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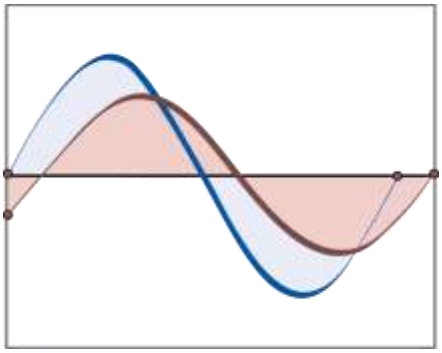

Inflation Across Different Groups In Trinidad and Tobago

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The Inflation in Trinidad and Tobago over the past decade has been volatile in large part due to changes in the price of food items. This paper recognizes that inflation would be variably transmitted across income groups because of the differences in their respective consumption patterns. Thus this study will examine the consumption patterns across different household groups to assess how it affects the inflation experienced. For the purposes of this analysis, data from the Household Budgetary Survey 2008/2009 is used to calculate a reweighted retail price index, using consumption across different groups over the period January 2007 to March 2015. The results reveal that the highest inflation pass through occurs in those households falling into the lower income categories, households with 4 or more children, households living in squatted accommodation and instances where the head of the household has no formal education and is unemployed. The results also indicate that the age and gender of the head of the household, as well as the size of the household do not significantly influence the level of inflation faced. Notably, the differential between the various groups is reduced at lower rates of inflation.

JEL Classification: E32, D12

Keywords: Inflation, Household Expenditure, Trinidad and Tobago

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1. Introduction

The year-on-year inflation rate in Trinidad and Tobago has fluctuated dramatically over the period 2008-2015, ranging from near zero to double digit figures. While the inflation rate was rarely stable in its trajectory, there were two noticeable patterns which emerged over the period. Firstly, over the period January 2008 – July 2012, headline inflation (year-on-year) experienced highly volatile and uncertain movements with sudden and steep peaks followed by shallower troughs (see Chart 3). In the months following, inflation fluctuated within a much narrower band and was less pronounced in its changes, albeit with greater frequency. Much of this volatility can be placed at the doorsteps of food inflation, as core inflation (headline inflation excluding food inflation) has been relatively constant between 2 and 3 per cent. The movements in food inflation have been largely driven by changes in the price of fruits and vegetables.

The Index of Retail Prices (RPI) is used to monitor price changes of a wide range of goods and services within the local economy. Prices changes are captured through monthly surveys of prices across the fourteen regional corporations of Trinidad and the island of Tobago. However, the rate of headline inflation is an average representation of a basket of price changes based on consumption patterns from the most recent Household Budget Survey. The weights used in deriving the inflation rates for the period 2008 to March 2015 were based on the 1997/1998 Household Budgetary Survey (from March 2015 the Index of Retail Prices has been rebased using the expenditure patterns from the 2008/2009 Household Budgetary Survey).

Two considerations must be applied when analysing and interpreting inflation data. The first is that the methodology of the RPI does not have measures to deal with the substitution effects within the selected basket of goods; meaning that the composition of the basket is left unchanged until the index is rebased (usually every 10 years). Secondly, and related to this paper, the RPI represents purchases of the average consumer and thus differing purchasing patterns across the various income brackets is subsumed within the announced inflation rate. Macroeconomic theory treats inflation as an average measure being faced by all households and thus, applies a broad based approach to the impact of price pressures in the respective economy (Hobijin & Lagakos, 2003).

The inflation rate, both actual and anticipated, can be used to guide the implementation of monetary policy. In addition, while labour contracts in Trinidad and Tobago are not inflation indexed, one of the arguments put forward for wage increases by trade unions is the rising cost of living. Also, the country offers various social welfare programs including, the Targeted Conditional Cash Transfer Programme (more commonly called the Food Card programme) – where qualifying families receive financial assistance based on the size of the family for the purchase of food items, to ensure that their nutritional needs are met[1].

For some the reported inflation rate may not reflect the reality of price changes and its impact on the target groups within society. Such a condition is quite common, for example, a recent article on inflation in India noted that while the reported inflation rate was falling, households indicated that they were not seeing evidence of this as the price of education, food, and medicines remained high[2]. An assessment[3] of inflation in the US indicated for the majority of the months during 2000-2013 inflation was higher for those in poverty. One contributor to this was the higher cost of accessing financial services for the poor. Such claims have also been heard in Trinidad and Tobago – with the question often being asked in the context of the validity of the inflation numbers emanating from The Central Statistical Office (CSO) and The Central Bank.

The issue of inflation, and its subcomponents of core and food inflation, have been well investigated in Trinidad and Tobago from the reasons for food inflation (Primus *et al*, 2011) to import price transmission (Mahabir *et al*, 2013). However these papers have all looked at the reported headline, food and core inflation rates. Information on inflation rates by region is available from the CSO, though this data is only occasionally reported in publications. These indices suggest that Tunapuna, Rio Claro and Tobago have on average the lowest inflation rate, with the latter two regions also having the lowest average monthly income in the country[4].

This paper seeks to use the information from the 2008/2009 Household Budgetary Survey to calculate the inflation rates faced by distinct groups in society. Knowledge of the different inflation rates can be useful in assessing the applicability of programs, such as the Food Card, in measuring poverty in different groups and in understanding inflation expectations. The next section will provide a review of similar studies on the topic at hand. This will be followed by a description of the data and methodology employed in the analysis. The results are then presented, with the final section containing the conclusions and policy implications.

[1] Under the Food Card programme a household of 1 – 3 persons receives $410.00, 4 – 5 persons - $550.00, and 6 + persons - $700.00.
[2] http://in.reuters.com/article/2015/08/10/india-inflation-idINKCN0QF03U20150810
[3] http://www.economist.com/news/united-states/21663262-why-low-income-americans-often-have-pay-more-its-expensive-be-poor
[4] The regional inflation rates uses prices captured in the specific region.

2. Literature Review

Inflation rates in different groups have been of interest in both advanced and emerging economies. In some countries such as the UK for example the reporting of inflation faced by different groups is a regular occurrence. Within the Caribbean there seems to be a void of published literature on income/group specific inflation rates. Papers on inflation in the region tend to focus on the main determinants of inflation and macroeconomic impacts of inflation on domestic activity and competitiveness (in relation to exchange rate movement).

In all the studies reviewed on the topic there existed an inflation differential among the various households based on income categories. Betancor and Pincheira (2014) in examining the inflation rate among 10 different income groups in Chile found that the official inflation rate was more representative of households in the seventh and eighth decile of incomes earned. In fact, the further away income levels were from these groups the less representative was the inflation rate. Jacobs, Perera and Williams (2014) in looking at Australian households similarly noted that low income households have a slightly higher inflation rate than high-income households. In one early study, Lieu, Chang and Chang (2004) in looking at Taiwan for 1991-1996 found an inverse relationship between the inflation rate and the income level, with the inflation rate faced by poorest group being 0.15 per cent higher than the general inflation rate.

Other household characteristics which are investigated in the literature include source of income, housing tenure, family structure, age and location. Idson and Miller (1999) looked at the inflation rate in the US over the period 1968-1987 by family type – those with and without children. They found that households which include children spent more on food, clothing, and transportation, and less of their budgets on medical care and housing. Idson and Miller (1999) estimated that on average families with children experienced relatively lower inflation rates than families without children. Fessler and Fritzer (2013), in looking at the inflation rates across different groups in Austria, found that household level inflation increased as the size of the municipality in which they were living increased. The authors also found that single person households had the highest inflation rate, with inflation falling the larger the household size. By looking at the type of residence, they found that owners of the main residence had the lowest inflation, while renters had a higher inflation rate. By age, Fessler and Fritzer (2013) found a U shaped pattern, with inflation rates higher where the main earner is very young or retired. Looking at occupation, they found that inflation is highest among the unemployed and the retired, while farmers have the lowest inflation rate. O'Dea (2009) noted that in the UK households with a higher inflation rate than the average rate are those which can be classified as renters, owners-outright, older households, poorer households and single adult households. Jacobs, Perera and Williams (2014) also looked at different categories of households in Australia; they note that in the short term, households with mortgages have a higher inflation rate when interest rates increase. In addition, households where the main income is government pension or other

government transfers face greater inflationary pressures than those earning an income. Similarly, single person households have a higher inflation rate than families and renters have a higher inflation rate than homeowners. The rate of inflation facing senior citizens (age over 65) is also heightened when compared to households comprised persons of working age.

The different inflation rates experienced by the various groups can also result in the various groups having different inflation expectations. Johannsen (2014) in looking at the inflation differential across household in the US found that demographic groups with greater dispersion in experienced inflation also disagreed more about future inflation. Menz and Poppitz (2013) noted that in Germany, households with low income, young households and the unemployed have higher inflation expectations. These groups also tended to experience higher levels of inflation.

3. Methodology, Data and Results

The most recent household level consumption data that is available for use in this study is from the 2008/2009 Household Budgetary Survey (HBS 2008/2009). According to the CSO the data was collected over 12 months, with a 14 day diary used to collect information on consumption of 483 items covering food and non-alcoholic beverages, alcoholic beverages, tobacco and certain purchases in restaurants and hotels. The HBS also covered expenditure on over 500 goods and services. The categories covered housing, clothing, medical items and services, transport, communication, education, recreation and miscellaneous items. The questions cover a wide range of purchases from how much you spend on onions, on parts for your motor vehicle, to expenditure on scuba gear and cruises. The initial sample size was 7,680 households, and the realized sample size was 7,090. Information on the spending patterns of the households in the 12 categories of consumption is used to calculate the weights to derive the household level inflation.

Table 1: Expenditure Weights

	CSO Weights From 1997/1998 HBS	Author Calculated Weights from the 2008/2009 HBS
All Items	1000.00	1000
Food And Non-Alcoholic Beverages	180.00	170.76
Alcoholic Beverages And Tobacco	25.00	8.58
Clothing And Footwear	53.00	58.98
Housing, Water, Electricity, Gas and Other Fuels	262.00	270.97
Furnishings, Household Equipment And Routine Household Maintenance	54.00	66.96
Health	51.00	41.05
Transport	167.00	146.28
Communication	41.00	44.60
Recreation And Culture	85.00	69.04
Education	16.00	11.42
Hotels, Cafes And Restaurants	30.00	25.31
Miscellaneous Goods And Services	36.00	86.05

Sources: The Central Statistical Office and Author's calculation.

In Trinidad and Tobago the inflation rate produced by the CSO, has historically been calculated as a Laspeyres price index[5]. Following Lieu, Chang and Chang (2004) the household price index for the h^{th} household in time t can be expressed as

$$PI_t^h = \sum_i \frac{Q_{i0}^h P_{it}}{\sum_{i=1}^n Q_{i0}^h P_{i0}} * 100 \quad (1)$$

With Q representing the quantity consumed and P representing the price in the base year and the current time.

To calculate this index information on both prices and quantity is needed. In order to take account of the unavailability of data on quantity consumed the Laspeyres formula can be rewritten as

$$PI_t^h = \sum_i w_{i0}^h \left(\frac{p_{it}}{p_{i0}}\right) * 100 \quad (2)$$

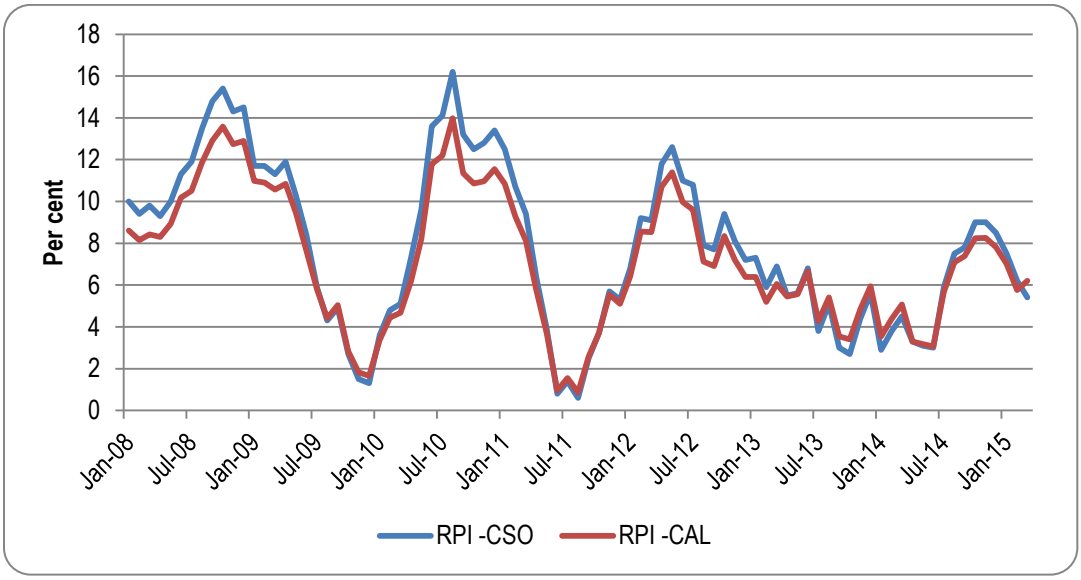
Where

$$w_{i0}^h = \frac{Q_{i0}^h P_{i0}}{\sum_{i=1}^n Q_{i0}^h P_{i0}}$$

[5] The Central Statistical Office, in fact, uses a Modified version of the Laspeyres Index.

In undertaking this study, inflation rates specific to each group of interest are required. Price indices, from January 2007 to March 2015, for the 12 broad sub-categories within both the food and core index are weighted according to the consumption patterns reported in the 2008/2009 Household Budgetary Survey. Chart 1 illustrates the difference between the inflation rate reported by the Central Statistical Office and inflation rate derived using the 2008/2009 HBS data. On average the difference between the two rates is 0.62 per cent, with a difference of just over 1 per cent occurring when the official inflation rate (CSO) is in double digit. As the chart below indicates the CSO inflation rates tended to be higher than the inflation rate calculated using the 2008/2009 HBS data[6].

Chart 1: CSO reported versus Authors' Calculated Inflation Rates



Sources: The Central Statistical Office and Authors' calculation.

While this paper attempts to illustrate how inflation among different groups varies, there are some limitations to the study that should be kept in mind. In the first instance the weights used are from the decennial household budgetary survey. Tastes and consumption patterns may differ during the years. One possible change in consumption patterns is in the area of eating out (hotels, cafes and restaurants). Since 2008 there has been a proliferation in the establishment of food chains (both international based and locally owned) and thus it is likely that if a survey was conducted today that this category would have a greater weight than it did in the 2008/2009 HBS. In the UK for example the basket of goods and services used in the calculation of the inflation rate is reviewed every year leading to the exclusion of some goods and the inclusion of others[7]. This also suggests that

[6] In 2015 the CSO rebased the inflation indices using information from the 2008/2009 HBS. The weights used by the CSO were similar as the weights used in this paper.
[7] http://www.ons.gov.uk/ons/rel/cpi/cpi-rpi-basket/index.html

the Trinidad and Tobago consumer may be spending on goods and services that are not in the basket of goods used. In addition information is not available on the variety of products consumed.

Picture 1: UK Basket of Goods 2015: What's in and What's Out

Source: http://visual.ons.gov.uk/basket-of-goods-2015-whats-in-and-out/

Results

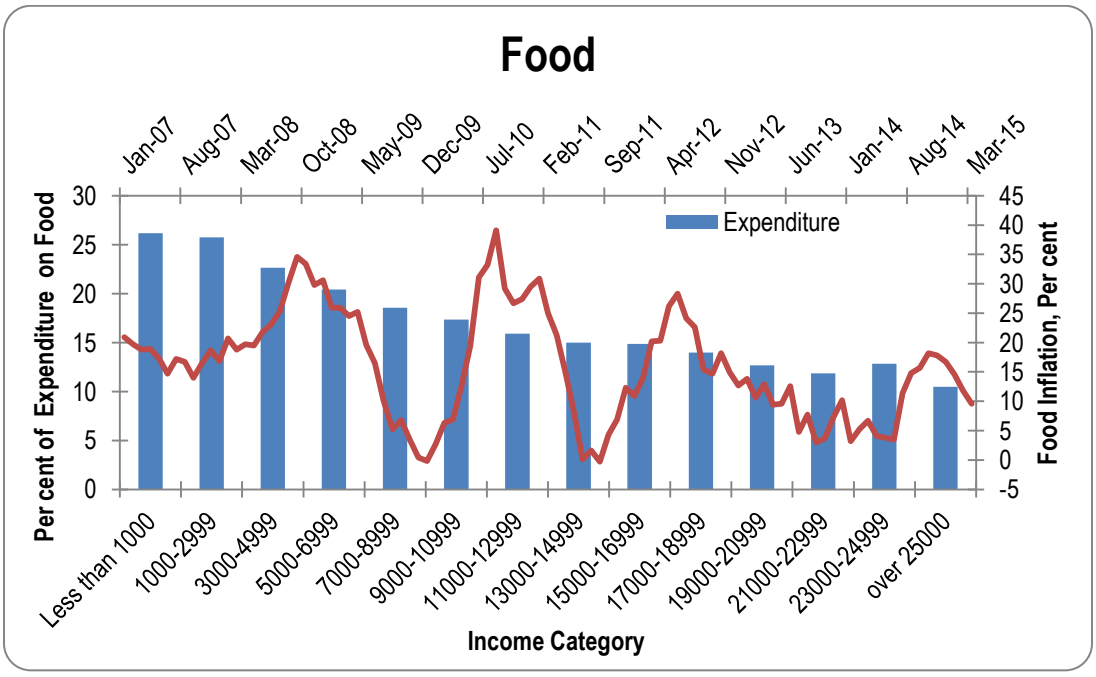
The inflation data can be categorized according to different groupings. The available data allows for disaggregation according to income, economic activity of the head of household, age of head of household, gender of head of household, education of the head of household, the size of the household, the number of children in the household and the tenancy of the dwelling. Across the different groupings there is some similarity in the pattern of expenditure. Spending on food, housing and transport take up the majority of households' budgets, while the least is spent on alcohol, education and hotels, cafes and restaurants.

An examination of the share of expenditure by the different income groups shows that those earning less than $1,000[8] per month allocate more than 26 per cent of their consumption expenditure towards food and non-alcoholic beverages, while those at the top end of the income scale only spend 10.5 per cent. Another category in which there is wide dispersion is in transportation. While those at the lowest end of the income scale only

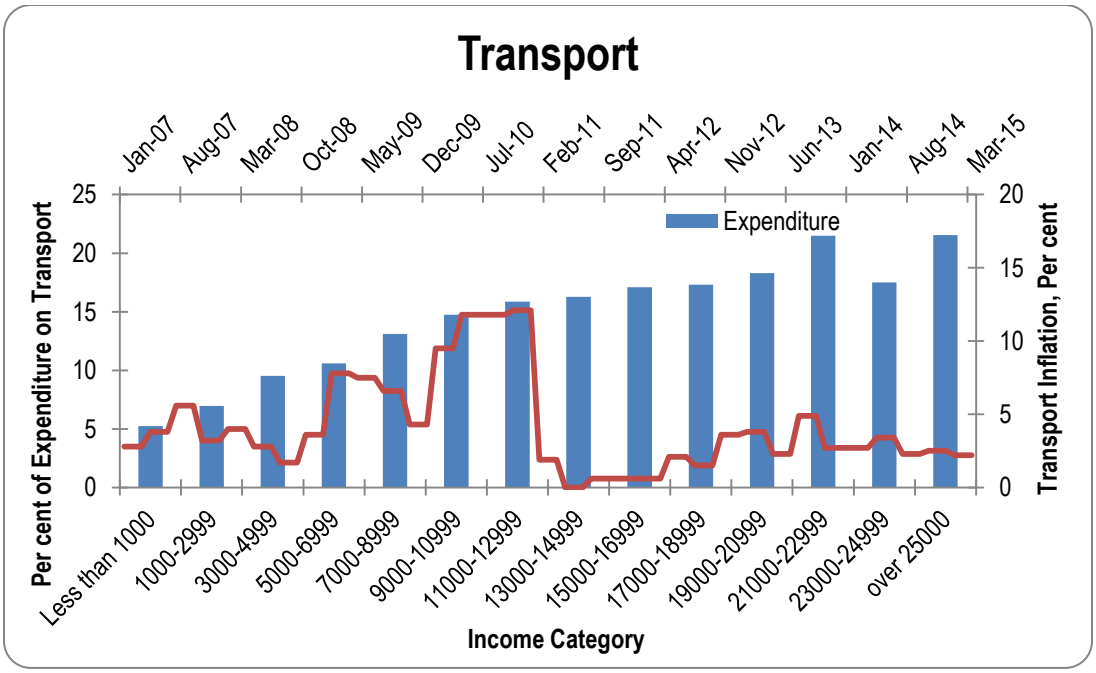
[8] Income, expenditure and price are all quoted in Trinidad and Tobago dollars. In 2008 the average exchange rate between the US$ and TT$ was 6.289, by 2014 it was 6.409.

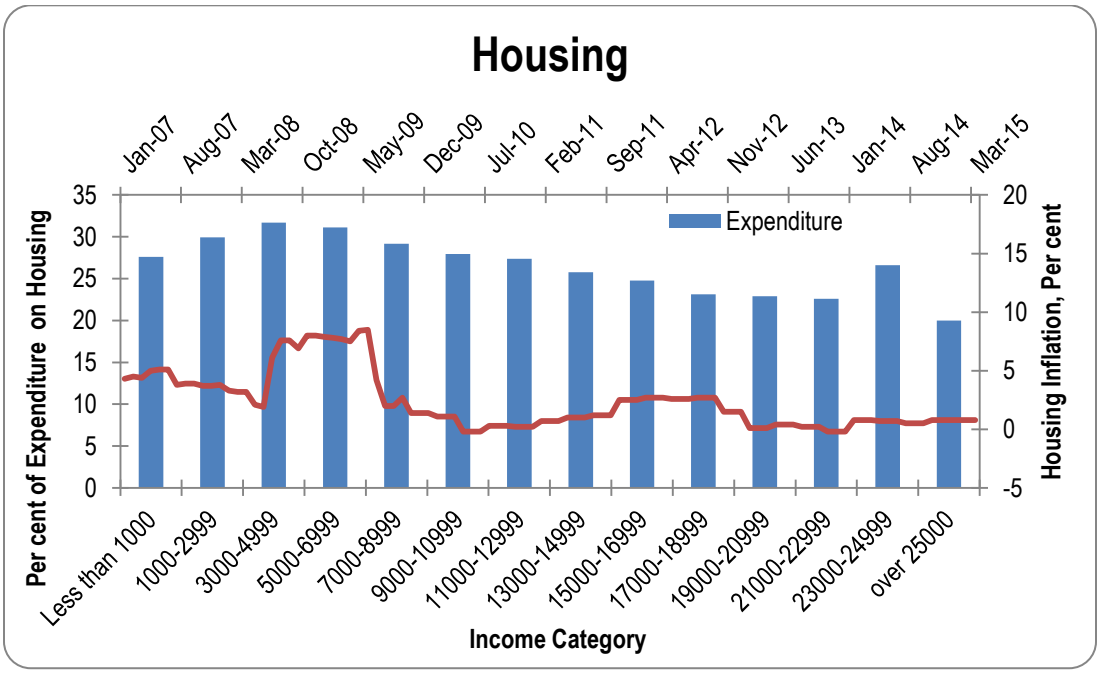
allocate just over 5 per cent of their consumption on transportation, those at the upper end allocate over 21 per cent. It is possible that the disparity in the expenditure on transportation may be due the cost of purchasing and maintaining a vehicle versus the cost of public transportation. At present for example the average price of one of the more popular motor vehicles is $200,000 - $299,000, in comparison the average bus ticket is $4 and the average maxi[9] fare is between $6 - $7. Differences in expenditure patterns among the different income groups can also be seen in the categories of housing and recreation and culture. While those households earning over $25,000 per month spend in nominal terms more on housing than the other income groups (except the category of $23,000-$24,999), it represents a smaller portion of their consumption basket. The pattern of expenditure for recreation and culture is more difficult to explain as this category covers a myriad of goods and services including expenditure on music, games of chance books, sports, pets and vacations. Notably while the average monthly expenditure for foreign vacations was $77.75, households earning more than $25,000 spent an average of $667.50.

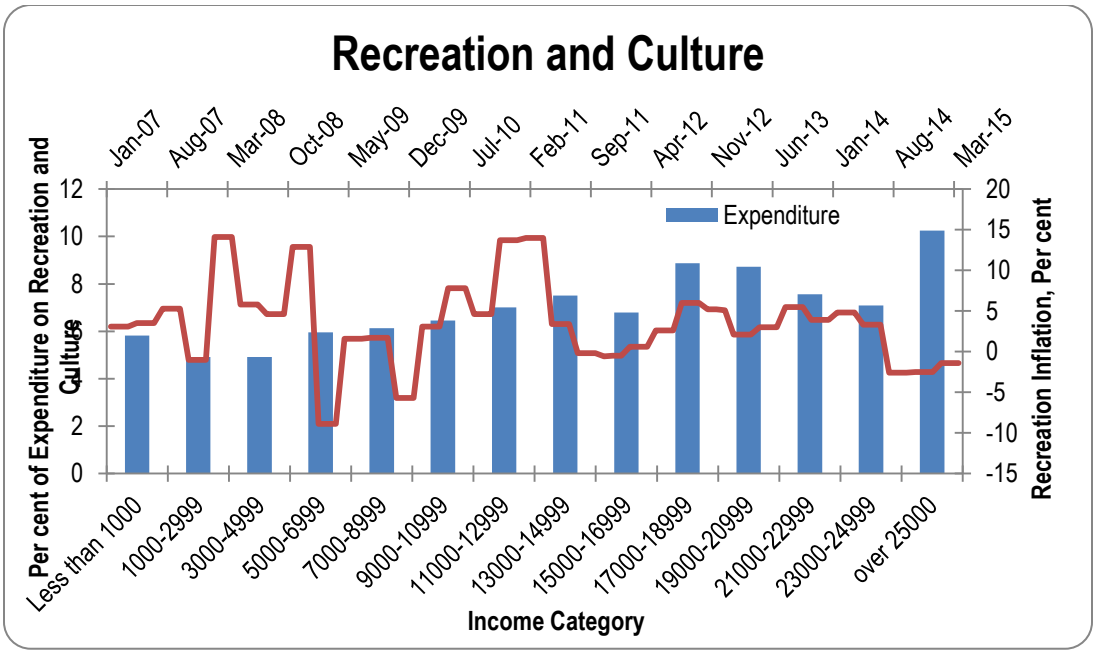
Chart 2: Consumption Differences by Income Grouping for Selected Categories



[9] In Trinidad and Tobago there are several modes of public transport, inclusive of buses, taxis (mainly shared), and maxi taxis (which are 12 or 24 seater buses run by private individuals along defined routes).


Transport
Jan-07
Aug-07
Mar-08
Oct-08
May-09
Dec-09
Jul-10
Feb-11
Sep-11
Apr-12
Nov-12
Jun-13
Jan-14
Aug-14
Mar-15
Expenditure
Per cent of Expenditure on Transport
Transport Inflation, Per cent
Less than 1000
1000-2999
3000-4999
5000-6999
7000-8999
9000-10999
11000-12999
13000-14999
15000-16999
17000-18999
19000-20999
21000-22999
23000-24999
over 25000
Income Category

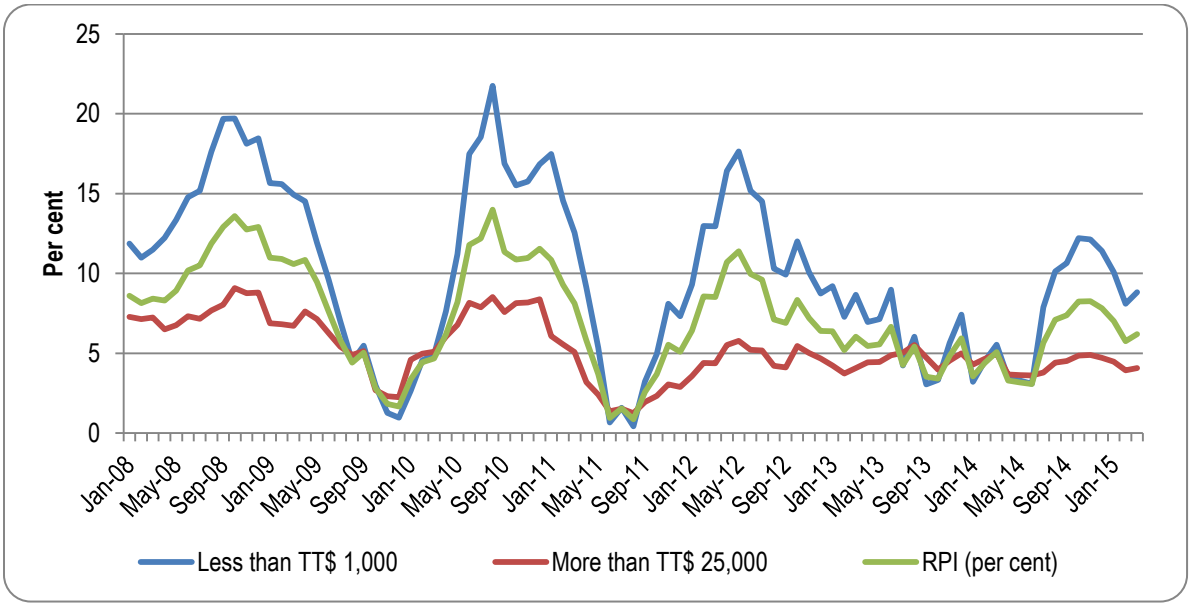

Housing
Jan-07
Aug-07
Mar-08
Oct-08
May-09
Dec-09
Jul-10
Feb-11
Sep-11
Apr-12
Nov-12
Jun-13
Jan-14
Aug-14
Mar-15
Expenditure
Per cent of Expenditure on Housing
Housing Inflation, Per cent
Less than 1000
1000-2999
3000-4999
5000-6999
7000-8999
9000-10999
11000-12999
13000-14999
15000-16999
17000-18999
19000-20999
21000-22999
23000-24999
over 25000
Income Category



Sources: The Central Statistical Office and Authors' calculation.

By recalculating the inflation rate based on the consumption shares of the different income groups a visible pattern emerges. Households in the income category earning between $9,000 and $10,999 monthly experienced inflation rates consistent with the headline rate of inflation. This grouping experienced the narrowest differentials from the actual rate of inflation. Income groupings earning less than this amount experienced higher than average rates of inflation, while categories earning more than this segment experienced lower than average rates of inflation. Looking at the overall pattern there seems to be a convergence of the inflation differentials when the inflation rate falls below 5 per cent. However as the inflation rate increases so do the differentials (Chart 3).

Chart 3: Inflation across lowest and highest income group

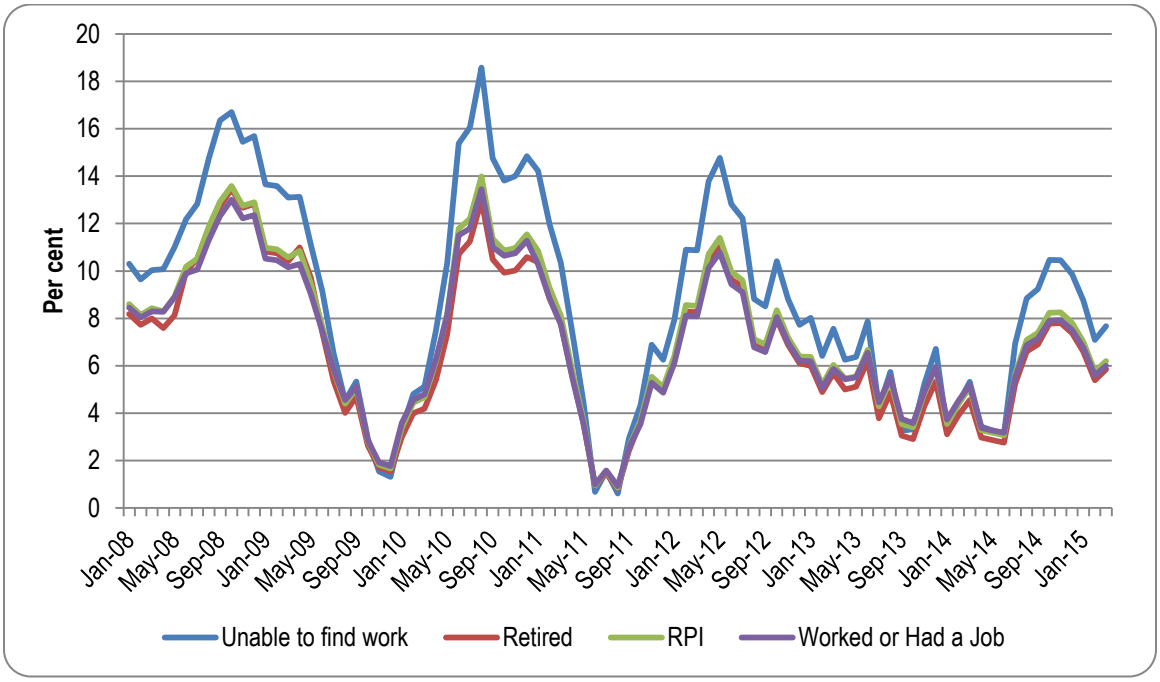


Sources: The Central Statistical Office and Authors' calculation.

Another dimension that shows varied differentials is analysis of the head of households disaggregated by type of economic activity. Some of the interesting points of divergence are that that households headed by retired persons spent the most on housing costs. The issue of retired/elderly spending more on housing is not unique to Trinidad and Tobago[10], explanations for this finding ranges from the cost of making adjustments to take into account disability (going up and down stairs may become difficult thus a stair lift may be installed or a downstairs room may be built) to the cost of refurbishment of a house – perhaps redoing the roof. Unsurprisingly those groups headed by persons classified as being at school spent more on education and on hotels, cafes and restaurants than the other groups. The introduction of the Government Assistance for Tuition Expenses (GATE) in 2004 meant that education was free from primary school level to undergraduate level (with those pursuing post graduate training having to pay 50 per cent of the tuition fees). However the expenditure patterns suggest that persons were still paying tuition and examination fees either for themselves or for their children (e.g. kindergarten and nurseries). Detailed analysis of these categories showed that persons who were unable to find work were further disadvantaged since their respective inflation rate was higher than the national average, due to the fact that food and non-alcoholic beverages accounted for one fifth of their total expenditure. In contrast, persons employed or retired experienced inflation rates which were close to or slightly lower than the national average.

[10] https://england.shelter.org.uk/__data/assets/pdf_file/0013/41440/factsheet_older_people_and_housing_may_2007.pdf

Chart 4: Inflation by Economic Activity of the Head of Household

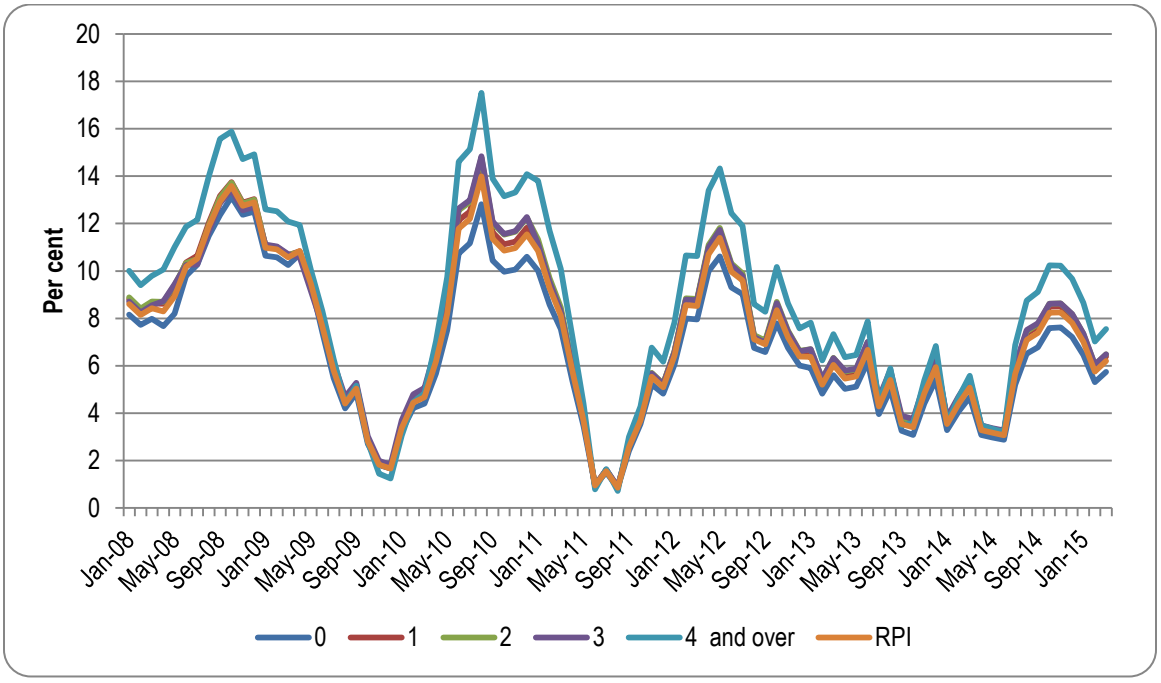


Sources: The Central Statistical Office and Authors' calculation.

Those households headed by persons who are unemployed have the highest inflation rate while, in general households headed by retired persons have the lowest level of inflation. This finding is unusual as often in other countries retired persons /pensioners often have a higher than average inflation rate, presumably due to the cost of medical services. In Trinidad and Tobago the government offers free public health services as well as subsidized medication and free home nursing care[11]. These facilities may be the reason for the lower level of inflation among the retired group. It is also possible, given the historical pattern of extended family households that the elderly/retired return to live with their children, thus distorting the results as the head of household changes.

[11] These are provided on a needs basis based on specific qualifying criteria.

Chart 5: Inflation by the Number of Children in the Household

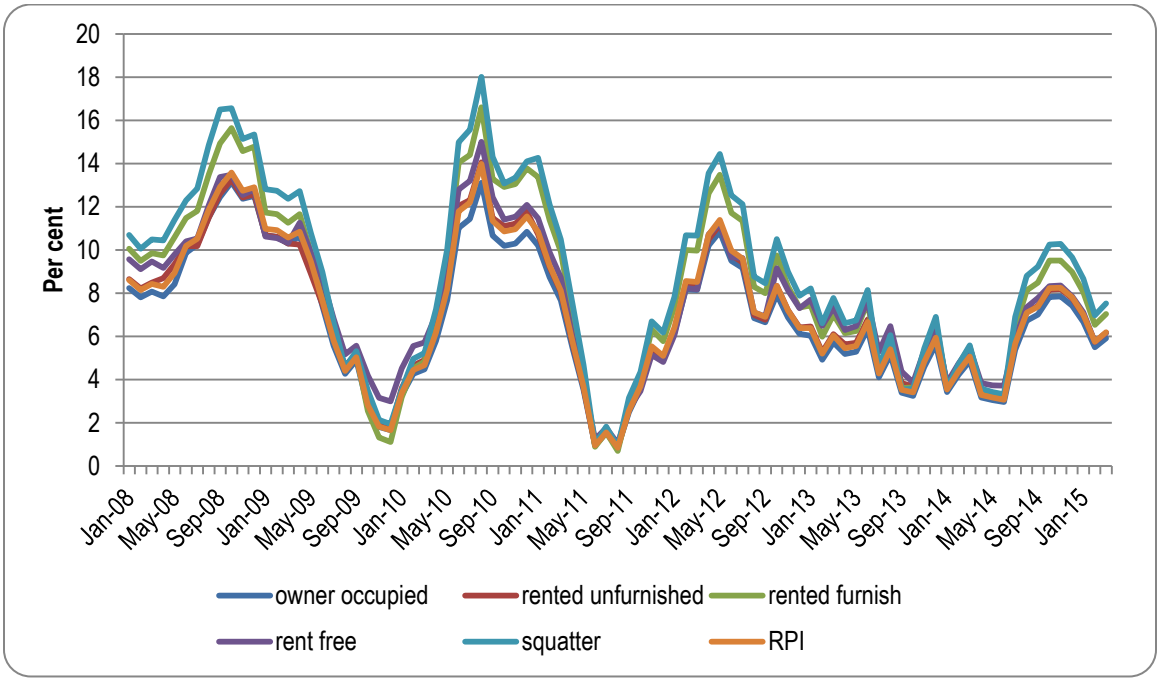


Sources: The Central Statistical Office and Authors' calculation.

The presence of children in a household and the impact on inflation can have consequences for the measurement of child poverty. The number of children in the household revealed a dynamic where households without children had the lowest inflation rate, while those with 4 or more children had the highest inflation rate. Notably expenditure on food and non-alcoholic beverages as well as clothing and footwear increased as the number of children in the household increased. On the other hand expenditure on housing, water, electricity, gas and other fuels fell as the number of children in the household increased. The average inflation rate is closer to the inflation rate faced by households that have only 1 child.

One of the basic needs of any society is access to suitable forms of housing. The domestic housing market has been categorized as tight over the years; so much so that the government has been playing a key role in the provision of low income housing as well as subsidized interest rates for middle income families. Further, and given the increasing focus on financial stability, household indebtedness and any adverse shocks on income requires close inspection. A period of rising interest rates can have far reaching impacts on indebted households especially if increasing prices creates increased pressures on the budget of the household.

Chart 6: Inflation by Tenancy of Dwelling



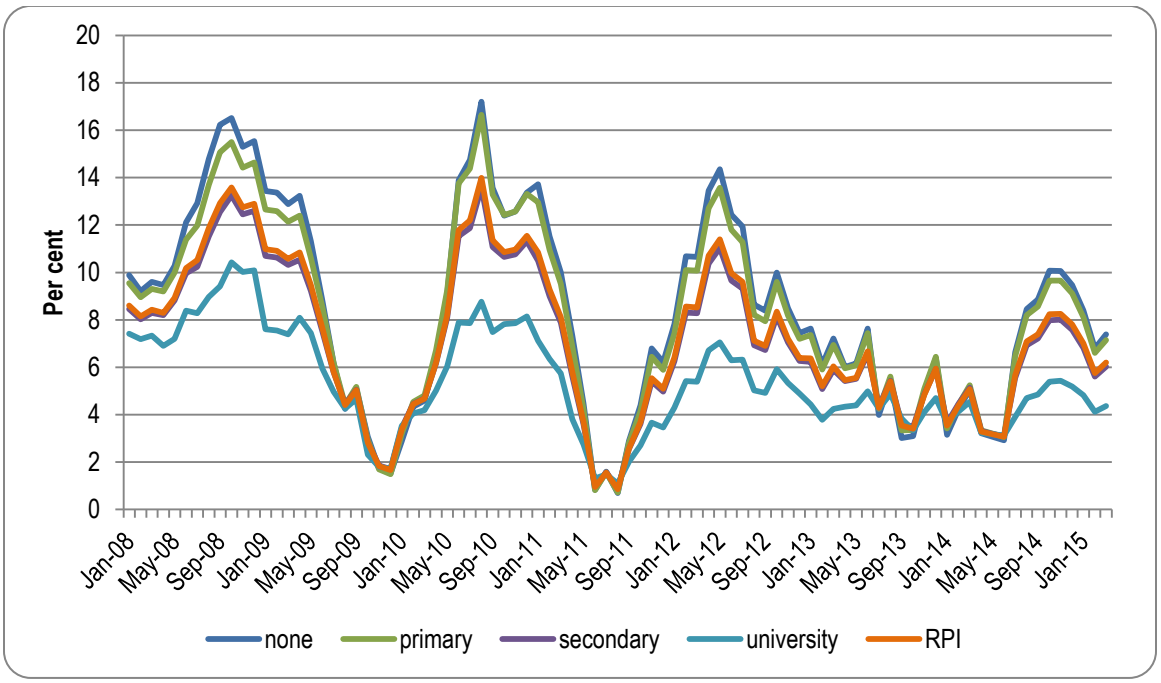
Sources: The Central Statistical Office and Authors' calculation.

Based on the analysis, the inflation rate is generally the highest among those squatting and those who rent a furnished home/apartment, with owner occupied having the lowest rate. The finding that squatters face the highest level of inflation is interesting but this may be correlated to the fact that squatters are usually within the low income brackets. Looking at the expenditure patterns by tenancy of dwellings reveals that households living in owner-occupied homes spent the most on housing, while those living rent free spent the least. Squatters spent the most on food; this group also spent the most on alcoholic beverages and tobacco. Interestingly during times of low inflation, the inflation rate of those squatting fell below that of persons enjoying rent free accommodation.

One of the reasons put forward in the literature for the difference in the inflation rates is financial literacy. It is assumed that those with the higher levels of education would be able to make better and wiser financial/consumption decisions. The results indicate that households headed by persons with no education or up to primary level education experienced the highest rate of inflation, while households headed by persons with tertiary level education experienced the lowest inflation rate. Households headed by persons with secondary level education experienced rates more in line with the national average. Households headed by persons with university education spent the least on food compared to other groups and the most on recreation and culture. On the other hand persons with no education, when compared to other groups spent the most on health and housing, while they spent the least on education. These results suggest that financial literacy programs targeting

those without formal education can lower their cost of living. However, the economic standing of the differing households may also be a factor as, on average, a larger per cent of the middle to high income households may be headed by persons with tertiary level education. In addition at low income levels households would have to spend a significant proportion on basic needs such as food, leading to the higher inflation rates experienced,

Chart 7: Inflation by Education of Head of Household



Sources: The Central Statistical Office and Authors' calculation.

In several of the categories investigated there were little differences in the inflation rates. An investigation into inflation by the age of the head of the household finds that there was no substantial difference in the inflation rate. This could imply that even though the head of household differs by age that the basket of goods consumed remain similar. In looking at inflation rate by the number of persons in a household, the results suggest that while a single person household has the lowest inflation rate, and those household with 8 or more persons have a high inflation rate that there really no significant difference. The average inflation rate is more closely aligned to the consumption patterns of households with 4 or 5 persons. Looking by consumer category there is more diversion with a single person household spending 15.8 per cent of consumption on food, while the largest household spending 19.6 per cent on food. A greater disparity is shown in the areas of clothing and housing where on the one hand the smallest household spends 3.4 and 38.9 per cent respectfully, while the largest household spends 10.1 and 20.0 per cent respectfully. Looking at inflation by the gender of households finds little difference between male and female headed households. However, in general female headed households face a slightly

higher inflation rate than male headed households, perhaps due to female headed households spending slightly more on food and housing.

4. Conclusion and Policy Implications

Macro prudential tools have proven to be effective in maintaining financial stability and protecting the economic output of countries. The results of the investigation into the inflation into different groups reveals that for Trinidad and Tobago, the groups facing the highest level of inflation are the poorer households, with a household with 4 or more children, who squat and where the head of the household had no formal education and is unemployed. The group facing the lowest level of inflation earns over 25,000 per month with university education, no children, between age 50-59, retired and living in owner occupied dwelling.

Table 2: Summary of Inflation Differentials as at March 2015

Variable	Lowest Inflation Rate	Closest to National Average	Highest Inflation Rate
Income Categories (TT$)	Over 25,000	9,000-10,999	Less than 1,000
Tenancy of Dwelling	Owner Occupied	Rent free	Squatter
		Rented Unfurnished	
Number of Children	No children	One child	Four or more
Economic Activity	Retired	Worked or Had a Job	Unable to find work
Size of Household	1	4	8 and more
Gender of Head of Household	Male	-	Female
Age of Head of Household (Age group)	50-59	60 and Over	Under 30
		30-39	
		40-49	
Education of Head of Household	University	Secondary	No education

The investigation reveal that for policy makers to ensure that the social welfare programs, and in particular food security programs to be effective, information on inflation rates of vulnerable sectors of the society should be made available. The UK for example produces on a monthly basis RPI data for pensioners (two sets are produced: 1 pensioner household and 2 pensioner household). Once such information is made available the governmental authorities should make use of it for deliberation on issues such as increases in pensions, providing housing assistance and food security. The Household Budget Survey is conducted every ten years in Trinidad and Tobago, and even then there is a delay in the implementation of the new weights. In several of the studies reviewed the weights were changed more often, reflecting changes in consumption patterns. It may

prove to be useful for the Central Statistical Office, to survey a sample of the households at a more frequent timespan to ensure that the weights and the products surveyed in the calculation of the retail price index remain current and relevant. The Central Bank of Trinidad and Tobago has developed a consumer confidence index – one part of which is a question on inflation expectations. While at present the dataset is limited as it develops it will eventually become possible to investigate the differences in expectations by the characteristics of the surveyed group.

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Appendix Table 1: Expenditure across Income Groups (%)

	Less than 1000	1000-2999	3000-4999	5000-6999	7000-8999	9000-10999	11000-12999	13000-14999	15000-16999	17000-18999	19000-20999	21000-22999	23000-24999	over 25000
Food And Non-Alcoholic Beverages	26.18	25.75	22.63	20.42	18.54	17.34	15.91	15.00	14.85	13.96	12.67	11.85	12.83	10.47
Alcoholic Beverages And Tobacco	0.78	1.31	1.16	1.17	0.94	0.78	0.74	0.70	0.71	0.48	0.66	0.90	0.29	0.70
Clothing And Footwear	4.91	4.67	4.82	5.35	5.78	6.04	6.03	6.60	6.62	6.51	7.26	6.68	5.35	6.19
Housing, Water, Electricity, Gas and Other Fuels	27.60	29.95	31.70	31.11	29.17	27.95	27.38	25.77	24.76	23.15	22.90	22.59	26.60	19.99
Furnishings, Household Equipment And Routine Household Maintenance	9.43	7.50	7.38	7.22	7.00	6.51	6.75	6.59	6.41	6.53	6.04	5.70	5.48	5.74
Health	4.84	4.43	4.01	3.92	3.84	4.24	3.69	3.86	4.25	4.21	4.00	4.90	6.33	4.22
Transport	5.24	6.97	9.51	10.59	13.12	14.73	15.85	16.27	17.09	17.31	18.30	21.49	17.50	21.55
Communication	3.96	4.12	3.93	4.03	4.35	4.51	4.33	4.88	4.81	4.97	4.9	5.08	4.82	4.72
Recreation And Culture	5.82	4.92	4.92	5.95	6.13	6.46	7.01	7.51	6.79	8.87	8.73	7.57	7.09	10.25
Education	1.32	0.31	0.50	0.59	0.78	0.78	1.12	1.12	1.29	1.70	1.52	1.16	1.79	3.18
Hotels, Cafes And Restaurants	2.48	2.35	2.58	2.18	2.26	2.28	2.37	2.46	2.76	2.32	2.63	2.90	2.08	2.79
Miscellaneous Goods And Services	7.45	7.71	6.86	7.47	8.08	8.38	8.81	9.23	9.65	9.98	10.36	9.19	9.85	10.20

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 2: Expenditure by Economic Activity of the Head of Household (%)

	Worked of Had a Job	Unable to find work	At School	Retired	Disabled	Temporary Illness	House-Keeping	Other	Not Stated
Food And Non-Alcoholic Beverages	16.5	21.1	17.4	16.7	20.9	18.1	20.3	20.6	21.8
Alcoholic Beverages And Tobacco	0.9	1.3	0.2	0.7	0.6	0.5	0.8	1.2	1.1
Clothing And Footwear	6.6	6.9	6.0	4.0	6.5	5.0	5.6	5.8	7.8
Housing, Water, Electricity, Gas and Other Fuels	24.2	24.7	29.3	34.0	26.5	26.4	30.7	29.3	27.0
Furnishings, Household Equipment And Routine Household Maintenance	7.1	6.4	4.1	6.1	5.7	5.7	5.9	6.4	5.8
Health	3.5	2.5	3.0	5.6	5.4	6.3	4.6	5.1	3.5
Transport	16.1	15.8	7.1	11.9	12.9	17.9	11.9	11.0	6.8
Communication	4.5	4.2	4.7	4.5	4.1	3.9	4.5	4.2	6.4
Recreation And Culture	7.3	5.8	7.1	6.8	5.2	5.9	5.3	6.3	5.7
Education	1.4	0.7	4.2	0.6	1.0	0.6	0.8	0.4	0.1
Hotels, Cafes And Restaurants	2.9	3.1	4.4	1.8	2.0	2.2	1.9	2.1	3.1
Miscellaneous Goods And Services	9.2	7.5	12.4	7.3	9.2	7.4	7.9	7.7	10.7

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 3: Expenditure by of the Tenancy of Dwelling (%)

	owner occupied	rented unfurnished	rented furnished	rent free	squatter	other	not stated
Food And Non-Alcoholic Beverages	16.4	17.2	20.0	20.0	22.0	13.9	18.0
Alcoholic Beverages And Tobacco	0.8	0.8	0.6	1.0	3.0	0.3	6.6
Clothing And Footwear	5.5	7.1	7.8	6.8	8.7	4.2	14.3
Housing, Water, Electricity, Gas and Other Fuels	29.6	21.1	21.4	10.5	21.2	28.6	11.3
Furnishings, Household Equipment And Routine Household Maintenance	6.4	7.7	7.3	6.8	6.9	5.0	4.9
Health	4.2	3.6	3.0	15.4	9.0	15.4	10.3
Transport	14.1	16.4	13.4	15.4	9.0	15.4	10.3
Communication	4.4	4.9	4.5	4.3	2.4	3.7	11.0
Recreation And Culture	6.7	7.4	9.2	6.6	6.1	4.7	5.5
Education	1.2	1.3	0.9	0.9	0.6	0.7	0.0
Hotels, Cafes And Restaurants	2.3	3.1	3.3	3.4	2.7	2.3	1.6
Miscellaneous Goods And Services	8.3	9.4	8.9	9.0	8.5	5.9	6.3

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 4: Expenditure by Number of Children in the Household (%)

	0	1	2	3	4 and over
Food And Non-Alcoholic Beverages	16.0	17.6	17.9	18.0	21.2
Alcoholic Beverages And Tobacco	1.0	0.8	0.7	0.8	0.9
Clothing And Footwear	4.5	6.8	7.1	7.7	9.2
Housing, Water, Electricity, Gas and Other Fuels	31.1	24.7	22.9	21.2	21.7
Furnishings, Household Equipment And Routine Household Maintenance	6.1	7.0	7.2	7.7	7.9
Health	4.7	3.8	3.6	3.3	2.8
Transport	14.0	14.4	16.0	17.3	12.8
Communication	4.6	4.5	4.3	4.1	4.0
Recreation And Culture	6.9	6.9	7.1	6.5	6.8
Education	0.9	1.3	1.4	1.3	1.3
Hotels, Cafes And Restaurants	2.5	2.7	2.5	2.4	2.4
Miscellaneous Goods And Services	7.7	9.3	9.4	9.8	9.2

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 5: Expenditure by Gender of the Head of Household (%)

	Male	Female
Food And Non-Alcoholic Beverages	16.7	17.9
Alcoholic Beverages And Tobacco	0.9	0.7
Clothing And Footwear	5.8	6.2
Housing, Water, Electricity, Gas and Other Fuels	26.1	29.4
Furnishings, Household Equipment And Routine Household Maintenance	6.6	6.9
Health	4.1	4.2
Transport	16.0	11.4
Communication	4.3	4.7
Recreation And Culture	7.1	6.6
Education	1.1	1.3
Hotels, Cafes And Restaurants	2.7	2.2
Miscellaneous Goods And Services	8.7	8.5

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 6: Expenditure by Household Size (%)

	1	2	3	4	5	6	7	8 and over
Food And Non-Alcoholic Beverages	15.83	16.46	17.60	17.05	16.85	17.43	18.47	19.62
Alcoholic Beverages And Tobacco	1.30	1.03	0.86	0.66	0.69	0.70	0.93	1.09
Clothing And Footwear	3.42	4.04	5.82	6.37	6.72	8.05	7.86	10.12
Housing, Water, Electricity, Gas and Other Fuels	38.87	31.72	26.80	24.78	23.29	22.25	21.31	19.99
Furnishings, Household Equipment And Routine Household Maintenance	6.91	6.60	6.67	6.51	6.93	6.78	6.91	6.54
Health	3.66	4.74	4.45	4.01	3.63	3.81	3.43	3.74
Transport	9.64	13.92	14.32	15.30	17.09	15.66	17.14	13.58
Communication	4.14	4.37	4.42	4.53	4.54	4.54	4.59	4.98
Recreation And Culture	6.46	6.84	6.89	7.29	7.07	7.06	5.46	6.60
Education	0.67	0.72	1.23	1.51	1.15	1.28	1.14	1.51
Hotels, Cafes And Restaurants	3.02	2.03	2.32	2.69	2.85	2.79	2.57	2.25
Miscellaneous Goods And Services	6.10	7.53	8.62	9.31	9.19	9.66	10.18	9.98

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 7: Expenditure by Age of the Head of Household (%)

	Under 30 years	30-39 years	40-49 years	50-59 years	60 years and over
Food And Non-Alcoholic Beverages	17.9	17.2	17.1	16.2	17.5
Alcoholic Beverages And Tobacco	1.2	0.9	0.9	0.9	0.7
Clothing And Footwear	7.9	7.0	6.7	6.1	4.3
Housing, Water, Electricity, Gas and Other Fuels	19.5	22.1	24.5	26.2	33.1
Furnishings, Household Equipment And Routine Household Maintenance	8.2	7.5	7.0	6.3	6.2
Health	3.1	3.0	3.4	4.0	5.3
Transport	16.5	17.9	15.6	15.3	11.7
Communication	4.3	4.1	4.4	4.7	4.5
Recreation And Culture	6.6	7.1	7.1	7.2	6.6
Education	0.9	1.1	1.6	1.4	0.8
Hotels, Cafes And Restaurants	4.0	2.8	2.7	2.7	1.9
Miscellaneous Goods And Services	10.0	9.3	9.1	9.0	7.4

Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 8: Expenditure by Education Level of the Head of Household (%)

	none	pre-school	primary	secondary	university	other	not stated
Food And Non-Alcoholic Beverages	21.3	16.3	19.7	16.7	11.8	13.3	21.6
Alcoholic Beverages And Tobacco	1.5	1.3	1.0	0.8	0.5	0.7	0.5
Clothing And Footwear	4.2	5.9	5.8	6.4	5.1	5.1	5.4
Housing, Water, Electricity, Gas and Other Fuels	33.9	30.2	28.0	26.0	27.8	26.3	28.9
Furnishings, Household Equipment And Routine Household Maintenance	6.5	7.6	6.4	6.8	6.8	7.3	6.0
Health	6.6	3.7	4.2	3.8	4.5	4.3	3.1
Transport	8.3	14.6	13.4	15.1	15.1	18.5	12.2
Communication	3.3	3.8	4.3	4.5	4.7	4.6	6.5
Recreation And Culture	4.7	6.7	5.8	7.1	9.8	7.0	6.2
Education	0.3	1.2	0.9	0.9	2.7	1.4	0.8
Hotels, Cafes And Restaurants	1.8	2.4	2.3	2.8	2.5	2.4	2.2
Miscellaneous Goods And Services	7.4	6.4	8.2	8.9	8.6	9.0	6.7

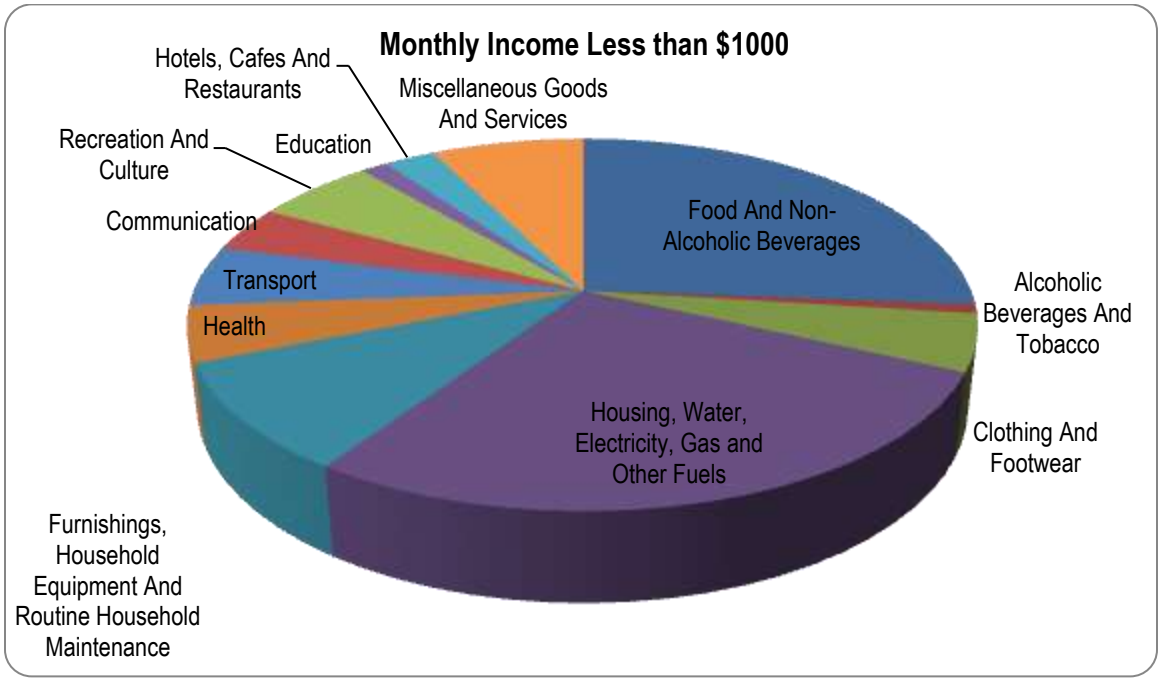
Source: The Central Statistical Office HBS 2008/2009.

Appendix Table 9: Selected Retail Price Indices, Base Year 2003

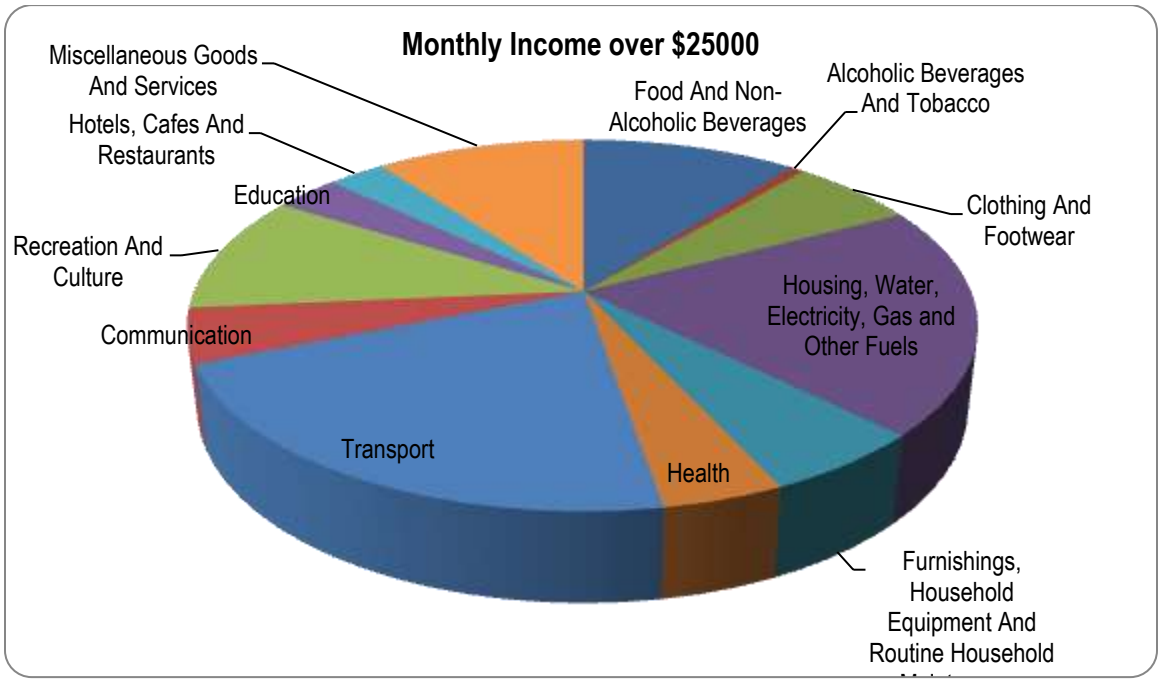
	Mar-07	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15
Food And Non-Alcoholic Beverages	205.3	245.8	305.9	326.9	396.6	477.0	538.5	574.6	647.0
Alcoholic Beverages And Tobacco	130.4	148.2	159.4	178.9	190.0	194.6	202.6	209.3	216.0
Clothing And Footwear	92.2	94.8	96.0	95.5	94.1	96.8	98.4	100.7	102.1
Housing, Water, Electricity, Gas and Other Fuels	111.9	115.5	124.2	125.6	126.5	129.9	130.0	131.0	132.0
Furnishings, Household Equipment And Routine Household Maintenance	105.6	106.6	112.2	113.3	114.0	116.0	117.5	117.5	118.2
Health	121.6	130.2	136.1	144.4	149.8	151.1	160.2	166.6	168.7
Transport	112.2	116.7	125.8	137.8	140.4	141.3	146.7	150.7	154.0
Communication	78.5	78.5	78.5	78.5	78.5	78.5	78.6	78.6	78.6
Recreation And Culture	118.0	134.6	122.6	126.4	144.1	145.0	148.0	155.1	152.9
Education	131.8	150.2	164.0	169.2	172.4	175.4	186.4	192.2	215.1
Hotels, Cafes And Restaurants	123.5	140.1	168.8	173.8	174.5	180.4	187.7	196.1	198.0
Miscellaneous Goods And Services	108.4	114.1	120.3	127.4	130.5	134.8	136.4	151.1	155.6

Source: The Central Bank of Trinidad and Tobago.

Appendix Chart 1: Expenditure for Selected Income Groups



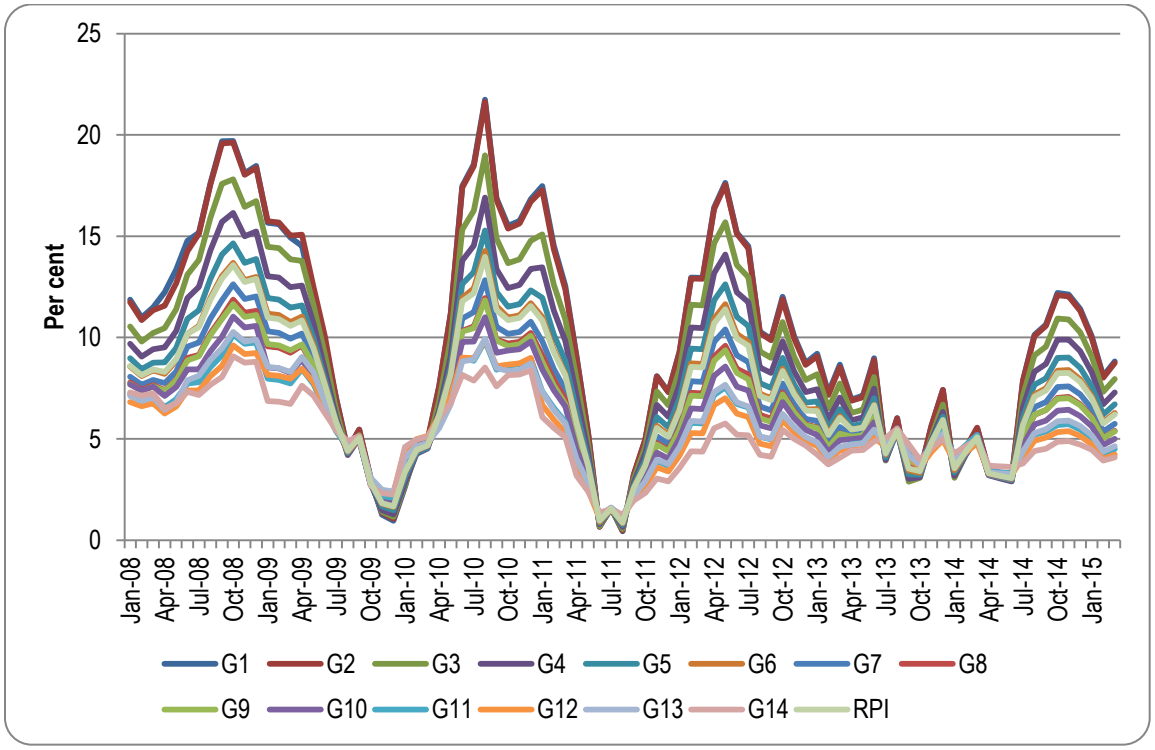
Source:



Source:

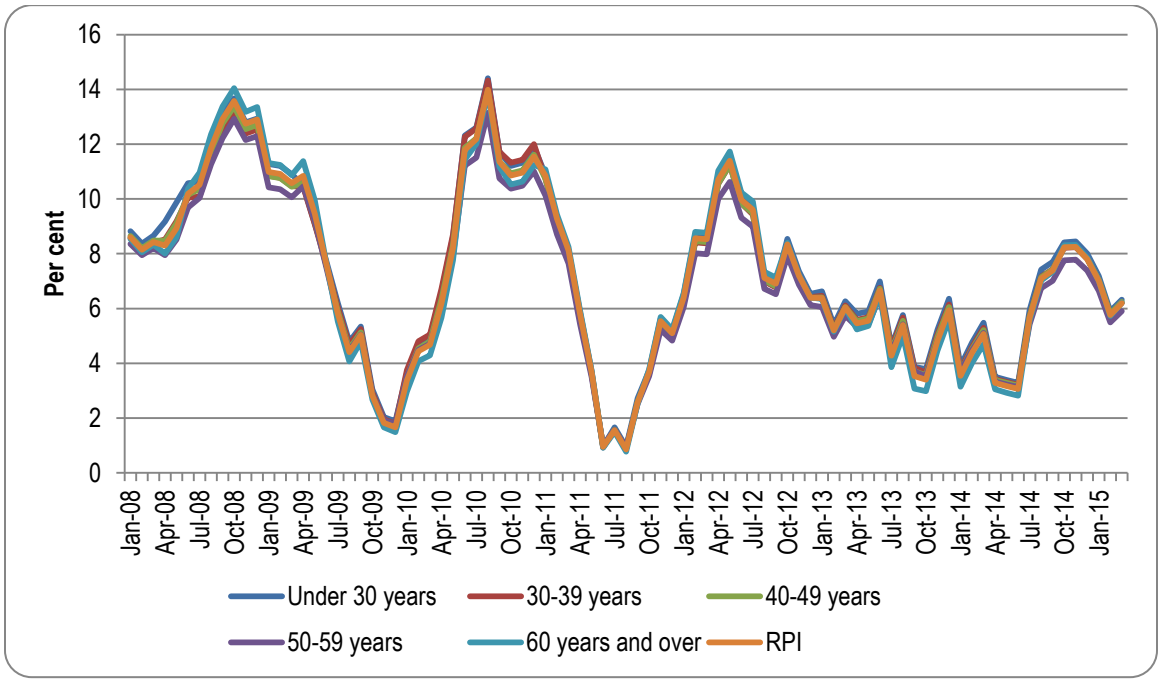
Source: The Central Statistical Office HBS 2008/2009.

Appendix Chart 2: Inflation Across Income Groups



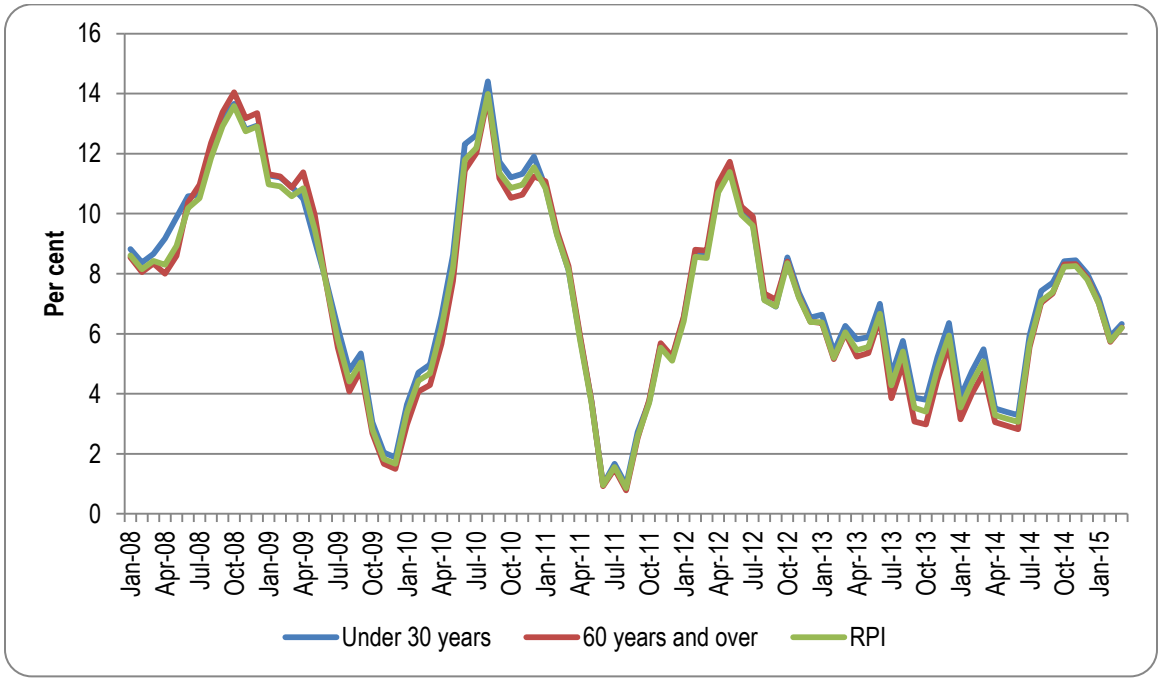
Sources: The Central Statistical Office and Authors' calculation.

Appendix Chart 3: Inflation by Age of the Head of Household



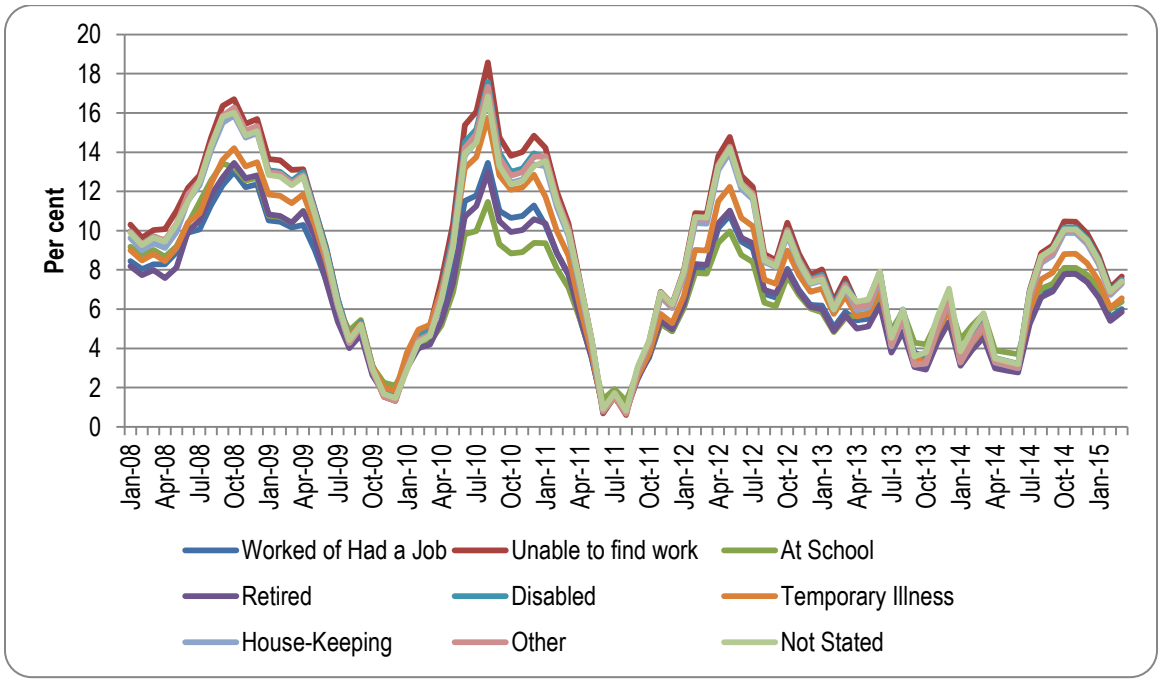
Sources: The Central Statistical Office and Authors' calculation.

Appendix Chart 4: Inflation by Age of the Head of Household – Selected Groups



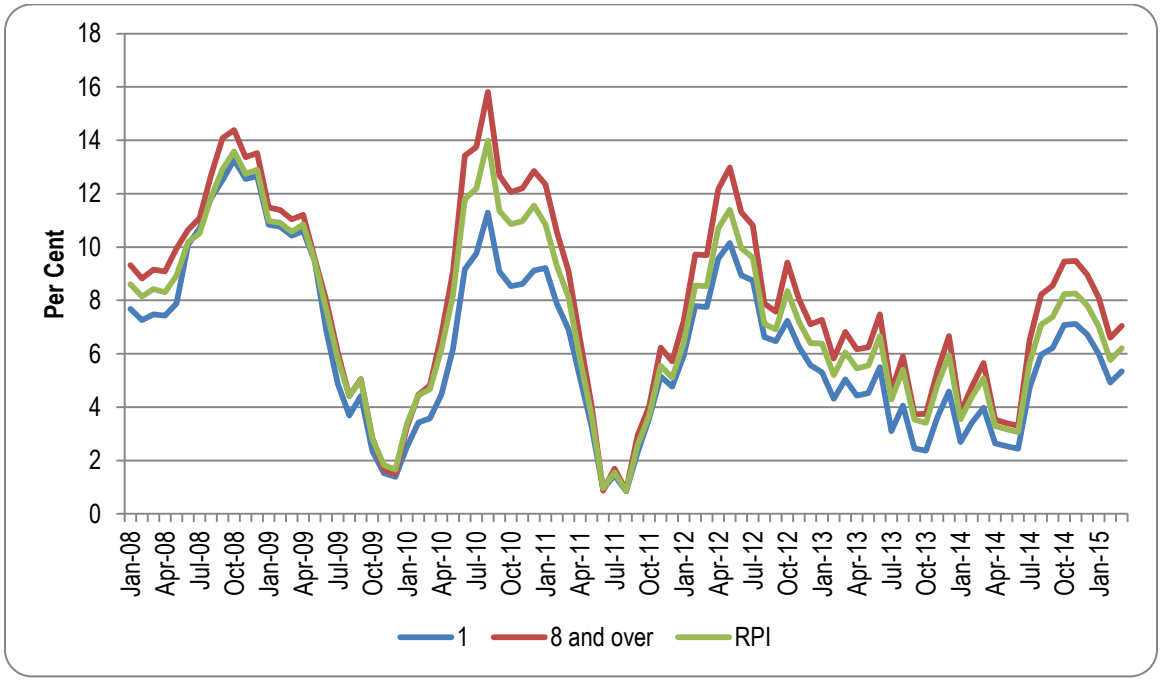
Sources: The Central Statistical Office and Authors' calculation.

Appendix Chart 6: Inflation by Economic Activity of the Head of Household



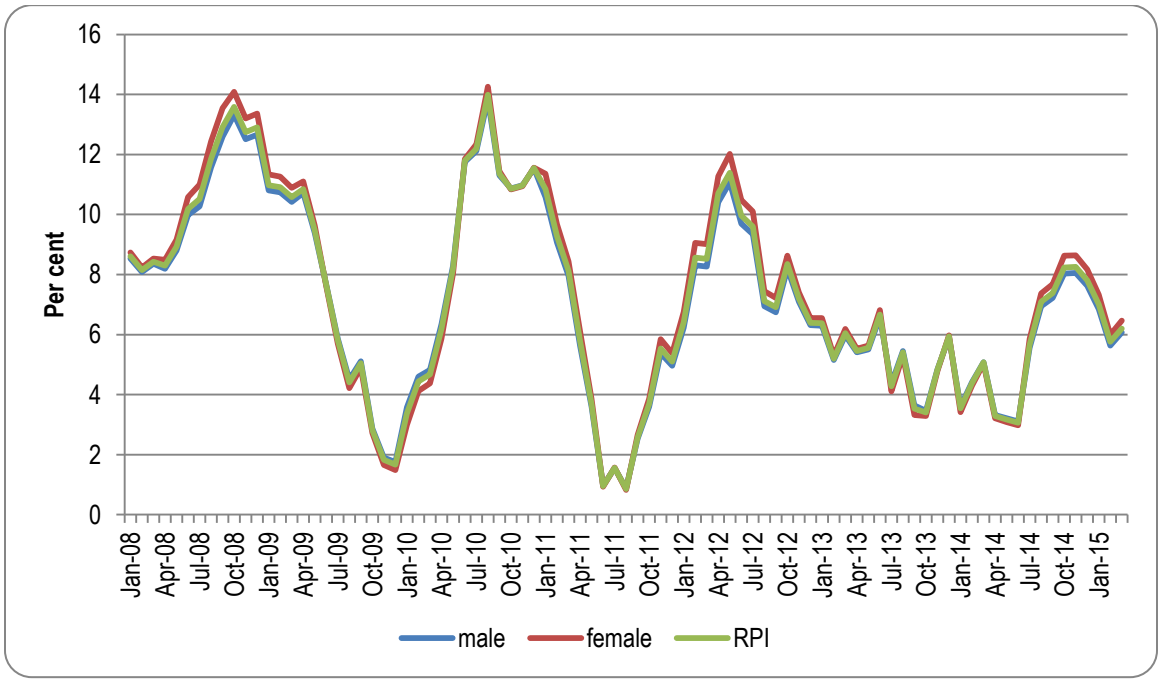
Sources: The Central Statistical Office and Authors' calculation.

Appendix Chart 7: Inflation by Size of Household



Sources: The Central Statistical Office and Authors' calculation.

Appendix Chart 8: Inflation by Gender of Head of Household



Sources: The Central Statistical Office and Authors' calculation.