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# HOUSEHOLD EXPENDITURE IN MALTA AND THE RPI INFLATION BASKET

## BOX 2: HOUSEHOLD EXPENDITURE IN MALTA AND THE RPI INFLATION BASKET<sup>1</sup>

In early 2018, the National Statistics Office (NSO) published the results of the latest Household Budgetary Survey (HBS) that was carried out between April 2015 and March 2016. The primary scope of the HBS is to illustrate patterns in household expenditure, although data is also collected on household characteristics, income and dwellings. Data on households' expenditure patterns collected from the HBS are also used to derive the weighting frame of the RPI and in the compilation of Malta's national accounts.

The first full-scale HBS was held in 1971. This was followed by additional surveys in 1988, 1994, 2000 and 2008. The 2015-2016 HBS was conducted among a net sample of 3,691 private households, chosen by means of systematic random sampling from the register of dwellings, which is in turn based on the 2011 Census of Population and Housing.<sup>2</sup>

### Overview

Table 1 gives an overview of net household income and expenditure trends derived from the last four HBSs. Net household income has risen consistently since 2000, reaching an average of €26,610 in 2015.<sup>3</sup> Most of the increase occurred in more recent years, with nominal net income rising by 28.6% between 2008 and 2015. Economic factors, such as activity growth and a strong pace of job creation, as well as social factors, such as the increase in households with multiple breadwinners, have all contributed to this rise.

In terms of outlays, total household expenditure stood at €22,344 in 2015, representing a 14.1% increase when compared with 2008. Given that growth in income was much higher than in expenditure, the savings ratio increased over this period, reaching 16.0% of net income.

**Table 1**  
**OVERVIEW OF HOUSEHOLD INCOME AND EXPENDITURE<sup>(1)</sup>**

*Annual averages (EUR)*

	1994	2000	2008	2015
Net Income <sup>(2)</sup>	-	19,111	20,695	26,610
Expenditure	9,099	17,891	19,575	22,344
<b>Implied Saving Ratio (%)</b>	-	<b>6.4</b>	<b>5.4</b>	<b>16.0</b>

<sup>(1)</sup> Figures may differ marginally from the HBS due to rounding and the conversion of LM figures to EUR.

<sup>(2)</sup> The 1994 HBS did not collect data on net income.

Source: Household Budgetary Survey (NSO).

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<sup>2</sup> See NSO (2015), "Household Budgetary Survey Malta 2015" (available at <https://nso.gov.mt/en/nso/Media/Salient-Points-of-Publications/Pages/Household-Budgetary-Survey-2015.aspx>) and [https://nso.gov.mt/en/nso/Sources\\_and\\_Methods/Unit\\_C1/Living\\_Conditions\\_and\\_Culture\\_Statistics/Pages/Household-Budgetary-Survey.aspx](https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_C1/Living_Conditions_and_Culture_Statistics/Pages/Household-Budgetary-Survey.aspx).

<sup>3</sup> Net household income includes salaries, interest and dividend income, social benefits and subsidies, and any other form of earnings, net of tax and national insurance contributions. In surveys of this type household income may be under-declared.

These figures suggest that Maltese consumers responded to the upturn in economic activity during the 1990s by strongly increasing their consumption of goods and services.<sup>4</sup> Growth in consumer expenditure slowed sharply between 2000 and 2008. This period was characterised by more subdued growth in domestic activity, weak growth in household net income, and global economic and financial uncertainties. The slowdown in household expenditure over this period could also have reflected some level of saturation among consumers, following the rapid increase in private consumption in the previous decade. Social factors, such as an ageing population and a reduction in household size, could also have held back average household expenditure.<sup>5</sup>

In the period between 2008 and 2015 household expenditure growth picked-up slightly, though at a relatively slow pace when compared with growth in net income. Consequently, the saving ratio increased significantly. In part, this could have reflected a diversification of consumer portfolios away from consumption and towards investment, with the period characterised by an upturn in the property market and historically low interest rates.

### Expenditure patterns in Malta

Table 2 shows how consumer spending patterns have changed since the 1994 HBS. The largest component of nominal household expenditure has consistently been the food, beverages, and tobacco component. As at 2015, this component took up 22.2% of household consumption expenditure. Slightly more than half of this food budget was spent on just

**Table 2**  
**HOUSEHOLD EXPENDITURE SHARES BY MAIN ITEM<sup>(1)</sup>**

*Percentage of annual average household expenditure*

	1994	2000	2008	2015
Food, Beverages, and Tobacco	37.3	23.8	24.9	22.2
Restaurants and Hotels <sup>(2)</sup>	-	7.0	7.1	8.3
Clothing and Footwear	10.1	8.3	7.1	7.9
Housing and Energy	7.8	9.0	8.4	8.4
Transport and Communication	16.0	19.4	17.8	18.8
<i>of which: Transport</i>	-	16.5	13.8	14.5
<i>of which: Communication</i>	-	2.9	4.0	4.3
Education, Recreation, and Culture	8.3	11.2	10.2	10.6
<i>of which: Education</i>	-	1.2	1.7	2.8
<i>of which: Recreation and Culture</i>	-	10.0	8.5	7.8
Household Equipment and Maintenance	9.3	10.6	8.9	7.4
Health	6.5	3.0	6.4	5.6
Miscellaneous	4.7	7.7	9.2	10.8
<b>Annual Household Expenditure (€)</b>	<b>9,099</b>	<b>17,891</b>	<b>19,575</b>	<b>22,344</b>

<sup>(1)</sup> Figures may differ marginally from the HBS due to rounding and the conversion of LM figures to EUR. Due to differences in expenditure classification, figures for 1994 may not be directly comparable with other years.

<sup>(2)</sup> Expenditure on restaurants in the 1994 HBS was classified as part of Food, Beverages, and Tobacco.

Source: Household Budgetary Survey (NSO).

<sup>4</sup> See Grech (2015), "[The evolution of the Maltese economy since independence](#)", Central Bank of Malta, Working Paper WP/05/2015.

<sup>5</sup> Between 2000 and 2008, the number of single/separated/widowed households had risen from 23.9% to 29.4% of total households.

three categories, namely meat and fish, bread and cereals, and eggs, dairy and fats. In the case of meat and fish in particular, this could partly reflect higher relative prices.

Nonetheless, the share of food and beverages has dropped when compared with previous surveys. As incomes increase and the natural limit on consumption of basic necessities is reached, consumers tend to spend their additional cash on leisure goods and services. Indeed, the share of consumer spending on restaurants and hotels, which mainly consists of the former, increased between 2008 and 2015, suggesting a tendency for people to eat out more frequently.

Over the years, the second largest component of household spending has been transport. Most of this expenditure consists of purchases of motor vehicles and transport fuels, though spending on transport services, which includes air transport, has also increased in recent years.

Meanwhile, the share of spending on dwelling-related expenses fell in 2015 when compared with 2008. In particular, consumers have spent a lower share of their income on household goods, such as furniture, appliances, and non-durable household goods. At the same time, the share of spending on housing and energy, which primarily consists of utilities and household maintenance, remained constant between 2008 and 2015, despite higher prices for energy in 2015 when compared with 2008.<sup>6</sup>

Similarly, the share of spending on recreation and culture has fallen gradually since 2000. This component, which consists of a number of diverse categories, has in part been impacted by trends away from items such as package holidays and printed materials. With regard to clothing and footwear, expenditure shares are currently smaller when compared with the 1994 and the 2000 HBSs, possibly reflecting cheaper prices for imported items and online shopping. On the other hand, the share of expenditure on communication, particularly services such as internet and mobile telephony, has increased, though it remains small.

At the same time, spending on education remains small relative to other components, mainly mirroring the provision of free education across all levels by the State. Spending on health, which is also provided for by the State, is slightly higher than that on education, mainly due to expenditure on medicines.

The “miscellaneous” component, whose share has steadily increased in recent years, is in its majority composed of two sub-categories, namely personal care and personal artefacts, and financial and insurance services.<sup>7</sup> In particular, spending on personal care, which includes hairdressing and personal grooming, represented one of the largest consumer outlays in 2015 (see Table 3 below).

<sup>6</sup> The average RPI index for water, electricity, gas and liquid fuels was 20.2% higher in 2015 when compared with 2008. Electricity prices were increased in 2008 and in 2010. They were then reduced in 2014, though not enough to offset both the previous two increases. Since 2008 the increase in prices reflected the end of subsidies on water and electricity rates.

<sup>7</sup> In earlier years of the HBS, the “miscellaneous” component contained non-durable household items which are now classified as “household” expenditure. On the other hand, expenditure on personal care, previously classified as “health”, is now classified in the “miscellaneous” component.

**Table 3**  
**EXPENDITURE BY SUB-ITEM<sup>(1)</sup>**

*Categories ranked by highest annual average household expenditure as at 2015*

	EUR	% Change from 2008	% of Total
Catering Services	1,748	+ 37.6	7.8
Garments (incl. related services)	1,254	+ 26.4	5.6
Meat & Fish	1,206	+ 4.5	5.4
Vehicles	1,187	+ 48.7	5.3
Transport Fuels and Lubricants	1,155	+ 12.9	5.2
Hairdressing and Personal Care	946	+ 3.1	4.2
Communication Services	850	+ 17.1	3.8
Transport Services	848	+ 29.9	3.8
Water, Electricity, Gas and Liquid Fuels	819	+ 23.5	3.7
Eggs, Dairy and Fats	729	- 1.6	3.3
Bread & Cereals	727	- 10.2	3.3
	<b>11,469</b>	<b>+ 17.7</b>	<b>51.3</b>

<sup>(1)</sup> Figures may differ marginally from the HBS due to rounding.

Source: Household Budgetary Survey 2015 (NSO).

Table 3 gives a more disaggregated analysis of household consumption expenditure. It shows that in 2015, slightly more than half of total consumer outlays were spent on just eleven sub-items. In line with the picture given by Table 2, a number of food items appear in the list, such as meat and fish, bread and cereals, and eggs, dairy and fats. Additionally, spending on catering services, closely linked with food consumption, tops the list, making it the largest single source of expenditure for Maltese households in 2015.

A number of items related to transport are also included in this list, particularly motor vehicle purchases, and transport fuels. Taken together, these two components amount to an annual average spend of €2,342 per household on personal transport. Other notable outlays include spending on clothing and on hairdressing and personal care.

An analysis of the changes in expenditure since 2008 underlines the impact of the improvement in the standard of living and incomes during this period. The strongest increases are observed in goods that would normally be considered as leisure goods, such as vehicles (+48.7%), catering services (+37.6%), garments (+26.4%), and transport services (29.9%), which is mostly made up of air transport. Within the food component, spending on “cheaper” items such as bread and cereals (-10.2%) and eggs, dairy, and fats (-1.6%) has fallen, while spending on the more luxurious meat and fish (+4.5%) category has increased. At the same time, the increased expenditure on utilities (+23.5%) mirrors the increase in the RPI index for the water, electricity, gas, and liquid fuels component (20.2%) during the period.

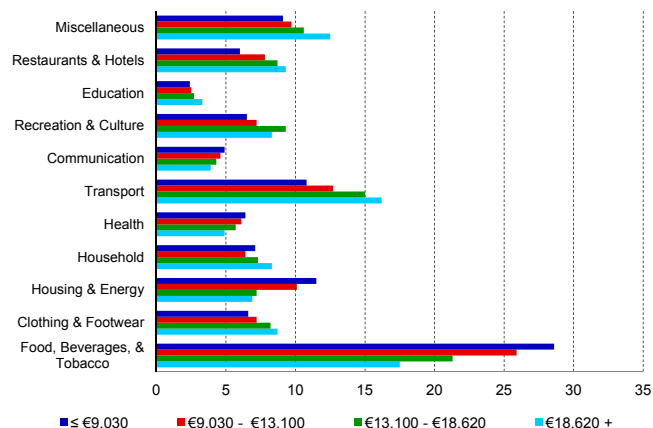
### **Determinants of household expenditure**

Expenditure patterns can differ across households depending on a number of demographic and economic factors, such as income, age, and household size.

Analysing household expenditure by equivalised household disposable income for 2015 highlights the importance of the standard of living in determining spending trends (see

Chart 1).<sup>8</sup> The higher the household income, the lower the share of spending on necessities such as food and beverages, health, and housing and energy. On the other hand, spending shares on leisure items, such as restaurants & hotels, clothing & footwear, and transport (which mainly comprises personal transport and air fares) increase as incomes rise.

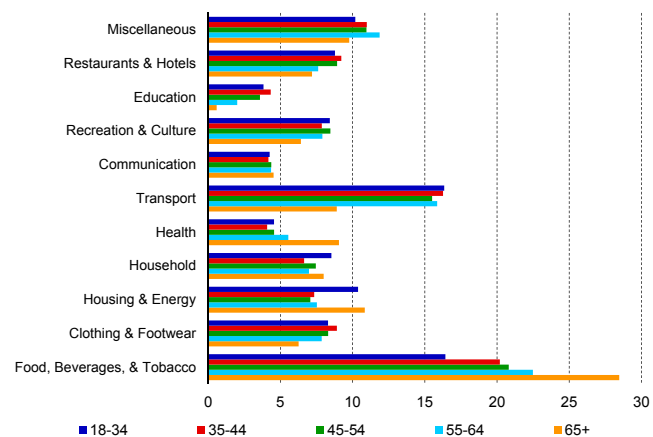
**Chart 1**  
**EXPENDITURE BY EQUIVALISED HOUSEHOLD DISPOSABLE INCOME**  
(% of total annual average expenditure)



Sources: HBS 2015 (NSO); Central Bank of Malta calculations.

Chart 2 depicts expenditure shares by age of the reference person in the household. Notably, higher spending shares on leisure goods and services is associated mainly with the younger cohort, which spends relatively more on restaurants and hotels, recreation and culture, transport, and clothing and footwear. For elderly persons (65+), significant portions of their budget are spent on food and beverages, housing and energy and health. This partly reflects the fact that elderly persons tend to have a lower income (mainly pension income) than the working age population, and hence have less to spend on leisure goods and services.

**Chart 2**  
**EXPENDITURE BY AGE OF REFERENCE PERSON**  
(% of total annual average expenditure)



Sources: HBS 2015 (NSO); Central Bank of Malta calculations.

With regard to household size, larger households tend to spend higher shares on transport, clothing and footwear, recreation and culture, and education (see Chart 3). This is in line with the assumption that a larger household size would indicate the presence of children. On the other hand, smaller households tend to spend more on food and beverages, health, housing and energy, and restaurants and hotels. This category would include elder

<sup>8</sup> The equivalised disposable income is the total disposable income of a household divided by the number of household members converted into equalised adults using a scale established by the OECD.

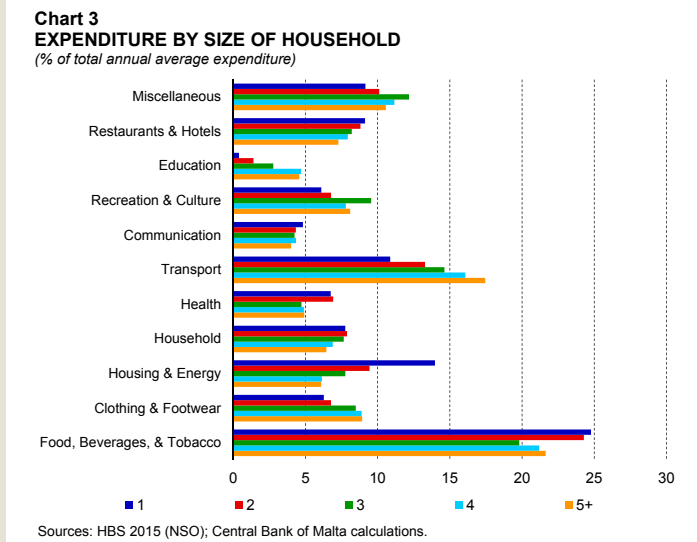
households, which tend to be smaller in size, and also younger households such as newly married couples and single parents, hence leading to a mixture in the consumption basket between necessity and leisure items.

### The RPI basket

One of the main implications of the HBS is that it acts as the basis for the weighting system of the RPI, as it determines the

importance of each item in the basket of goods and services used to compile the RPI.<sup>9</sup> In January 2017, the NSO updated the weights used in the RPI with the results of the HBS 2015 (see Table 4).

In general, changes in the RPI weights mirror the trend in expenditure shares shown in Table 2.<sup>10</sup> Taken together, food and beverages remain the largest subcomponent in the RPI basket, albeit with a declining share, while transport and communication form the second largest subcomponent. Items that have steadily increased their weight over the years include transport and communication, and personal care and health, reflecting changes in the spending patterns of Maltese households observed in the HBS.



**Table 4**  
**RETAIL PRICE INDEX - COMPONENT WEIGHTS**

% of basket

	1971/72	1980/81	1988/89	1994	2000/01	2010	2017
Food	40.1	41.9	36.8	29.9	23.8	21.2	21.5
Beverages and Tobacco	10.3	9.5	8.6	7.3	6.1	6.1	5.6
Clothing and Footwear	11.9	10.6	8.2	10.1	8.2	7.4	6.6
Housing	3.7	4.0	3.9	5.3	7.6	7.6	7.9
Water, Electricity, Gas and Fuels	2.9	3.1	2.8	2.5	2.3	3.4	3.3
Household Equipment and Maintenance	6.1	6.2	5.2	9.3	7.7	6.6	7.0
Transport and Communication	9.4	9.9	13.4	16.0	23.1	22.8	22.1
Personal Care and Health	4.8	5.6	6.4	6.5	6.2	8.6	8.8
Recreation and Culture	6.6	4.9	8.3	8.3	8.8	9.3	9.9
Other	4.3	4.4	6.4	4.7	6.2	7.1	7.3

Source: NSO.

<sup>9</sup> See NSO (2008), "The Retail Price Index in Plain Language".

<sup>10</sup> Some slight differences can be observed between the household expenditure shares in Table 2 and the RPI weights in Table 4. This can be attributed to some differences in the classification of items between the HBS and the RPI. For example, expenditure on restaurants is classified as "Food" in the RPI and under "Restaurants and Hotels" in the HBS.

## The RPI and the HICP

Apart from the RPI, Malta's most commonly used index of consumer price inflation is the HICP. These two indices, though both acting as a measure of consumer prices, have a slightly different methodology and purpose.<sup>11</sup>

The RPI is primarily based on a household consumption basket derived from the household spending patterns established in the HBS. It is widely used domestically for the adjustment of wages and rents, as it acts as a barometer for the cost of living. On the other hand, the HICP is primarily aimed at producing a measure of inflation that is harmonised across European Union Member States. Indeed, it is the inflation measure used by the European Central Bank in its monetary policy decision-making process.

The main dissimilarity between the RPI and the HICP is in their respective consumption baskets. While the RPI covers consumption expenditure incurred by Maltese residents, with item weights based primarily on the HBS, the HICP covers total household consumption expenditure, irrespective of nationality or residence status. Hence, the HICP also takes into account expenditure by foreigners in Malta, giving it a slightly different weighting structure. As a result, the HICP basket includes items, such as accommodation services, that are not part of the RPI basket. Furthermore, due to the availability of national accounts data, HICP weights are updated annually, while RPI weights can only be updated once a new HBS is held. Prior to 2017, the RPI weights had last been updated in 2010.

One issue that arises when comparing the baskets of the two indices is the difference in the classification of items. While the RPI is divided into the ten divisions shown in Table 4, the HICP is divided into twelve sections drawn from the "Classification of Individual Consumption by Purpose" (COICOP). In order to eliminate this difference and enable a direct comparison of the two consumption baskets, Table 5 uses disaggregated RPI data to classify the RPI basket items into the twelve COICOP divisions used in the HICP.<sup>12</sup>

Using this classification for 2017, when the new RPI weights were introduced, the differences in the two consumption baskets become clearer. In terms of the RPI, larger weights are given to those subcomponents more frequently purchased by resident households, such as food and non-alcoholic beverages, transport, and housing and energy. On the other hand, the HICP, which also takes into account consumption by foreigners in Malta, has higher weights for restaurants and hotels, alcohol and tobacco, and recreation and culture. Indeed, the change in HICP weights since 2010 (when the RPI weights were last updated) partly highlights the large increase in foreign expenditure in Malta during the period, with higher weights for subcomponents linked to the tourism sector, such as restaurants and hotels, and alcohol and tobacco.

Apart from the COICOP classification, the subcomponents of HICP are regularly divided using the "Main Industrial Grouping" (MIG) classification. Table 6 compares the HICP weights for 2017 with estimated RPI weights, based on this MIG classification. In this case, the main difference between the two baskets is the larger weight given to services in the

<sup>11</sup> See NSO (2008), "The RPI and the HICP".

<sup>12</sup> The RPI weights shown in Tables 5 and 6 are Central Bank of Malta estimates. Any official use of the RPI should be based on the weights published by NSO, shown in Table 4.



**Table 5**  
**HICP AND RPI WEIGHTS (2017) – COICOP CLASSIFICATION**

*% of basket*

	%		Change (2010-2017)	
	HICP	RPI	HICP	RPI
Food and Non-Alcoholic Beverages	16.6	17.4	-0.7	-0.2
Alcohol and Tobacco	3.8	2.6	0.4	-0.2
Clothing and Footwear	5.7	6.6	-0.7	-0.8
Housing and Energy	8.3	11.0	-0.2	0.2
Household Equipment and Maintenance	7.8	9.4	-0.3	0.5
Health	4.4	4.7	0.4	0.1
Transport	14.0	16.6	-0.4	-0.3
Communications	3.8	5.5	-1.2	-0.4
Recreation and Culture	10.2	9.0	0.3	0.4
Education	1.8	1.8	0.3	0.3
Restaurants and Hotels	16.3	7.0	1.3	0.2
Miscellaneous	7.5	8.4	0.7	0.3

Sources: Eurostat; Central Bank of Malta estimates.

**Table 6**  
**HICP AND RPI WEIGHTS (2017) – MIG CLASSIFICATION**

*% of basket*

	%		Change (2010-2017)	
	HICP	RPI	HICP	RPI
Unprocessed Food	7.4	7.7	-0.2	0.0
Processed Food	12.9	12.4	0.0	-0.5
Energy	6.6	7.4	0.3	-0.1
Industrial Goods excl. Energy	28.9	38.9	-2.8	0.5
Services	44.2	33.6	2.7	0.0

Sources: Eurostat; Central Bank of Malta estimates.

HICP index, while the RPI attributes a larger weight to industrial goods excluding energy (NEIG). Again, this highlights the different coverage of expenditure between the two indices. While NEIG is mainly composed of items that would normally be purchased by resident households, such as household equipment and clothing, services include items linked to the tourist industry, such as restaurants, hotels, and cultural services.

## Conclusion

The aim of this article is to provide an analysis of household expenditure patterns in Malta. According to the HBS 2015, food and beverages, and transport and communication remain the largest sources of expenditure by resident households, making up over 40% of total expenditure. This is also confirmed when using a more disaggregated approach, with large outlays focussed on items such as restaurants, personal transport, transport fuels and a number of food items. However, expenditure patterns are more diverse when households are split by demographic characteristics, with factors such as age, size of household, and household income playing an important role in determining the expenditure pattern of households. These expenditure patterns are then reflected in the weighting system of the RPI, which, along with the HICP, is the most commonly used measure of price inflation in Malta.