

# Poverty in Times of Crisis: Evidence from the Covid-19 Pandemic using Administrative Data in Switzerland

Oliver Hümbelin, Maurizio Strazzeri,  
Rulla Sutter, Lukas Hobi, Olivier  
Lehmann and Rudolf Farys

5<sup>th</sup> Workshop of the Swiss Network on Public  
Economics, University of Fribourg, March  
2024



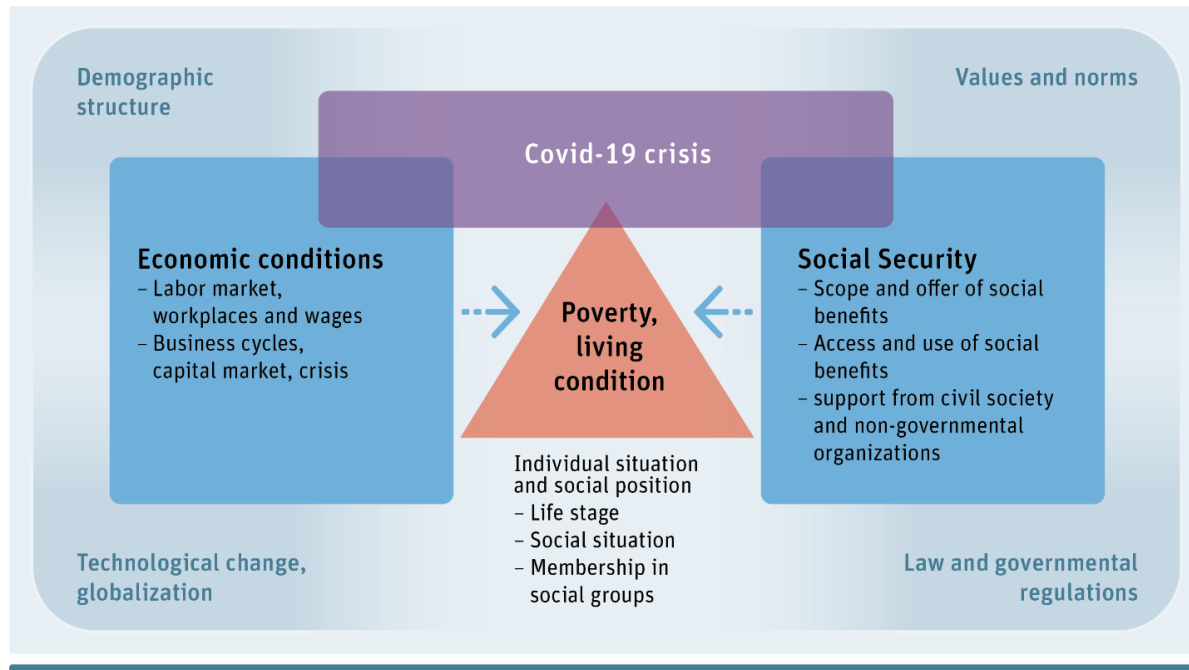
# Background, policy implication and state of research

Although the Covid-19 pandemic is primarily a health crisis, it also affected the economy and living conditions in many ways. NRP-80 [“Covid-19 in Society”](#) aims at clarifying the societal impact of the pandemic. Main policy implication of our project: Must the crisis management be improved by better considering socially disadvantaged groups?

- International literature points out that poverty might have increased due to unequal economic shock (Almeida et al (2021). Others suggest that poverty decreased because of the extension of social security benefits (Bruckmeier et al. (2021); Brewer & Gardiner (2020). -> balanced or intensified inequalities?
- Swiss studies mainly focused on the first stage of the pandemic and suggested stronger negative impact on low-income groups (Beyeler, Hümbelin, et al 2021 , Martinez et al. 2021)
- Official statistics show: Quota of social assistance recipients did not increase. Indeed, it declined from 2019 (3.2%) – 2022 (3.0%)

**Research gap:** What happened behind the curtain? What happened at different stages of the pandemic? What happened for different social groups? No study using administrative data

# Theoretical framework and research Question

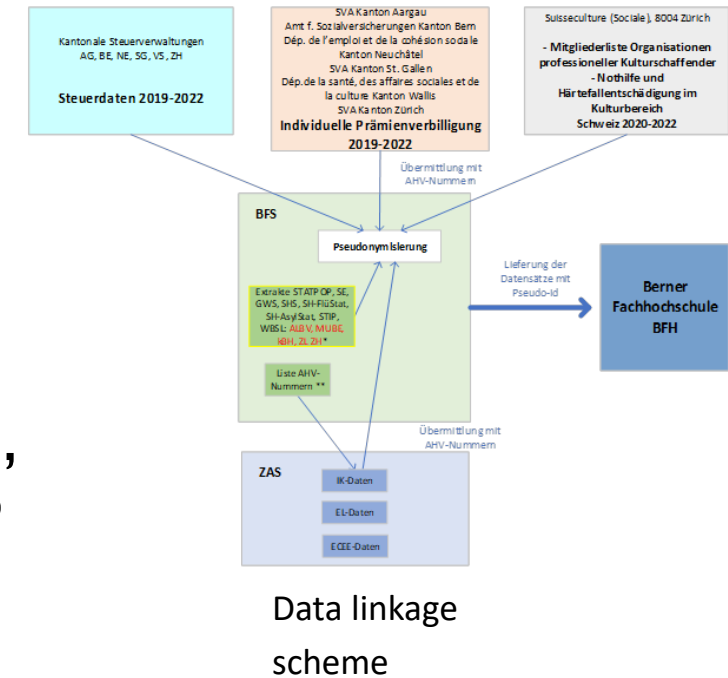


**Research Question:** How did the covid-19 pandemic affect poverty and low-income groups in Switzerland and how well were those affected in the crisis covered by social security at different stages of the pandemic?

Based on Crettaz and Lohmann (2019) and Crettaz (2021)

# Study Covid-19 with linked tax data

- **linked tax data** for about 4 Million inhabitants, ~40% of Swiss population
  - Tax data from 5 cantons (AG, BE, SG, VS, ZH) to measure income and wealth changes (Hümbelin&Farys, 2016)
  - Population and housing register, structural survey
  - Social benefits register (social assistance, supplemental benefits, individual premium reduction, special Covid-19 measures (CEE, Corona payments to artist))
  - Monthly income data from the OASI-Register
- **Time period covered:** 2019 (pre covid) to 2022



# Analytical strategy I – Distributional impact of the covid-19 pandemic

- **Did covid increase economic inequality and how strong did the instruments of the social security system balanced inequalities?**
  - Change of income from 2019 to 2022 measured with Gini-coefficient
  - Income = Market income + social insurance benefits + mean-tested-benefits + Covid-19 payments
  - We use techniques suggested by Reynolds & Smolensky (1977), that are widely used in distributional studies to assess the importance of social security benefits (Caminada et al., 2019a; Causa & Hermansen, 2020; Hümbelin, Farys, Jann & Lehmann, 2021).
  - Importance of social security =  $G_x - G_{(x+\text{social security benefit})}$
  - It is a Gini-based assessment of change in inequality with  $G_x$  being inequality of income of market income and  $G_{(x+\text{social security benefit})}$  inequality of income post social security benefits
- **Were high income earners able to save during the pandemic while low-income groups had to use savings to cover income losses?**
  - Assess change of wealth inequality from 2019 to 2022 measured by the Gini-coefficient
  - Focus on liquid assets (bank deposits, stocks, securities)
- **Did covid-19 eventually increase poverty (considering those outside of social assistance)?**
  - Change of poverty rates from 2019 to 2022
    - Absolute poverty rates in line with national standard of poverty measurement (Fluder, Hümbelin et al. 2020)
    - with and without assets (Brandolini et al 2010)
    - with and without social assistance
  - Anchored poverty at risk rates to assess changes immediately above the poverty line

# Analytical strategy II – risk group assessment

## Test the burning lense hypotheses: Covid-19 intensified existing inequalities (Butterwege, 2021)

- Income trajectories (monthly and yearly) and change in wealth by
  - Income and wealth groups
  - Employment status (self-employed vs employed)
  - Residence status (permanent vs residence permit B/C)
  - Nationality (CH, EU/EFTA, third countries)
  - Individualized incomes by Gender (Agenlov & Waldenström, 2021; Stutz, 2022)
  - Economic Sector
  - Urban vs rural areas
  - Age groups

# Outlook and policy perspective

- Final results should be Ready in 2026
- Regular exchange with advisory group of policy experts
  - Representatives of Departments of the federal administration,
    - Federal Insurance Office FSIO, State Secretariat for Economic Affairs SECO, Federal Statistic Office FSO
  - Representatives of Cantons and municipalities in social policies
    - SKOS, SODK, Städteinitiative, Gemeindeverband
  - NGO's working in the field of poverty and inequality
    - Caritas

Thank you for your attention!

**Contact**

[oliver.huembelin@bfh.ch](mailto:oliver.huembelin@bfh.ch)  
[maurizio.strazzeri@bfh.ch](mailto:maurizio.strazzeri@bfh.ch)

# Bibliography

Almeida, V., Barrios, S., Christl, M., De Poli, S., Tumino, A., & van der Wielen, W. (2021). The impact of COVID-19 on households' income in the EU. *The Journal of Economic Inequality*, 19(3), Article 3. <https://doi.org/10.1007/s10888-021-09485-8>

Angelov, N., & Waldenström, D. (2021). COVID-19 and Income Inequality: Evidence from Monthly Population Registers (9178; CeSifo Working Paper, Nummer 9178). <https://doi.org/10.2139/ssrn.3885421>

Beyeler, M., Hümbelin, O., Korell, I., Richard, T., & Schuwey, C. (2021). Auswirkungen der Corona-Pandemie auf Armut und sozioökonomische Ungleichheit. Nationale Plattform gegen Armut und Berner Fachhochschule. [https://www.gegenarmut.ch/fileadmin/kundendaten/im\\_Fokus/Auswirkungen\\_der\\_Corona-Pandemie\\_auf\\_Armut\\_Nov.\\_21.pdf](https://www.gegenarmut.ch/fileadmin/kundendaten/im_Fokus/Auswirkungen_der_Corona-Pandemie_auf_Armut_Nov._21.pdf)

Brandolini, A., Magri, S., & Smeeding, T. M. (2010). Asset-based measurement of poverty. *Journal of Policy Analysis and Management*, 29(2), Article 2. <https://doi.org/10.1002/pam.20491>

Brewer, M., & Gardiner, L. (2020). The initial impact of COVID-19 and policy responses on household incomes. *Oxford Review of Economic Policy*, 36(Supplement\_1), S187–S199. <https://doi.org/10.1093/oxrep/graa024>

Bruckmeier, K., Peichl, A., Popp, M., Wiemers, J., & Wollmershäuser, T. (2021). Distributional effects of macroeconomic shocks in real-time: A novel method applied to the COVID-19 crisis in Germany. *The Journal of Economic Inequality*, 19(3), Article 3. <https://doi.org/10.1007/s10888-021-09489-4>

Butterwegge, C. (2021). Das neuartige Virus trifft auf die alten Verteilungsmechanismen: Warum die COVID-19-Pandemie zu mehr sozialer Ungleichheit führt. 2021(1), 11–14.

Caminada, K., Goudswaard, K., Wang, C., & Wang, J. (2019). Income Inequality and Fiscal Redistribution in 31 Countries After the Crisis. *Comparative Economic Studies*, 61(1), Article 1. <https://doi.org/10.1057/s41294018-0079-z>

Causa, O., & Hermansen, M. (2020). Income Redistribution through Taxes and Transfers across OECD Countries. In J. Gabriel Rodríguez & J. A. Bishop (Hrsg.), *Inequality, Redistribution and Mobility* (Bd. 28, S. 29–74). Emerald Publishing Limited. <https://doi.org/10.1108/S1049-258520200000028002>

Crettaz, E. (2021). The impact of the Covid-19 pandemic on working poverty: Theoretical and conceptual reflections. *Sociologia del lavoro*, 161(3), Article 3.

Fluder, R., Hümbelin, O., Luchsinger, L., & Richard, T. (2020). Ein Armutsmonitoring für die Schweiz: Modellvorhaben am Beispiel des Kantons Bern. Berner Fachhochschule. <https://arbor.bfh.ch/id/eprint/12959>

Hümbelin, O., & Farys, R. (2016). The Suitability of Tax Data to Study Trends in Inequality—A theoretical and empirical review with tax data from Switzerland. *Research in Social Stratification and Mobility*. <http://dx.doi.org/10.1016/j.rssm.2016.04.004>

Hümbelin, O., Farys, R., Jann, B., & Lehmann, O. (2021). Umverteilung über Steuern und Sozialleistungen in der Schweiz—. N°28. [www.socialchangeswitzerland.ch](http://www.socialchangeswitzerland.ch)

Lohmann, H., & Crettaz, E. (2019). Explaining cross-country differences in in-work poverty. In H. Lohmann & I. Marx (Hrsg.), *Handbook on In-Work Poverty* (S. 528). Edward Elgar Publishing.

Martinez, I., Kopp, D., Lalive, R., Pichler, S., & Siegenthaler, M. (2021). Corona und Ungleichheit in der Schweiz-Eine erste Analyse der Verteilungswirkungen der Covid-19-Pandemie. *KOF Studies*, 161, 1–29.

Reynolds, M., & Smolensky, E. (1977). Post-fisc distributions of income in 1950, 1961, and 1970. *Public Finance Review*, 5(4), 419–438.

Stutz, H., Bischof, S., & Liechti, L. (2022). Genderspezifische Effekte der staatlichen Massnahmen zur Bekämpfung des Coronavirus Covid-19. Eidgenössische Kommission für Frauenfragen EKF.