Measuring households’ experience of price change: the Household Costs Indices (HCIs)

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Timeline of the HCIs development

- **2012**: RPI consultation (1) RPI as a legacy measure
- **2014**: Johnson Review Focus on subgroup measures is more meaningful
- **2016**: National Statistician’s statement ONS to develop HCIs
- **2018**: Towards a Household Inflation Index Astin & Leyland proposal
- **2020**: Household Costs Indices Ongoing development
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Office for National Statistics
The National Statistician defines three “use cases” for consumer price statistics
The three “Use cases” define a requirement for:

- A measure consistent with economic concepts and approaches
- Looking at price changes as experienced by households
- Long-standing, existing contracts that need the RPI
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**CPIH:** Economic principles; most comprehensive measure; range of subgroups

**CPI:** Internationally comparable measure; omits owner occupiers’ housing costs

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**The Household Costs Indices:** Households’ experience of inflation; focus on subgroup measures; compare against matched income measure

**RPI:** Legacy measure; range of measures reduced
What are the Household Costs Indices?
## The HCIs: definition

<table>
<thead>
<tr>
<th></th>
<th>CPIH</th>
<th>HCIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weighting structure</strong></td>
<td>Plutocratic</td>
<td>Democratic</td>
</tr>
<tr>
<td><strong>Coverage</strong></td>
<td>Domestic</td>
<td>National (future work)</td>
</tr>
<tr>
<td><strong>Timing of price changes</strong></td>
<td>Acquisition (with some use)</td>
<td>Payments (and acquisition)</td>
</tr>
<tr>
<td><strong>Owner occupied housing</strong></td>
<td>Rental equivalence</td>
<td>Payments</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td>Excluded</td>
<td>Included</td>
</tr>
<tr>
<td><strong>Insurance weight</strong></td>
<td>Net of claims pool</td>
<td>Gross of claims pool</td>
</tr>
<tr>
<td><strong>Capital costs</strong></td>
<td>Excluded</td>
<td>Excluded</td>
</tr>
</tbody>
</table>
International comparisons

Stats New Zealand:
• Household Living Costs Price Indexes
  o Democratic weights, OOH on a payments basis, gross insurance, other interest on debt

Australian Bureau of Statistics:
• Selected Living Costs Indexes
  o OOH on a payments basis, gross insurance and consumer credit charges
The subgroups

[icons representing various subgroups]
HCIs, low and high income deciles (12-m % growth)
HCIs by tenure type (12-m % growth)
HCIs by tenure type (12-m % growth)
HCIs by retirement status (index, FYE 2006=100)

MEHD Income FYE 2006
Retired = £17,931
Non-retired = £28,512
HCIs by retirement status (index, FYE 2006=100)

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Conceptual challenges and users needs
Prices or costs?
Interest paid vs interest accrued
Interest paid vs interest accrued

Match to income measure? (...tail wagging the dog)
Interest paid vs interest accrued

Compare with unmatched income measure?
Implications of measuring payments
Implications of measuring on a payments basis

Consumers can:

• Pay now for current consumption
  o Payments = use (and probably = acquisition)

• Pay later for current consumption (or pay now for earlier consumption)
  o Finance: student loans, new and used cars, white goods, etc.

• Pay now for future consumption
  o Mortgage capital, pension contributions (mandatory vs voluntary, savings
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Managing the trade off...
ESCOE/ ONS workshop

The conceptual foundations of the Household Costs Indices

• Discussion topics:
  • What should the HCIs be measuring?
  • Where should we measure payments rather than acquisition prices?
  • What other items should be in scope?
  • What should be the development priorities going forward?

• Mix of attendees
Following up on the workshop

Reviewed in detail with Stakeholder Advisory Panel

National Statistician statement on future of HCIs:

- Aim for quarterly publication
- National Statistic by 2025
- Variant measure for later development: HCIs-Capital
- Further exploration of variants, e.g. mandatory pension contributions
On Household Costs Indices (Weale, 2020)

Examined the HCIs against a consumption framework:

• Supported the use of democratic weights and gross insurance

• Treatment of interest should be symmetrical
  • Analysis should be carried out to understand the impact of not doing so

• Payments framework should not be extended further
  • Saving for future consumption is harder to measure than delayed payment of current consumption
  • student loan repayments can be considered as a graduate tax
Questions
ANNEX A: Constructing the HClIs
Democratic weights and subgroup assignment

1. Household-level survey records do not sum to national accounts class totals

Household Records

a) Expenditure (£)

b) Expenditure (£)

Living Costs & Food survey

Household Final Consumption Expenditure
Democratic weights and subgroup assignment

2. Household-level survey records are scaled proportionally to equal national accounts class totals.
3. But a low number of households have recorded expenditure from Class C2, and the total is less than half of the national accounts total. This results in a large amount of expenditure being assigned to household b.
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4. Instead, the proportion of spending at the group level is used for each household.
5. And Class-level spending for C2 is assigned on the basis of Group-level proportions instead.
## Data for other elements (HCIs)

<table>
<thead>
<tr>
<th>Item</th>
<th>Component</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage interest payments</td>
<td>Price index (debt profile)</td>
<td>RPI (UK HPI, Bank of England, LCF)</td>
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<tr>
<td></td>
<td>Expenditure weight</td>
<td>RPI (LCF)</td>
</tr>
<tr>
<td>Interest (other)</td>
<td>Price index (simple revaluation)</td>
<td>Bank of England</td>
</tr>
<tr>
<td></td>
<td>Expenditure weight</td>
<td>LCF and Wealth and Assets Survey</td>
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<tr>
<td>Student loan repayments</td>
<td>Price index (threshold model)</td>
<td>Labour Force Survey, Gov.uk</td>
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<td></td>
<td>Expenditure weight</td>
<td>SLC published tables</td>
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<tr>
<td>Tuition fees paid upfront</td>
<td>Price index</td>
<td>CPIH (HESA, OFS)</td>
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<td></td>
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<td>SLC &amp; HESA published tables</td>
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<tr>
<td>Insurance</td>
<td>Expenditure weight</td>
<td>RPI (LCF), population projections</td>
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</tbody>
</table>
Limitations

• No household-specific price data:
  • Assume different households face same prices
  • Regional subgroups?
• HHFCE & LCF coverage differences
• Sample sizes
• Pandemic limitations: relevance