment Measure: Implementing Some Specific Proposals. *Feminist Economics*. (1) 1 – 30
- LaFont, Suzanne (2001), 'One step forward, two steps back: women in the post-communist states.' *Communist and post-communist studies* 34(2), pp. 203-220.
- Ostrowska, I. (1994). Women and politics in Latvia. *Women's Studies International Forum* 2, 301–303.
- Pollert, A. (2003), 'Women, work and equal opportunities in post-Communist transition', *Work, Employment and Society*, Volume 17(2), pp. 331-357.
- Stiglitz, Joseph, Amartya Sen, and Jean-Paul Fitoussi (2009). 'The measurement of economic performance and social progress revisited.' *Reflections and overview. Commission on the Measurement of Economic Performance and Social Progress*, Paris.
- Tur-Prats, Anna (2018). Unemployment and Intimate-Partner Violence: Gender-Identity Approach. *GSE Working Paper No. 1564*
- Unicef. *Women in transition*. 1999.
- UN. *The World's Women 2015*.
- Wolchik, S. L. and Meyer, A.G. (1985), *Women, State and Party in Eastern Europe*, Durham, NC: Duke University Press.





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