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Dominant patterns of expenditure among older people: Segmenting the older consumer using the Living Costs and Food Survey

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Policy-makers and practitioners need a good understanding of older people's expenditure and consumption to inform the design of policies and services that affect their lives. This study uses data from the 2010 Living Costs and Food Survey (LCFS) to examine and explain levels and patterns of expenditure among households headed by someone aged 50 and over. Expenditure is defined using 12 broad categories, which reflect the international standard "COICOP" classification, and is equivalised to control for household size. We report the results of cluster analysis which segments older households depending on their predominant patterns of expenditure. CHAID (decision tree) analysis and bivariate analysis are then used to understand the profile of each cluster in relation to their demographic, socio-economic and other characteristics. Based on their patterns of expenditure, six distinct clusters of older households emerge from the analysis. The findings raise important questions for policy-making in relation to the extent and nature of expenditure poverty among older consumers.

AIMS

- Describe average expenditure by age group and other key variables of interest;
- Segment older households based on their patterns of expenditure (cluster analysis);
- Interpret the clusters (descriptive/CHAID analysis).

DATA

The LCFS is a national survey of private households undertaken across the United Kingdom. It "collects information on spending patterns and the cost of living that reflects household budgets across the country" (Office for National Statistics, 2010).
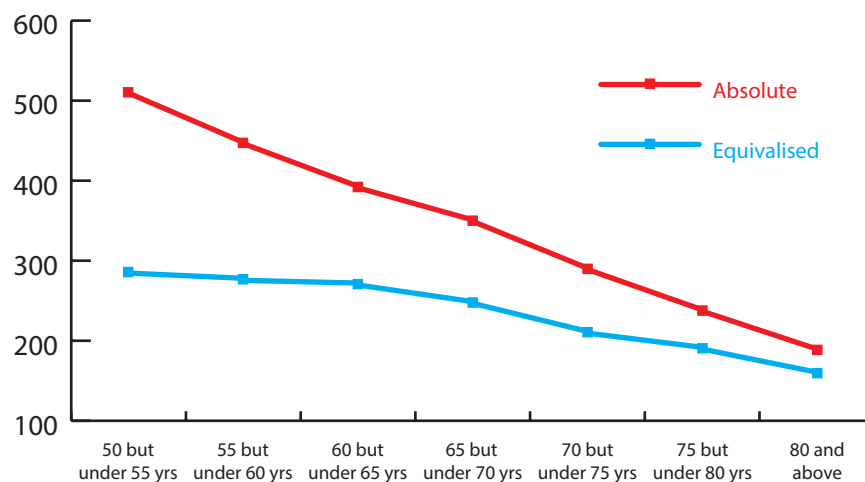
DATA CONSIDERATIONS

- Detail of expenditure unique to LCFS
- Using the 12 expenditure groups
- Household level equivalised expenditure to account for household composition
- Good sample of households aged 50+ (n = 2,931)
- Good distribution of age groups (even 80+ ~ 12% of the sample)

EXPENDITURE GROUPS

*Alcohol & tobacco
Clothing & footwear
Communication
Education
Food & non-alcoholic. drinks
Health
Household goods & services
Housing, fuel & power
Miscellaneous goods & services
Recreation & culture
Restaurants & hotels
Transport*

STEP 1: DESCRIPTIVE STATISTICS

Absolute and equivalised expenditure by age

Proportion of weekly expenditure by age (comparing 50-54 age group wth 80+ group)

- Food & non-alc. drink increases: 12% to 19%
- Housing, fuel & power doubles: 12% to 24%
- Communication constant: 3%
- Clothing & footwear halves: 6% to 3%
- Transport decreases: 18% to 7%
- Recreation drops: 16% to 11%

STEP 2: CLUSTER ANALYSIS

- Explores how types of expenditure co-vary
- Identifies dominant patterns and classifies people into segments based on these
- Cluster variate are the 12 expenditure groups
- Outliers removed
- Two stages – hierarchical/k-means cluster

The optimal solution contained 6 clusters:

Cluster (C)	Percentage in Cluster (%)	Mean weekly expenditure
Cluster 1	46	138
Cluster 2	19	228
Cluster 3	9	245
Cluster 4	11	231
Cluster 5	12	405
Cluster 6	14	392

Grand mean = £217. n = 2,769.

Drivers of cluster membership
- Highly statistically significant variations in expenditure for all 12 categories
- Three categories were particularly strong (alcohol and tobacco; clothing and footwear; housing, fuel and power)

STEP 3: INTERPRETING THE CLUSTERS

Cluster one – Conservative Consumers
Spend far below average on non-essentials (such as recreation and hotels)
- Spend £138 on average
- Transport (£18) much lower than average (£32)
- Only 47% connected to the internet
- 38% in the lowest income quartile; 60% retired
- 56% gave benefits as main source of income

Cluster two - Foodies
Very high expenditure on food (£56 compared to the average of £34)
- Spend £228 on average
- Close to average expenditure in most categories
- Half (54%) live in two-adult households
- Very few households are renting (12%, cf.25%)
- Only 18% in lowest income quartile

Cluster three - Burdened by Bills
Very high proportion of expenditure on housing costs (£4 in every £10 - twice the average)
- Spend £231 on average
- All other expenditure is relatively low
- Low transport costs (lowest petrol expenditure)
- 70% in rented accommodation (cf. 24%)
- Including 45% from a social landlord

Cluster four - Smokers
Spend £28 per week on tobacco products
- Spend £245 on average
- Very high spend on alcohol and tobacco (£36 per week/15% of total expenditure, cf. 3%)
- One of the 'younger' clusters (62% under 65)
- Home-ownership is relatively low (42% cf. 54%)

Cluster five - Recreation and Clothing (R&C)
At £65 each week, these fashionistas spend more on clothing than all the other groups combined!
- One of the two high-spending clusters (£392)
- High spend on recreation (£65) & transport (£53)
- Only 21 per cent of this cluster are 70 and above
- Two-thirds live in larger houses (6+ rooms)
- Half of cluster in highest income quartile

Cluster six - The Socialites
Enjoy the finer things in life, spending £131 per week on eating out, holidays and recreation
- One of the two high-spending clusters (£405)
- Spend £96 on transport costs (24% cf.15%)
- Three quarters under 65; 41% working full time
- More than half in highest income quartile
- 90% of households connected to the internet

KEY DETERMINANTS

CHAID analysis identified three important characteristics of cluster membership
- Tenure: 97% of Socialites were homeowners (*Compared with 29% of Burdened by Bills*)
- Age: 40% of Smokers aged under 60 (*Compared with just 26% of Conservative Consumers*)
- Income: 7% of R&C in lowest income quartile (*Compared with 39% of Burdened by Bills*)

WHAT DOES THIS RESEARCH TELL US?

Equivalised expenditure decreases with age but other factors such as tenure and income are important. As a result, there appear to be six dominant patterns of expenditure across the categories of expenditure which do not neatly map by age. It demonstrates clearly that there is no such thing as 'the older consumer' but that older consumers are characterised differently depending on their preferences, their resources and other factors such as their mobility and independence.

Even so, the steady decrease in expenditure with age tells us that there are some age-related factors. The younger profile of the smokers and, conversely, the finding that high spending on smoking did not persist into later life suggests that the smokers as a group will not age, either because they stop being smokers or because of poor morbidity. Also, housing costs and housing poverty is a key factor in the wellbeing of older households, distinguishing the 'haves' from the 'have nots'.

However, Conservative Consumers are a diverse group and need unpacking further to understand why they spend comparatively little, and whether these constraints are positive or negative. The true effect of ageing vs. generational effects also remains unclear from this analysis.

Endnotes

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David Hayes is an experienced social scientist, specialising in quantitative methodology and analysis. He currently works as a Research Associate for the Personal Finance Research Centre at the University of Bristol. David has extensive experience of analysing large-scale survey data, using a range of techniques including multilevel modelling and cluster analysis, and has particular expertise in logistic regression analysis and the design, administration and analysis of quantitative surveys. His current primary fields of research include financial wellbeing among older people, financial education and the wider wellbeing and quality of life among the older population.

David is currently a co-investigator on a major UK Economic and Social Research Council project that uses secondary analysis of numerous quantitative and qualitative datasets to evaluate patterns of financial wellbeing among older people.

About the Personal Finance Research Centre (PFRC)

Established in 1998, PFRC is an independent research centre based at the University of Bristol, which specialises in social research across all areas of personal finance, mainly from the consumer's perspective. Currently, much of our work focuses on:

• Financial confidence, capability and wellbeing.
• Money management and decision making.
• Financial exclusion and inclusion.
• Credit use and over-indebtedness.
• Saving and retirement planning.

PFRC applies a wide range of research methods in a rigorous and innovative way, often to address complex or challenging research questions. Our team has expertise in:

• Survey design.
• Evaluation research.
• Quantitative data analysis.
• Qualitative research methods.
• Literature and evidence reviews.
• Methodological studies and index construction.

Our interdisciplinary team combines extensive empirical research skills with a detailed understanding of a range of social policy issues.
Much of our work is undertaken to meet a demand from policymakers, the financial services industry and other stakeholders for high-quality, independent and policy-relevant research that both addresses and enhances our understanding of key personal finance issues.

Our work is influential in shaping public policy, and we regularly provide technical and policy advice to government departments and others. Through our research, consultancy and advisory work, PFRC acts as a bridge between the academic and research community, the financial services industry, policymakers and other stakeholders.