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Summary

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Essays on Wealth Effects and Private Consumption in Emerging Economies

Summary

Thèse de doctorat en contutelle internationale présentée et soutenue publiquement pour l'obtention du titre de Docteur en Sciences Économiques

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Keywords: household consumption, wealth effects, meta-regression analysis, publication selection bias, European Union, non-durable consumption, wealth, asset prices, dynamic panel methods, durable consumption, asymmetric wealth effects, panel quantile regression, emerging economies

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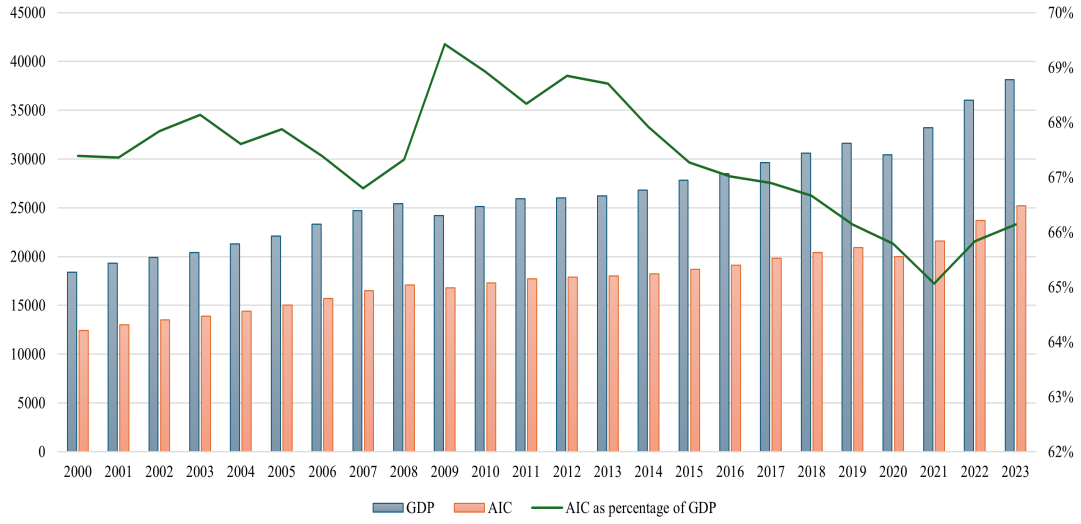
Contents

1 Context of the research

Every consumption decision a household makes is a delicate balancing act between present desires and future security. Fundamental and inherently defining for one's well-being, consumption decisions are among the most fundamental aspects of economic behaviour, influencing business cycles, economic growth, and policy effectiveness.

Across all economies, private consumption plays a dominant role in driving growth, stability, and policy effectiveness. In European countries—whether developed or emerging economies—private consumption represents the largest share of gross domestic product (GDP), making it the key driver of macroeconomic stability and development. Since the early 2000s, consumer expenditure has grown steadily in European economies, reaching about 69% of GDP by 2009 and representing at least 65% out of GDP yearly, on average, since then (Figure 1).

Figure 1. The evolution of GDP and Actual individual consumption (AIC)



Source: Authors' processing based on data extracted from the Eurostat database: Purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates.
Notes: The green line represents the evolution of AIC as a percentage of GDP over the period 2000-2023, in percentage.

Knowledge of how individuals respond to income fluctuations, wealth changes, and uncertainty during the life cycle is, therefore, critical for evaluating the effectiveness of fiscal policies, designing monetary interventions during economic downturns or financial crises, and assessing financial vulnerabilities within different economic structures. This also underscores the linkage between household wealth, consumption patterns, and macroe-

conomic cycles.

The extent to which households spend or save their wealth gains has far-reaching implications: Do households adjust consumption immediately in response to wealth gains or losses? How do they allocate new wealth—do they spend any of it on durable goods, non-durables, or services? Do they save a portion of the gains to prepare for potential economic shocks? If so, how do they choose to hold their savings as liquid cash, bank accounts, or investments? How does the economic environment (developed or emerging economy) influence these choices? To what extent do institutional trust, financial literacy, and bequest motives affect household financial behaviour? These are questions that have animated academic debates for decades and were the focal point of many analytical perspectives, being studied with a variety of data and approaches.

Economists have long been interested in identifying the determinants of household consumption. The initial formulation of the consumption function introduced by Keynes (1936) initially suggested a direct relationship between disposable income and consumption, assuming that individuals spend a fixed proportion of their current income. However, this simplistic formulation overlooks any form of dynamics stemming from past savings, expected future income, and financial constraints that can majorly influence one's current standard of living.

With the emergence of intertemporal consumption models, the initially restrictive Keynesian consumption function was relaxed and further adapted to better match the empirical evidence, which made it clear that consumption decisions depend on not just current income but also past savings and anticipated future wealth. The two cornerstone models that integrated wealth as another highly relevant determinant of household consumption are the Life-Cycle Hypothesis (LCH) of Modigliani and Brumberg (1954) and the Permanent Income Hypothesis (PIH) of Friedman (1957). On the one hand, the LCH focuses on households saving in anticipation of a drop in income as a result of exiting the labour market and individuals that borrow when young in anticipation of increases in the future income generated by investment in human capital. On the other hand, the PIH focuses on short-run income fluctuations, emphasising income uncertainty as a saving determinant. Both models posit that consumption, as well as saving decisions, are a result of the maximisation of the utility function, which is subject to an intertemporal budget constraint.

2 Theoretical foundations

In the following section, we will briefly present the intuitive theoretical forms of the LCH and PIH model, the limitations of each of the two hypotheses, as well as their more modern extensions that aim to address the disparities between the formal theoretical specifications and the empirical evidence.

2.1 The early days of consumption theory

The foundational theories of consumption were introduced in the mid-20th century, with two prominent models shaping the literature: the Life-Cycle Hypothesis (Ando & Modigliani, 1963; Modigliani & Brumberg, 1954) and the Permanent Income Hypothesis (Friedman, 1957). On the one hand, the LCH posits that individuals plan their consumption and savings over their lifetime, suggesting that consumers aim to smooth consumption across different periods of their lives, saving during their working years and dissaving in retirement. Since 1954, when it was first introduced, the LCH model has been foundational in macroeconomic models of consumption and savings. On the other hand, the PIH of Milton Friedman argues that individuals base their consumption decisions on their expected long-term (i.e., "permanent") income rather than current income, a major improvement from the more simplistic approach of Keynes (1936), which states that consumption only depends on current income. Furthermore, the PIH explains why temporary changes in income have a smaller effect on consumption than permanent changes. For this reason, PIH was seen as a response to empirical observations that short-term income fluctuations did not significantly alter consumer spending as households attempted to maintain a stable consumption level.

These models attempted to explain household consumption behaviour over time and across economic conditions.

The Life-Cycle Hypothesis (LCH)

The Life-Cycle Hypothesis (LCH) posits that individuals aim to smooth consumption over their lifetime by accumulating savings during their working years and drawing down assets during retirement. We briefly recall the formal intertemporal utility maximization problem, which states that one's utility is defined based on consumption in each period of

one's life. The utility function (U) is typically assumed to be time-separable and concave, reflecting diminishing marginal utility of consumption (u):

$$U = \mathbb{E} \sum_{t=1}^{T} \beta^t u(C_t) \tag{1}$$

where C_t is consumption in period t, β is the time discount factor, and u is the within-period utility function (Iparraguirre, 2018). The individual's lifetime budget constraint requires that the present value of consumption equals the present value of lifetime income plus initial wealth:

$$\sum_{t=1}^{T} \frac{C_t}{(1+r)^{t-1}} = \sum_{t=1}^{T} \frac{Y_t}{(1+r)^{t-1}} + W \tag{2}$$

where Y_t is income in period t, r is the interest rate($r \geq 0$), and W is initial wealth. The optimal consumption path is characterized by the Euler equation, which defines the marginal utility of consumption across periods:

$$\frac{u'(C_t)}{u'(C_{t+1})} = \beta(1+r) \tag{3}$$

This equation implies that consumption grows at a constant rate over time, determined by the interest rate and the time discount factor.

The LCH is characterised by several key assumptions and features. In terms of intertemporal utility maximization, individuals maximize their utility over their lifetime by allocating resources optimally across different periods, which is achieved by solving the above-mentioned intertemporal utility maximisation problem. In terms of life-cycle planning, the model assumes that individuals plan their consumption and saving behaviour based on their expected income and wealth over their entire life cycle, planning that involves accumulating assets during working years and allocating them for consumption during retirement (Modigliani, 1986). Furthermore, the LCH model includes wealth as a key determinant of consumption, with individuals adjusting their consumption based on changes in their wealth, ensuring that their marginal utility is smooth across all periods. Another interesting feature of the model is that the LCH assumes that consumption and labour supply decisions are separable. Individuals can first decide how much to consume and save and then determine how much to work based on their consumption plans. Last but not least, the model assumes no bequest motive; individuals do not save for their

descendants but rather for their own retirement. This assumption stirred a lot of debate, as empirical evidence suggests that bequests play a significant role in saving behaviour (Jappelli, 2005).

Limitations of the LCH model

Despite its elegant, functional form, the key features of the LCH model are, at the same time, its limitations. One of them is imposed by the assumption of perfect foresight, which states that individuals have perfect foresight (Caliendo & Aadland, 2007) about their future income, wealth and life expectancy, although in reality, individuals do face uncertainty (Jappelli, 2005). Similarly, empirical evidence suggests that bequests are significant motives for saving (Kopczuk & Lupton, 2007), particularly among the wealthy, and also that preferences are not time-separable, meaning that the utility derived from consumption in one period is not independent of consumption in other periods, which is a clear indication of habit formation and precautionary saving (Lugilde et al., 2019).

The take on wealth inequality and retirement behaviour is also a limitation, the model predicting that wealth should be concentrated among older individuals, although empirical evidence shows that the wealthy continue to save more than the poor (Dynan et al., 2004), and, at the same time, assuming that individuals dissave during retirement, which contradicts the empirical findings (E. French et al., 2023).

Overall, these simple assumptions the model relies on are limitations and reduce the model's ability to explain the real-world consumption and saving behaviour in its initial form.

The Permanent Income Hypothesis (PIH)

The Permanent Income Hypothesis (PIH) extends the LCH by asserting that individuals base their consumption on expected long-term income rather than current income fluctuations, which addresses one of the LCH limitations referring to income expectations. The PIH consumption function is expressed, in the most simple terms, as:

$$C_t = k \cdot Y_t^P \tag{4}$$

where Y_t^P represents permanent income and k is the marginal propensity to consume out of permanent income, i.e., the average propensity to consume. Permanent income is further written as:

$$Y_t^P = Y_{t-1}^P + \epsilon_t \tag{5}$$

where ϵ_t is a random shock representing new information about future income.

The PIH implies that temporary income shocks have a limited effect on consumption, as households maximize their utility by choosing consumption and savings plans that satisfy their intertemporal budget constraint. The model has as key features the consumption smoothing of households with little reaction to temporary income shocks or one-time windfall or loss (Fama, 2021), the distinction between permanent income, which reflects long-term earning potential, and transitory income, representing short-term fluctuations (Shirvani & Wilbratte, 2009). The PIH also reveal important implications for the effectiveness of fiscal policy. For example, temporary tax changes or government stimulus payments should have a limited impact on consumption, as households are expected to save most of the additional income instead of spending it immediately (Carroll, 2009; Fama, 2021).

Limitations of the PIH model

One of the primary limitations of the PIH model is its assumption that households can borrow and lend freely to smooth their consumption, while, in reality, households are subject to liquidity constraints, which limit their access to credit for consumption financing. As a consequence, the liquidity-constrained households exhibit excess sensitivity to transitory income shocks (Carroll, 2001; Gerlach-Kristen, 2014). In terms of excess sensitivity of consumption, Huang et al. (2008) and Kovacs et al. (2021), among others, found that consumption is excessively sensitive to transitory income changes and of a similar magnitude with sensitivity to permanent income changes (Gustafsson & Holmberg, 2023; Meghir & Pistaferri, 2004).

While both LCH and PIH theories contributed significantly to modern consumption theory, these models assume perfect foresight and frictionless markets. Real-world evidence challenges these assumptions since the empirical studies not only failed to verify the hypotheses but also identified several weaknesses in the initial form of these hypotheses. The empirical approaches made it clear that, while relevant from the perspective of economic theory, these hypotheses were referring to a time when asset markets were not as developed, the investment options were limited due to low financial literacy, poor financial market regulation and specific economy types of each country, be it market-based or bank-

based, former centrally-planned, transition economies or open market economies. From the more basic intuitive developments, such as precautionary saving motives or liquidity constraints, to more behavioural factors, such as habit formation, bequest motive, or risk aversion in portfolio composition, we will briefly present each development stemming from these two theories.

Over time, several refinements to the LCH and PIH have emerged, incorporating liquidity constraints, precautionary saving motives, and behavioural factors.

3 From theory to empirical evidence

After briefly analysing the theoretical foundations of the Life-Cycle Hypothesis (LCH) and the Permanent Income Hypothesis (PIH), along with their significant extensions, it is clear that consumption dynamics go beyond just the income effect. Savings play a crucial role in shaping households' spending behaviours. The need to "guard" against future income shocks, uncertainties in the labour market and economic climate, as well as the development of financial markets, provides households with more opportunities to invest their savings in an effort to protect against the effects of inflation, and by doing so a household's wealth is formed. The recent theoretical and empirical advancements indicate that the focus is shifting towards consumption dynamics as a response to changes in wealth. The wealth effect is indeed central to consumption theory moving forward.

3.1 Defining wealth and its role in shaping consumption

Consumption behaviour of individuals is linked to past savings that are found in the form of either liquid money (Wen, 2015), saving accounts (Carroll & Kimball, 2006; Webley & Nyhus, 2013), pension funds (Alda, 2017; Thomas & Spataro, 2016), demand deposits (Nagel, 2016), and other forms of highly liquid wealth, or either invested in different forms of assets, from bond and stock (Deidda, 2013; Georgarakos & Pasini, 2011) to housing (Guiso et al., 2000; Vissing-Jorgensen, 2002).

From savings to wealth

The decision-making process of individuals in transforming savings into wealth is influenced by a series of factors, both macroeconomic and microeconomic, relevant to policies aimed

at fostering wealth accumulation.

Macroeconomic factors

Among the most relevant macroeconomic factors influencing household portfolio composition is financial market maturity, given that mature financial markets offer a wider range of investment opportunities, better regulatory frameworks, and higher liquidity, which can enhance returns on investments (Thomas & Spataro, 2018). In developed markets, individuals can access various financial instruments such as stocks, bonds, mutual funds, and retirement plans, which provide improved diversification and wealth growth potential. In contrast, in less mature markets, the lack of such instruments may limit investment options and hinder wealth accumulation.

Access to credit is another critical macroeconomic factor. Easy access to credit can enable individuals to leverage debt for investments, such as purchasing real estate or starting businesses, which can potentially generate higher returns than savings alone (Terraneo, 2018; Zezza et al., 2011). However, excessive credit accessibility can also lead to over-leveraging and financial instability, which makes the availability and regulation of credit crucial in determining the effectiveness of credit as a tool for wealth accumulation.

Economic conditions, such as GDP growth, inflation rates, and unemployment levels, significantly influence the wealth transformation process. Favourable economic conditions, such as low inflation and stable employment, create an environment favourable to savings and investments (Hofstetter & Rosas, 2021; Parguez, 2011). Conversely, adverse economic conditions, such as high inflation or recession, can erode the purchasing power of savings and reduce the returns on investments, making it more challenging to accumulate wealth.

Trust in financial institutions is yet another macroeconomic factor that impacts wealth accumulation. Individuals are more likely to invest in financial markets and utilise services when they have confidence in the stability and integrity of financial institutions (Lipps & Schraff, 2021). Conversely, a lack of trust, often stemming from past experiences of financial crises or fraud, can lead to risk aversion and preference for safer, albeit lower-yielding, savings options (Schraff & Pontusson, 2024).

Microeconomic factors

Microeconomic factors such as household expectations about future economic conditions and personal financial situations significantly influence savings and investment decisions. For example, individuals who are optimistic about future income growth may be more inclined to invest their savings in risky assets, such as stocks, to maximise returns; pessimistic expectations may lead to more conservative investment choices, such as savings accounts or government bonds, which offer lower but safer returns (Fessler & Schürz, 2018; Le Blanc et al., 2015).

Similar to household expectations, which are factors strongly connected with the perceived wealth of a household, individuals' perception of risk and attitude when exposed to it can determine the types of investments they choose. For instance, individuals with higher risk tolerance are more likely to invest in the stock market, while those who are risk-averse may prefer safer assets (Thomas & Spataro, 2018). Nevertheless, financial literacy also plays a role in shaping risk perceptions (Van Rooij et al., 2012), as more financially literate individuals are better equipped to assess and manage investment risks and obtain higher returns by investing in the stock market and other financial assets (Le Blanc et al., 2014).

From wealth to wealth effects

The wealth effect, a fundamental concept in consumption theory, describes how changes in household wealth influence consumption and spending patterns. A critical aspect of this phenomenon is the distinction between unexpected changes in wealth emerging from changes in prices, which is called the exogenous wealth effect, and expected changes in wealth as a result of changes in asset allocations, i.e., the endogenous wealth effect. As strongly supported by Paiella and Pistaferri (2017), Caloia and Mastrogiacomo (2022), and Cutanda and Sanchis Llopis (2023), to identify the *pure* wealth effect generated by a certain type of asset, it is necessary to distinguish between the value of an asset and the change in the price of the asset, which is, by definition, at the core of wealth effect.

This section explores the wealth effect, focusing on how unexpected changes in household wealth drive consumption behaviour. The empirical specification used, adapted and estimated ever so often in the vast majority of the empirical literature on the consumption-wealth nexus is rooted in the utility function $u(\cdot)$ derived from consumption $C_t(\cdot)$ as a

function depending on income and wealth can be formulated as:

$$\max E_t \left[\sum_{t=0}^{T} (1+\delta)^{-t} u(C_t) \right] \tag{6}$$

where δ is the rate of time preference, according to the intertemporal decision-making rule, and $E_t(\cdot)$ is the expectational operator, conditional on information at time t. The utility function is subject to the following budget constraint:

$$W_{t+1} = (1+r)(W_t + Y_t - C_t) \tag{7}$$

where W_t is real household wealth and Y_t is real disposable income. r is the real interest rate, determining the return on savings and wealth accumulation.

The empirical adaptation of the LCH mentioned above will be further developed and refined in each empirical chapter of this thesis, specifically in Section 2 of Chapter I, Section 4 of Chapter II, and Section 4 of Chapter III. To avoid redundancy, we will discuss the specification only in these sections.

Theoretical and empirical research has established that the transmission of wealth effects into consumption varies significantly across countries and economic structures, leading to a diverse range of outcomes. First, it became clear that not all wealth is created. Different types of assets influence consumption behaviour in distinct ways; wealth can take the form of housing, financial, or liquid wealth (Peltonen et al., 2012; Sousa, 2009). The unexpected changes in the value of wealth are the so-called *wealth effect*, and depending on the type of asset and the level of liquidity of the asset, we can identify the following types of wealth effects: *housing wealth effects*, which translate house price increases into a raise in perceived wealth, allowing homeowners to borrow against home equity and increase spending (Case et al., 2005); *financial wealth effects*, that results from stock market gains and affect wealthier households more, as they tend to have greater participation in financial markets (Lettau & Ludvigson, 2001); *liquid wealth effects* (or, at times, *money wealth*), generated by access to cash and easily withdrawable deposits that provides households with short-term liquidity, shaping their ability to smooth consumption and handle unexpected expenses (Kaplan et al., 2018; Peltonen et al., 2012).

The above-listed wealth effects do not occur with the same intensity everywhere, being directly linked to the level of economic development (Singh, 2022) and the preference of

households to create their portfolio out of a certain form of wealth (Martín-Legendre et al., 2019; Winkler, 2016), which has substantial implications for monetary and fiscal policies (Cesa-Bianchi et al., 2015), financial stability (Cesa-Bianchi et al., 2015), and economic inequality (Fisher et al., 2022). While developed economies often exhibit strong financial wealth effects due to widespread stock market participation, emerging economies tend to rely more on housing wealth due to structural differences in financial market maturity (Ciarlone, 2012; Slacalek, 2009), credit accessibility (Aron et al., 2012), institutional trust (El-Attar & Poschke, 2011; Medve-Balint & Boda, 2014), and household risk perception (Guo & Hardin, 2014; Liao et al., 2014).

Let us examine the case of European Union (EU) member states, which can be classified into developed and emerging economies. The group of emerging economies mainly includes former communist countries from Central and Eastern Europe, while developed economies are primarily found in Western and Nordic countries. It is easy to predict that the efforts for economic convergence led by European authorities do not achieve the expected results due to the significant disparities between developed and emerging economies (Żuk & Savelin, 2018). The adoption of a "one-size-fits-all" approach presents several challenges, and these challenges arise from the heterogeneity of the economies involved.

Households in European developed economies have greater access to financial markets and use stock wealth as a consumption buffer, benefiting from lower liquidity constraints that allow for greater consumption smoothing (Carroll et al., 2014), and having a higher trust in financial institutions, which facilitates investment in diversified assets (Thomas & Spataro, 2018). In European emerging economies, households rely more on housing wealth than financial assets (Ciarlone, 2012; Šonje et al., 2012), while credit constraints limit the ability to borrow against assets, reducing consumption smoothing (Le Blanc et al., 2014). Additionally, given the transition from a centrally planned to an open-market economy, households exhibit higher precautionary savings due to economic volatility and lower trust in financial markets (Endrődi-Kovács et al., 2024).

However, heterogeneity in wealth effects across economic climates poses important challenges for policymaking since policymakers must account for structural disparities when designing fiscal stimulus programmes. This thesis seeks to empirically examine these dynamics across European economies, with a particular focus on the disparities between emerging and developed economies.

4 Research questions, objectives and contributions

The literature on the relationship between wealth and consumption in European economies identifies several open questions that warrant further exploration. One significant area of inquiry is the differential impact of housing and financial wealth on consumption patterns across various European regions. While the existing studies provide quantitative estimates of these effects, there remains a need to understand the underlying mechanisms that drive these differences, particularly in the context of emerging versus developed economies. This includes examining how factors such as financial market development, household asset diversification, and economic stability influence the wealth-consumption relationship.

Another open question pertains to the role of income as a moderator in wealth-consumption estimates. The extent to which studies control for income effects can significantly alter the perceived impact of wealth on consumption. Further research is needed to disentangle the complex interactions between income, wealth, and consumption and to determine how these relationships vary across different income groups and economic contexts. This is particularly relevant in understanding the consumption behaviour of lower-spending households, which may be more sensitive to changes in wealth due to limited financial buffers.

Additionally, the literature highlights the need to explore the effects of macroeconomic and fiscal indicators, such as interest rates and public debt, on consumption patterns. These factors can constrain durable spending by dampening consumer confidence, and their interaction with wealth effects remains an area ripe for investigation. Understanding how these indicators influence consumption, particularly in the face of economic instability and wealth inequality, is crucial for designing effective policy interventions.

Finally, the impact of demographic changes, such as an ageing population, on consumption patterns presents another open question. While some findings suggest that an ageing population may boost consumption among cautious spenders, the broader implications of demographic shifts on the wealth-consumption relationship require further study. This includes examining how ageing affects asset accumulation and decumulation and the subsequent effects on consumption behaviour across different age cohorts.

As a result of the identified open questions, the thesis primarily focuses on the macroeconomic aspects of the consumption-wealth relationship in Europe without delving into micro-level data analysis. It aims to empirically investigate the consumption-wealth

nexus by addressing three key questions. These questions revolve around understanding how different forms of wealth, such as housing and financial assets, influence consumption patterns across various European economies.

There is a consistent empirical literature emerging in an attempt to answer these questions, and we aim to analyse the quality of reported estimates in these empirical studies, as there is a tendency to report higher elasticities or Marginal Propensity to Consume (MPC) out of housing wealth compared to financial wealth, despite of them being based on different time spans, control variables, measures or model specifications. The thesis seeks to identify the heterogeneity in these relationships, considering the diverse economic contexts and empirical specifications that can affect the outcome.

In terms of contributions, the thesis integrates macroeconomic evidence to advance the understanding of the wealth-consumption relationship, emphasizing the regional heterogeneity that shapes these dynamics. It highlights the critical need for policy interventions to stabilize consumption and address wealth inequality, particularly in the face of financial vulnerabilities. This macroeconomic focus sets the stage for future research that may explore microeconomic evidence, particularly at the household level, to provide a more granular perspective on household consumption patterns for emerging economies and, particularly, for the Romanian economy.

5 Outline of the thesis

This thesis is organised into three main empirical chapters, each addressing the relationship between wealth and household consumption from a macroeconomic perspective, with a particular emphasis on Romania and its position within the broader context of the European Union and former communist economies. The structure allows for a progressive deepening of the research scope, beginning with an assessment of existing literature, moving into the disaggregated macroeconomic analysis of the non-durable spending dynamics, and culminating with the application of advanced econometric methods to uncover asymmetric effects in durable consumption. While future research may expand this investigation to the microeconomic level, focusing on household-level data in Romania, the current thesis contributes novel macro-level evidence that lays the groundwork for such inquiries.

Chapter I

The goal of the first chapter, titled "*Consumption Patterns and Wealth Effects in Europe: A Meta-Analysis*" is to analyse the published empirical evidence on wealth effects in developed and emerging European economies at the macroeconomic level, identifying if the dynamics between household spending and certain types of assets are generally supported across published studies and working papers. Furthermore, this chapter also aims to identify the publication bias that could occur in the tendency of journals only to accept and publish statistically significant effects. Although the need for such publication is understandable, avoiding publishing results that are not significant leads to potentially biased reported estimates and to potentially over-inflate wealth effects that can further bias tendencies in research.

The analysis is based on 120 estimates extracted from 42 empirical studies that explore the relationship between household wealth and consumption in both developed and emerging European economies and collectively confirm the positive impact of wealth on consumption. The findings mainly highlight that housing wealth exerts a more pronounced and stable effect on consumption than financial wealth. These findings are mainly consistent across both developed and emerging European markets, although the studies reveal substantial heterogeneity driven by methodological choices, publication characteristics, and data differences.

The theoretical framework of the empirical studies considered in the meta-analysis is grounded in the Life Cycle Hypothesis (LCH), which posits that individuals aim to smooth consumption over their lifetime, basing their spending decisions not only on current income but also on accumulated wealth and future earnings expectations. This hypothesis provides a lens through which the relationship between wealth and consumption is examined, emphasising the role of wealth as a determinant of consumption patterns.

The main result of the meta-analysis is the identification of the publication bias, particularly in studies on total and financial wealth, although adjustments for this type of bias in subsequent steps confirm the persistence of wealth effects. We also stress that, based on the identified publication bias, there is evidence of a wealth effect on aggregate consumption. However, the results of the meta-analysis suggest that the expected effect of wealth on consumption is less than the one implied by the empirical studies included in the meta-analysis.

The meta-regression analysis highlights income as a key moderator for housing wealth effects, while financial wealth effects are more sensitive to estimation methods. This analysis contributes to the literature by being the first meta-analysis of the wealth-consumption relationship in European economies, distinguishing between developed and emerging economies and emphasising the need for further research to refine wealth effect estimates and better capture differences across financial systems and economic structures. There is a need to find common ground between data sources, measures, methods and samples for more comparability, as considering the same method or model is not necessary enough to identify the wealth effects on consumption.

The identification of publication bias in the meta-analysis has several important implications for the understanding of wealth effects on consumption. Firstly, the presence of publication bias, particularly in studies analysing total and financial wealth, suggests that the reported effects in the literature may be exaggerated or skewed due to selective reporting of significant results. This bias can lead to an overestimation of the true impact of wealth on consumption, potentially misleading policymakers and researchers who rely on these studies for decision-making and further research directions. The paper employs graphical and statistical approaches, such as the Funnel Asymmetry Test (FAT), Precision-Effect Test (PET) and Precision-Effect Estimate with Standard Errors (PEESE), to assess and adjust for this bias. These adjustments confirm that while publication bias is present, the wealth effect remains significant, indicating that the underlying relationship between wealth and consumption is robust, albeit potentially smaller than initially reported.

Moreover, the identification of publication bias highlights the need for improved empirical methods and transparency in reporting research findings. Future studies should adopt more rigorous methodologies and consider the potential bias in their analyses while ensuring replicability. This could involve pre-registering studies, publishing null results, and using advanced statistical techniques to account for bias, thereby providing a more accurate and reliable understanding of wealth effects.

Finally, the implications of publication bias extend to the interpretation of historical data and trends. The paper notes a decline in reported wealth effects over time, which may reflect improved empirical methods and specifications or evolving economic conditions. This trend underscores the importance of continuously refining research techniques to ensure that findings remain relevant and accurate in changing economic landscapes.

The analysis performed in this chapter on a consistent number of studies that employ various databases and estimation methods reveals one thing these studies have in common: the use of aggregate consumption measures in estimating the elasticities to consume out of wealth. We want to underscore the importance of moving beyond the traditional focus on aggregate consumption to a more nuanced analysis that disaggregates consumption into durable and non-durable components.

Chapter II

The set of empirical studies analysed in the first chapter highlights the necessity of disaggregating consumption into components based on the life span of consumed goods. In what follows, we want to emphasise the need to analyse the effects of wealth on disaggregated consumption. This helps identify how changes in wealth influence different types of spending, such as non-durable goods, durable goods, services, or discretionary spending. This understanding can provide insights into household financial behaviour and economic stability.

Durable consumption, which tends to be pro-cyclical, serves as an indicator of the standard of living and quality of life. In contrast, non-durable spending is the most stable component of consumption, reflecting household well-being, financial security, and the overall economic health of a household. This shift in focus is essential for gaining a more detailed understanding of how different types of wealth—financial, housing, and liquid—impact these distinct consumption components.

If gains from changes in wealth are primarily directed towards non-durable consumption, it may indicate that households are using these gains to meet immediate needs rather than investing in long-term assets. This behaviour could suggest financial insecurity and a degraded level of well-being, as households might be prioritising short-term survival over long-term financial planning (Bottazzi et al., 2020). This perspective aligns with the LCH, which suggests that individuals aim to smooth consumption over their lifetime based on current income and accumulated wealth.

On the other hand, if wealth gains are channelled into durable goods (Gholipour Fereidouni & Tajaddini, 2017), it could reflect an increased standard of living and improved economic conditions. Durable consumption is often pro-cyclical, meaning it tends to increase during economic expansions and decrease during recessions. Therefore, a rise in durable spending could indicate consumer confidence and a positive economic

outlook, as households are more willing to invest in long-term goods when they feel financially secure.

Understanding the destination of wealth gains can also inform policymakers about the economic health of households and guide decisions on fiscal and monetary policies. For instance, if wealth effects predominantly boost durable consumption, policies might focus on sustaining economic growth. Conversely, if non-durable consumption is more affected, policies might aim to enhance financial security and support household income stability.

As a response, the second chapter, titled " *What Fuels Spending? A Study on Non-Durables and Wealth Dynamics in European Countries*" emphasises the importance of moving beyond aggregate consumption studies to a more nuanced analysis that distinguishes between durable and non-durable consumption, covering a period from 2000 Q1 to 2019 Q4 and including data from 11 emerging and 12 developed economies in the European Union. Given its regularity and necessity, non-durable consumption is expected to exhibit a more stable and potentially linear relationship with wealth and income. To capture these dynamics, the chapter employs Pooled Mean Group (PMG) estimation, which accounts for both long-run equilibrium and short-run heterogeneity, complemented by Categorical Regression Splines (CRS) to flexibly detect any potential non-linearities. The combined use of these methods allows for both structure and flexibility in modelling non-durable consumption responses to monetary and macroeconomic factors.

In developed economies, the study finds that housing, money, and stock wealth, in that particular order, positively impact non-durable consumption. This suggests that households in these regions leverage not only liquid wealth but also financial assets and equity from housing to smooth consumption, maintaining stable, non-durable spending even in the face of economic fluctuations, which makes the evolution of average non-durable spending in developed economies more stable in time. Conversely, in emerging economies, households exhibit a stronger sensitivity to changes in money wealth and stock wealth, reflecting a reliance on more liquid assets with a high magnitude for money wealth. This result is attributed to lower financial market participation, which diminishes the stock wealth effect in these regions.

The empirical analysis central to this chapter also identifies disparities in the relative magnitude of wealth effects between developed and emerging economies. In developed economies, housing wealth is a more significant driver of non-durable consumption, while

in emerging economies, money wealth takes precedence. This divergence has critical policy implications. For emerging economies, expanding the inclusivity of the financial sector through low-cost investment products and improved financial education could enhance the effect of stock wealth, fostering higher economic stability and financial discipline (D. French & McKillop, 2016).

Policymakers must account for the pro-cyclical nature of wealth effects, which can amplify economic volatility, particularly in developed economies with high financial market exposure. Stabilising housing markets and supporting consumer confidence are essential to sustaining household consumption during economic fluctuations, especially for non-durable spending.

At the same time, the findings emphasise the need for targeted fiscal and monetary policies that reflect the diverse economic conditions across regions. In emerging economies, where financial market participation is limited, promoting financial inclusion is particularly important. Enhancing access to low-cost investment products and improving financial literacy can empower households to diversify their assets and reduce reliance on liquid wealth for consumption smoothing. These measures not only improve individual financial resilience but also contribute to broader macroeconomic stability.

For developed economies, where participation in financial markets is already widespread, policy efforts should focus on managing asset price volatility and ensuring stable credit conditions. Overall, a nuanced, region-specific approach that addresses the distinct barriers to financial security is essential to enhance economic resilience and reduce consumption disparities across countries at varying levels of development.

Chapter III

If Chapter 2 tackled the impact of changes in wealth on non-durable goods by differentiating between developed and emerging economies in the EU, in order to identify if gains are primarily directed towards non-durable consumption, the aim of this chapter, titled "*EU Emerging Economies: Asset Prices and Durable Spending*", is to shift the focus to the consumption behaviour of emerging European economies. The goal is to identify whether gains from wealth changes are channelled into durable goods, reflecting an increased standard of living and improved economic conditions in these former communist economies.

The transition from centrally-planned to open-market economies posed significant

challenges for these countries, particularly in developing robust financial markets. Low trust in financial institutions and risky assets often hindered this transition. The chapter likely explores how these historical and economic contexts influence the current consumption patterns in these economies, particularly regarding durable goods.

The focus of this chapter on Central and Eastern European Countries (CEEC) is crucial, as these regions have experienced significant economic transitions that have impacted their asset markets and consumption behaviour. Moreover, heterogeneity among households—particularly across different levels of durable expenditure—suggests that average effects may obscure important distributional patterns. To address this, the chapter applies Method of Moments Quantile Regression (MMQR) and Quantile Auto-regressive Distributed Lag (QARDL) models, which are well-suited to capturing asymmetric effects across the consumption distribution. These methods reveal how households at different quantiles of the durable spending distribution react differently to changes in income, asset values, and macroeconomic shocks.

The findings, obtained from analysing data spanning from 2000 Q1 to 2023 Q2, suggest that declines in house prices lead to decreases in durable consumption spending, particularly among lower-spending households. These households also show higher sensitivity to stock price declines compared to higher-quantile households. In contrast, higher-spending households react more prominently to house price increases, highlighting the asymmetric nature of wealth effects. Additionally, monetary and fiscal indicators, such as rising interest rates and public debt, are associated with reduced consumer confidence, further dampening consumption across all durable spending levels.

The results from the QARDL analysis show that the relationship between wealth and durable consumption differs notably across various countries and durable spending levels over time. It seems that, at the national level, financial assets have a more significant impact on consumer spending compared to housing assets, indicating that changes in the stock market significantly affect higher-income individuals. On the other hand, the effect of housing wealth is less robust and more variable, suggesting that depending solely on real estate market strategies may not effectively enhance durable consumption. These findings challenge the conventional belief that housing wealth primarily influences household expenditure in emerging countries.

Overall, the chapter underscores the importance of understanding the unique economic

contexts of emerging European economies and how these contexts shape consumption patterns, particularly in response to asset price changes. Policies aimed at stabilising housing and financial markets can reduce the high sensitivity of lower-income households to negative changes in housing and stock prices. This is crucial because these households are more vulnerable to economic fluctuations, which can significantly impact their consumption patterns. Implementing regulatory measures to reduce speculation and volatility in the housing market is recommended. Such measures can help create a more stable economic environment, encouraging sustainable growth in asset prices. This is particularly important for households in the 11 CEEC considered, where housing is the predominant asset in their portfolios.

The empirical analysis also highlights the importance of addressing wealth inequality, which constrains durable spending, especially among lower-income households. Policies that aim to reduce wealth disparities can help boost consumption and improve economic conditions for these households. Furthermore, targeted policy measures should focus on mitigating the financial vulnerabilities of households situated on the lower side of the durable spending distribution. This can involve enhancing consumer confidence and providing support to those most affected by asset price declines.

6 Further research

Future research into the consumption-wealth relationship should adopt a microeconomic focus, specifically examining households as the fundamental unit of analysis. By doing so, we can gain a more nuanced understanding of how wealth and consumption interact at the household level, particularly within the context of the Romanian economy. This microeconomic perspective will allow researchers to uncover the complex dynamics at play in household consumption decisions, providing a detailed view of how varying levels of wealth impact economic behaviour.

Additionally, it is essential for future studies to investigate regional disparities and household-level heterogeneity that shape consumption patterns. By integrating both macroeconomic and microeconomic evidence, researchers can develop a comprehensive understanding of these dynamics, shedding light on how different regions experience variations in consumption driven by local economic conditions and household characteristics.

Such microeconomic evidence can refer to analysing households classified into distinctive categories based on the composition of their portfolio and their access to liquidity, similar to Kaplan and Violante (2014), Kaplan et al. (2014) and Aguiar et al. (2024).

Moreover, research should emphasize the implications of wealth inequality and financial vulnerabilities on consumption behaviours. Understanding these factors is crucial for designing more effective monetary and fiscal policies that stabilise consumption and address existing economic disparities. This focus on policy implications will ensure that research contributes to practical solutions that can enhance economic stability and equity.

One such example is studying the interaction between monetary and fiscal policies in greater detail, particularly in the context of emerging markets. Additionally, comparative studies across other Eastern European countries would provide valuable insights into the broader applicability of the HtM framework in the region (Eskelinen, 2021).

Conducting comparative analyses between developed and emerging economies will also be valuable. Such studies can reveal how diverse economic contexts influence the consumption-wealth nexus, providing insights into the unique challenges and opportunities that exist across different environments. This comparative approach can help policymakers tailor their strategies to better suit the specific needs of their economies.

Examining the impact of demographic changes, especially an ageing population, on consumption patterns is a crucial area for future research. Understanding these shifts is essential for addressing the dynamics of consumption in society. By exploring this relationship, research can enhance our understanding of consumption and wealth, guiding policy decisions that foster economic stability and equity.

As revealed by the empirical findings in Chapter 3, the responses of consumption to changes in wealth vary across its distribution, and one of the factors that repeatedly exerted a significant influence for the entire panel, but also at the country level, was wealth inequality. Although this outcome was not very surprising, it highlights the need to further study the distribution of disaggregate consumption in emerging economies, however, not as a singular dimension for inequality, but rather analyse the multifaceted aspect of inequality, which has closely interconnected measures, namely the consumption-income-wealth inequality (Fisher et al., 2022).

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