



LUND UNIVERSITY
School of Economics and Management

**The Great Depression and Inequality in Stockholm
1926-1934**

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Outline

- The Great Leveling of Income 1920 to 1970
- The Case of Swedish Equality and the Great Depression
- Method and Data
- Results I and II
- Conclusion



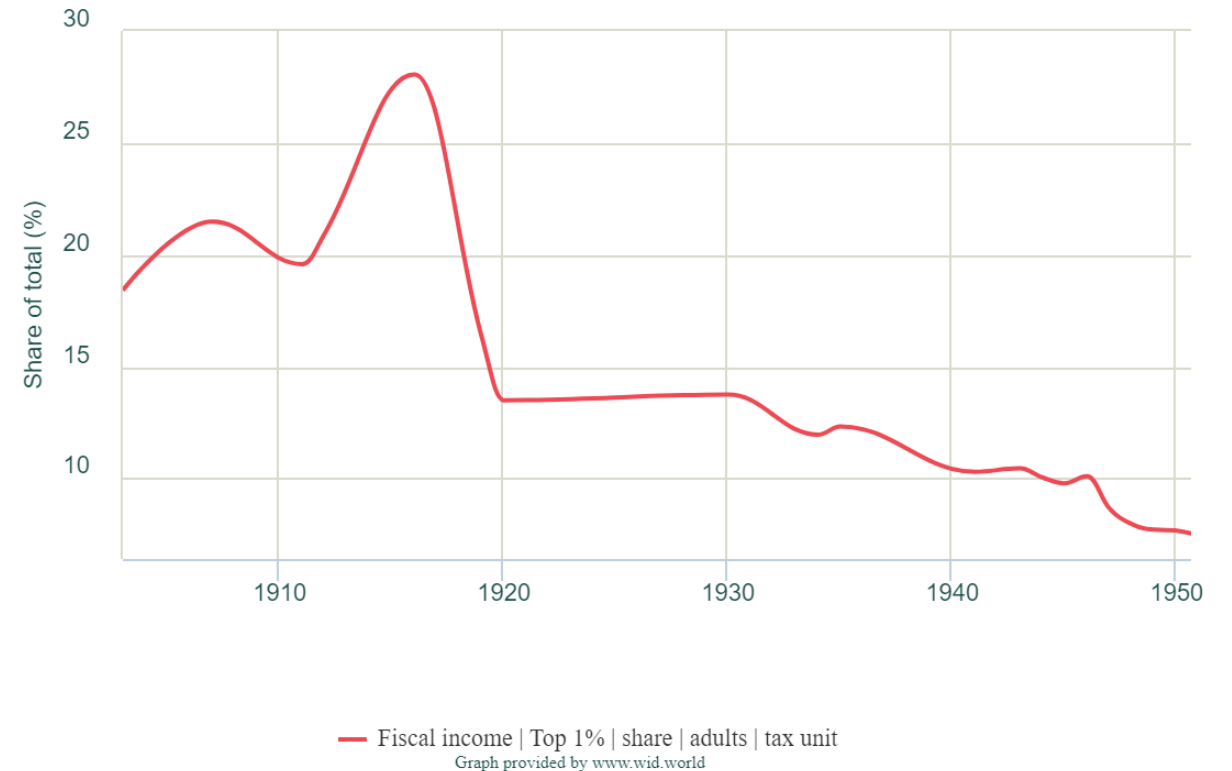
The Great Leveling of Income

- Williamsons (2015) Great Leveling of Incomes 1920-1970
 - Broad International Trend
 - Top 1% Share Decreasing and Bottom 50% Share Increasing
 - Trend Pre-dating Welfare States post-WWII
 - Scheidel (2017), Roine (2014), and Economic Shocks

The Swedish Case

- Sweden is an outlier (Bengtsson 2020)
 - Non-belligerent
 - Mildly affected by the Great Depression
 - Most Equal
- The Crash of the 1920s
- Sweden and the Wallstreet Crash
- Social Democratic government from 1932

Top 1% fiscal income share, Sweden, 1904-1950



NOTE: Based on Roine, Jesper and Waldenström, Daniel (2010). Top Incomes in Sweden over the Twentieth Century; in Atkinson, A. B. and Piketty, T. (editors) Top Incomes: A Global Perspective, Oxford University Press, chapter 7. Generated online through the World Inequality Database.

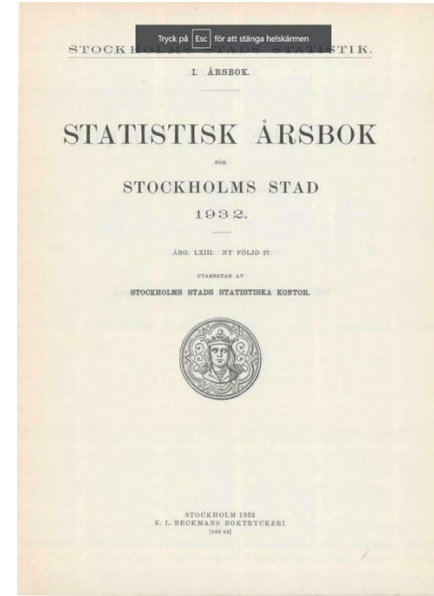


Research Question

- How did income distribution in Stockholm evolve over the Great Depression business cycle from 1926 to 1936?

Method and Data

- Tabulated distribution of income in Stockholm Proper from Stockholm's Statistical Yearbook
- Income distribution estimates created through the Blanchet et al. (2022) method of generalized Pareto curves to interpolate continuous distribution curves
- Enables estimates of income shares and Gini-coefficients between 100 and 0

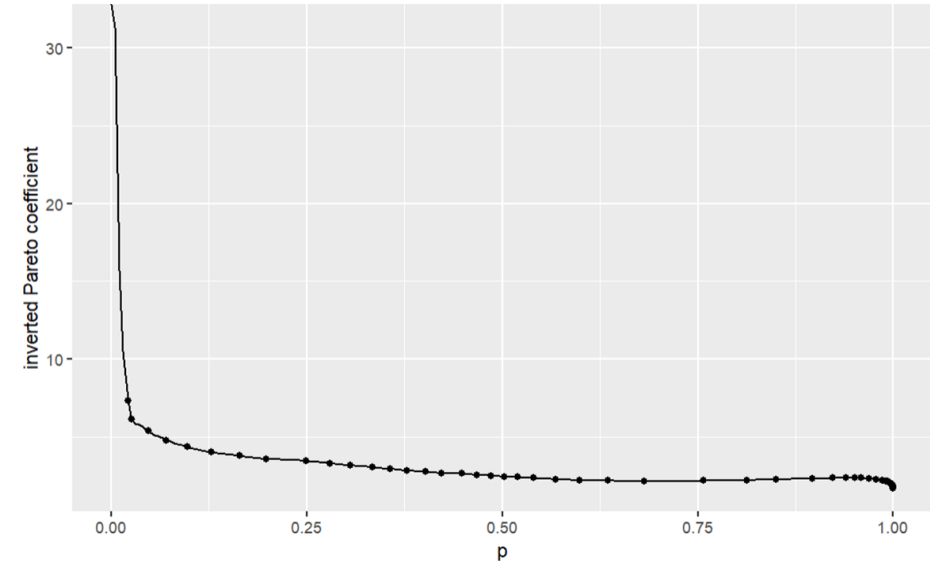


Tah. 185. Inkomster, taxerade till kommunal inkomstskatt (bevilling) åren 1928-1932*, grupperade efter stadsdel. *)

Résumé des revenus imposables (groupés de la taxe de l'impôt communal), groupés d'après leur provenance, pendant les années 1928-1932. *)

| Inkomstgrupper (inkomst i kronor) | 1928 | | | | | 1929 | | | | | 1930 | | | | | 1931 | | | | | 1932 | | | | |
|-----------------------------------|--------|-----------------|-----------------|--------|-----------------|-----------------|--------|-----------------|-----------------|--------|-----------------|-----------------|--------|-----------------|-----------------|-------|-----------------|-----------------|-------|-----------------|-------|-----------------|-----------------|-------|--|
| | Antal | Summa | Medel | Antal | Summa | Antal | Summa | Medel | Antal | Summa | Antal | Summa | Medel | Antal | Summa | Antal | Summa | Medel | Antal | Summa | Antal | Summa | Medel | | |
| 0-100 | 12,000 | 475 | 39.6 | 11,500 | 490 | 42.6 | 11,000 | 510 | 46.4 | 10,500 | 530 | 50.5 | 10,000 | 550 | 55.0 | 9,500 | 570 | 59.5 | 9,000 | 590 | 65.6 | 8,500 | 610 | 70.8 | |
| 100-200 | 1,000 | 1,200 | 120.0 | 950 | 1,100 | 116.8 | 900 | 1,000 | 111.1 | 850 | 1,100 | 129.4 | 800 | 1,200 | 150.0 | 750 | 1,300 | 173.3 | 700 | 1,400 | 200.0 | 650 | 1,500 | 230.8 | |
| 200-300 | 500 | 1,500 | 300.0 | 450 | 1,350 | 300.0 | 400 | 1,200 | 300.0 | 350 | 1,050 | 300.0 | 300 | 900.0 | 300.0 | 250 | 750.0 | 300.0 | 200 | 600.0 | 300.0 | 150 | 450.0 | 300.0 | |
| 300-400 | 300 | 1,200 | 400.0 | 250 | 900.0 | 360.0 | 200 | 600.0 | 300.0 | 150 | 450.0 | 300.0 | 100 | 300.0 | 300.0 | 50 | 150.0 | 300.0 | 20 | 600.0 | 10 | 300.0 | 300.0 | | |
| 400-500 | 200 | 1,000 | 500.0 | 150 | 750.0 | 500.0 | 100 | 500.0 | 500.0 | 50 | 250.0 | 500.0 | 10 | 500.0 | 500.0 | 5 | 250.0 | 500.0 | 2 | 1,000.0 | 1 | 1,000.0 | 1,000.0 | | |
| 500-600 | 150 | 900.0 | 600.0 | 100 | 600.0 | 600.0 | 50 | 300.0 | 600.0 | 20 | 1,200.0 | 600.0 | 10 | 1,500.0 | 1,500.0 | 5 | 750.0 | 1,500.0 | 3 | 4,500.0 | 2 | 3,000.0 | 1,500.0 | | |
| 600-700 | 100 | 700.0 | 700.0 | 70 | 490.0 | 700.0 | 30 | 210.0 | 700.0 | 10 | 700.0 | 700.0 | 5 | 350.0 | 700.0 | 3 | 105.0 | 700.0 | 1 | 700.0 | 1 | 700.0 | 700.0 | | |
| 700-800 | 50 | 400.0 | 800.0 | 30 | 240.0 | 800.0 | 15 | 120.0 | 800.0 | 5 | 400.0 | 800.0 | 2 | 800.0 | 800.0 | 1 | 400.0 | 800.0 | 1 | 800.0 | 1 | 800.0 | 800.0 | | |
| 800-900 | 30 | 270.0 | 900.0 | 20 | 180.0 | 900.0 | 10 | 90.0 | 900.0 | 5 | 450.0 | 900.0 | 2 | 900.0 | 900.0 | 1 | 450.0 | 900.0 | 1 | 900.0 | 1 | 900.0 | 900.0 | | |
| 900-1,000 | 20 | 1,800.0 | 900.0 | 15 | 1,350.0 | 900.0 | 10 | 900.0 | 900.0 | 5 | 450.0 | 900.0 | 2 | 900.0 | 900.0 | 1 | 450.0 | 900.0 | 1 | 900.0 | 1 | 900.0 | 900.0 | | |
| 1,000-1,500 | 10 | 1,500.0 | 1,500.0 | 5 | 750.0 | 1,500.0 | 3 | 450.0 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | 1 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | | |
| 1,500-2,000 | 5 | 3,000.0 | 600.0 | 3 | 1,500.0 | 600.0 | 2 | 1,000.0 | 600.0 | 1 | 1,500.0 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | 1 | 1,500.0 | 1 | 1,500.0 | 1,500.0 | | |
| 2,000-3,000 | 3 | 6,000.0 | 2,000.0 | 2 | 3,000.0 | 2,000.0 | 1 | 3,000.0 | 3,000.0 | 1 | 3,000.0 | 3,000.0 | 1 | 3,000.0 | 3,000.0 | 1 | 3,000.0 | 3,000.0 | 1 | 3,000.0 | 1 | 3,000.0 | 3,000.0 | | |
| 3,000-4,000 | 2 | 12,000.0 | 6,000.0 | 1 | 6,000.0 | 6,000.0 | 1 | 6,000.0 | 6,000.0 | 1 | 6,000.0 | 6,000.0 | 1 | 6,000.0 | 6,000.0 | 1 | 6,000.0 | 6,000.0 | 1 | 6,000.0 | 1 | 6,000.0 | 6,000.0 | | |
| 4,000-5,000 | 1 | 20,000.0 | 20,000.0 | 1 | 20,000.0 | 20,000.0 | 1 | 20,000.0 | 20,000.0 | 1 | 20,000.0 | 20,000.0 | 1 | 20,000.0 | 20,000.0 | 1 | 20,000.0 | 20,000.0 | 1 | 20,000.0 | 1 | 20,000.0 | 20,000.0 | | |
| 5,000-10,000 | 1 | 50,000.0 | 50,000.0 | 1 | 50,000.0 | 50,000.0 | 1 | 50,000.0 | 50,000.0 | 1 | 50,000.0 | 50,000.0 | 1 | 50,000.0 | 50,000.0 | 1 | 50,000.0 | 50,000.0 | 1 | 50,000.0 | 1 | 50,000.0 | 50,000.0 | | |
| 10,000-15,000 | 1 | 150,000.0 | 150,000.0 | 1 | 150,000.0 | 150,000.0 | 1 | 150,000.0 | 150,000.0 | 1 | 150,000.0 | 150,000.0 | 1 | 150,000.0 | 150,000.0 | 1 | 150,000.0 | 150,000.0 | 1 | 150,000.0 | 1 | 150,000.0 | 150,000.0 | | |
| 15,000-20,000 | 1 | 300,000.0 | 300,000.0 | 1 | 300,000.0 | 300,000.0 | 1 | 300,000.0 | 300,000.0 | 1 | 300,000.0 | 300,000.0 | 1 | 300,000.0 | 300,000.0 | 1 | 300,000.0 | 300,000.0 | 1 | 300,000.0 | 1 | 300,000.0 | 300,000.0 | | |
| 20,000-25,000 | 1 | 450,000.0 | 450,000.0 | 1 | 450,000.0 | 450,000.0 | 1 | 450,000.0 | 450,000.0 | 1 | 450,000.0 | 450,000.0 | 1 | 450,000.0 | 450,000.0 | 1 | 450,000.0 | 450,000.0 | 1 | 450,000.0 | 1 | 450,000.0 | 450,000.0 | | |
| 25,000-30,000 | 1 | 600,000.0 | 600,000.0 | 1 | 600,000.0 | 600,000.0 | 1 | 600,000.0 | 600,000.0 | 1 | 600,000.0 | 600,000.0 | 1 | 600,000.0 | 600,000.0 | 1 | 600,000.0 | 600,000.0 | 1 | 600,000.0 | 1 | 600,000.0 | 600,000.0 | | |
| 30,000-40,000 | 1 | 1,200,000.0 | 1,200,000.0 | 1 | 1,200,000.0 | 1,200,000.0 | 1 | 1,200,000.0 | 1,200,000.0 | 1 | 1,200,000.0 | 1,200,000.0 | 1 | 1,200,000.0 | 1,200,000.0 | 1 | 1,200,000.0 | 1,200,000.0 | 1 | 1,200,000.0 | 1 | 1,200,000.0 | 1,200,000.0 | | |
| 40,000-50,000 | 1 | 2,000,000.0 | 2,000,000.0 | 1 | 2,000,000.0 | 2,000,000.0 | 1 | 2,000,000.0 | 2,000,000.0 | 1 | 2,000,000.0 | 2,000,000.0 | 1 | 2,000,000.0 | 2,000,000.0 | 1 | 2,000,000.0 | 2,000,000.0 | 1 | 2,000,000.0 | 1 | 2,000,000.0 | 2,000,000.0 | | |
| 50,000-75,000 | 1 | 3,750,000.0 | 3,750,000.0 | 1 | 3,750,000.0 | 3,750,000.0 | 1 | 3,750,000.0 | 3,750,000.0 | 1 | 3,750,000.0 | 3,750,000.0 | 1 | 3,750,000.0 | 3,750,000.0 | 1 | 3,750,000.0 | 3,750,000.0 | 1 | 3,750,000.0 | 1 | 3,750,000.0 | 3,750,000.0 | | |
| 75,000-100,000 | 1 | 7,500,000.0 | 7,500,000.0 | 1 | 7,500,000.0 | 7,500,000.0 | 1 | 7,500,000.0 | 7,500,000.0 | 1 | 7,500,000.0 | 7,500,000.0 | 1 | 7,500,000.0 | 7,500,000.0 | 1 | 7,500,000.0 | 7,500,000.0 | 1 | 7,500,000.0 | 1 | 7,500,000.0 | 7,500,000.0 | | |
| 100,000-150,000 | 1 | 22,500,000.0 | 22,500,000.0 | 1 | 22,500,000.0 | 22,500,000.0 | 1 | 22,500,000.0 | 22,500,000.0 | 1 | 22,500,000.0 | 22,500,000.0 | 1 | 22,500,000.0 | 22,500,000.0 | 1 | 22,500,000.0 | 22,500,000.0 | 1 | 22,500,000.0 | 1 | 22,500,000.0 | 22,500,000.0 | | |
| 150,000-200,000 | 1 | 30,000,000.0 | 30,000,000.0 | 1 | 30,000,000.0 | 30,000,000.0 | 1 | 30,000,000.0 | 30,000,000.0 | 1 | 30,000,000.0 | 30,000,000.0 | 1 | 30,000,000.0 | 30,000,000.0 | 1 | 30,000,000.0 | 30,000,000.0 | 1 | 30,000,000.0 | 1 | 30,000,000.0 | 30,000,000.0 | | |
| 200,000-300,000 | 1 | 60,000,000.0 | 60,000,000.0 | 1 | 60,000,000.0 | 60,000,000.0 | 1 | 60,000,000.0 | 60,000,000.0 | 1 | 60,000,000.0 | 60,000,000.0 | 1 | 60,000,000.0 | 60,000,000.0 | 1 | 60,000,000.0 | 60,000,000.0 | 1 | 60,000,000.0 | 1 | 60,000,000.0 | 60,000,000.0 | | |
| 300,000-500,000 | 1 | 150,000,000.0 | 150,000,000.0 | 1 | 150,000,000.0 | 150,000,000.0 | 1 | 150,000,000.0 | 150,000,000.0 | 1 | 150,000,000.0 | 150,000,000.0 | 1 | 150,000,000.0 | 150,000,000.0 | 1 | 150,000,000.0 | 150,000,000.0 | 1 | 150,000,000.0 | 1 | 150,000,000.0 | 150,000,000.0 | | |
| 500,000-1,000,000 | 1 | 500,000,000.0 | 500,000,000.0 | 1 | 500,000,000.0 | 500,000,000.0 | 1 | 500,000,000.0 | 500,000,000.0 | 1 | 500,000,000.0 | 500,000,000.0 | 1 | 500,000,000.0 | 500,000,000.0 | 1 | 500,000,000.0 | 500,000,000.0 | 1 | 500,000,000.0 | 1 | 500,000,000.0 | 500,000,000.0 | | |
| 1,000,000 och öfrare | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | | |
| Samtliga | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1 | 1,000,000,000.0 | 1,000,000,000.0 | | |

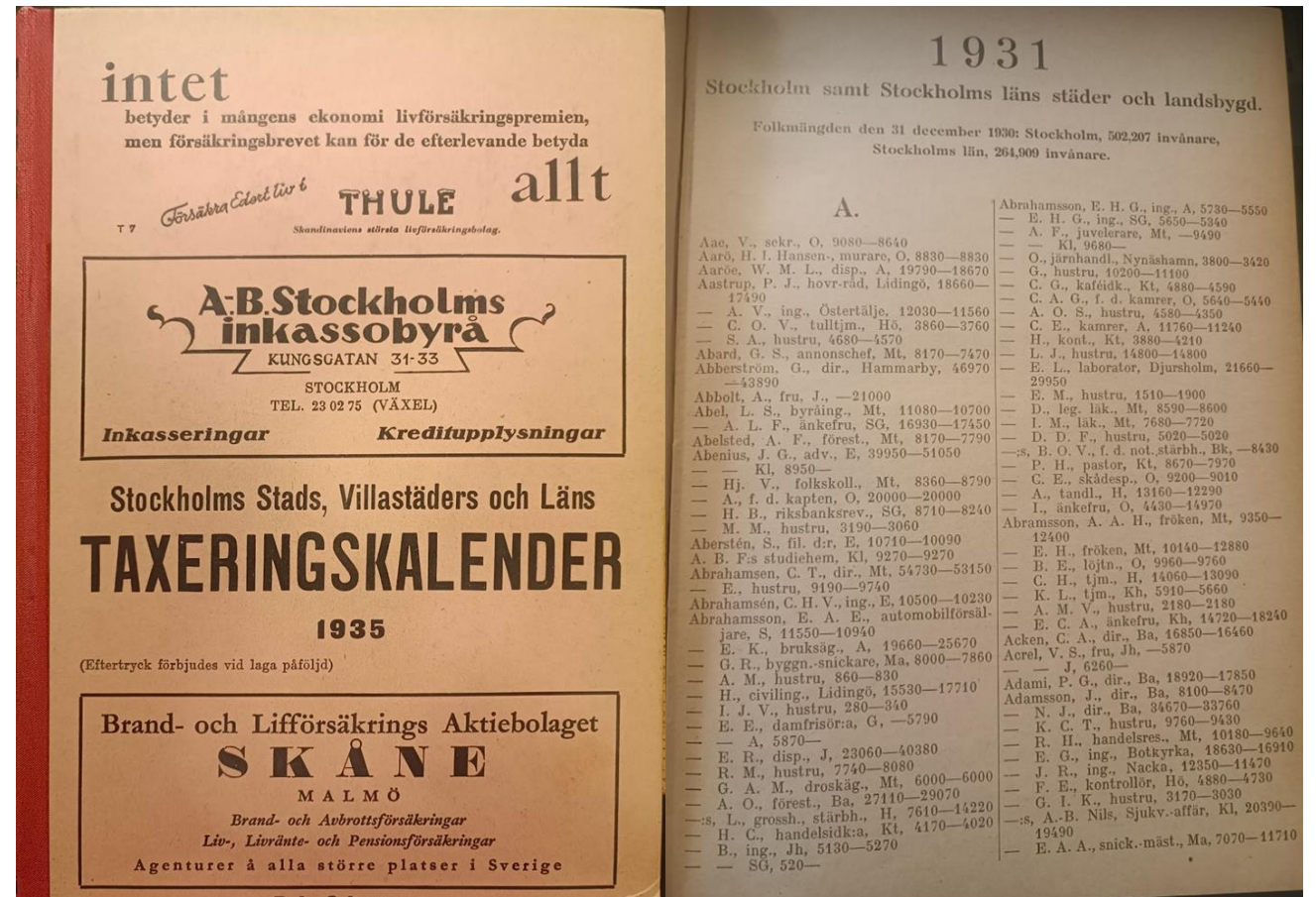
Screenshots of Stockholm's Statistical Yearbook 1932



Interpolated Generalized Pareto Distribution based on Stockholm's statistical yearbook of 1932

Method and Data

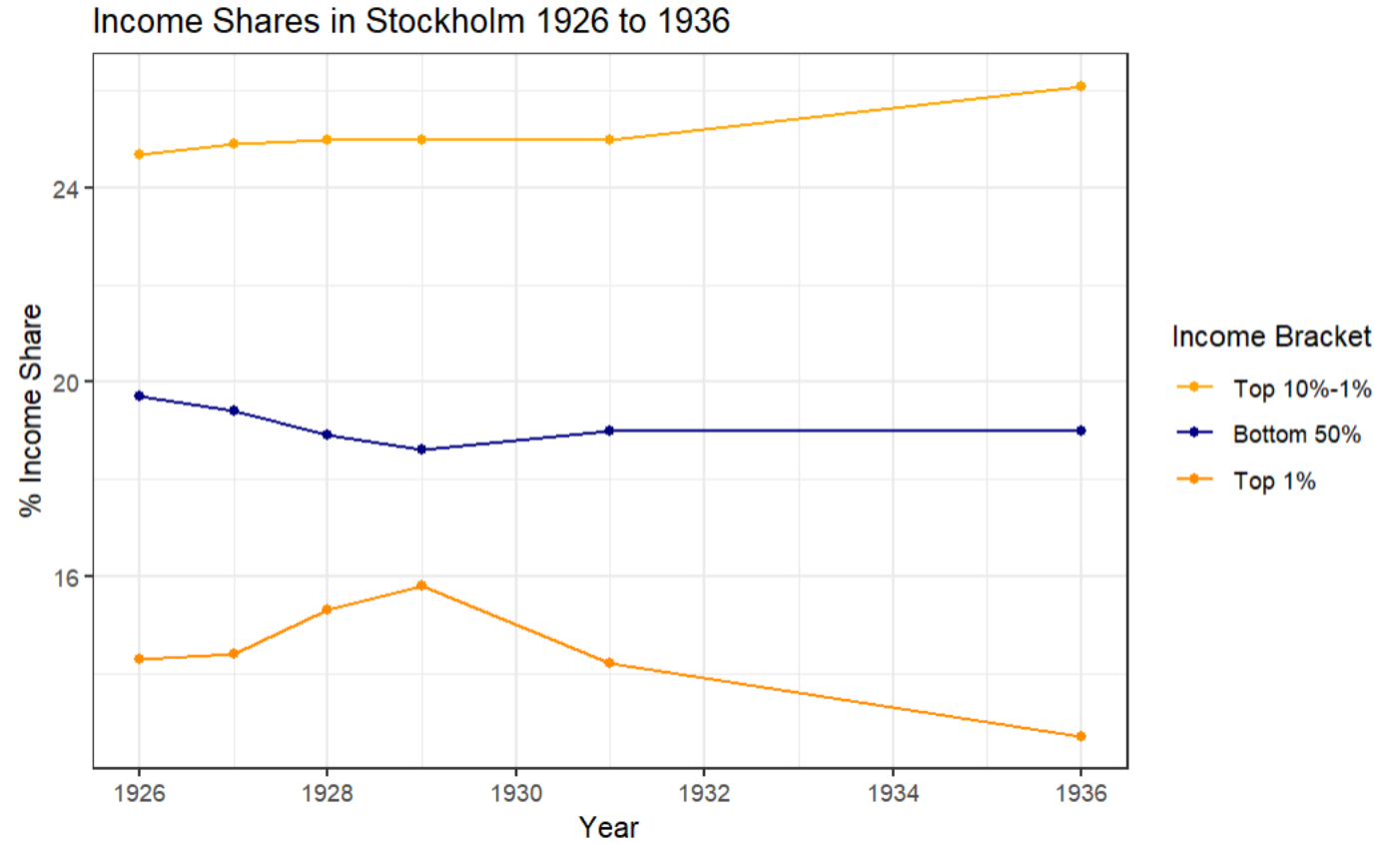
- Individual financial sector data from the Tax Assessment Calendars
- Income data from the financial sector and medical doctors manually transcribed
- Contains Name, Parish, Occupation, and Total Income



Photographs of a Tax Assessment Calendar 1935 and 1931

Results I - Distribution

- Gini-coefficient increased slightly over the period from 47.7 to 48.3
- Both the bottom and top are disadvantaged
- The top 10%-1% gain



Results II – Micro Data

- Micro data confirms the general trend
- The insurance sector and lower-level clerks were relatively spared
- The decline in income in the financial sector does not vary significantly from that of the control group.

Table 2 – Average Financial Sector, and Control Group Income by Occupation Relative to Average Taxable Income in Stockholm

| | 1926 | 1930* | 1932* | 1934* |
|------------------------|-------------|-------------|-------------|-------------|
| Actuaries | 2,94 100 | 3,14 107 | 3,06 104 | 3,23 110 |
| Bank Clerk | 2,10 100 | 2,44 116 | 2,33 111 | 2,56 122 |
| Bank Manager | 17,5 100 | 20,8 119 | 16,4 94 | 15,3 87 |
| Bank Treasurer | 4,75 100 | 4,17 88 | 3,92 83 | 4,05 85 |
| Insurance Clerk | 1,91 100 | 2,46 129 | 2,24 117 | 2,31 121 |
| Insurance Manager | 11,8 100 | 10,1 85 | 14,0 119 | 13,7 116 |
| All Financial Managers | 14,3 100 | 16,3 114 | 12,6 89 | 12,7 89 |
| Medical Doctors | 5,80 100 | 6,29 108 | 5,33 92 | 5,25 91 |

The table shows two estimates. The above value is the occupational income relative to average income in Stockholm and the below figure shows an index value of relative income compared to the baseline year of 1926.

* Due to missing tabulated income data for 1930, 1932, and 1934, the individual income data of 1930 and 1932 was compared against the income distribution of 1931, and the income data of 1934 was compared against the income distribution of 1936. Source: Stockholm Stads, Villastädernas Och Läns Taxeringskalender. (1927, 1931, 1933, 1935)



Results II – Micro Data

- Sources indicate a surprisingly small financial sector
- Implies low level of financialization.

Table 1 – Financial Sector Income as Share of Top Percentiles

| | 1926 | 1930* | 1932* | 1934* |
|-----------|------|-------|-------|-------|
| Top 1 % | 4,1% | 3,6% | 3,2% | 3,2% |
| Top 0.1 % | 6,6% | 7,1% | 5,1% | 5,8% |

Source: Appendix A Table 1 and income data from Stockholm Stads, Villastäders Och Läns Taxeringskalender. (1927, 1931, 1933, 1935) *Due to missing tabulated income data for 1930, 1932, and 1934, the individual income data of 1930 and 1932 was compared against the income distribution of 1931, and the income data of 1934 was compared against the income distribution of 1936.

Conclusions

- The paper provides a more nuanced picture of the distributional effects of financial crises, both the top and bottom of the distribution lost income shares. The decline of the top 1 percent share was not equally distributed.
- The results encourage us to question the narrative of exogenous shocks surrounding the Great Leveling and imply future research agenda focused on the other determinants, such as those mentioned by Bengtson (2020)

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