Account of Academic Qualifications

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1 Research Statement

How does income and wealth inequality affect macroeconomic performance in the long and short run? Does inequality change the effectiveness of stabilisation policy? How do economic policies in turn affect inequality and the ability of households to guard against risks from income fluctuations or other contingencies of life? How do households form expectations about the future, and what does this imply for macroeconomic dynamics and the effect of policies?

These are some of the questions that motivate my research. They share a concern with economic policies, and their ability to improve the welfare of households. To answer them, I use a variety of methods and approaches, both theoretical and empirical. Often, I start with a new stylized fact, typically identified using micro-data sets (such as the increasing portfolio share of foreign assets along the US wealth distribution in *Home bias* [3 in my attached *List of Publications*], or the over-reaction of professional forecasters to news in *Forecaster mis-behavior* [10]), show what standard theory says about this fact, and if necessary propose an alternative theory that explains it. Another approach I often use is to add a new dimension to a standard model (such as investor disagreement about risk, rather than mean payoffs, in *Collateralized lending* [11] and *Securitization Bubbles* [2], or choice of information about the state of the economy in *Information Choice* [9]), derive observable implications, and compare them to data. My theoretical work is based on formal modeling, inspired by Ockham's Razor, trying to keep models as simple as possible while still capturing the relevant economic forces at work. I thus use partial equilibrium analysis to highlight specific mechanisms (such as the response of endogenous borrowing constraints to changes in risk in *Imbalances* [5]), but study the general equilibrium effects

where they are crucial to the phenomenon of interest (such as the real exchange rate movements that determine the hedging properties of foreign assets in *Home bias* [3]) or overturn partial equilibrium intuition (such as through the labor supply response in the *New Keynesian Transmission Mechanism* [1]). My approach to individual behavior is based on the conviction that economic decisions are typically driven by rational optimisation, but that a simplistic notion of rationality is often not useful, and that departures from rationality and full information are crucial to understand some economic phenomena. For example, *Information Choice* [9] shows that many households may simply not have strong incentives to make the accurate predictions about the future state of the economy implied by the rational expectations equilibrium benchmark. And *Forecaster mis-behavior* [10] finds that behavioral biases are a prime feature of expectations formation.

In the following, I provide more detail about previous research projects and work in progress, under four broad headings.

1.1 Risk sharing in western economies and agricultural villages

My research on risk sharing is motivated by the observation that, in a variety of contexts, economic agents share the risks they are exposed to imperfectly, with often important negative welfare consequences. Since the effect of policy interventions to improve risk sharing depends on the underlying frictions, this gives rise to the question: What is a good model of consumption risk sharing?

"*The wrong shape of insurance?*" [6], published in the *American Economic Journal: Macroeconomics*, shows how we can discriminate between models of risk sharing using their contrasting implications for the joint cross-sectional distribution of consumption and income. "*Consumption risk sharing with private information and limited enforcement*" [4] with Marek Kapička and Paul Klein, published in the *Review of Economic Dynamics*, is the first quantitative analysis of a model economy with limited information *and* limited enforcement, which turns out to capture the stylised facts of risk sharing in the United States better than simpler models. "*Crowding out or crowding in?*" [7], published in the *Journal of Economic Theory*, points out how the simple policy conclusion that redistribution tends to be less powerful, or even counterproductive, with limited commitment to contracts (as it makes the off-equilibrium punishment of autarky more attractive), does not necessarily generalise to economies with capital, or realistic consequences of defaulting on contracts.

Ongoing work in this area further investigates the implications of limited commitment frictions for risk sharing.

"*Risk sharing in village economies revisited*" [12], with Tessa Bold, recently revised for the *Journal of the European Economic Association*, is the first quantitative analysis of limited commitment risk sharing with group deviations, which captures key moments of consumption-income movements in agricultural villages substantially better than previous models.

"*Limited commitment in an economy with aggregate fluctuations*" ([15], with Paul Klein) incorporates aggregate dynamics in the standard model of limited commitment consumption insurance in large economies, to study the dynamics of inequality during recessions, and the behaviour of asset prices.

"*Break-up of unions*" ([14], with Tessa Bold and Sebastian Koehne) tries to relax the standard assumption that risk sharing groups are constant over time, to analyse equilibrium group formation and break-up in small risk sharing schemes that suffer from limited enforcement. This could explain additional facts of village risk sharing, but also, potentially, the dynamics of international risk sharing, including why countries may leave cooperative groups ("Brexit") or be forced out ("Grexit").

1.2 The macroeconomic effects of inequality

My second research area asks how household heterogeneity and imperfect risk sharing interact with the dynamic equilibrium of the macroeconomy, which I find a particularly exciting area for future research, with many interesting questions, partly linked to the Great Recession: How does the transmission of monetary policy differ in a world of higher and more heterogeneous household indebtedness? How do cross-country differences in the structure of housing markets and in the distribution of mortgage debt matter for international business cycles, and, more particularly, economic policy in a monetary union? Importantly, the recent literature on Heterogeneous Agents New Keynesian (HANK) models gives us some new tools to find answers to these questions. I plan to concentrate more of my research effort in this area in the future, potentially with my co-authors on related topics Per Krusell and Erik Öberg.

"*The New Keynesian transmission mechanism*" ([1], with Niels-Jakob Harbo Hansen, Per Krusell, and Erik Öberg), forthcoming in the *Review of Economic Studies* points

out that the introduction of heterogeneity in factor incomes overturns completely the predictions of the textbook New Keynesian model for monetary policy transmission. An alternative model, where both wages and prices are rigid, is less sensitive to distributional assumptions. "*Domestic or global imbalances?*" [5], my job-market paper published in the *Journal of Monetary Economics*, shows how higher income risk may lead to a relaxation of endogenous borrowing limits by making default less attractive, thus reducing aggregate savings, contrary to the precautionary savings intuition but in line with the US experience before the Great Recession.

An ongoing project, with Karl Harmenberg, Per Krusell and Erik Öberg, aims to identify frictions in the determination of wages and salaries that explain the main features of the data, such as downward nominal rigidity, the staggered and synchronized nature of wage changes in ongoing employment relationships, etc. Again, heterogeneity between the employed and unemployed, or between job-stayers and -switchers seems crucial for wage regidities, and thus macroeconomic performance.

1.3 Heterogeneity in portfolios and investment decisions

A third field of interest studies heterogeneous investor decisions and disagreement.

"*Securitisation bubbles: structured finance with disagreement about default risk*" [2] published in the *Journal of Financial Economics*, highlights how strong self-selection to different tranches of securitisations by investors who disagree about the default correlation in the collateral loan pool can increase in prices. "*The home bias of the poor*" [3] published in the *European Economic Review*, explains new stylised facts about the foreign-asset share in US household portfolios using a standard two-country international business cycle model.

"*Collateralised lending and asset prices*" ([11], with Afroditi Kero), under submission, is motivated by the observation that disagreement about return risk and macroeconomic volatility is strong and has increased since the 1980s. We show how this may have contributed to higher asset prices through increased use of collateralized debt products, which allow investors with different risk perceptions to realize perceived gains from trade. A quantitative application shows how this self-selection may have contributed significantly to the boom in structured securitisations.

1.4 Expectation formation and forecasting

More recently, I have become interested in the process of expectation formation more generally, and plan to do more work in this area, particularly in relation to the effects of macroeconomic policies. "*Forecaster (Mis-) behavior*"[10], with Alexandre Kohlhas, documents how professional forecasters over-respond to both private and public information, contradicting the rational expectations hypothesis and previous alternative theories of forecaster behavior. A model of overconfidence, in contrast, can explain the facts. "*Heterogeneous Information Choice* [9] shows how the incentives to acquire the full information assumed in most macro-models are heterogeneous across the wealth distribution, and often quite weak. Information-poor equilibria have substantially different macro-dynamics and a substantially more dispersed wealth distribution.

2 List of publications, working papers and work in progress

Articles in Refereed Journals

1. "*The New Keynesian transmission mechanism: a heterogeneous agent perspective*", with Niels-Jakob Harbo Hansen, Per Krusell, and Erik Öberg, *Review of Economic Studies*, forthcoming.
2. "*Securitisation bubbles: structured finance with disagreement about default risk*", *Journal of Financial Economics*, Volume 127, Issue 3, March 2018, 505-518.
3. "*The home bias of the poor: foreign asset portfolios across the wealth distribution*", *European Economic Review*, Volume 92, February 2017, 74-91.
4. "*Consumption risk sharing with private information and limited enforcement*", with Marek Kapicka and Paul Klein, *Review of Economic Dynamics*, Volume 23, January 2017, 170-190.
5. "*Domestic or global imbalances? Rising inequality and the fall in the US current account*", *Journal of Monetary Economics*, Volume 64, May 2014, 47-67.
6. "*The wrong shape of insurance? What cross-sectional distributions tell us about models of consumption smoothing*", *American Economic Journal: Macroeconomics*, 54, 2013, 107-40.

7. "*Crowding out and crowding in: When does redistribution improve risk sharing in limited commitment economies?*", *Journal of Economic Theory*, Volume 146, No. 3, May 2011, 957-975.
8. "*Emerging market lending: is moral hazard endogenous?*", *Journal of Economic Development* Vol. 32, No. 2, December 2007, 41-67.

Working Papers [CLICK HERE for latest drafts on my webpage]

9. "*Heterogeneous information choice in general equilibrium*", with Alexandre Kohlhas, Kurt Mitman, and Kathrin Schlafmann.

10. "*Forecaster (Mis-) behavior*", with Alexandre Kohlhas, CEPR Discussion Paper 12898.

11. "*Financial innovation and asset price bubbles when investors disagree about risk*", with Afroditi Kero. Previous version as CEPR Discussion Paper 10148, September 2014.

12. "*Risk sharing in village economies revisited*", with Tessa Bold. Previous version as CEPR Discussion Paper 11143, March 2016.

13. "*Great Moderation or Great Mistake: can rising confidence in low macro-risk explain the boom in asset prices?*", with Afroditi Kero. (No longer circulated as superseded by simultaneous work by Johannes et al, JF 2016.)

Work in Progress

14. "*Break-up of unions: risk sharing in dynamic groups*", with Tessa Bold and Sebastian Koehne.

15. "*Risk sharing under limited commitment in an economy with aggregate fluctuations*", with Paul Klein.