

Jesper Roine, SITE, Stockholm School of Economics

Christina Sarah Hauser, SITE, Stockholm School of Economics

March 2020

Women at the Top of the Income Distribution: Are Transition Countries Different?

This policy brief reviews recent research on women at the top of the income distribution. The overall trend across a number of countries is that, while women are still a minority (and more so the closer to the top one moves), their share in top income groups has steadily increased since the 1970s. Detailed data from Sweden suggests that most of this rise is due to women increasingly earning high labor incomes (rather than capital becoming more important). It also shows that there are important differences between top income men and women, especially with respect to family circumstances. Comparing preliminary results from former Soviet and Eastern European countries indicates that there are, on average, more women at the top of the income distribution in these countries. On the other hand, the average time trend indicates that the share of women in top groups is falling. The preliminary results also indicate considerable heterogeneity across countries. These preliminary results require more detailed study, as does the question to which extent the relatively strong representation of women at the top of the income distribution reflects the “economic power” of women in the region.

The Gender Aspect of Rising Top Shares

Rising inequality has received a lot of attention in the policy debate as well as in the academic literature over the past decade. A particular feature of this discussion has been the increased concentration of both wealth and income in top groups. The summary of the World Inequality Report 2018 starts by stating that “The top 1% has captured twice as much of global income growth as the bottom 50% since 1980”. Such facts have, in turn, brought a lot of attention to the characteristics of top groups. What is driving their income growth? What is their income composition? Why have top shares increased so much in recent decades? (see, e.g., Roine and Waldenström, 2015, for an extensive overview, or Roine, 2016, for a brief summary).

However, one aspect which has received relatively little attention is that of gender. This may seem a little surprising. In a time when gender dimensions are often acknowledged as being important, one would expect that questions about the gender composition of top groups would also be of interest. If we know that top income shares are increasing, what is the gender composition of these groups? How has this changed over time?

This brief outlines some recent results on these questions and also points to some preliminary findings about a potential contrast between Western countries and (former) transition countries.

Evidence from Sweden, 1971-2017

Sweden is one of the few countries having had independent taxation of all taxpayers for a long

period of time, allowing for a thorough analysis of the gender composition of top income groups. After having had joint taxation for married couples for most of the 20th century, and a short period of the option to be taxed independently even if married, Sweden switched to fully independent taxation in 1971. In a recent paper Boschini et al. (2020) study developments of men and women in top income groups in Sweden using detailed registry data on the full population for the almost 50-year period since.

The study finds a number of interesting results. First, it is evident that the share of women in top income groups has increased significantly, yet women remain clearly underrepresented, and more so the higher up in the distribution one moves. Figure 1 below shows the basic development over time for three top groups: the top 10 (P90-100), the top 1 (P99-100), and the top 0.1 group (P99.9-100) in the total income distribution and the labor income distribution respectively.

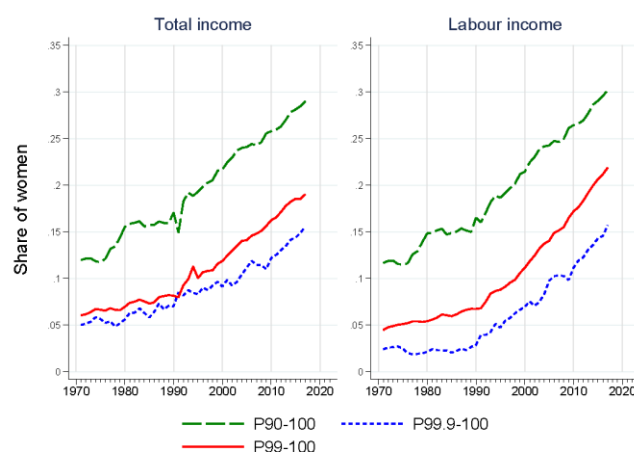


Figure 1. Share women in top groups in Sweden.

Source: Boschini et al. (2020)

Besides showing the general development comparing the two panels also reveals a subtler



point: especially in the earlier decades and in the very top group (the top 0.1 group), there were substantially more women at the top of the total income distribution than at the top of the labor earnings distribution. In the 1970s and 1980s, the share of women in the top 0.1 group of the total income distribution is about two to three times as large as in the labor earnings distribution. Put differently, this means that in the past, to the extent that there were any women at the very top, they were mainly there thanks to capital incomes. Over time this changes and detailed analysis in the paper shows that the growth of the share of women in top groups is driven by an increasing share of high-income women in the labor income distribution.

While it seems that top income men and women have converged in terms of income composition and observable individual characteristics, the one area that still stands out as being markedly different is partner income. Figure 2 shows that top income women are much more likely to have partners who are also in the top of the income distribution. Even if the trend indicates convergence, large differences remain. Out of the top 1 women who are married, 70% have a partner who is at least in the top 10 (and about 30% are also in the top 1). For married top 1 men, only 30% have a partner who is in the top 10, and only a couple of percentage points are in the top 1. Part of this is, of course, a reflection of there being fewer women in top groups, but this is far from explaining all the difference (See Boschini et al., 2020 for more details).

This is of course far from conclusive, but it points in the direction of family circumstances being a potential factor for explaining the relative absence

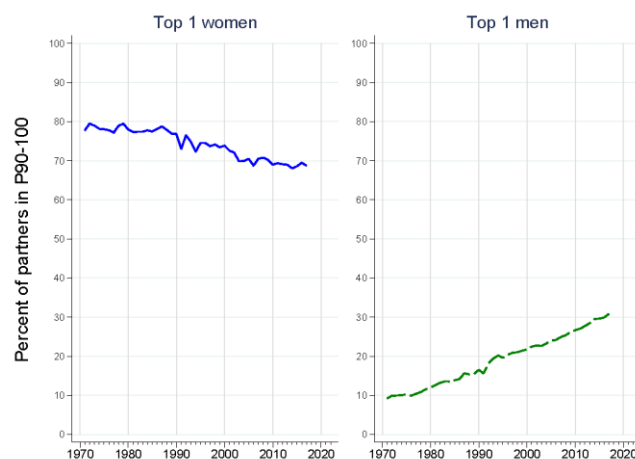


Figure 2. Share of top income partners in Sweden.

Source: Boschini et al. (2020)

of women in top income groups.

Having a partner with a top (income) career is likely to be more demanding (for both parties) and such couples are much more common among top income women than men.

Several strands of research connect to this: for example, Fisman et al. (2006) find, among other things, that men are significantly “less likely to accept a woman who is more ambitious than he”. Also, work by Bertrand et al. (2015), on the impact of gender identity suggest that there is a social norm prescribing that men should earn more than women, which creates a discontinuity in the distribution of women’s contribution to total household income at 50 % (although Hederos Eriksson and Stenberg (2015) and Zinovyeva and Tverdostup (2018) find alternative explanations for this observation). Folke and Rickne (2020) find that women who are elected to high political office in Sweden face a higher probability of divorce (while this is not the case for men). Furthermore, according to the World Values Survey, close to 40% of Americans as well as Europeans agree with the statement “(i)f a woman earns more money



than her husband, it's almost certain to cause problems". Taken together, findings like these suggest that, even in relatively progressive countries, social norms may contribute to women shying away from entering career paths leading to top incomes.

What About Other Countries?

Even though the Swedish data is unusually detailed, it is certainly not the only country where individual tax data exist. Atkinson et al. (2018) calculate the share of women in top groups for eight countries over time periods when individual tax data exist. Figure 3 puts their results next to those from Sweden. The resulting picture shows a remarkably similar development across countries and over time. The share of women in the top 10 has approximately tripled since the 1970s, from around 10% to around 30%. For the top 1 group, the level is slightly lower, but the relative increase is similarly large, from slightly above 5% to around 20%.

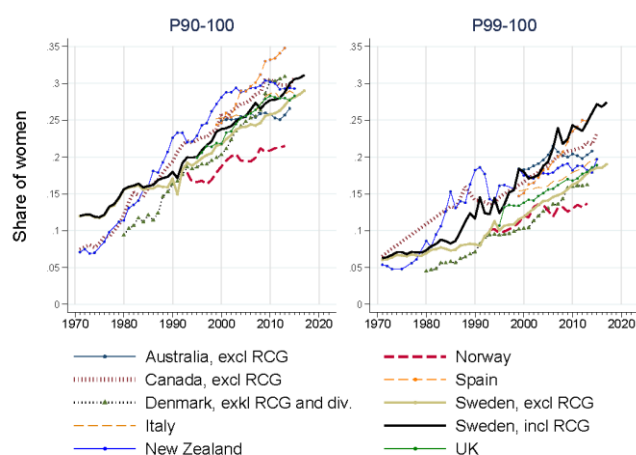


Figure 3. International comparison.

Source: Atkinson et al. (2018) and Boschini et al (2020).

Bobilev et al. (2019) explore the extent to which Luxemburg Income Study (LIS) data can be used to shed light on the presence of women at the top of the income distribution. Their findings point to a

similar trend across a broader set of countries. Even though the main analysis has to be limited to the share of women at the top of the labor income distribution (since the possibilities to separate out individual capital incomes is limited), the picture in terms of the share of women in top groups is surprisingly similar across the 28 countries for which sufficient data exists from around 1980 until today. The overall finding is that the share of women in the top 10 group increases from about 10% around 1980 to just below 30% today.

To the extent that LIS data allows us to look at partners and family circumstances, the data shows a consistent pattern of asymmetries between top income men and women similar to that in Sweden found by Boschini et al. (2020). Having a partner and having children are positively associated with being in top income groups for men, but negatively associated for women (even though these differences have decreased over time). Also, top income men are likely to have partners who are not in the top of the income distribution, while this is not the case for top income women. Understanding patterns like these and the underlying channels is likely to contribute to our comprehension of the remaining differences in top income shares between men and women.

Are There Differences Between “East and West”?

A particularly interesting pattern in the LIS data is the difference that emerges when contrasting transition countries to Western countries.

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, 2019). This was mainly due to the high participation of women in the labor market as well as the (officially) 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 still expected to take care of child rearing and housework at the same time (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).

Looking just at average values (in the labor income distributions), there are clear differences between East and West in top groups. The share of women among the top earning groups was considerably higher in some former Soviet countries during and after transition. However, the shares of women in top income groups have been converging in East and West.

An analysis of the situation at the country level, provides a more complex picture. Figure 5 clearly indicates that the total representation of women in the top 10 income group has been higher in Eastern European countries than in the West (the pattern is similar for the top 1). However, while the share of women in top income groups has consistently increased in Western countries, the

developments for women are much less homogenous in Eastern Europe (being below the diagonal indicates a higher share of women in the top 10 in 2005-2020 as compared to 1990-2005).

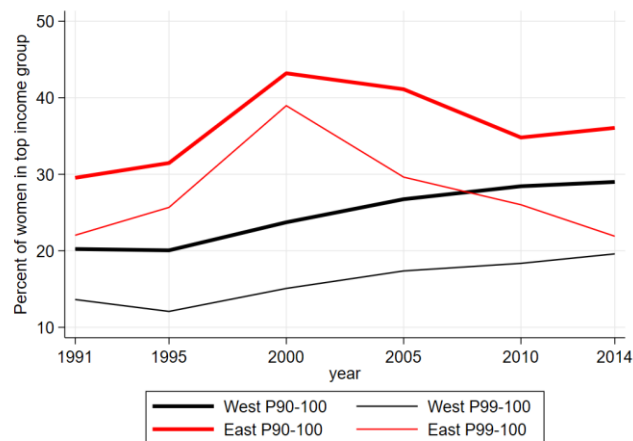


Figure 4. Share of women in the top 10 / top 1 income groups, East vs. West.

Data source: Own calculations based on LIS data. West: unweighted average for Australia, Canada, Denmark, Italy, Norway, New Zealand, Spain, Great Britain. East: unweighted average for the Czech Republic, Estonia, Georgia, Hungary, Lithuania, Poland, Russia, Serbia, Slovenia and the Slovak Republic.

In Estonia, Slovakia and Poland, women are less likely to be part of the top income group in the period from 2005 to 2020 than they were in the years directly following transition. Considering that the most recent family policies in Poland have been shown to discourage female labor supply (Myck, Trzciński, 2019), this is maybe not so surprising.

The share of women in the top 10 income group in Estonia declined from an astonishingly high 53% in 2000 to about 31% in 2013, which, admittedly, is still high compared to the corresponding average rate for Western countries (28%).



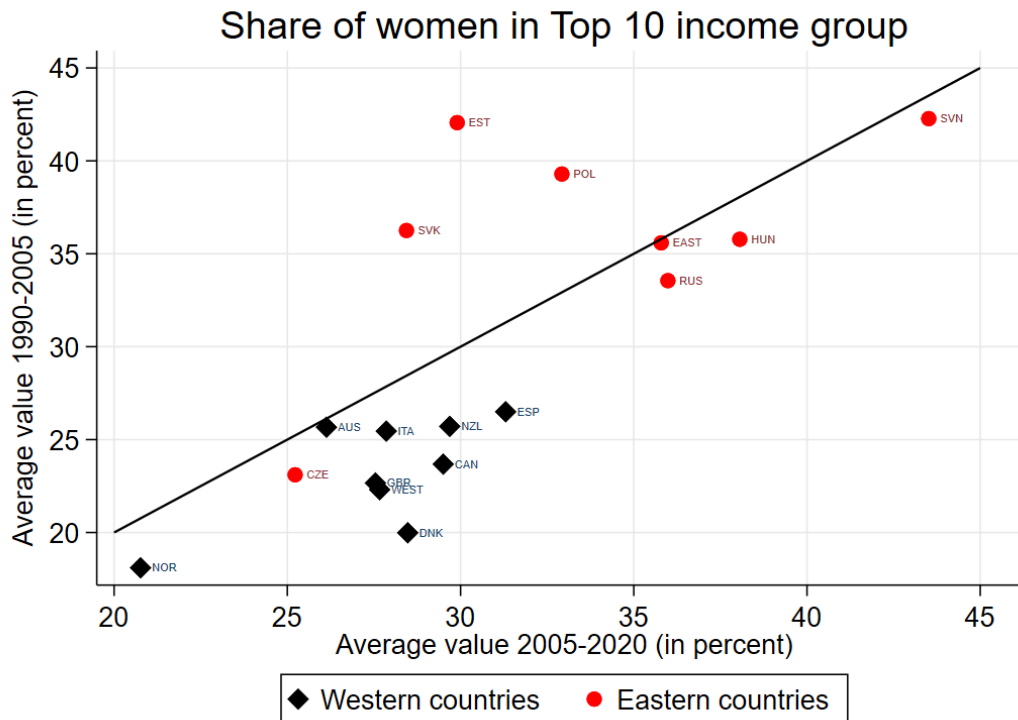


Figure 5: Share of women in top 10 income group by country.

Data source: Own calculations based on LIS data. Eastern and Western countries defined as if Figure 4.

Women in Russia, Hungary, Slovenia and the Czech Republic, by contrast, are more likely to be among the top earners in the period from 2005 to 2020 than they were between 1990 and 2005. Moreover, among all the countries in our sample, more recently, Slovenia is the country with the highest share of women in the top 10 of income earners (44% in 2007); Slovenian women seem to have gained grounds even after transition.

How come the representation of women in top income groups remains high (or even increases) in some transition countries but decreases in others? What is the role played by policy and regulation and what role can be attributed to social norms, family circumstances and institutions such as childcare? May economic growth have led to women dropping out of the labor force or never entering it to do care work, even when they had been or potentially could have been part of top

income groups? What would be the impact of adding capital incomes to the picture?

Conclusion

Looking across a large number of countries, women seem to have increased their presence in top income groups since the 1970s. This has mostly been driven by women increasingly having high paying jobs. A preliminary look at LIS data indicates that former Soviet and Eastern European countries on average had higher shares of women in top groups around 1990, probably reflecting high labor market participation as well as relatively high education levels for women. But it also indicates that in some Eastern European countries, the share of women in top groups has dropped since the 1990s. As noted by Campa, Demirel, and Roine (2018) there seems to be an overall



convergence in some dimensions of gender equality in transition countries, but there is also considerable variation across countries. More detailed studies of how men and women fare in terms of reaching top positions in incomes – but also in other areas like politics – are much needed and likely to be an interesting research area for years to come.

References

- Atkinson, Anthony B., Alessandra Casarico and Sarah Voitchovsky (2018). "Top incomes and the gender divide", *The Journal of Economic Inequality*, 16 (2), 225–256.
- Azmat, Ghazala and Barbara Petrongolo, (2014). "Gender and the labour market: what have we learned from field and lab experiments?" *Labour Economics*, 30, 32–40.
- Blau, Francine D., Lawrence M. Kahn (2017). "The gender wage gap: Extent, trends, and explanations", *Journal of Economic Literature* 55(3), 789–865.
- Bertrand, Marianne, Jessica Pan and Emir Kamenic (2015). "Gender identity and relative income within households". *The Quarterly Journal of Economics*, 130 (2), 571–614.
- Bertrand, Marianne, (2018). "Coase Lecture – The Glass Ceiling". *Economica* 85: 205–231.
- Bobilev, Roman, Anne Boschini, Jesper Roine (2019). Women in the Top of the Income Distribution –What Can we Learn from LIS-Data?, *Forthcoming Italian Economic Journal*.
- Boschini, Anne, Kristin Gunnarsson, Jesper Roine (2020). "Women in top incomes – Evidence from Sweden 1971–2017". *Journal of Public Economics*, 181, January 2020.
- Brainerd, Elizabeth (2000). "Women in Transition: Changes in Gender Wage Differentials in Eastern Europe and the Former Soviet Union", *ILR Review*, 54(1): 138-162.
- Campa, Pamela, Merve Demirel, Jesper Roine (2018). "How Should Policy-Makers Use Gender Equality Indexes?". *FREE Policy Paper*, November 2018.
- Campa, Pamela and Michel Serafinell (2019). "Politico-Economic Regimes and Attitudes: Female Workers under State-Socialism." *The Review of Economics and Statistics*, 101 (2). 233 - 248.
- Einhorn, Barbara (1993). "Cinderella Goes to Market: Citizenship, Gender and Women's Movements in East Central Europe". London/ New York: Verso.
- Eriksson, Karin Hederos and Anders Stenberg (2015). "Gender Identity and Relative Income within Households: Evidence from Sweden", *IZA Discussion paper* No. 9533.
- Fisman, Raymond, Sheena S. Iyengar, Emir Kamenica and Itamar Simonson (2006). "Gender Differences in Mate Selection: Evidence From a Speed Dating Experiment". *The Quarterly Journal of Economics*, 121 (2), 673–697.
- Folke, Olle and Johanna Rickne (2020). "All the Single Ladies: Job Promotions and the Durability of Marriage". forthcoming *American Economic Journal: Applied Economics*.
- Fortin, Nicole, Brian Bell, Michael Böhm (2017). "Top earnings inequality and the gender pay gap: Canada, Sweden, and the United Kingdom." *Labour Economics*, 47, 107–123.
- ILO (N.D.). "Gender Equality". Accessed February 2020.
- Myck, Michal and Kajetan Trzciński (2019). "From Partial to Full Universality: The Family 500+ Programme in Poland and Its Labour Supply Implications", *FREE Policy Brief*, December 16, 2019.
- Pollert, Anne (2003). "Women, work and equal opportunities in post-Communist transition", *Work, Employment and Society*, 17(2): 331-357.
- Roine, Jesper, and Daniel Waldenström (2015). "Long-Run Trends in the Distribution of Income and Wealth", chapter in Atkinson, A.B., Bourguignon, F. (Eds.), *Handbook of Income Distribution*, vol. 2A, North-Holland, Amsterdam.
- Roine, Jesper (2016), "Global Inequality – What Do We Mean and What Do We Know?", *FREE Policy Brief*, April 24, 2016.
- UNICEF (1999). "Women in Transition", *Regional monitoring Report* 6. UNICEF ICDC.
- Wolchik, Sharon L. and Alfred G. Meyer, eds. (1985). "Women, State, and Party in Eastern Europe". Durham, NC.
- Zinovyeva, Natalia and Marina Tverdostup (2018). "Gender Identity, Co-Working Spouses and Relative Income within Households". *IZA Discussion Paper* No. 11757.





Jesper Roine

Stockholm Institute of Transition Economics (SITE) and Stockholm School of Economics
Jesper.Roine@hhs.se
<http://jesperroine.se/>

Jesper Roine is an Adjunct Professor at the Department of Economics and Deputy Director at the Stockholm Institute of Transition Economics (SITE), at Stockholm School of Economics. Most of his research concerns income and wealth distribution and long-run development, but he has also worked on political economy and the impact of natural resources on the economy.

In addition to his research, Roine participates widely in the policy debate. He is one of the founders and regular contributor to the economics blog ekonomistas.se (written in Swedish). Roine has written a number of reports on issues such as globalization and the income distribution, the future of the Swedish welfare state, and on the future of work.



Christina Sarah Hauser

Stockholm Institute of Transition Economics (SITE) and Stockholm School of Economics
Christina.Hauser@hhs.se
<https://www.hhs.se/site>

Christina Sarah Hauser holds a M.Sc. in Economics from the Stockholm School of Economics and a M.A. in International Economic Policy from the Paris School of International Affairs (Sciences Po). She works as a research assistant for SITE.

freepolicybriefs.com

The Forum for Research on Eastern Europe and Emerging Economies is a network of academic experts on economic issues in Eastern Europe and the former Soviet Union at BEROE (Minsk), BICEPS (Riga), CEFIR (Moscow), CenEA (Szczecin), KEI (Kiev) and SITE (Stockholm). The weekly FREE Network Policy Brief Series provides research-based analyses of economic policy issues relevant to Eastern Europe and emerging markets. Opinions expressed in policy briefs and other publications are those of the authors; they do not necessarily reflect those of the FREE Network and its research institutes.

