Discussion of “Discretionary Spending is the Cycle, and Why it Matters for Monetary Policy” by Michele Andreolli, Natalie Rickard, Paolo Surico and Chiara Vergeat

By María T. Valderrama[1]

1 Introduction

I am very honored to have been invited to discuss this very interesting paper. Given the time I was assigned during the presentation, I feel that my discussion does not do justice to the richness of the material presented by the authors. There is a lot of new material and new insights in the paper that deserve more attention than time and space allow. In my discussion, I am focusing on those aspects which I find more interesting for a policy maker and therefore encourage interested readers to read the paper in its entirety to fully appreciate the valuable contributions made by the authors.

The paper presents a novel but intuitive way of studying business cycles. The premise is that the traditional consumption categories used in business cycle analysis, such as tradable vs. non-tradables or goods vs. services, fail to reflect the consequences of non-homothetic preferences, where the composition of consumption changes with the level of income. The authors show that by distinguishing consumption spending in discretionary and necessity goods they can better explain the business cycle. Thus, adopting their proposed distinction significantly improves our understanding of the transmission of monetary policy and the amplification of macroeconomic shocks.

Given that there are no readily available time-series that adopt this split, the authors undertake the important task of constructing a range of macroeconomic time series that distinguish between discretionary and necessity goods. These include key variables such as inflation, consumption, value added, and employment, among others. The construction of these series is executed with considerable care and attention to detail, reflecting a substantial amount of data work and methodological rigor. This effort provides a strong empirical foundation for the paper. In the second section, once these disaggregated series are established, the authors proceed to analyze their dynamic responses to macroeconomic shocks and evaluate their

[1] Oesterreichische Nationalbank. I am grateful to Alex Grimaud and Philipp Hochmuth for very fruitful discussions. Views are my own.

properties as leading indicators. This analysis adds depth to the paper by offering insights into how these two sectors react to shocks.

One of the central and most compelling findings of this analysis is that discretionary spending exhibits a much higher sensitivity to economic shocks and business cycle fluctuations compared to necessity spending. This implies that during downturns, households significantly cut back on discretionary purchases, while spending on necessities remains relatively stable. Interestingly, the authors also find that the prices of necessity goods tend to be more volatile than those of discretionary goods. This suggests that price setting dynamics differ substantially across sectors, potentially affecting how inflation is transmitted. Furthermore, the analysis reveals that hand-to-mouth (HtM) workers are disproportionately employed in sectors producing discretionary goods. As a result, when demand for these goods falls in response to a negative shock, HtM workers are more likely to experience income losses, which further amplifies the downturn and thus, creating a feedback loop that exacerbates the original shock's impact on the economy.

Finally, they apply a calibrated theoretical model incorporating these features to revisit the design and optimization of monetary policy rules. Central to this model is 1) non-homotheticity in the utility function for consumption, 2) heterogenous labor market which includes high-productivity, Ricardian workers and low-productivity, hand-to-mouth (HtM) workers. Importantly, the model assumes a higher concentration of HtM workers in the discretionary sector, making workers' income in that sector more vulnerable to aggregate shocks. Since HtM workers are affected more and exhibit a higher marginal propensity to consume, they conclude that output stabilization becomes more important for monetary policy. As a result, the optimal monetary policy this model prescribes is one in which the interest rate decision of European Central Bank (ECB) should give 1) a larger weight to inflation in the discretionary goods sector than what its consumption share would imply and 2) more weight to the output gap relative to inflation.

My comments will primarily focus on the first and third parts of the paper. As mentioned earlier, due to time constraints, I had to be selective in my review. I chose to concentrate on these sections because I found them particularly relevant and thought-provoking in the context of ongoing research efforts and current policy discussions. By focusing on these sections, I aim to provide feedback that is both constructive and aligned with pressing questions faced by academics and policymakers alike.

2 Main contributions of the empirical part

A key strength of the paper lies in its rigorous and meticulous construction of new macroeconomic time series that distinguish between necessity and discretionary consumption. The authors' data work represents a meaningful advance in the field. Their classification draws on detailed consumption categories and results in a set of time series that are not only methodologically robust but also made publicly available, enhancing transparency and fostering further research.

This newly constructed database is likely to prove highly valuable as a complement to existing work on sectoral analysis. For instance, ongoing research on production networks, such as that being carried out within the ChaMP Research Network, could greatly benefit from incorporating this dimension of heterogeneity. The ability to analyze shocks and policy responses through the lens of necessity versus discretionary goods adds important nuance to the understanding of sectoral interdependencies.

The paper's findings of their rigorous empirical analysis are intuitive, yet novel and constitute an important and a long-needed contribution to the field. Furthermore, these findings also serve as a precondition for their theoretical analysis.

That said, the authors also acknowledge certain challenges in constructing complete time series, and in some cases, they have had to make assumptions to fill data gaps. This underscores the ongoing need for greater investment in updating and maintaining high-quality granular and macroeconomic databases. Continued efforts in data development and refinement are essential to support this type of high-resolution economic analysis and to ensure the accuracy and reliability of future empirical work.

3 Policy recommendations from the theoretical part

The paper highlights an important distributional implication of output fluctuations: because discretionary spending is more sensitive to shocks and HtM workers are concentrated in this sector, they are disproportionately exposed to macroeconomic shocks. This vulnerability elevates the importance of output stabilization as a monetary policy objective.

In this context, the paper proposes a rethinking of the European Central Bank's inflation targeting strategy in order to maximize welfare. Specifically, it suggests that the ECB can achieve higher welfare more effectively if it targets inflation in discretionary goods prices instead of the HICP. Moreover, the paper argues that the ECB's monetary policy rule should place greater weight on the output gap relative to inflation.

My first reaction to this is that it is not clear, why the central bank should be the institution responsible for smoothing income losses of HtM workers. One can think of other policies, in particular fiscal policies or labour market policies, that are better suited to smooth the income loss of these workers. While monetary policy can indirectly support income stabilization by maintaining aggregate demand and employment, it is a blunt instrument with limited targeting capabilities. In contrast, fiscal tools such as unemployment insurance and direct transfers can provide more immediate and tailored support to affected households. Therefore, to strengthen the case for using monetary policy to stabilize output, the authors should conduct a welfare analysis comparing alternative policies. This analysis should also account for the potential trade-offs associated with each policy option.

More precisely, the discussion presented in the paper entirely abstracts away from the fundamental implementation and communication challenge involved in modifying the inflation target. It does not address transitory dynamics and how such a change would influence the formation and evolution of inflation expectations among households, businesses, and financial markets. This omission is significant because expectations play a crucial role in the effectiveness of monetary policy. A shift in the inflation target is not just a technical adjustment under full information rational expectations equilibrium; it represents a major regime change in the central bank's framework and approach to price stability. Such a regime change could introduce uncertainty and ambiguity regarding the future path of inflation and the central bank's commitment, potentially destabilizing inflation expectations. Therefore, any welfare analysis and resulting policy recommendation that fails to consider this communication challenge and the way individuals form inflation expectations, risks overlooking important trade-offs.

4 What is needed to validate the model and the policy prescription?

Calls to move away from HICP targeting are not new. In fact, many models of optimal monetary policy that incorporate heterogeneous nominal rigidities, which are not considered in this paper, already suggest that central banks should target sectors with more rigid prices, as monetary policy tends to be more effective in these areas. Despite an increasing number of papers advocating this approach, central banks have largely disregarded these recommendations, in part due to the reasons outlined above. This suggests that it will take more than a theoretically sound model to persuade policymakers to adopt such prescriptions. Stronger empirical evidence and clear communication of practical benefits are likely needed to drive change.

Thus, the question arises: why is this particular model superior to previous frameworks? What specific advantages does it offer in terms of theoretical rigor, empirical performance, or policy relevance? Clarifying these aspects could strengthen the authors' argument and make their recommendations more persuasive and actionable for policymakers.

First of all, in the spirit of Smets and Wouters (2007), the authors need to more closely align their theoretical model with the empirical data they have painstakingly constructed. Despite the impressive and detailed work done to develop time series that distinguish between discretionary and necessity goods, the current model remains largely calibrated rather than fully estimated using euro area data. In fact, some key parameters are borrowed from studies based on US data, which may limit the model's relevance and accuracy in capturing euro area dynamics. For the model to be truly convincing and policy-relevant, the authors should estimate the structural parameters and demonstrate that the simulated data generated by the model accurately replicate the key statistical properties and stylized facts observed in their empirical analysis from the first part of the paper. This is especially important considering the assumption they make with regard to the composition of the labour

market. This step would provide stronger validation of the model's assumptions and increase confidence in its predictions and policy implications.

This consideration is particularly relevant when estimating and evaluating different monetary policy rules. Simply switching off certain parameters within a given model is not sufficient to draw reliable conclusions. Each variant of the model must be re-estimated independently to ensure that it adequately fits the data before any meaningful comparison of policy implications or welfare outcomes can be made. Without re-estimation, the comparison risks being misleading, as differences in results may reflect poor model fit rather than substantive differences in policy effectiveness. Re-estimating each model variant ensures internal consistency and robustness, allowing for a more accurate assessment of how alternative policy rules perform. This approach is essential for drawing credible inferences about the optimality or desirability of different monetary strategies, particularly in applied macroeconomic policy analysis.

It would also be helpful for the authors to include a counterfactual analysis exploring how economic outcomes might have differed had the ECB adopted the proposed strategy in 2021. Such an exercise would provide valuable insights into the practical implications of the policy rule under real-world conditions. By simulating how key macroeconomic variables such as inflation, output, interest rates and inflation expectations, would have evolved under the alternative rule, the analysis could help answer the question: Would the euro area have been better off? This would significantly enhance the paper's policy relevance and offer a compelling argument for the rule's adoption.

On a more technical note, the authors could adopt the non-homothetic preferences and the corresponding price index in Hochmuth et al. (2023) that would allow them to use a theoretically consistent price index directly in the Taylor rule.[2] Integrating such an index provides a more robust and coherent foundation for monetary policy evaluation. It would serve as a valuable benchmark, particularly in discussions surrounding optimal monetary policy design and implementation. This refinement could enhance the precision and credibility of the policy prescriptions derived from their model, offering insights that are both theoretically grounded and practically relevant for policymakers.

4.1 What is missing? Heterogenous nominal rigidities

The paper overlooks the possibility of heterogeneity and time variation in price setting, which played a crucial role during the recent inflation surge (Gautier et al, forthcoming). Furthermore, findings from the ChaMP Research Network, including work by Ghassibe and Nakov, Karadi et al. and Ascari et al. (all forthcoming), highlight the importance of variation in price rigidities in shaping the transmission of monetary policy. These studies show that the degree of nominal rigidity varies not

[2] More specifically, Hochmuth et al. (2023) use the so called Price Independent Generalized Linearity (PIGL) preferences that allow for aggregation and thus permit the derivation of a theoretically consistent aggregate price index that could be used in a Taylor rule.

only across sectors but also over time, with significant implications for both the amplification and persistence of shocks. By incorporating this layer of heterogeneity, the paper could more accurately assess the relevant strength of the channels under analysis.

In the presented paper, the authors focus on non-homothetic preferences in consumption and heterogeneity in household exposure to sectoral shocks as key channels for shock amplification and policy effectiveness. While these mechanisms are intuitive and supported by the data work, their quantitative importance remains uncertain without a formal estimation of the model with real data. The calibration approach falls short in identifying which channels are more important quantitively. As a result, the relative weight of the proposed channel in explaining aggregate fluctuations compared to for example propagation through production networks and due to sectoral price rigidities is left undetermined.

This limitation suggests a clear path forward: the authors could contrast their mechanism with other prominent explanations of business cycle dynamics, such as sectoral price heterogeneity or propagation through production networks. Recent macroeconomic literature has increasingly shown that network structure and inter-sectoral dependencies can greatly magnify or dampen shocks, even when aggregate price rigidity is moderate. By situating their model alongside these alternative frameworks, the authors can clarify whether non-homothetic preferences in consumption are a primary driver or complementary factor in business cycle transmission.

The broader implication is that policy prescriptions may not be robust to alternative modeling assumptions. If other channels such as time varying price rigidity or transmission through production network effects, prove quantitatively more important, then the proposed recommendation to focus on discretionary inflation may need to be revisited. For instance, if other type of sectoral rigidities varies significantly over time, a more flexible or state-contingent policy rule could be warranted.

In summary, while the paper makes an important contribution by introducing a novel and intuitive mechanism rooted in consumption heterogeneity, its quantitative significance and policy relevance remain open questions. Integrating recent findings on time varying price setting, just to mention a prominent example and comparing the proposed mechanism with other structural frictions in the macroeconomy would help validate the robustness of the model and strengthen the case for the authors' policy prescription. Ultimately, the complexity of real-world macroeconomic dynamics as for example integrating inflation expectations demands a careful accounting of multiple interacting channels before drawing firm conclusions on optimal policy design.

5 Summary and conclusions

The paper introduces an innovative and intuitive mechanism to explain business cycle fluctuations by emphasizing the role of non-homothetic preferences in consumption and the distinction between discretionary and necessity spending. This conceptual framework sheds light on how households with varying exposure to economic shocks contribute to aggregate demand dynamics and how these differences shape the transmission of monetary policy. The idea that discretionary spending is more sensitive to fluctuations is very intuitive and aligns with observed consumption patterns and offers a compelling perspective for understanding the amplification of shocks and the transmission of monetary policy.

A major strength of the paper lies in its careful data construction and transparency. By generating new macroeconomic time series for discretionary and necessity goods and making them available to other researchers, the authors offer a valuable resource that can facilitate further empirical validation and policy analysis. This openness also complements broader efforts, such as the ChaMP Research Network, to foster the analysis of sectoral and granular data and how shocks are propagated across sectors, households, firms, etc. The combination of novel theoretical insights and robust data work makes the paper a meaningful contribution to the field.

To enhance the robustness of the policy prescriptions, future work could bring the model closer to the data through estimation rather than calibration. This would allow for a clearer assessment of the quantitative relevance of the proposed channel relative to other mechanisms, such as heterogeneity in price rigidity, time-varying nominal frictions, or input-output linkages. Additionally, including these alternative heterogeneities in the model could better capture the complexity of real-world transmission mechanisms. Crucially, a comparative analysis of the policy recommendations that emerge from these competing channels would help determine whether targeting discretionary price inflation remains optimal under more realistic assumptions.

A more convincing argument could be made if the authors demonstrate that changing the inflation target, as they propose, yields better outcomes than a model in which fiscal policy is tasked with stabilizing the income losses of hand-to-mouth (HtM) workers. Additionally, it is crucial for the authors to show that their proposed adjustment to the inflation target does not introduce adverse trade-offs, particularly those that could destabilize inflation expectations. If such destabilization were to occur, it could undermine the welfare gains achieved through output stabilization by negating the benefits of income smoothing for HtM households. Addressing these concerns would significantly strengthen the policy relevance of their proposal.

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