Summary of Current Research

Filippo Pallotti

University College London — Lombard Odier Group

filippo.pallotti@ucl.ac.uk — www.filippopallotti.com

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In a nutshell

Research Agenda I study how policy works in heterogeneous-agent economies by pairing measurement and modeling. On the theory side, I build HANK models to examine policy transmission and perform counterfactual analysis. On the data side, I leverage novel high-frequency sources - primarily transactions captured by fintechs - to estimate the structural targets HANK needs: intertemporal MPCs [5]; the calendar of transmission of monetary policy across spending, vacancies, and prices [4]; heterogeneous responses across households to policy [6]; the separation of direct interest-rate channel from indirect income/credit channels [7]; and the mapping from nominal balance-sheet devaluations into consumption [1].

JMP My job-market paper places the *Fisher channel* at the center of the post-pandemic cycle. Unexpected inflation shifted wealth from low-MPC nominal creditors to high-MPC debtors; in a HANK model disciplined by the distribution of net nominal positions and the NNP–MPC covariance, this redistribution helped sustain consumption and inflation in 2022–24. Using a large U.S. fintech panel, I document that nominal liability exposure predicts higher spending over the episode, consistent with the model's mechanism. The same channel *amplifies* conventional monetary policy in HANK and reduces the model's reliance on nominal rigidities for policy effectiveness.

1. The Fisher Channel According to HANK (link)

Methods and discipline. I build a HANK model with long-duration nominal claims, sticky wages and flexible prices, and a standard Taylor rule, then jointly discipline it to two targets that pin down the Fisher channel: the empirical distribution of net nominal positions (NNP) across households and the empirical covariance between MPCs and NNP — Auclert's (2019) sufficient statistic that baseline HANKs typically miss. I map the observed 2021–22 price-level surprise into the model as a redistribution shock and compare a full-information benchmark to a parsimonious behavioral extension in which households partially attend to the devaluation of long-term nominal contracts ("cognitive discounting"), which slows recognition but prolongs effects. Empirically, I bring a very large U.S. fintech transactions panel to the question: I validate representativeness against U.S. aggregates, reconstruct mortgage liabilities from payment streams, infer liquid nominal assets from interest income, and estimate both cross-sectional and local-projection responses of spending to inflation surprises - empirical designs that map to model IRFs.

Contributions and interpretation. Quantitatively, matching those empirical targets delivers a Fisher channel with bite: the 2021–22 redistribution raises aggregate consumption by about *0.5%* on impact and lifts inflation by roughly *0.3pp*, while cognitive discounting produces a smaller

peak but more persistent paths - consistent with micro evidence. In the fintech data (2014–2024; balanced ∼430k HHs), mortgagors increase spending by about $40 per $ 100k of fixed-rate debt, aggregating to $\sim 53bn/$ year ($\approx 0.3\%$ of PCE); the asset slope is near zero, and local projections show liability-driven effects that persist, leaning toward the behavioral mechanism. Finally, giving households nominal assets makes a standard expansionary monetary shock *nearly 50% more powerful* for consumption than in a real-asset HANK; transmission relies less on nominal rigidities, and at the ZLB the Fisher channel strengthens the paradox of flexibility. Together, these results argue that calibrating to measured nominal exposures *and* their MPCs helps to explain post-pandemic resilience and to evaluate monetary policy when balance-sheet redistribution is active.

2. Who Bears the Costs of Inflation? Euro-Area Welfare Costs of the 2021–22 Inflation (Journal of Monetary Economics, with Gonzalo Paz-Pardo, Jirka Slacalek, Oreste Tristani, Gianluca Violante) (link)

Novelty and results. We provide a unified, first-order *money-metric* welfare accounting of the 2021–23 inflation episode for households in Germany, France, Italy, and Spain. Leveraging an envelope-theorem decomposition, we separate the welfare impact into (i) a *direct* component (household-specific inflation times nominal resources, including net nominal positions, NNP), (ii) an *unconventional-fiscal* component (energy price policies and transfers), (iii) an *indirect* component (short-run adjustments in wages, pensions, and asset prices), and (iv) a *long-run* relative-price realignment. Average welfare costs, expressed as a share of triennial disposable income, are sizable and heterogeneous—about 3% in France and Spain, almost 7% in Germany, and around 8% in Italy. The dominant source of within-country heterogeneity is the NNP channel, which induces a pronounced age gradient: retirees lose the most (up to roughly 13%), while a large share of the 25–44 group are net winners; by contrast, dispersion across consumption quintiles is muted because sticky rents hedge low-income renters. The household-sector losses have a natural counterpart in government gains via the real erosion of public debt, net of the fiscal outlays and higher pension/energy costs.

Methods and measurement. The empirical implementation combines micro and macro sources in a sufficient-statistics design. Household budget shares come from the HBS (2015) mapped to disaggregated HICP micro data; balance-sheet items, including NNP, and disposable income components come from the HFCS (2017). Government energy-price interventions and transfers are taken from Bruegel; counterfactual retail energy prices are constructed using IMF-style imputations and market data (Dao et al., 2023), and we quantify their pass-through to household-specific price indexes. The indirect component is identified with event-study/high-frequency evidence around HICP releases: negotiated wages, minimum wages, and pensions (with indexation) discipline the income side, while stock, bond, and housing price responses discipline capital-income and valuation effects; flows and stocks are deflated consistently with the three-year horizon. The framework yields country- and group-specific welfare effects that potentially map directly into HANK calibration targets (exposure levels, NNP dispersion, age gradient, and fiscal offsets).

3. Winners and Losers from Unexpected Inflation (link)

Novelty and main results. Building on Doepke and Schneider (2006), I build a comprehensive U.S. accounting of redistribution from *unexpected* inflation that (i) "unveils" investment intermediaries to attribute nominal assets and liabilities to their ultimate owners and (ii) consolidates

the business sector's *indirect* nominal exposure held via equity, thereby delivering sectoral and within–household net nominal positions (NNPs) that can be mapped to present-value revaluations when the price level jumps. Applied to 2021, the baseline present-value exercise implies a government gain of about 4.5% of GDP, a loss for the rest of the world of roughly 3.5% of GDP, and a small net loss for households (0.8 % of GDP); within households, losses are highly concentrated among wealthy middle-aged and elderly creditors, while many young cohorts gain. By duration and leverage, non-financial corporate and non-corporate business benefit, whereas the financial sector - long nominal assets funded short - loses. A counterfactual permanent 2pp target increase would have modestly benefited households in some periods (notably at the onset of the Great Recession), and a credible AIT window announced in early 2022 would only partly undo 2021's redistribution because disinflation is anticipated and nominal positions are short in duration.

Methods and identification. Starting from the Financial Accounts, I construct sectoral NNPs, "look through" mutual funds, DC pensions, and mortgage pools to ultimate holders, and treat DB pensions as government exposures; for households, I combine Distributional Financial Accounts with the SCF and reconcile FA aggregates (notably deposits and consumer credit) to SCF levels. To move from price-level to *inflation* shocks, I explicitly model the cash-flow streams of nominal instruments—Treasuries exactly from CRSP coupons/maturities; corporate, agency, and municipal bonds under validated maturity/coupon assumptions; mortgages using FHFA rates/maturity/refinancing rules—and discount with FRB zero-coupon curves to recover market-consistent durations. I then revalue positions under alternative anticipation scenarios for 2021 (full anticipation, full surprise, and a baseline "half-surprise" for maturing paper), and trace incidence within business subsectors and across household groups by age, income, and wealth. The resulting exposure levels, durations, and age profiles form directly usable calibration/validation targets for HANK with nominal assets (some were used as input in [1]) and for counterfactuals that weigh the Fisher channel against income-flow channels.

4. The Short-Term Effects of Monetary Policy (with Lennart Brandt, Johannes Fischer, Carl-Wolfram Horn, Silvia Miranda-Agrippino) (link)

Methods. We assemble a novel daily macro dataset for the U.K. - credit and debit card spending (Fable Data), posted vacancies (Indeed Hiring Lab), online prices (PriceStats), and a Google-Trends first principal component for unemployment-related searches - alongside the 1-year gilt yield and a measure of high-yield spreads. We estimate a six-variable *Bayesian Proxy-SVAR* at *daily* frequency with eight weeks of lags ($p = 56$), where the Braun et al. (2025) path factor serves as an external instrument for the residual in the interest-rate equation. To treat Covid-era volatility we adopt a break-in-volatility prior following Lenza and Primiceri (2022); excluding March 2020 yields similar results. All series are seasonally adjusted and smoothed with a 7-day moving average; the sample spans 1 Feb 2018–30 Jun 2023. The card-spending panel contains ∼125 million transactions by ∼200k active cards.

Findings and interpretation. In response to a *contractionary* monetary-policy shock, real card spending falls without a lag; labour-market sentiment deteriorates contemporaneously and mirrors the spending response over the year; firms adjust hiring plans quickly as posted vacancies decline. Financial conditions tighten on impact (1-year gilt yields rise; high-yield spreads widen), while daily prices show little short-run movement. We interpret the immediate spending reaction as consistent with an expectations/communication channel - monetary announcements that rapidly reshape household expectations - so policy frameworks that hard-wire long transmission lags may

be misspecified.

5. Work in Progress: Measuring Intertemporal MPCs with Daily U.S. Fintech Data (with Richard Blundell, Vasco Carvalho, Tao Chen, Stephen Hansen and Gianluca Violante)

Goal and data. We aim to measure *intertemporal MPCs (iMPCs)* at short horizons using monthly income and spending flows from a large U.S. fintech provider, the same as in [1]. We match key level and distributional statistics of income from the SCF as well as features of individual income risk in administrative data (e.g., negative skewness and excess kurtosis). We adapt Blundell, Pistaferri and Preston (2008) to monthly frequency, allowing for a significant fraction of changes concentrated at zero, as well as extending it to allow for lagged consumption responses. To achieve identification, we also exploit the three EIP waves via (i) quasi-random timing of receipt to trace event-time responses and (ii) sharp RD at statutory AGI and family-size cutoffs using our AGI and household-composition measures. The output will be a library of iMPC profiles by horizon and household characteristics (e.g., liquidity, mortgage status, income rank), thereby anchoring dynamic consumption responses in HANK on US high-frequency data where both consumption and income are directly observed.

6. Research Project: Monetary policy shocks in the Euro-Area (with Patrick Gorse, Gonzalo Paz-Pardo, Jirka Slacalek, Oreste Tristani, Gianluca Violante)

We use a high-frequency dataset on spending for several countries in the Euro Area (Germany, France, Italy and Spain), validate its representativeness against official data, and study the heterogeneity in households responses to monetary policy shocks.

7. Research Project: The direct and indirect effects of monetary policy in the US (with Gonzalo Paz-Pardo, Jirka Slacalek, Oreste Tristani, Gianluca Violante)

Using the same panel constructed for the Fisher channel paper [1] and the iMPC paper [5], we plan to leverage variation in liquid assets, income, mortgage status and location to disentangle the direct and indirect effects of monetary policy as in Kaplan, Moll and Violante (2018).