Some determinants of the post-pandemic weakness of household consumption

Rationale

Household consumption in Spain has shown considerable weakness following the pandemic and its recovery has been less marked than would have been expected based on income developments. This article characterises the types of households and the items in the consumption basket that have contributed most to this slackness.

Takeaways

- By consumption basket component, in 2023 average spending on durable goods (particularly cars) and semi-durable goods (in particular, clothing and footwear) posted the largest fall in real terms compared with 2019. Meanwhile, consumption linked to leisure and culture stood close to its pre-pandemic levels.

- By household type, the largest gaps in average household consumption compared to pre-pandemic levels are observed in high-income households and households where the reference person is between 35 and 54 or is a foreign national.

- Differences in consumption developments by type of household are related to heterogeneity across households in terms of both income developments and the composition of the consumption basket – specifically, the difference in the share of essential expenditure (food, rent, water and energy).

Keywords

Consumption, pandemic.

JEL classification

D12, D14, I31.

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SOME DETERMINANTS OF THE POST-PANDEMIC WEAKNESS OF HOUSEHOLD CONSUMPTION

Introduction

Following the pandemic, household consumption has been on a sustained recovery path. However, this recovery has been less intense than would have been expected considering developments in its usual determinants (for instance, household income). According to the latest Quarterly National Accounts data, in 2024 Q3 household consumption was 2.4% higher than at end-2019. This was a much more modest increase than that in income, which, driven by significant employment dynamism, by mid-2024 had grown by 6.6% compared with end-2019 (see Chart 1.a). Consumption levels are thus lower than the historical relationship between the two variables would suggest (see Chart 1.b).[1]

The recent weakness in household spending is even more evident when the Spanish economy's population growth in recent years, driven by net immigration flows, is taken into account.[2] Indeed, aggregate consumption has grown at a slower pace than the population since 2019.[3] Thus, in cumulative 12-month terms, in 2024 Q3 average consumption per household was still 1.8% below that in 2019.

Against this background, this article characterises the consumption basket items and the population groups where the weakness in average household consumption has been most pronounced. To this end, we use disaggregated information from the Household Budget Survey, which contains household-level information on Spanish household spending on various consumption items for the period 2006-2023.[4]

Developments in average household consumption based on expenditure items and household characteristics

By consumption basket item, Chart 2.a shows the change, in real terms, in average household consumption compared with 2019 and the contributions of consumption components to such

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1   In the euro area as a whole private consumption has also been somewhat sluggish following the pandemic. In 2024 Q3 the euro area cumulative increase in consumption was similar to that observed in Spain, despite the sector experiencing somewhat lower income growth than in the Spanish economy. As a result of these developments, the saving rate is above its pre-pandemic level (and its historical average) both in the euro area and, above all, in Spain. In 2024 Q2, and in cumulative 12-month terms, the gap relative to the 2019 rate stood at nearly 2 percentage points (pp) in the euro area and slightly under 5 pp in Spain. For an analysis of the Spanish economy in recent years compared with other European countries, along with the revisions to consumption and other aggregates reflected in the most recent National Annual Accounts and Quarterly National Accounts data, see Fernández, Moral-Benito and Urtasun (2024).

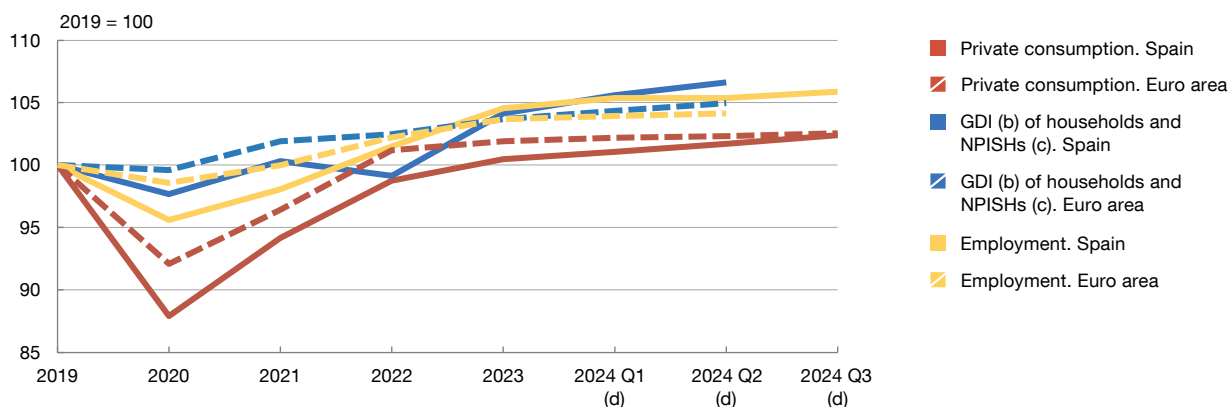2   Cuadrado and Regil (2025).

3   In the first three quarters of 2024, the population resident in Spain had grown by 2% relative to 2022, accumulating an increase of around 3.5% from 2019. The rise in the number of households has been somewhat stronger (over 4%).

4   The 2023 Household Budget Survey data, unlike those of previous editions of the Survey, have been drawn up based on population figures updated in line with the 2021 census. This change disrupts the continuity of the series compared with previous years, which prevents strictly uniform comparisons until harmonised series are released. The National Statistics Institute has published tables showing the rates of change in average household consumption adjusting the 2022 data for the census change (this adjustment is not yet available to external users). These tables indicate that using comparable data series for 2023 and previous years would result in a 0.4 pp smaller gap in average household consumption in 2023 compared with 2019 than presented in this analysis.
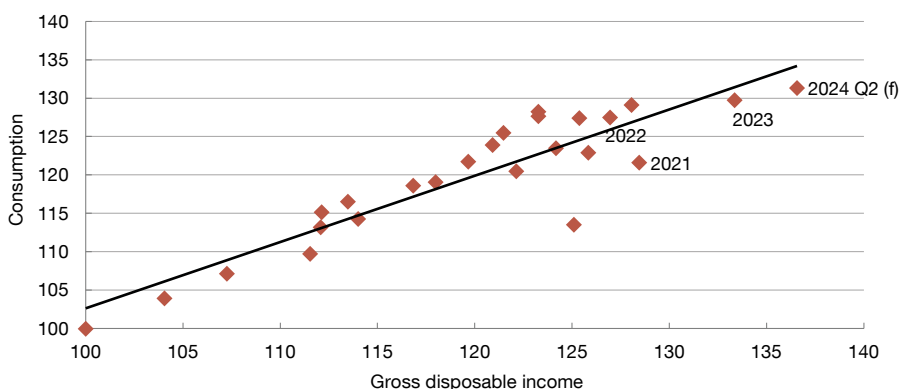
1.a Consumption, gross disposable income and employment. Spain and euro area

2019 = 100

- Private consumption. Spain
- Private consumption. Euro area
- GDI (b) of households and NPISHs (c). Spain
- GDI (b) of households and NPISHs (c). Euro area
- Employment. Spain
- Employment. Euro area

1.b Relationship between households' gross disposable income and household and NPISH consumption (e)

Consumption

2024 Q2 (f)
2023
2022
2021

Gross disposable income

SOURCES: INE and Eurostat.

a Consumption and gross disposable income are expressed in real terms.
b Gross disposable income.
c Non-profit institutions serving households.
d Cumulative four-quarter data.
e The chart shows, for the period 2000-2024, the relationship between the annual levels of gross disposable income and the consumption of households and NPISHs. The line depicts the relationship between gross disposable income and consumption obtained by estimating a linear regression model with the two variables.
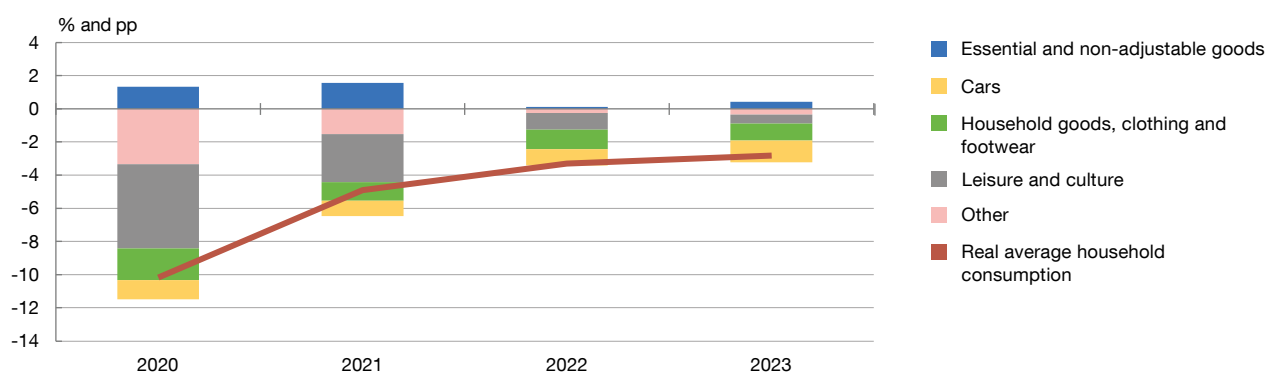f Data for 2024 Q2 (cumulative four-quarter data).

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change, grouped into five broad categories: (i) essential and non-adjustable expenditure (i.e. on food and beverages, rent,[5] water, electricity, gas and other fuels), (ii) cars, (iii) household goods, clothing and footwear, (iv) leisure and culture (including spending in hotels and restaurants), and (v) other expenditure items.[6] The bulk of the gap in average household consumption between 2023 and its pre-pandemic level is due to cars and to household goods, clothing and footwear,

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5 For owner-occupier households, the equivalent rent is included (that which would be paid for a similar dwelling if they were not home-owners). To calculate consumption in real terms, 14 major expenditure categories are deflated by their related deflators.

6 In 2019 the share of each of these categories in average nominal expenditure per household was 47%, 4%, 9%, 15% and 24%, respectively.
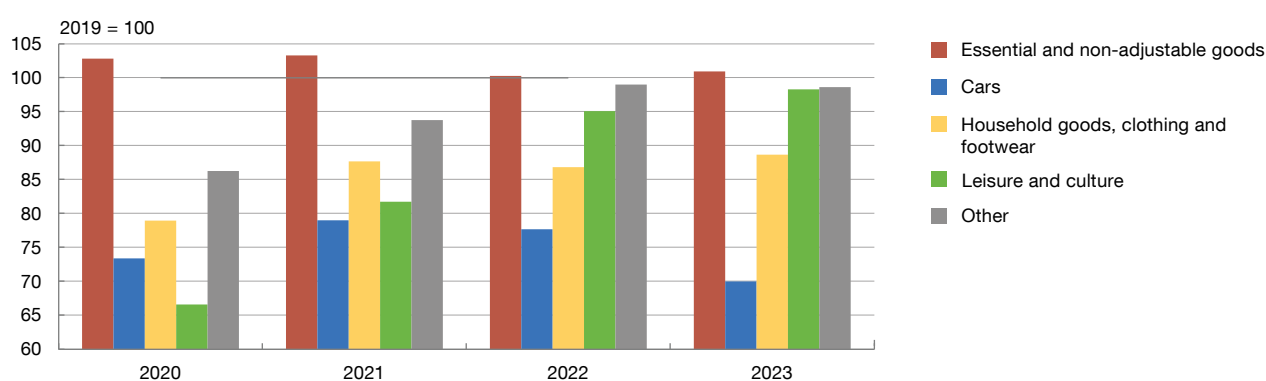
2.a Change in real consumption relative to 2019 (%) and contributions (pp)

% and pp

Legend:
- ■ Essential and non-adjustable goods
- ■ Cars
- ■ Household goods, clothing and footwear
- ■ Leisure and culture
- ■ Other
- ■ Real average household consumption

2.b Change in the components of average consumption per household

2019 = 100

Legend:
- ■ Essential and non-adjustable goods
- ■ Cars
- ■ Household goods, clothing and footwear
- ■ Leisure and culture
- ■ Other

SOURCE: Banco de España calculations drawing on micro data from the Household Budget Survey.
NOTE: The data for 2023, unlike those for prior years, are based on population figures updated for the 2021 census. This prevents strictly uniform comparisons between 2023 data and those for earlier years, until harmonised series are released.

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which were well below their 2019 figures (see Chart 2.b). By contrast, essential and non-adjustable expenditure, which logically displays greater downward stickiness than other components of the consumption basket, is the only item that in 2023 stood somewhat above its pre-pandemic levels. Spending on leisure and culture and on other items continued to show a slight negative gap relative to 2019, although some items in the other spending category, such as healthcare expenditure, already exceeded their pre-pandemic levels.

By household type, low-income households – defined as those in the lower income quartile – and those in which the reference person is older (65 and over) and/or a Spanish national, are those with the greatest convergence of their average spending to pre-pandemic levels (see Chart 3). The recovery of consumption has been particularly strong for households where the reference person is over 65, with real average spending in 2023 exceeding 2019 levels. By contrast, high-income households – defined as those in the upper quartile – and those whose reference person is between 35 and 54 or a foreign national, show larger negative gaps with respect to those levels.
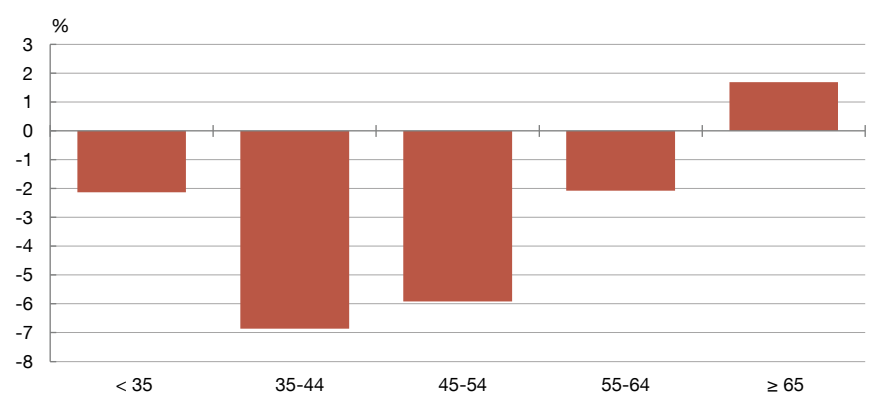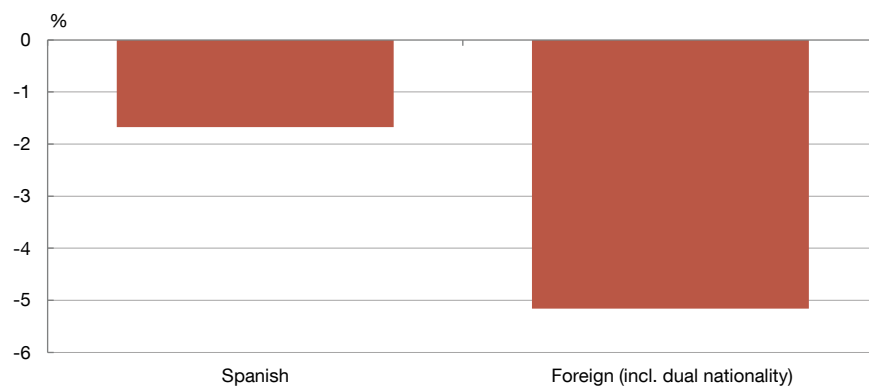
3.a By income quartile
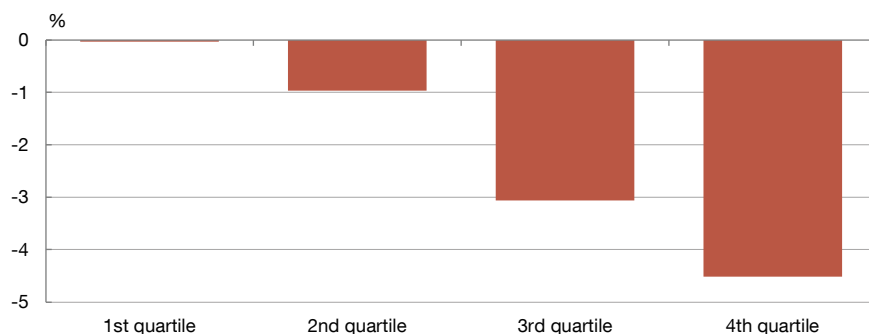
3.b By age of reference person

3.c By nationality of reference person

SOURCE: Banco de España calculations drawing on micro data from the Household Budget Survey.
NOTE: The data for 2023, unlike those for prior years, are based on population figures updated for the 2021 census. This prevents strictly uniform comparisons between 2023 data and those for earlier years, until harmonised series are released.

a Change calculated as the difference in average household consumption by income quartile, age group and nationality group between 2019 and 2023.

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4.a Contributions of the different income quartiles to the change in average household consumption between 2019 and 2023

SOURCE: Banco de España calculations drawing on micro data from the Household Budget Survey.
NOTE: The data for 2023, unlike those for prior years, are based on population figures updated for the 2021 census. This prevents strictly uniform comparisons between 2023 data and those for earlier years, until harmonised series are released.
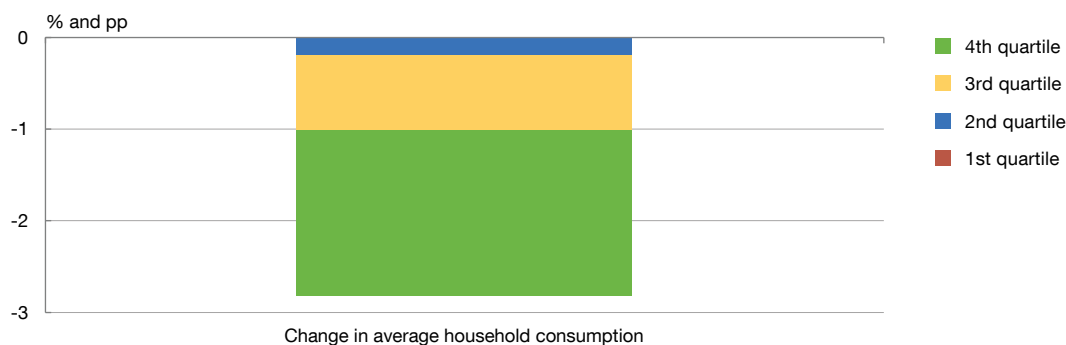
Against this backdrop, since higher-income households have higher average consumption levels, their share in average household consumption is greater than that of low-income households, whose spending levels are lower. Thus, while the 4.5% decline recorded between 2019 and 2023 in the consumption of households in the upper income quartile is nearly five times higher than that observed in the second quartile, their contribution to the fall in average consumption per household is almost ten times greater (see Chart 4).

Analysis of the determinants of the heterogeneous consumption patterns across household types

The uneven consumption developments by type of household shown in Chart 3 may be related to, first, differences in the composition of their consumption basket and, second, changes in their income during the period and their initial saving rate.[7] A priori, the scope to adjust consumption is greater among households that have a lower share of essential and non-adjustable expenditure in their consumption baskets and allocate a larger share to items that can more readily be dispensed with, such as durable goods, whose purchase can be deferred without significantly reducing utility levels.[8] As for income, one would expect changes in income to be positively related to changes in consumption, since income constitutes households' primary source of funds to acquire goods and services. Lastly, the initial (2019) saving rate, which together with income developments shapes the capacity to raise spending, may also help explain the differences in consumption patterns across household types.

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7   The Household Budget Survey does not capture data on household wealth, which is another significant determinant of consumption levels and is correlated with the household saving rate. Assuming constant income levels, households with a higher initial saving rate will, a priori, have greater capacity to raise their consumption.

8   González Mínguez and Urtasun (2015).

Table 1

Population groups: composition of the consumption basket, income growth and saving rate

	Share of non-adjustable spending (%) (a) (b)	Share of spending on cars (%) (a)	Share of spending on household items, clothing and footwear (%) (a)	Growth in average income (c) between 2019 and 2023	Saving rate in 2019 (d)
1st income quartile	57.8	2.4	7.9	1.1	-19.3
2nd income quartile	50.0	3.8	8.4	1.4	-4.6
3rd income quartile	45.8	4.9	8.8	1.2	4.1
4th income quartile	42.9	4.9	10.0	-1.9	14.5
Age of reference person: under 35	41.4	6.0	9.3	2.9	-1.6
Age of reference person: 35-44	41.6	6.2	9.9	-2.7	2.9
Age of reference person: 45-54	43.6	4.5	9.1	-4.5	1.2
Age of reference person: 55-64	47.0	4.4	8.7	1.5	4.7
Age of reference person: 65 or over	57.2	2.1	8.7	2.2	10.9
Nationality of reference person: Spanish	47.2	4.4	9.1	1.2	5.3
Nationality of reference person: foreign (incl. dual nationality)	46.4	4.3	9.4	-0.3	-2.9

SOURCE: Banco de España calculations drawing on micro data from the Household Budget Survey.

a Average in 2019. Share of total consumption.
b Non-adjustable consumption refers to spending on food, water, electricity, gas and other fuels. For owner-occupier households, equivalent rent (i.e. the rent they would pay for a comparable property if they were renting instead of owning) is included.
c Expressed in real terms.
d Average value in 2019. Income levels tend to be under-reported in the Household Budget Survey and therefore the saving rates presented in this table are likely to be lower than the true figures. In any event, the dispersion of saving rates across household groups provides insight into their variability within the sector, albeit with some margin of error.

As the data presented in Table 1 suggest, the differences in consumption developments across households with different income level or age of reference person could be explained by the composition of their consumption baskets and their income developments. For instance, lower-income households and those with a reference person aged over 64 (the groups whose consumption has increased most significantly compared with pre-pandemic levels) allocate a larger share of consumption to essential and non-adjustable goods and services, such as food and rent. These groups, together with households whose reference person is under 35, have also experienced the most substantial income growth. On the other hand, high-income households and those with a reference person aged 35-54 (whose consumption has decreased most significantly since 2019) allocate a larger share of spending to durable and semi-durable goods (more readily adjusted than spending on essentials such as food and rent) and have also experienced the least favourable income developments. Likewise, there is little compositional difference between the consumption baskets of foreign-born households and those born in Spain, but the former group's income growth has been more modest and they started out with a lower saving rate in 2019[9] (see Table 1).

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9 Income levels tend to be under-reported in the Household Budget Survey and therefore the saving rates presented in Table 1 are likely to be lower than the true figures. In any event, the dispersion of saving rates across household groups provides insight into their variability within the sector, albeit with some margin of error. For instance, as one would expect, saving rates are higher among higher-income groups and lower among households with a reference person aged under 35. Similarly, given that the under-reporting of income is relatively constant over time, the changes in income provide a reasonable approximation of the actual growth.

Determinants of the change in average household consumption (measured in real terms) between 2019 and 2023

Determinants of the change in consumption between 2019 and 2023	1	2
1 Nationality of reference person: foreign	-0.061	-0.012
2 Income quartile		
2nd income quartile	-0.023	0.023
3rd income quartile	-0.028*	0.034
4th income quartile	-0.060***	0.040
3 Age of reference person		
Age of reference person: 35-44	-0.007	-0.019
Age of reference person: 45-54	-0.001	-0.030
Age of reference person: 55-64	-0.003	-0.051
Age of reference person: 65 or over	0.007	-0.091**
4 Real income growth		0.806***
5 Share of essential and staple goods in the consumption basket		0.563***
6 Initial saving rate		0.1*
Number of observations	147	147
R^2		

SOURCE: Banco de España calculations drawing on micro data from the Household Budget Survey.
NOTE: Results from a pseudo-panel that groups households based on their income level and the age and nationality of the reference person, housing tenure status and the number of household members. ***, ** and * indicate significance at a confidence level of 99%, 95% and 90%, respectively.

Therefore, as the descriptive analyses presented in Chart 3 and Table 1 suggest, the differences observed in household spending patterns (by income level and age and nationality of the reference person) could, at least in part, owe to differences in consumption basket composition, income developments and initial saving rates. To statistically test these correlations, we have developed a panel that groups households based on shared characteristics that influence their spending behaviour.[10] In particular, the households are grouped based on income level, the age and nationality of the reference person (similar to the groupings in Table 1 and Chart 3), housing tenure status (outright ownership, ownership with a mortgage or rented) and the number of household members (five groups: one, two, three, four or five or more members). The resulting panel comprises, for each year, 147 cells defined based on these household characteristics.[11]

We apply a simple regression to establish the relationship between the change in average consumption between 2019 and 2023 in each of the cells and the household income level and the age and nationality of the reference person. The results confirm that higher-income households and those with a foreign reference person (albeit with a lower level of statistical significance) have

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10   Although respondent households are only included in the Household Budget Survey sample for a maximum of two years, by constructing a pseudo-panel we can compare the present situation with that prior to the pandemic. For more details about this methodology, see Deaton (1985). Estimation techniques that involve grouping individual data into cohorts require a sufficiently high number of observations in each cell and the cohorts must be defined as groups whose explanatory variables change differentially over time. For more details about the methodology, see Verbeek (2008). One significant limitation is the lack of time series for household data, suggesting that the results should be interpreted with caution.

11   While the initial number of cells is far higher (600), as we have noted, estimation techniques that involve grouping individual data into cohorts require a sufficiently high number of observations in each cell. For this analysis we set a minimum of 30 households per cell, resulting in a pseudo-panel of 147 cells.

experienced the slowest convergence of consumption towards pre-pandemic levels (column 1 of Table 2). By contrast, once income levels and the nationality of the reference person are taken into account, the differences by age observed in Chart 3.b disappear. In other words, the disparities in consumption developments across age groups are largely attributable to the differences in income levels and in the share of households whose reference person is a foreign national in each age group. Furthermore, when we include in the regression variables that proxy the composition of the consumption basket, income growth and the initial saving rate, the significance of the income and nationality-related variables is diminished; instead, the capacity to adjust spending (i.e. the share of non-essential consumption) and income growth are the main determinants of the post-pandemic consumption patterns (column 2 of Table 2).[12]

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12 Similarly, if we substitute the variable representing the share of essential spending in the consumption basket with the variable that reflects the share of spending on durable and semi-durable goods (cars, household goods, clothing and footwear), the results indicate stronger convergence towards pre-pandemic consumption among those groups with lower shares of such spending in 2019. Meanwhile, the relationship between income growth and consumption growth is below one, in line with the comparatively stronger growth in income than in spending across virtually all groups.