EUROPEAN CENTRAL BANK
EUROSYSTEM

Working Paper Series

Johannes Gareis, Ryan Minasian

Durability, essentiality, and the transmission of monetary policy to household consumption

No 3127

Abstract

In this paper, we examine how different household consumption items respond to monetary policy shocks in the euro area. Specifically, we classify household consumption along two key dimensions: durability and essentiality. Our findings reveal pronounced heterogeneity in responses across these dimensions. First, durable items are highly sensitive to monetary policy shocks, whereas non-durable items exhibit weaker responses. Second, non-essential items react more strongly than essential items. Finally, we demonstrate that durability and essentiality each independently shape the sensitivity of household consumption to monetary policy shocks, with durable non-essential items being most strongly affected.

JEL: E21, E52, E44, E32, C23

Keywords: monetary policy transmission, monetary policy shocks, household consumption, durability, essentiality

Non-technical summary

This study explores how monetary policy changes, particularly interest rate fluctuations, affect household consumption expenditures in the euro area. The analysis focuses on two key characteristics of spending: durability and essentiality. Durable goods, such as cars and household appliances, last longer, and their purchase can often be postponed. Non-durable goods include food and many services, which are consumed quickly. Essential goods are necessary for daily living, such as basic groceries and utilities, whereas non-essential goods are those that households can delay or skip without major consequences, such as luxury products.

The results show that durable goods are more sensitive to interest rate changes: when rates rise, households are more likely to delay purchasing these than non-durables. A similar pattern is observed for non-essential goods, which display stronger reactions than essentials. Essential spending remains relatively stable when interest rates fluctuate.

Interestingly, goods that are both durable and non-essential—such as camper vans, boats, aeroplanes, and cars—exhibit the largest changes in household spending when interest rates adjust. This indicates a compounded effect, whereby durability and non-essentiality together lead to greater sensitivity to monetary policy. Our findings confirm that durability and essentiality each independently shape how household consumption responds to monetary policy shocks, with durable non-essentials most strongly affected.

Understanding these dynamics is crucial for policymakers, as it helps them anticipate how changes in interest rates influence household spending. This knowledge supports more informed decisions in the pursuit of economic stability and growth.

1. Introduction

Monetary policy exerts significant influence on the real economy, primarily through its effect on interest rates, which shape household consumption decisions. Among various components of household consumption, durable goods—such as cars and household appliances—are widely recognised as more responsive to monetary policy shocks than non-durable goods, such as food and utilities (Barsky et al., 2003). However, the existing literature provides limited evidence on factors beyond durability. This paper addresses this gap by introducing essentiality as an additional dimension alongside durability in explaining the sensitivity of household consumption to monetary policy shocks. Essential goods, such as basic groceries and utilities, are necessary for daily life and are less likely to be adjusted in response to changes in interest rates. By contrast, non-essential goods, such as luxury purchases and recreational expenses, are more discretionary and can often be postponed or foregone entirely. Importantly, essentiality applies to both durable and non-durable consumption: for instance, food is typically classified as essential, whereas newspapers, books, and stationery—also non-durables—are considered non-essential because their consumption is more easily deferred. Similarly, some durables may be essential, such as telephone equipment, while others, such as recreational vehicles and cars, are non-essential.

By incorporating essentiality into the analysis, this paper extends the traditional distinction between durables and non-durables, providing a more nuanced framework for understanding the heterogeneity in household consumption responses to monetary policy. A key question is whether certain non-durables—such as newspapers, books, and stationery—or certain durables—such as recreational vehicles and cars—are particularly sensitive to monetary policy shocks due to their non-essential nature. The essentiality framework thus captures behavioural aspects of consumption decisions that durability alone may overlook, such as the prioritisation of basic needs over discretionary spending during periods of economic uncertainty.

Our analysis utilises detailed annual household consumption data from Eurostat, categorised according to the international classification of individual consumption by purpose (COICOP), for ten euro area countries.[1] The dataset includes 42 series of real household consumption, which we classify along two dimensions: durability and essentiality. Durable consumption is defined using the official COICOP framework, grouping semi-durables with durables and services with non-durables. Essential and non-essential categories are identified using euro area-wide data from Eurostat's Household Budget Survey (HBS), following the methodology

[1]The countries are Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, the Netherlands, and Portugal.

of Henry (2014), which classifies expenditure groups according to how their shares vary across income levels. We find that, on average, durables account for 15% of household consumption in the euro area, while essential and non-essential categories each account for about 50%. This indicates that the two dimensions capture distinct aspects of consumption.

Our empirical analysis employs the local projection method developed by Jordà (2005) to estimate the dynamic responses of household consumption to monetary policy shocks, identified using the high-frequency surprise approach of Jarociński and Karadi (2020). The results confirm that durables exhibit a stronger response to monetary policy shocks than non-durables (Barsky et al., 2003, Erceg and Levin, 2006, Monacelli, 2009, Sterk and Tenreyro, 2018). Beyond this, we find that non-essentials are particularly sensitive to monetary policy shocks, while essentials exhibit significantly smaller responses. Notably, goods that are both durable and non-essential—such as recreational vehicles and cars—show the strongest sensitivity to monetary policy shocks, underscoring the importance of considering both dimensions simultaneously.

We contribute to the literature by introducing essentiality as an additional dimension alongside durability, thereby providing a more comprehensive framework for understanding the heterogeneous effects of monetary policy on household consumption. While prior studies such as Grigoli and Sandri (2023) rely on credit card data to study consumption dynamics, our use of national accounts data provides a broader perspective, encompassing the full range of household consumption expenditures. Our research aligns with the work of Andreolli et al. (2024) and Andreolli et al. (2025), who analyse the response of essential and non-essential consumption to monetary policy shocks for the United States and the euro area, respectively. Our paper provides evidence at a more granular level for the euro area and shows that both durability and essentiality each independently influence how sensitive household consumption is to monetary policy shocks.

The paper is organised as follows. Section 2 describes the data. Section 3 introduces the econometric methodology. Section 4 presents the results, followed by robustness checks in Section 5. Section 6 concludes.

2. Data and Classification of Consumption Items

This section describes the data underlying our analysis. We begin with the household consumption dataset and its classification by durability and essentiality, and then outline the monetary policy shocks used to estimate their impact on household consumption.

2.1. Household Consumption Data and Classifications

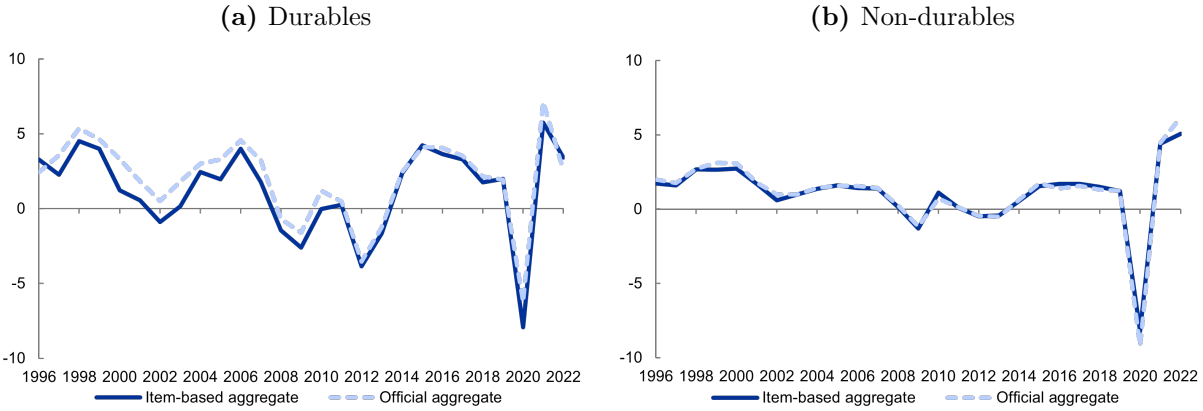
We utilise detailed annual household consumption data from Eurostat's COICOP classification for ten euro area countries. The COICOP classification is structured across five levels, from two-digit to five-digit codes with increasing specificity. For example, at the two-digit level, the category *clothing and footwear* (CP03) is split into *clothing* (CP031) and *footwear* (CP032) at the three-digit level. These are further subdivided at the four- and five-digit levels. Eurostat provides annual data in real terms for the ten euro area countries at the two- to three-digit levels, with some exceptions. For our analysis, we mainly use data at the three-digit level, which offers a balance between detail and availability. This yields a dataset of 42 real consumption series for each of the ten euro area countries. Of these, 41 series are at the three-digit level, while one, *education* (CP10), remains at the two-digit level.

To classify the 42 consumption series in each country by durability, we follow the official COICOP categorisation at the four-digit level, which divides items into services, non-durables, semi-durables, and durables, while, for simplicity, we group semi-durables with durables and services with non-durables. This classification is straightforward for items such as *purchase of vehicles* (CP071), which are entirely durable at the four-digit level. For items that contain a mix of components at the four-digit level, we assign the corresponding three-digit series to the predominant type. For example, for *clothing* (CP031), where most components are semi-durable at the four-digit level, we classify the entire series as durable. Our classification aligns closely with Eurostat's official aggregates, as shown by the strong correlations in Figure 1 for the euro area as a whole.

For the essentiality classification, we distinguish between essential and non-essential items, following the methodology of previous studies. Using data from Eurostat's Household Budget Survey (HBS) for the euro area as a whole, we analyse consumption shares across household income levels.[2] A consumption item is classified as essential if its consumption share decreases or remains constant with rising income, and as non-essential if the share increases. This revealed-preference approach may classify some items as essential even if they might be considered discretionary in a normative sense. For example, *clothing* (CP031) and *purchase of vehicles* (CP071) are classified as non-essential due to their increasing consumption shares with income, while *food* (CP011), *non-alcoholic beverages* (CP012), *alcoholic beverages* (CP021), *tobacco* (CP022), and *narcotics* (CP023) are classified as essential, reflecting their stable or falling expenditure shares

[2]Theoretically, the classification of items by essentiality may differ between countries. To eliminate this variability and ensure consistency across the ten euro area countries, we use consumption share data aggregated for the euro area as a whole.

Figure 1: Durable and Non-Durable Household Consumption in the Euro Area
(annual growth)



Note: Real household consumption of durables and non-durables, based on our classification of 42 consumption items (two- to three-digit COICOP levels), compared with Eurostat's official aggregates. Durables include semi-durables and non-durables include services.

across income levels. The complete categorisation is provided in Table A1 in the Appendix.[3]

Figure 2 illustrates the results of our classifications by plotting the aggregate series for durable and non-durable consumption, as well as essential and non-essential consumption, once more for the euro area as a whole. The data show that both durable and non-essential consumption are more volatile than their counterparts. On average, 15% of household consumption in the euro area is spent on durable items, while non-essential and essential items each account for approximately 50% of total consumption. Of the 42 items analysed, 12 are durable (4 essential, 8 non-essential), while the remaining 30 are non-durable items (14 essential, 16 non-essential). Overall, 24 items are classified as non-essential and 18 as essential.

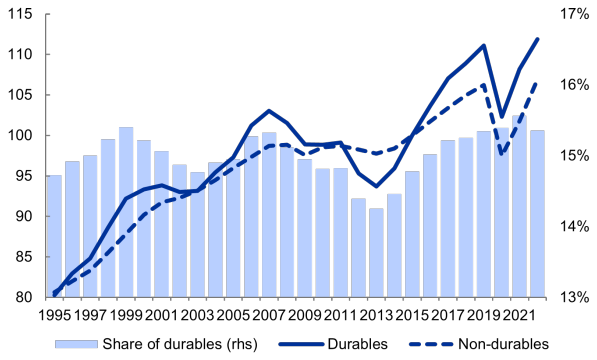
2.2. Monetary Policy Shock Identification

To estimate the impact of monetary policy on household consumption, it is crucial to distinguish between monetary policy shocks and systematic responses of monetary policy to the macroeconomic environment. We rely on the series of monetary policy shocks identified through a high-frequency identification strategy developed by Jarociński and Karadi (2020). This approach exploits the joint movements of high-frequency data on interest rates and stock prices in the euro area during ECB policy announcements. Specifically, we use the VAR-based sign-

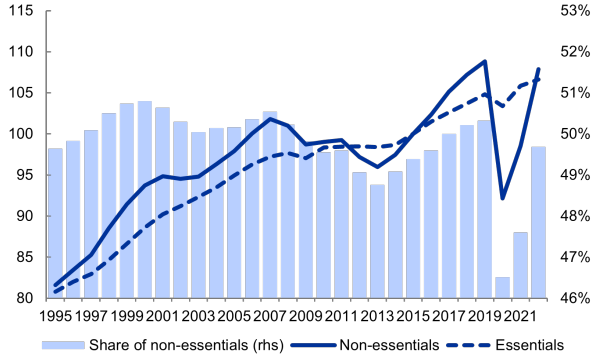
[3]Since richer households tend to own their homes and poorer households tend to rent, the share of *imputed rentals for housing* (CP042) increases with higher income, while the share of *actual rentals for housing* (CP041) decreases. According to the classification method we use, *imputed rentals for housing* (CP042) would therefore be classified as non-essential and *actual rentals for housing* (CP041) as essential. To avoid this discrepancy, we classify both categories as essential.

Figure 2: Durable and Essential Household Consumption in the Euro Area
(2015=100, shares)

(a) Durables and non-durables



(b) Essentials and non-essentials



Note: Solid and dashed lines show real consumption indices (2015=100); bars indicate percentage shares of total consumption, constructed from chained consumption series. The figures are constructed from our classification of 42 consumption items (two- to three-digit COICOP levels). Durables include semi-durables, and non-durables include services.

restriction shock series, constructed from the Euro Stoxx 50 and the first principal component of various OIS rates (1-month, 3-month, 6-month, and 1-year).[4] We aggregate the shock series, originally available at a monthly frequency, to an annual frequency to match our consumption dataset. This aggregation follows the methodology of Ottonello and Winberry (2020), which assigns higher weights to shocks occurring earlier in the year. For robustness, we also consider the so-called "poor man's sign-restriction shock" and use an unweighted sum when aggregating the VAR-based sign-restriction shock series to the annual frequency of our consumption data. For a detailed discussion of the shock identification, we refer the reader to Jarociński and Karadi (2020).

3. Empirical Framework

In this section, we outline the empirical framework used to estimate the impact of monetary policy shocks on household consumption. Our approach involves computing impulse response functions (IRFs) using local projections, as developed by Jordà (2005), for a panel of ten euro area countries.

The local projection method provides a flexible approach to estimating the dynamic re-

[4]The underlying data come from the Euro Area Monetary Policy Event-Study Database (EA-MPD), constructed by Altavilla et al. (2019).

sponse of household consumption to monetary policy shocks. The model is specified as follows:

$$Y_{i,t+h} = \alpha_{i,h} + \beta_h \phi_t + \gamma_h X_{i,t-1} + \epsilon_{i,t+h} \tag{1}$$

where $Y_{i,t+h}$ denotes real consumption of interest for country i at horizon h, and ϕ_t is the monetary policy shock. The coefficient β_h captures the effect of a 10 basis point shock on consumption at horizon h. The vector $X_{i,t-1}$ includes one-year lags of the dependent variable, the monetary policy shock, the inflation rate, the unemployment rate, real disposable income, and the household debt-to-income ratio. We also include the 3-month OIS rate to control for the level of monetary conditions. Consumption and real disposable income enter the model in logarithmic form, whereas the monetary policy shock, the interest rate, the inflation rate, the unemployment rate, and the debt-to-income ratio enter in levels. Furthermore, the monetary policy shock and all control variables refer to euro area aggregates, while only the dependent variable is country-specific. Finally, the model is augmented with country fixed effects, $\alpha_{i,h}$, to account for unobserved heterogeneity across countries. For robustness, we also consider the shadow rate estimated by Wu and Xia (2020), as well as the 1-year OIS rate and the 10-year government bond yield, as alternative controls for monetary policy conditions.

The model is estimated over the period 2002–2019. The early years of the euro (1999–2001) are excluded due to volatile and noisy OIS data, as recommended by Altavilla et al. (2019). The sample ends in 2019 to avoid the confounding effects of the COVID-19 pandemic. We use the standard error corrections of Driscoll and Kraay (1998) to ensure robustness to heteroskedasticity, serial autocorrelation, and cross-sectional dependence across countries.

4. Impact of Monetary Policy on Household Consumption

In this section, we present our findings on the impact of monetary policy on household consumption. We begin by analysing the effects of interest rate shocks on real spending across the broad categories of durable versus non-durable items and essential versus non-essential items. We then examine the responses of individual items at the two- to three-digit COICOP level in more detail and explore their heterogeneity with respect to durability and essentiality.

4.1. Durables vs. Non-Durables, Essentials vs. Non-Essentials

To examine the effects of monetary policy shocks on household consumption across durability and essentiality dimensions, we first aggregate the 42 real consumption series in each of the

ten euro area countries into durables and non-durables as well as essentials and non-essentials. For each country, this yields one durable consumption series and one non-durable consumption series, as well as one essential and one non-essential consumption series. We then estimate the consumption-specific responses to monetary policy shocks using panel local projections.

Figure 3 presents the results in the form of impulse response functions. All categories exhibit negative responses to monetary tightening, though with significant variation in timing and magnitude. Durables show a pronounced decline, while non-durables decrease less strongly, indicating lower sensitivity to monetary policy shocks. Similarly, non-essentials display a steep decline, whereas essentials remain comparatively resilient. The statistically significant differences between durable and non-durable items, as well as between essential and non-essential items, are confirmed by panel local projections using the (log-)ratios of the corresponding consumption series as dependent variables. Overall, our findings align with the literature highlighting the heightened sensitivity of durable consumption to monetary policy interventions (Barsky et al., 2003, Erceg and Levin, 2006, Monacelli, 2009, Sterk and Tenreyro, 2018). They are also consistent with the work of Andreolli et al. (2024) and Andreolli et al. (2025), who analyse the reaction of essential and non-essential consumption to monetary policy shocks for the United States and the euro area, and document that non-essential consumption falls more sharply than essential consumption in response to a tightening of monetary policy.

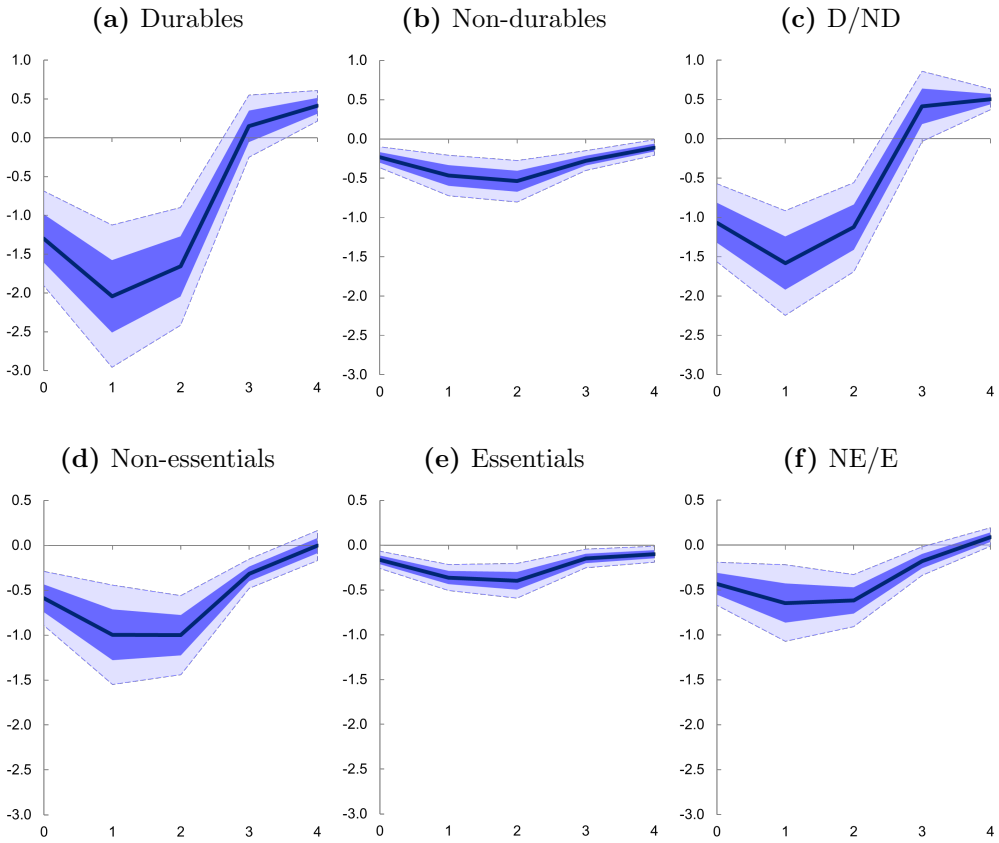
4.2. Granular Responses by COICOP Item

Next, we examine the responses of household consumption items at the two- to three-digit COICOP level by estimating panel local projections for each of the 42 series across the ten euro area countries.

Figure 4 presents the peak impacts of a 10 basis point monetary tightening shock on the 42 items and indicates their classification by durability and essentiality. The heterogeneity observed at the aggregate category level is also evident at this more granular level. Items that are either durable or non-essential typically react more negatively to monetary policy shocks. In particular, *other major durables for recreation and culture* (CP092) and *purchase of vehicles* (CP071), both classified as durable and non-essential, are among the most sensitive. By contrast, items such as *narcotics* (CP023) and *electricity, gas and other fuels* (CP045) show no significant responses, consistent with their classification as essential and non-durable.

Interestingly, the results underscore the role of essentiality in both durable and non-durable consumption. Among durables, those classified as non-essential generally exhibit stronger reac-

Figure 3: Responses by Durability and Essentiality
(per cent)



Note: Impulse responses to a 10 basis point monetary policy surprise tightening. *D/ND* denotes the durables-to-non-durables ratio, and *NE/E* denotes the non-essentials-to-essentials ratio. Shaded areas indicate 68% and 95% confidence bands; horizontal axes denote impulse response horizons (years).

tions than those considered essential. For instance, while *purchase of vehicles* (CP071), classified as durable and non-essential, shows one of the largest responses, *telephone and telefax equipment* (CP082), classified as durable but essential, shows no significant response to monetary policy shocks. A similar pattern emerges among non-durable goods: non-essential ones, such as *financial services n.e.c.* (CP126), *maintenance and repair of the dwelling* (CP043), and *newspapers, books, and stationery* (CP095), display relatively strong reactions, whereas essential ones, such as *actual rentals for housing* (CP041), *postal services* (CP081), and *food* (CP011), exhibit comparatively mild responses.

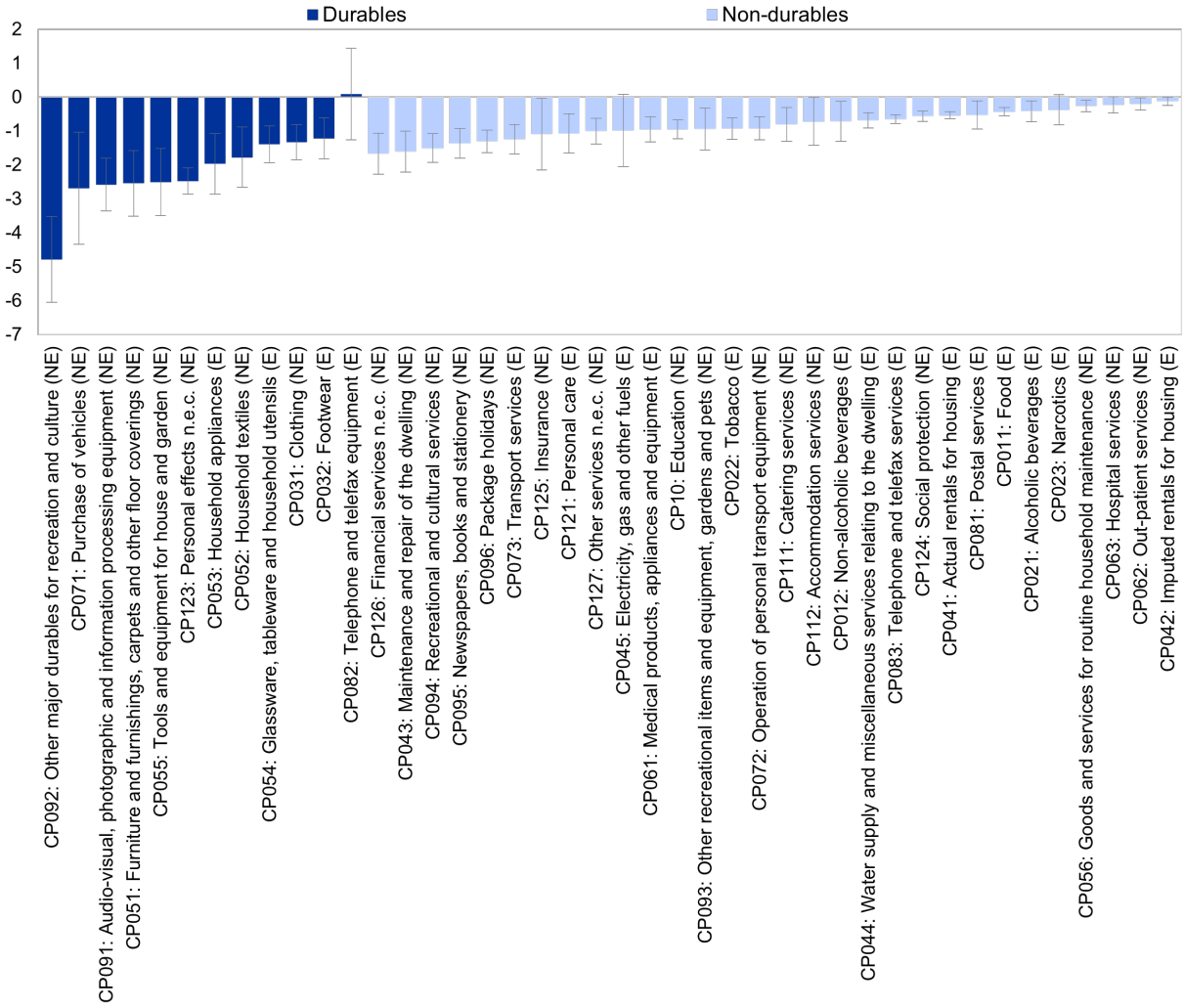
4.3. Heterogeneity by Durability and Essentiality

Finally, we examine the significance of durability and essentiality in determining the sensitivity of household consumption to monetary policy shocks. To this end, we split the durability categories—durables and non-durables—into essential and non-essential subcategories. That is, we aggregate the 42 real consumption series in each of the ten euro area countries into essential and non-essential durables and essential and non-essential non-durables, and subsequently estimate panel local projections for each category.

Figure 5, which again presents results in the form of impulse response functions, shows that all categories react negatively to a tightening of monetary policy. However, non-essential durables display a markedly stronger decline than their essential counterparts, particularly over longer horizons. Similarly, non-essential non-durables experience a more pronounced decline than essential non-durables. The statistically significant differences in reactions are confirmed by panel local projections using the (log-)ratios of the corresponding consumption series as dependent variables. Overall, these findings underscore that essentiality exerts a distinct influence on consumption responses, regardless of durability.

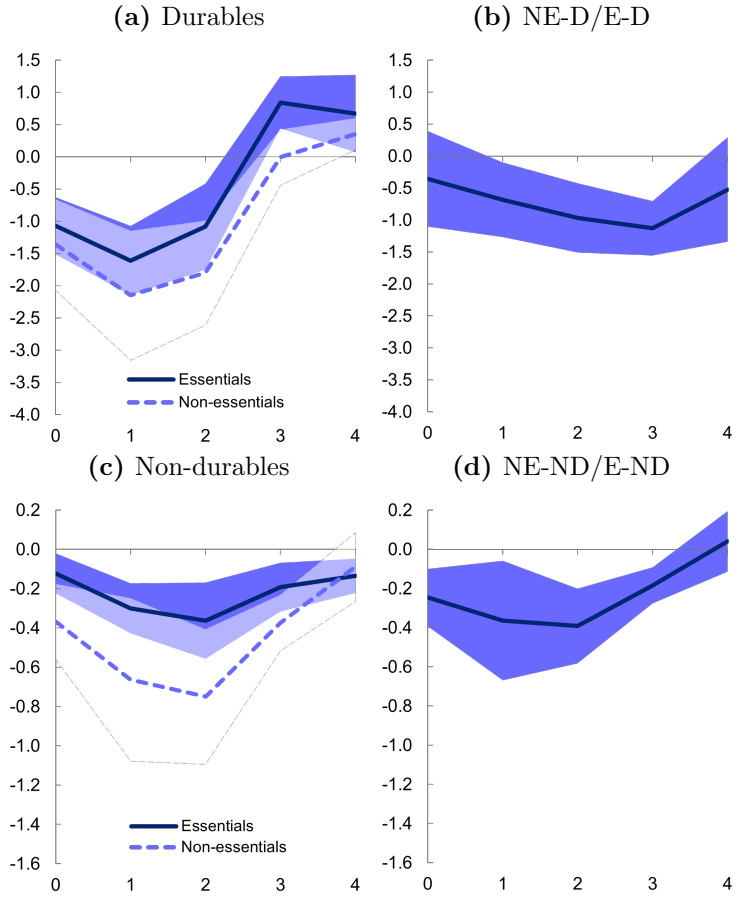
To further substantiate these results, Table 1 reports regressions of the impulse responses of our 42 granular consumption items at different horizons—as estimated in Section 4.2—on two binary variables: one indicating whether an item is durable and the other indicating whether it is non-essential. Including both dummies simultaneously accounts for the independent effects of durability and non-essentiality on sensitivity to monetary policy shocks. The results show that durable items exhibit notable sensitivity, particularly at the initial impact and one year post-shock, while non-essential items experience significant declines across all horizons. Importantly, the statistical significance of these effects confirms that durability and essentiality each

Figure 4: Peak Responses by COICOP Items
(per cent)



Note: Peak responses to a 10 basis point monetary policy surprise tightening for 42 consumption items (two- to three-digit COICOP levels). *E* denotes essential items and *NE* denotes non-essential items. Items are ordered from left to right by durability (durables to non-durables) and by size of response. Vertical lines indicate 95% confidence bands.

Figure 5: Essentiality Effects: Durables vs. Non-Durables
(per cent)



Note: Impulse responses to a 10 basis point monetary policy surprise tightening. *NE-D/E-D* denotes the non-essential-to-essential durables ratio, and *NE-ND/E-ND* denotes the non-essential-to-essential non-durables ratio. Shaded areas indicate 95% confidence bands; horizontal axes denote impulse response horizons (years).

independently influence an item's sensitivity to monetary policy shocks.[5]

5. Robustness Checks

Finally, to verify the robustness of our findings, we conduct two complementary exercises. First, we use an alternative panel setup that enables a unified regression across all 42 consumption items, while still allowing for heterogeneity in responses to monetary policy shocks across durability and essentiality dimensions. Second, we return to the baseline panel setup and test the sensitivity of our results to alternative choices of key variables, particularly the monetary policy

[5]The correlation coefficient between the durable and non-essential dummies is 0.14, indicating that these dimensions are largely independent. Thus, the regression results reflect separate contributions of durability and non-essentiality rather than overlapping classifications.

Table 1: Durability and Essentiality in Consumption Sensitivity

	Impact	1-year	2-year	3-year	Peak impact
Durability	-0.809***	-1.176***	-0.718	0.522	-1.196***
	(0.000)	(0.001)	(0.122)	(0.311)	(0.000)
Non-essentiality	-0.341**	-0.481**	-0.615**	-0.698**	-0.575***
	(0.015)	(0.048)	(0.050)	(0.045)	(0.006)
Observations	42	42	42	42	42
Adjusted R^2	0.479	0.376	0.164	0.097	0.480

Note: Regression of impulse responses for 42 consumption items (two- to three-digit COICOP levels) on binary indicators for durability and non-essentiality at different horizons and at peak effect. The durability and non-essentiality dummies have a correlation coefficient of 0.14. Statistical inference relies on robust p-values. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

shock and interest rate measures.

5.1. Alternative Panel Setup

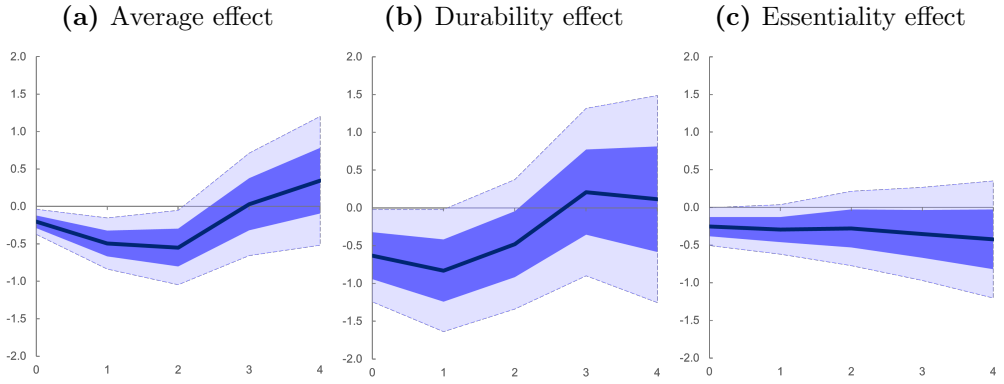
In the first robustness exercise, we employ an alternative panel setup by constructing a long panel that stacks all 42 consumption items across the ten euro area countries. This approach unifies the analysis across items while still allowing for heterogeneity in responses to monetary policy shocks by interacting the shock with binary variables for durability and non-essentiality:

$$Y_{i,c,t+h} = \alpha_{c,h} + \beta_{0,h}\phi_t + \beta_{1,h}D_i\phi_t + \beta_{2,h}NE_i\phi_t + \delta_{1,h}D_i + \delta_{2,h}NE_i + \gamma_h X_{i,c,t-1} + \epsilon_{i,c,t+h} \quad (2)$$

where $Y_{i,c,t+h}$ denotes real consumption of item i in country c at horizon h, and ϕ_t is, as before, the monetary policy shock. The coefficient $\beta_{0,h}$ captures the average impact of the monetary policy shock on a consumption item, while $\beta_{1,h}$ and $\beta_{2,h}$ measure the additional effects for durable and non-essential items, respectively. The coefficients, $\delta_{1,h}$ and $\delta_{2,h}$, capture average differences across items that are not interacted with the monetary policy shock. All control variables and the lag structure of the model follow the baseline setup.

Figure 6 presents the estimated impulse responses to a negative monetary policy shock based on this alternative panel setup. Panel 6a shows the average impact of a surprise monetary tightening, while Panels 6b and 6c depict the additional effects for durable and non-essential items, respectively. The results indicate that a contractionary monetary shock has a negative and statistically significant effect on consumption on average. Furthermore, durable and non-essential items show additional, statistically significant declines.

Figure 6: Durability and Essentiality Effects: Alternative Panel
(per cent)



Note: Impulse responses to a 10 basis point monetary policy surprise tightening. Shaded areas indicate 68% and 95% confidence bands; horizontal axes denote impulse response horizons (years). Standard errors are clustered by year.

5.2. Alternative Shocks and Rates

In the second robustness exercise, we assess the reliability of our findings through a series of checks within the baseline panel setup. First, we replicate the analysis using an alternative monetary policy shock, namely the "poor man's sign-restriction shock". By setting the interest rate surprise to zero when interest rates and equity prices move in the same direction, this approach follows Jarociński and Karadi (2020) in filtering out information shocks and thereby isolating pure monetary policy innovations. Second, instead of the weighted sum, we use an unweighted sum to aggregate the VAR-based sign-restriction shock series to the annual frequency of our consumption data. Third, to address concerns related to the effective lower bound on interest rates, we substitute the 3-month OIS rate used in the baseline analysis with the Wu–Xia shadow rate as well as alternative observed interest rates (i.e., the 1-year OIS rate and the 10-year government bond yield).

We summarise the robustness of our results by reporting the regression analysis from Section 4.3 for these alternative choices of key variables within the baseline panel setup. For each alternative, we again estimate the responses of the 42 consumption items at different horizons and regress them on the two binary variables for durability and non-essentiality. As shown in Table 2, the results confirm our previous findings. The persistence of significant negative coefficients on both durability and non-essentiality across variations in the monetary policy shock and interest rate measures indicates that our findings are not driven by specific modelling choices. Instead, they reflect genuine differences in how consumption goods respond to monetary policy interventions, with durability and essentiality each independently shaping

an item's sensitivity to monetary policy shocks. Consequently, goods that are both durable and non-essential exhibit the greatest sensitivity to monetary policy shocks.

Table 2: Robustness of Durability and Essentiality Effects

		Impact	1-year	2-year	3-year	Peak impact
Poor man's sign restriction shock	Durability	-0.941***	-1.062***	-0.631*	0.328	-1.149***
		(0.000)	(0.003)	(0.086)	(0.439)	(0.000)
	Non-essentiality	-0.163	-0.498**	-0.525**	-0.678**	-0.474***
		(0.201)	(0.030)	(0.042)	(0.026)	(0.005)
	Adjusted R^2	0.458	0.350	0.186	0.109	0.543
Unweighted sum of VAR-based sign-restriction shock	Durability	-0.403	-1.883***	-1.041*	0.628	-1.781***
		(0.310)	(0.001)	(0.090)	(0.260)	(0.002)
	Non-essentiality	-0.609**	-0.529	-0.821*	-0.490	-0.781**
		(0.041)	(0.210)	(0.056)	(0.194)	(0.043)
	Adjusted R^2	0.112	0.348	0.184	0.047	0.418
Wu–Xia shadow rate	Durability	-0.800***	-1.164***	-0.794*	0.448	-1.176***
		(0.000)	(0.001)	(0.083)	(0.382)	(0.000)
	Non-essentiality	-0.348**	-0.487**	-0.632**	-0.753**	-0.571***
		(0.013)	(0.043)	(0.044)	(0.034)	(0.006)
	Adjusted R^2	0.477	0.381	0.193	0.102	0.481
1-year OIS rate	Durability	-0.802***	-1.179***	-0.752	0.457	-1.183***
		(0.000)	(0.001)	(0.119)	(0.361)	(0.001)
	Non-essentiality	-0.349**	-0.487**	-0.638*	-0.695**	-0.579***
		(0.013)	(0.048)	(0.052)	(0.044)	(0.007)
	Adjusted R^2	0.481	0.374	0.167	0.094	0.463
10-year government bond yield	Durability	-0.788***	-1.201***	-1.166***	-0.071	-1.363***
		(0.000)	(0.000)	(0.003)	(0.891)	(0.000)
	Non-essentiality	-0.132	-0.243	-0.540*	-0.699*	-0.504**
		(0.338)	(0.186)	(0.060)	(0.063)	(0.011)
	Adjusted R^2	0.351	0.401	0.334	0.055	0.528
	Observations	42	42	42	42	42

Note: Regression of impulse responses for 42 consumption items (two- to three-digit COICOP levels) on binary indicators for durability and non-essentiality at different horizons and at peak effect, using alternative monetary policy shocks and interest rate measures. The durability and non-essentiality dummies have a correlation coefficient of 0.14. Statistical inference relies on robust p-values. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

6. Conclusion

This study enhances the understanding of the heterogeneous transmission of monetary policy by examining its effects on household consumption expenditures in the euro area. By focusing on the dual dimensions of durability and essentiality, it provides novel insights into how different types of spending respond to monetary policy shocks. The analysis confirms the heightened sensitivity of durables to monetary policy, consistent with existing literature, and extends this by showing that non-essentials also react strongly, whereas essentials display much more stable patterns.

Using a comprehensive panel of euro area data and local projections, the study demonstrates that durability and essentiality each independently shape consumption responses. Durable, non-essential spending—such as recreational vehicles and cars—shows the strongest reaction, underscoring the compounded effect of these characteristics.

Overall, the results highlight the importance of distinguishing between different kinds of household consumption in assessing the transmission of monetary policy. A more granular un-

derstanding of these dynamics can help policymakers better anticipate the effects of interest rate changes, thereby supporting more targeted and effective measures to foster economic stability and growth.

References

Altavilla, C., Brugnolini, L., Gürkaynak, R. S., Motto, R. and Ragusa, G. (2019), 'Measuring euro area monetary policy', *Journal of Monetary Economics* **108**, 162–179.

Andreolli, M., Rickard, N. and Surico, P. (2024), Non-essential business-cycles.

Andreolli, M., Rickard, N., Surico, P. and Vergeat, C. (2025), Discretionary spending is the cycle, and why it matters for monetary policy.

Barsky, R., House, C. L. and Kimball, M. (2003), Do flexible durable goods prices undermine sticky price models?, Working Paper 9832, National Bureau of Economic Research.

Driscoll, J. C. and Kraay, A. C. (1998), 'Consistent covariance matrix estimation with spatially dependent panel data', *The Review of Economics and Statistics* **80**(4), 549–560.

Erceg, C. and Levin, A. (2006), 'Optimal monetary policy with durable consumption goods', *Journal of Monetary Economics* **53**(7), 1341–1359.

Grigoli, F. and Sandri, D. (2023), Monetary policy and credit card spending, BIS Working Papers 1064, Bank for International Settlements.

Henry, L. (2014), Income Inequality and Income-Class Consumption Patterns, Economic commentary 2014-2018, Federal Reserve Bank of Cleveland.

Jarociński, M. and Karadi, P. (2020), 'Deconstructing monetary policy surprises—the role of information shocks', *American Economic Journal: Macroeconomics* **12**(2), 1–43.

Jordà, Ó. (2005), 'Estimation and inference of impulse responses by local projections', *The American Economic Review* **95**(1), 161–182.

Monacelli, T. (2009), 'New keynesian models, durable goods, and collateral constraints', *Journal of Monetary Economics* **56**(2), 242–254.

Ottonello, P. and Winberry, T. (2020), 'Financial Heterogeneity and the Investment Channel of Monetary Policy', *Econometrica* **88**(6), 2473–2502.

Sterk, V. and Tenreyro, S. (2018), 'The transmission of monetary policy through redistributions and durable purchases', *Journal of Monetary Economics* **99**, 124–137.

Wu, J. C. and Xia, F. D. (2020), 'Negative interest rate policy and the yield curve', *Journal of Applied Econometrics* **35**(6), 653–672.

Appendix. Additional figures and tables

Table A1: Classification of COICOP Consumption Items

Number	COICOP code	Item name	T	Q1	Q5	Durability / Essentiality
1	CP011	Food	11.9	18.1	10.7	ND / E
2	CP012	Non-alcoholic beverages	1.1	1.6	1.0	ND / E
3	CP021	Alcoholic beverages	1.5	1.2	1.1	ND / E
4	CP022	Tobacco	2.3	1.8	0.8	ND / E
5	CP023	Narcotics	0.4	0.0	0.0	ND / E
6	CP031	Clothing	4.0	4.3	5.3	D / NE
7	CP032	Footwear	0.9	1.3	1.1	D / E
8	CP041	Actual rentals for housing	4.5	13.4	2.5	ND / E
9	CP042	Imputed rentals for housing	12.0	9.3	14.6	ND / E
10	CP043	Maintenance and repair of the dwelling	0.9	0.9	1.6	ND / NE
11	CP044	Water supply and miscellaneous services relating to the dwelling	2.0	2.0	1.7	ND / E
12	CP045	Electricity, gas and other fuels	4.4	6.1	3.8	ND / E
13	CP051	Furniture and furnishings, carpets and other floor coverings	2.1	1.4	2.8	D / NE
14	CP052	Household textiles	0.4	0.4	0.6	D / NE
15	CP053	Household appliances	0.7	0.8	0.8	D / E
16	CP054	Glassware, tableware and household utensils	0.5	0.4	0.4	D / E
17	CP055	Tools and equipment for house and garden	0.4	0.3	0.5	D / NE
18	CP056	Goods and services for routine household maintenance	1.6	1.5	1.9	ND / NE
19	CP061	Medical products, appliances and equipment	1.6	1.7	1.5	ND / E
20	CP062	Out-patient services	1.7	1.2	2.0	ND / NE
21	CP063	Hospital services	0.8	0.2	0.3	ND / NE
22	CP071	Purchase of vehicles	3.7	2.3	7.2	D / NE
23	CP072	Operation of personal transport equipment	7.4	5.4	6.7	ND / NE
24	CP073	Transport services	2.1	1.6	1.4	ND / E
25	CP081	Postal services	0.1	0.2	0.1	ND / E
26	CP082	Telephone and telefax equipment	0.2	0.1	0.1	D / E
27	CP083	Telephone and telefax services	1.6	2.9	1.9	ND / E
28	CP091	Audio-visual, photographic and information processing equipment	0.9	1.2	1.5	D / NE
29	CP092	Other major durables for recreation and culture	0.3	0.1	0.3	D / NE
30	CP093	Other recreational items and equipment, gardens and pets	1.7	1.4	1.6	ND / NE
31	CP094	Recreational and cultural services	2.8	2.0	2.4	ND / NE
32	CP095	Newspapers, books and stationery	1.4	1.5	1.6	ND / NE
33	CP096	Package holidays	1.0	0.6	1.9	ND / NE
34	CP10	Education	0.9	0.7	0.9	ND / NE
35	CP111	Catering services	7.0	4.0	5.7	ND / NE
36	CP112	Accommodation services	1.6	0.5	1.6	ND / NE
37	CP121	Personal care	2.3	2.5	2.3	ND / E
38	CP123	Personal effects n.e.c.	0.9	0.4	0.8	D / NE
39	CP124	Social protection	1.3	0.2	0.5	ND / NE
40	CP125	Insurance	2.9	3.9	5.6	ND / NE
41	CP126	Financial services n.e.c.	2.0	0.2	0.3	ND / NE
42	CP127	Other services n.e.c.	0.4	0.8	1.2	ND / NE

Note: *T* denotes the average percentage share of each item in total household consumption for the euro area as a whole over 1995–2022. *Q1* and *Q5* denote the average percentage shares of each item in total consumption for the lowest and highest income quintiles, respectively, based on the available Household Budget Survey (HBS) data for the euro area as a whole. COICOP codes and item names follow COICOP 1999, consistent with the available breakdown in the HBS. Durability and essentiality reflect our own classification. *D* denotes durables, *ND* non-durables, *E* essentials, and *NE* non-essentials. The listed items account for 98.4% of total household consumption.

Acknowledgements

We would like to thank Maarten Dossche, Philip R. Lane, Beatrice Pierluigi, Thomas Warmedinger, an anonymous referee, and all participants in the ECB seminar series for their helpful comments.

Johannes Gareis
European Central Bank, Frankfurt am Main, Germany; email: johannes.gareis@ecb.europa.eu

Ryan Minasian
European Central Bank, Frankfurt am Main, Germany; email: ryan.minasian@ecb.europa.eu

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.ecb.europa.eu

PDF 978-92-899-7450-9 ISSN 1725-2806 doi: 10.2866/5389025 QB-01-25-222-EN-N