EQUALFIN – Finance and inequality in times of polycrisis – Doctoral Program

Research Area 3: Unequal access to funding at the individual level

The role of credit market frictions is central from both a macroeconomic and microeconomic perspective. At an individual level, loans enable investment, e.g. in self-employment. However, with unequal access to credit, they can reinforce existing inequalities. Different **credit availabilities** can be observed, which are examined within the framework of the doctoral program; we list some examples below.

The financial system plays a central role in access to education, which is essential for achieving several SDGs and global prosperity. Higher education is an important pillar of this. The availability of **student loans**, scholarships and other forms of financial support can expand or restrict access to higher education (e.g. Dynarski 2003). However, in many countries there is a crisis in public funding of higher education, which is partly compensated for by increasing tuition fees (e.g. USA, UK). In addition, inflation and the housing market crisis have increased the cost of living for students in many countries. As a result, the financial barriers for students from low-income families have risen.

For women in particular, access to financial services and loans is characterized by supply and demandside restrictions (Brock and De Haas 2023; Muravyev et al. 2009; Alesina et al. 2013; Qi et al. 2022). This underpins and potentially reinforces possible financial inequalities. For example, women are generally less likely to apply for loans for fear of being rejected (Galli and Rossi 2016). Instead, they are more likely to use their own (limited) financial resources, which limits the growth potential of their economic activities. However, the existing literature, which focuses on cause-and-effect relationships, pays little attention to the considerable cultural differences and heterogeneities. For example, Danzer et al. (2023) illustrate that women in Vietnam are traditionally the financial decision-makers in households. At the same time, Danzer et al. (2023) show in their quasi-experimental study that genderspecific differences in credit conditions occur under certain conditions, which can only be attributed to different negotiation strategies. However, there is still a large research gap in understanding negotiation strategies in access to credit, so that reference can only be made to consolidated results from labor market research on negotiation strategies and successes in wage negotiations, which are used to explain the empirically verifiable gender wage gap between women and men (Bertrand 2011, Azmat and Petrongolo 2014, Eckel et al. 2008). The resulting questions, which can also be dealt with in (quasi-)experiments, can also be supervised in collaboration with Alexander Danzer (Kath. Universität Eichstätt-Ingolstadt) as an associate member.

In recent decades, numerous development programs have been launched to enable small businesses or households to access financial services such as loans and thus increase their income. Although poverty needs to be understood multidimensionally and also includes aspects of equity and capability deprivation (Sen 2001), the increase in disposable household income still remains the most important tool for poverty-stricken families to invest in education, health and training, or in their own entrepreneurial activities. Even though renowned studies on the economic impact of microfinance projects (Banerjee, Duflo and Hornbeck 2018, Banerjee et al. 2015, Banerjee and Duflo 2012 using the Randomized Control Trials method) show that the hoped-for long-term effects of loans provided are less pronounced than expected, the studying household finances, private financial management and intra-household financial logics remains an important research topic to understand both the hurdles and the opportunities faced by poor households - not at last from a gender perspective (female-headed households, female entrepreneurship, male appropriation of "female" loans, etc.).). Such studies not only provide information on the economic situation of households in specific regions of a given country, but also on social, gender and cultural constraints.

Crises, especially when they occur in the form of polycrisis, are typically accompanied by a change in the **collective mood** within societies. These crises usually trigger fear and anxiety; both abstractly, as uncertainty increases in general, but also very concretely through specific shocks, e.g. unemployment, inflation or individually tangible consequences of climate change. Various studies suggest that emotions such as fear have an impact on individuals' economic decision-making behavior (Haushofer and Fehr 2014, Danzer, Danzer and Fehr 2022). This applies in particular to the willingness to take risks as a consequence of investment decisions (Meier 2022, Schulreich et al. 2014, Shumway 2003, Kamstra et al. 2003, Birru 2018). Yet, the influence of sentiment on economic decision-making behavior is not limited to investment behavior. Various studies have shown that people in a positive mood behave more pro-socially (e.g. Capra 2004, Drouvelis and Grosskopf 2016).

It is possible that lenders are subject to implicit biases such as gender for example with regard to the economic success of loan investments by men compared to women (Brock and De Haas 2023). For example, recent research suggests that external characteristics (e.g. skin color) have a significant negative impact on the evaluation of high-performing venture capital funds by professional investors (Lyons-Padilla et. al 2019). Such prejudices and implicit biases could have a stronger influence on lending with the same objective information when the contextual bias is negative.

In addition to different negotiation strategies and different influences of collective mood and expectations, the decision architecture (Thaler and Sunstein 2003) could also influence the success of lending. The **decision architecture** is the linguistic, physical, emotional and social environment in which people make decisions. The best-known effect is the so-called *default bias*.

People tend to passively stick with the decision alternative that is chosen unless they actively decide otherwise. Savings plans are a well-known example. In one study, employees in a savings plan were able to decide that their savings rates would automatically increase over the years (Thaler and Benartzi 2004). After some time, their savings rates were significantly higher than those of employees for whom the default was for the savings rate to remain the same. Such defaults exist in practically every decision-making environment. When granting a loan, for example, there is usually an offer from the credit institution that serves as a basis for negotiation. However, it is unclear whether the decision-making environment influences all people to a similar extent or only individual groups. For example, existing decision-making architectures could reinforce inequalities in lending (e.g. between men and women).

The deliberate influencing of the decision-making architecture with the aim of changing people's behavior in a predictable way (e.g. to reduce inequality in lending) is called *nudging*. In a large metaanalysis, Mertens et al. 2022 investigated the impact of *nudges* in the areas of health, nutrition, the environment and finance. They found that nudges can be effective in all areas. They therefore represent a potential instrument that could be used to combat inequalities, particularly in lending.

Possible research questions for this research focus are:

- What impact do socio-demographic factors have on the influence of the decision-making architecture in the financial sector (e.g. in lending) and to what extent does this promote or reduce inequality?
- How can a specific decision-making environment in the financial sector (e.g. for lending decisions) be changed to reduce inequality?
- Do gender-specific norms exist in the granting of loans? What potential instruments can correct subconscious prejudices? The research could be carried out in cooperation with microcredit institutions, e.g. Oikocredit.
- How does crisis-induced negative sentiment affect the influence of gender-specific norms and implicit prejudices on the granting of loans?
- What impact do loans have on internal household financial logic? In the case of Namibia, for example, this could be investigated in cooperation with Elina Amadhila from the University of Windhoek.
- To what extent can previous findings on gender-specific inequalities in access to credit in the formal financial sector be transferred from the literature to non-Western cultures and countries?
- How do negotiation strategies of men and women differ in access to bank loans? Can alternative security mechanisms improve access to credit for women? What factors play variables such as the negotiation environment, credit targets or macroeconomic shocks in that situation?

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List of references

- Alesina, A.F., Lotti, F., Mistrulli, P.E. (2013). Do women pay more for credit? Evidence from Italy. *Journal* of the European Economic Association, 11(s1), 45-66.
- Azmat, G., Petrongolo, B. (2014). Gender and the labor market: What have we learned from field and lab experiments? *Labour Economics*, 30, 32-40.
- Banerjee, A., Duflo, E., Glennerster, R., Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, 7(1), 22-53.
- Banerjee, A., Duflo, E., Hornbeck, R. (2018). How much do existing borrowers value microfinance?
 Evidence from an experiment on bundling microcredit and insurance. *Economica*, 85(340), 671-700. <u>https://doi.org/10.1111/ecca.12271</u>.

Banerjee, A. Duflo, E. (2012). Poor Economics. Public Affairs, New York.

- Bertrand, M. (2011). New perspectives on gender. In O. Ashenfelter and D. Card (Eds.). *Handbook of Labor Economics*, 4B, 1543-1590. Amsterdam, Netherlands: North Holland Publishing Co.
- Birru, J. (2018). Day of the week and the cross-section of returns. *Journal of Financial Economics*, 130, 182-214.
- Brock, J. Michelle, and Ralph De Haas. 2023. Discriminatory lending: Evidence from bankers in the lab. *American Economic Journal: Applied Economics*, 15 (2), 31-68.
- Capra, M. C. (2004). Mood-driven behavior in strategic interactions. *American Economic Review*, 94, 367–372.
- Danzer, A., Danzer, N., Fehr, E. (2022). The Behavioral and psychological consequences of a nuclear catastrophe: The case of Chernobyl. Mimeo.
- Danzer, A.M., Hainz, C., Kleimeier, S., Qi, S. (2023). Contracts, collateral and culture: Gender effects in retail loans. Mimeo.
- Dynarski, S. (2003). Does aid matter? Measuring the effect of student aid on college attendance and completion. *American Economic Review*, 93(1), 279-288.
- Eckel, C., De Oliveira, A. C., Grossman, P.J. (2008). Gender and negotiation in the small: are women (perceived to be) more cooperative than men? *Negotiation Journal*, 24(4), 429-445.
- Fochmann, M., Hechtner, F., Mohr, P.N.C., Kirchler, E. (2021). When Happy People Make Society Unhappy: Emotions Affect Compliance Behavior. *SSRN Working Paper*.
- Galli, E., Rossi, S. (2016). Bank credit access and gender discrimination: Some stylized facts. *Springer*, 111-123; <u>https://doi.org/10.1007/978-3-319-17413-6_8</u>.
- Haushofer, J., Fehr, E. (2014). On the psychology of poverty. Science, 344(6186), 862-867.
- Kamstra, M. J., Kramer, L. A., Levi, M. D. (2003). Winter blues: A SAD stock market cycle. *American Economic Review*, 93, 324-343.
- Lyons-Padilla, S., Rose Markus H., Monk, A., Radhakrishna S., Shah, R., Norris A., Dodson IV D., Eberhardt L. (2019). Race influences professional investors' financial judgments. PNAS, 116 (35), 17225-17230.
- Meier, A. (2022). Emotions and Risk Attitudes. *American Economic Journal: Applied Economics*, 14(3), 527-558.
- Mertens, S., Herberz, M., Hahnel, U.J.J., Brosch, T. (2022). The effectiveness of nudging: A metaanalysis of choice architecture interventions across behavioral domains. *Proceedings of the National Academy of Sciences of the United States of America*, 119(1), 1-10.
- Muravyev, A., Talavera, O., Schäfer, D. (2009). Entrepreneurs' gender and financial constraints: evidence from international data. *Journal of Comparative Economics*, 37(2), 270-286.
- Qi, S., Ongena, S., Cheng, H. (2022). Working with women, do men get all the credit?. *Small Business Economics*, 59, 1427-1447.
- Schulreich, S., Heussen, Y. G., Gerhardt, H., Mohr, P. N. C., Binkofski, F. C., Koelsch, S., Heekeren, H. R.
 (2014). Music-evoked incidental happiness modulates probability weighting during risky lottery choices. *Frontiers*, Decision Neuroscience.
- Thaler, R., Benartzi, S. (2004). Save more tomorrow: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(1), 164-187.

Thaler, R., Sunstein, C. (2003). Libertarian paternalism. American Economic Review, 93(2), 175-179.