occasional paper

on

prices statistics

THE CONSUMER PRICE INDEX
FOR RETIREE HOUSEHOLDS

(Base Year 2014 = 100)

Singapore Department of Statistics
November 2016

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I Introduction

The Department of Statistics (DOS) has compiled a Consumer Price Index (CPI) for retiree households\(^1\) with base year 2014. This series is designed to assess the impact of changes in the prices of goods and services on retiree households.

This occasional paper provides an overview of the profile of retiree households, as well as a comparison of their CPI weighting pattern and inflation rates with other household types, namely the general households and households in different income groups.

II Household Profiles

Reflecting an ageing population, the number of retiree households has been on the rise in Singapore. Based on the Household Expenditure Survey (HES), the proportion of retiree households among resident households increased from 5.1 per cent (or 55,356 households) in 2007/08 to 6.5 per cent (or 77,481 households) in 2012/13.

Average Monthly Household Expenditure\(^2\)

Results from the HES 2012/13 showed that retiree households spent an average of $1,637 per month in 2012/13. This was lower than the expenditure of all other household types, except for the lowest 20% income group whose average monthly household expenditure stood at $1,548 during the same period.

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\(^1\) For statistical purpose, “retiree households” are defined as those comprising solely non-working persons aged 60 years and over.

\(^2\) Monthly household expenditure excludes imputed rentals on owner-occupied accommodation which do not entail cash expenditure. For more information on household expenditure for retiree households, please refer to the “Report on the Household Expenditure Survey 2012/13”.
Size of Household and Type of House

5 The average household size of retiree households was 1.7 persons in 2012/13. This was the smallest compared to other household types whose household size ranged from 2.2 persons to 4.3 persons. While the majority of retiree households resided in public flats, almost one in five of them stayed in private housing. This was higher than the corresponding proportions for the lowest 20% and middle 60% income groups, but lower than those for general households and the highest 20% income group.

Number of Working Persons and Full-time Students

6 For statistical purpose, retiree households by definition had no working person or full-time students in the household. In contrast, more than half of the other household types had at least one working person, ranging from 58 per cent for the lowest 20% income group to 99 per cent for the highest 20% income group. Some 21 – 51 per cent of these households also had at least one full-time student in the household.
Source: Household Expenditure Survey (HES) 2012/13. The weighting pattern for CPI for retiree households is based on the latest available HES data. The HES is conducted once in every five years, the latest being in 2012/13.
III Weighting Pattern

7 In the compilation of the CPI for retiree households, weights are required to reflect the relative importance of each item in the expenditure basket of these households, that is, each item’s share of total household expenditure. Similar to other household types, the 2014-based weighting pattern for retiree households was derived from the expenditure values collected in the HES 2012/13. The values are then updated to 2014 levels by taking into account price changes between 2012/13 and 2014. The 2014-based CPI for retiree households also adopted the Classification of Individual Consumption According to Purpose (COICOP).

8 In 2014, housing & utilities, food and health care were the top three expenditure categories for retiree households, similar to the case for the lowest 20% income group (Charts 1 and 2). Together, these categories accounted for more than three-quarters of the total expenditure of retiree households. For the other household types, housing & utilities was the top expenditure category, followed by food and transport.

9 While housing & utilities was the largest expenditure category for all household types, the weight for housing & utilities was the highest for retiree households compared to the other household types, at 47.8 per cent. This reflected primarily the higher share of owner-occupied accommodation (OOA) cost3 in the expenditure basket of retiree households, at 38.6 per cent compared to 19.0 per cent for the general households. It should however be further noted that OOA cost – which is computed based on the imputed rental concept – does not have an impact on the actual cash expenditure of households who own their homes. These would include the majority of retiree households.

10 Conversely, the weights for food for the retiree households and highest 20% income group were the lowest compared to other household types. Within food, the retiree households spent proportionately more on food excluding food servicing services (e.g., non-cooked food items like fresh seafood, vegetables and meat), which accounted for about three-fifths of the overall weight for food. This was in

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3 The OOA cost is included in the CPI expenditure basket to reflect the cost to home owners of utilising the flow of services provided by their homes. The computation of OOA cost is based on the imputed rental concept. Under this concept, the OOA cost is measured in terms of the expected rental the owner would have to pay if he were a tenant of the premises. It does not entail actual cash expenditure. As most households in Singapore own their homes, including the majority of retiree households, OOA cost does not have a direct impact on their actual cash expenditure.
contrast to other household types which spent relatively more on food servicing services (e.g., restaurant and fast food meals). Reflecting the higher demand for health care products and services by elderly persons, the weight for health care was the highest for retiree households among all household types, at 10.7 per cent. Specifically, compared to the general households, the retiree households had relatively higher expenditure shares on inpatient hospital, as well as polyclinic and specialist outpatient medical services, etc.

The share for transport was the lowest for retiree households at 5.8 per cent compared to other households, due to the relatively lower expenditure weight for both private and public road transport. Recreation & culture which included items such as holiday travel, cable TV and newspapers accounted for 6 per cent of the total household expenditure of retiree households, lower than that for other household types, except for the lowest 20% income group.

Chart 1 2014-based CPI Weighting Pattern for Retiree Households
1 Household income group is based on ranking of all resident households by their monthly household income from all sources (incl. imputed rental of owner-occupied accommodation).

2 Others include Clothing & Footwear, Communication, Education, as well as Miscellaneous Goods & Services.

IV Inflation Rates by Household Types, 2009 – 2015

12 The average CPI-All Items inflation rate for retiree households was 2.4 per cent per annum between 2009 and 2015, the lowest among all household types (Chart 3).

13 Excluding imputed rentals on OOA which do not involve actual cash expenditure for households who own their homes, the CPI for retiree households increased by an average of 1.9 per cent per annum between 2009 and 2015. This inflation rate was slightly higher than that for the lowest 20% income group (1.8 per cent) but lower than that for general households (2.4 per cent), middle 60% (2.3 per cent) and highest 20% (2.6 per cent) income groups.

14 For each year between 2009 and 2015, the annual CPI-All Items inflation rate for retiree households generally fell within the range of inflation rates registered by other household types, except in 2010 and 2015 (Table 1). For
example, in 2009, the CPI-All Items for retiree households rose by 1.7 per cent, higher than that for general households (0.6 per cent), middle 60% (0.9 per cent) and highest 20% (-0.1 per cent) income groups, but lower than that for the lowest 20% income group (2.1 per cent).

15 In 2010, the CPI-All Items for retiree households went up by 2.0 per cent, the lowest among all household types. This reflected a smaller increase in private transport costs for them. In particular, as the expenditure weight for cars was lower for retiree households as compared to the other household types, the sharp increase in car prices in 2010 had a smaller inflationary impact on them.

16 In 2015, the CPI-All Items for retiree households fell by 2.0 per cent, compared to other household types which experienced smaller declines ranging from 0.3 to 1.1 per cent (Table 2). The larger decline in the CPI-All Items for retiree households was due to lower accommodation and healthcare services costs, which had a larger impact on retiree households because these expenditure items accounted for a bigger share of their expenditure basket. Though food prices contributed positively to the inflation rate of all household types, their contribution was the smallest for retiree households due to the relatively lower weight for food in their expenditure basket. Excluding imputed rentals on OOA, the CPI for retiree households fell by 1.4 per cent in 2015. This was also the largest decline among all household types.

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4 This takes into account various Government subsidies for healthcare services (e.g. Pioneer Generation members), including support for MediShield Life premiums.
Chart 3  Average Change in CPI Per Annum by Household Types, 2009 - 2015 (%)

Table 1  Percent Change in CPI-All Items, 2009 – 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>General Households</th>
<th>Lowest 20% Income Group</th>
<th>Middle 60% Income Group</th>
<th>Highest 20% Income Group</th>
<th>Retiree Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>0.6</td>
<td>2.1</td>
<td>0.9</td>
<td>-0.1</td>
<td>1.7</td>
</tr>
<tr>
<td>2010</td>
<td>2.8</td>
<td>2.4</td>
<td>2.7</td>
<td>3.1</td>
<td>2.0</td>
</tr>
<tr>
<td>2011</td>
<td>5.2</td>
<td>4.7</td>
<td>5.1</td>
<td>5.7</td>
<td>5.2</td>
</tr>
<tr>
<td>2012</td>
<td>4.6</td>
<td>5.6</td>
<td>4.7</td>
<td>4.2</td>
<td>5.5</td>
</tr>
<tr>
<td>2013</td>
<td>2.4</td>
<td>2.7</td>
<td>2.4</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>2014</td>
<td>1.0</td>
<td>1.5</td>
<td>1.2</td>
<td>0.7</td>
<td>1.4</td>
</tr>
<tr>
<td>2015</td>
<td>-0.5</td>
<td>-1.1</td>
<td>-0.3</td>
<td>-0.7</td>
<td>-2.0</td>
</tr>
</tbody>
</table>

1 Household income group is based on ranking of all resident households by their monthly household income from all sources (incl. imputed rental of owner-occupied accommodation).

2 Retiree households are those comprising solely non-working persons aged 60 years and above.
### Table 2 Percent Change in CPI by Divisions, 2015

<table>
<thead>
<tr>
<th>Division</th>
<th>Household Type(^1)</th>
<th>General Households</th>
<th>Lowest 20% Income Group</th>
<th>Middle 60% Income Group</th>
<th>Highest 20% Income Group</th>
<th>Retiree Households(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALL ITEMS</td>
<td>-0.5</td>
<td>-1.1</td>
<td>-0.3</td>
<td>-0.7</td>
<td>-2.0</td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>1.9</td>
<td>1.6</td>
<td>1.9</td>
<td>2.1</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Housing &amp; utilities</td>
<td>-3.5</td>
<td>-3.3</td>
<td>-3.5</td>
<td>-3.6</td>
<td>-3.3</td>
<td></td>
</tr>
<tr>
<td>Household durables &amp; services</td>
<td>-0.6</td>
<td>-0.7</td>
<td>-0.6</td>
<td>-0.6</td>
<td>-0.9</td>
<td></td>
</tr>
<tr>
<td>Health care</td>
<td>-0.1</td>
<td>-3.1</td>
<td>-0.3</td>
<td>1.5</td>
<td>-5.2</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>-1.4</td>
<td>0.7</td>
<td>-0.3</td>
<td>-2.6</td>
<td>-2.9</td>
<td></td>
</tr>
<tr>
<td>Recreation &amp; culture</td>
<td>0.3</td>
<td>0.5</td>
<td>0.4</td>
<td>0.2</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Others(^3)</td>
<td>1.3</td>
<td>0.5</td>
<td>1.2</td>
<td>1.4</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>All Items less Imputed Rentals on Owner-Occupied Accommodation</td>
<td>0.1</td>
<td>-0.4</td>
<td>0.3</td>
<td>-0.1</td>
<td>-1.4</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Household income group is based on ranking of all resident households by their monthly household income from all sources (incl. imputed rental of owner-occupied accommodation).

\(^2\) Retiree households are those comprising solely non-working persons aged 60 years and above.

\(^3\) Others include Clothing & Footwear, Communication, Education, as well as Miscellaneous Goods & Services.

V Historical Series

17 To facilitate comparison of price changes over time, annual CPI inflation rates for retiree households from 2009 to 2015 are included in the Statistical Appendix.
**TABLE A**  
PERCENTAGE CHANGE IN CONSUMER PRICE INDEX OVER PREVIOUS YEAR  
FOR RETIREE HOUSEHOLDS\(^1\)  
(Base Year 2014 = 100)

<table>
<thead>
<tr>
<th></th>
<th>All Items</th>
<th>Food</th>
<th>Housing &amp; Utilities</th>
<th>Household Durables &amp; Services</th>
<th>Healthcare</th>
<th>Transport</th>
<th>Recreation &amp; Culture</th>
<th>Others(^2)</th>
<th>All Items Less Imputed Rentals on Owner-Occupied Accommodation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weights</strong></td>
<td>10,000</td>
<td>1,835</td>
<td>4,783</td>
<td>576</td>
<td>1,073</td>
<td>576</td>
<td>596</td>
<td>561</td>
<td>6,143</td>
</tr>
<tr>
<td><strong>Percentage Change Over Previous Year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>-2.0</td>
<td>1.4</td>
<td>-3.3</td>
<td>-0.9</td>
<td>-5.2</td>
<td>-2.9</td>
<td>0.5</td>
<td>0.0</td>
<td>-1.4</td>
</tr>
<tr>
<td>2014</td>
<td>1.4</td>
<td>2.9</td>
<td>0.2</td>
<td>2.4</td>
<td>3.5</td>
<td>0.3</td>
<td>2.1</td>
<td>0.4</td>
<td>2.1</td>
</tr>
<tr>
<td>2013</td>
<td>2.6</td>
<td>2.0</td>
<td>3.0</td>
<td>6.0</td>
<td>3.6</td>
<td>1.0</td>
<td>1.0</td>
<td>0.2</td>
<td>1.6</td>
</tr>
<tr>
<td>2012</td>
<td>5.5</td>
<td>2.5</td>
<td>8.7</td>
<td>2.9</td>
<td>5.5</td>
<td>4.3</td>
<td>1.5</td>
<td>0.4</td>
<td>3.7</td>
</tr>
<tr>
<td>2011</td>
<td>5.2</td>
<td>3.2</td>
<td>9.0</td>
<td>7.6</td>
<td>2.5</td>
<td>5.7</td>
<td>-5.8</td>
<td>0.4</td>
<td>2.8</td>
</tr>
<tr>
<td>2010</td>
<td>2.0</td>
<td>1.7</td>
<td>2.3</td>
<td>1.3</td>
<td>2.0</td>
<td>4.1</td>
<td>1.3</td>
<td>0.1</td>
<td>2.6</td>
</tr>
<tr>
<td>2009</td>
<td>1.7</td>
<td>2.6</td>
<td>2.4</td>
<td>1.6</td>
<td>1.7</td>
<td>-4.1</td>
<td>-0.6</td>
<td>2.2</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

\(^1\) Retiree households are those comprising solely non-working persons aged 60 years and over.  

\(^2\) Others include Clothing & Footwear, Communication, Education, as well as Miscellaneous Goods & Services.
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