

# Enhancing the Australian CPI

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- Views expressed in this presentation are those of the authors and do not necessarily represent those of the Australian Bureau of Statistics



# Enhancements

- Enhancement program since 2014
- Focus on topics high-lighted in 16<sup>th</sup> Series CPI review



# Enhancement papers

- Roadmap (Aug 2015)
- Annual re-weighting of the CPI (July 2016)
- Making greater use of transactions data (Nov 2016)
- More to come, input from academics and NSOs



# Multilateral methods

1. Gini, Eltetö and Köves, and Szulc (GEKS): geometric mean of all ratios of bilateral (Törnqvist) indexes where each entity is taken in turn as base

$$I_{i,j}^{-0.5}$$

2. Time product Dummy (TPD): WLS regression of (log) price against time and product dummy variables









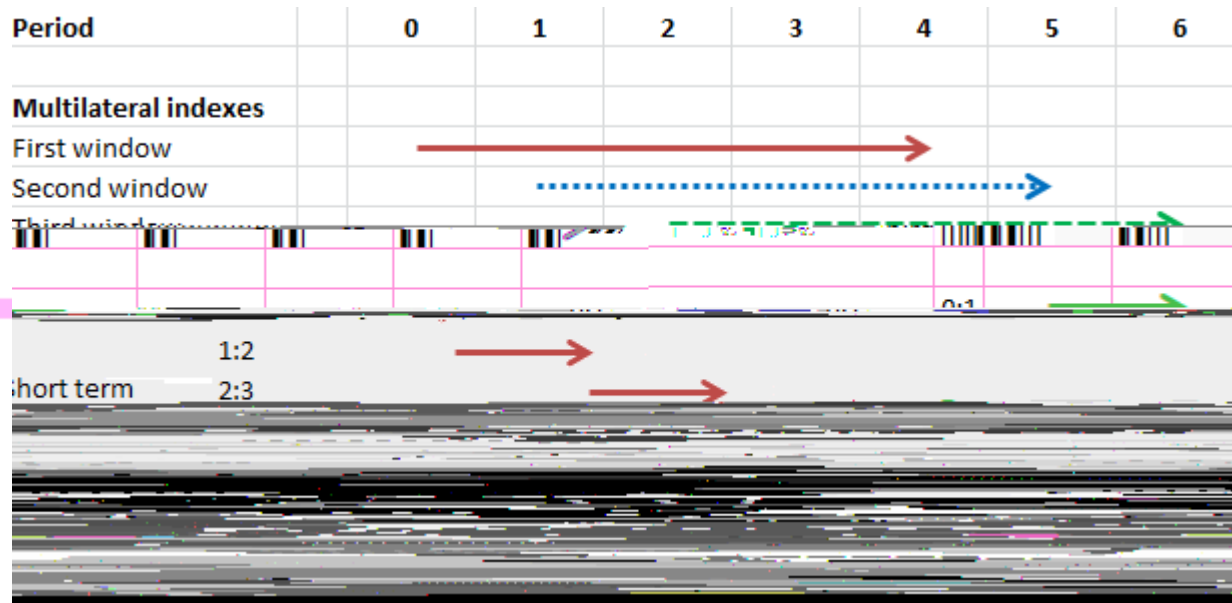
# Extension methods

2. Movement splice (rolling window): use the previous period price index as the pivot, and apply the price movement estimated from the new multilateral window



# Extension methods

3. Window splice (rolling window): use the period at start of the splicing window as the pivot, and apply full price movement across the new multilateral window



# Extension methods

4. Half splice (rolling window): use a period in the middle of the splicing window as the pivot, and apply half of the price movement from the new window





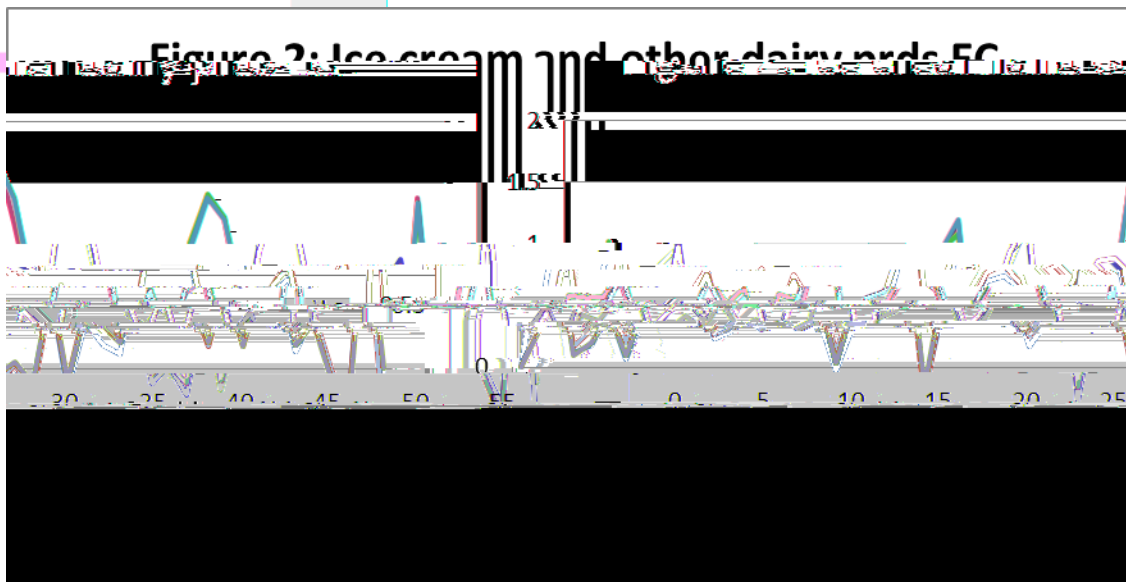
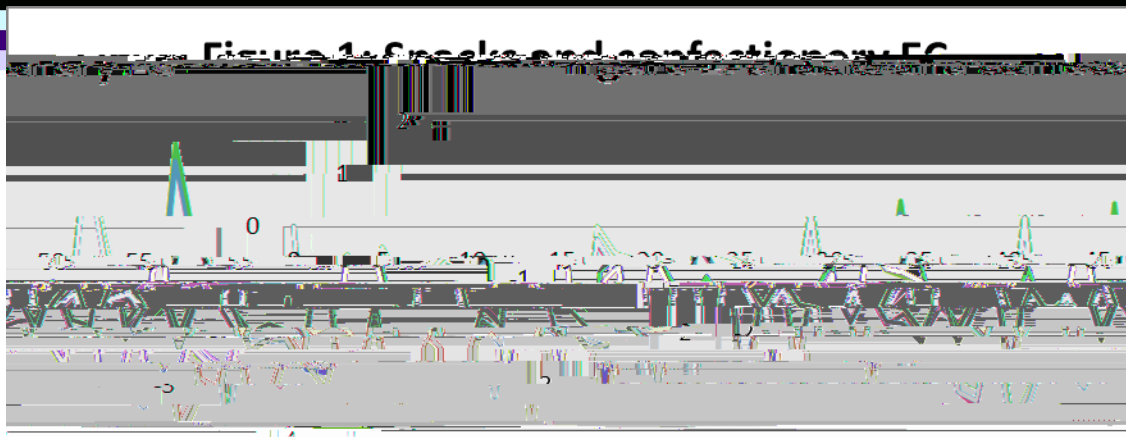
# Assessing methods

# Empirical results

- Empirical results presented at two levels of aggregation:



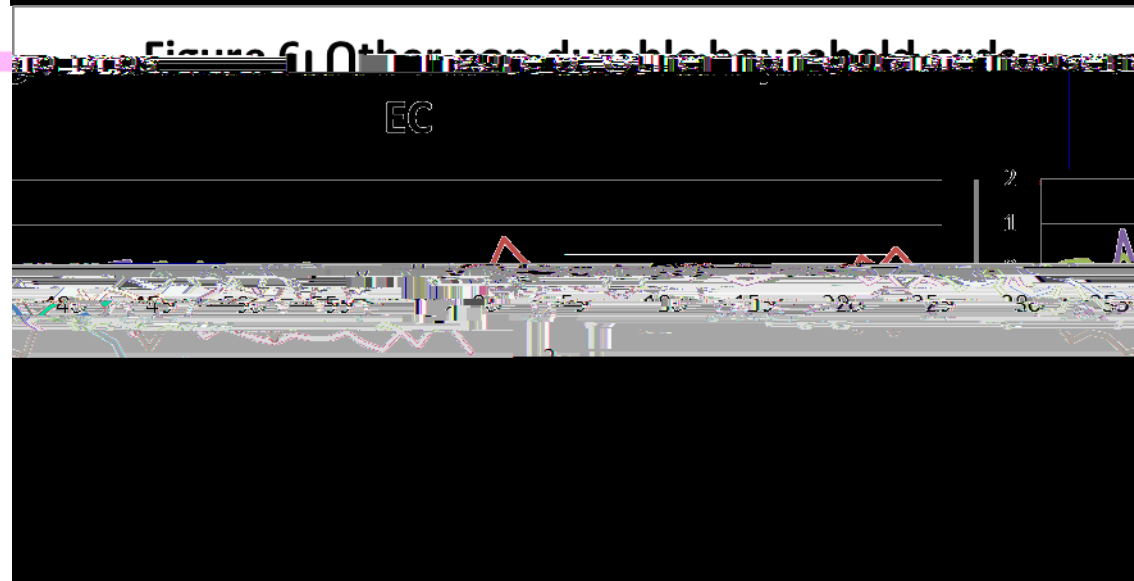
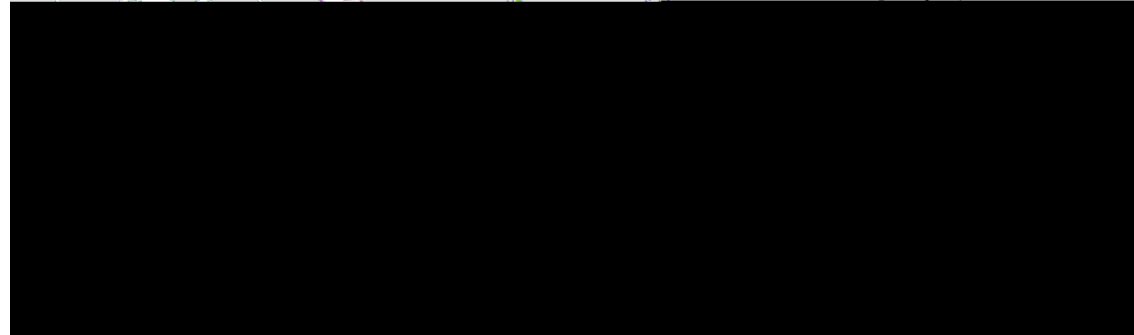
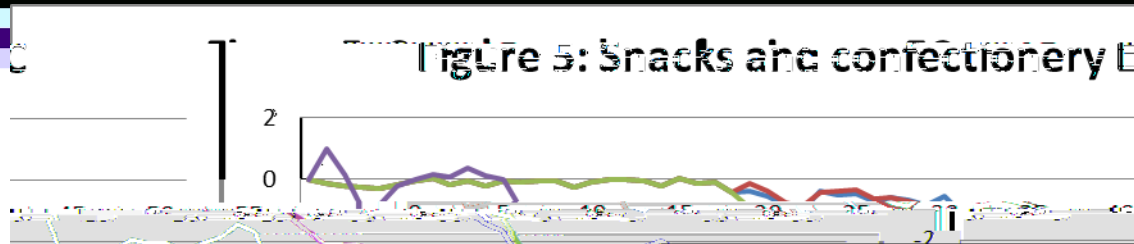
# Empirical results: 'respondent x city' level



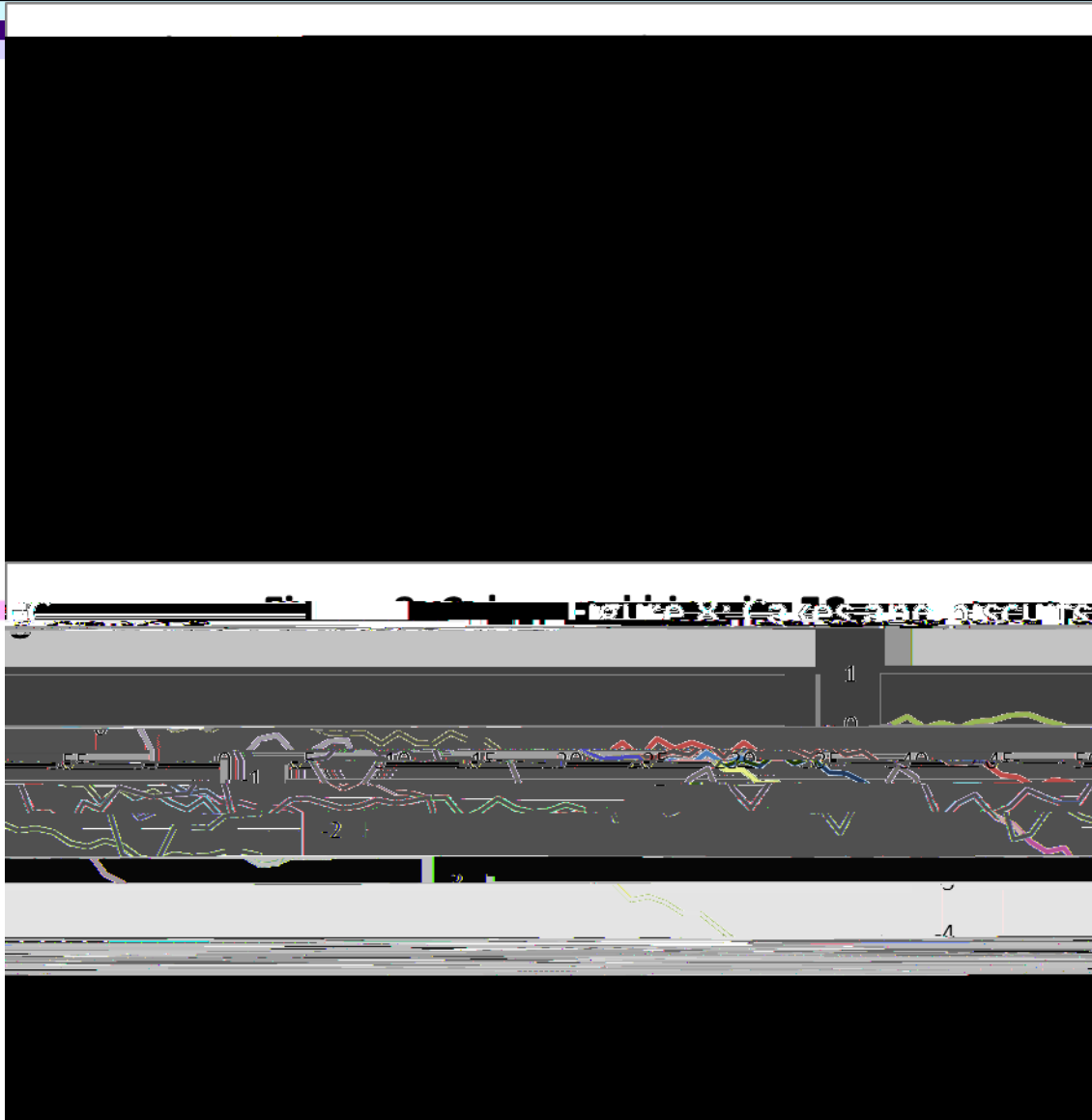




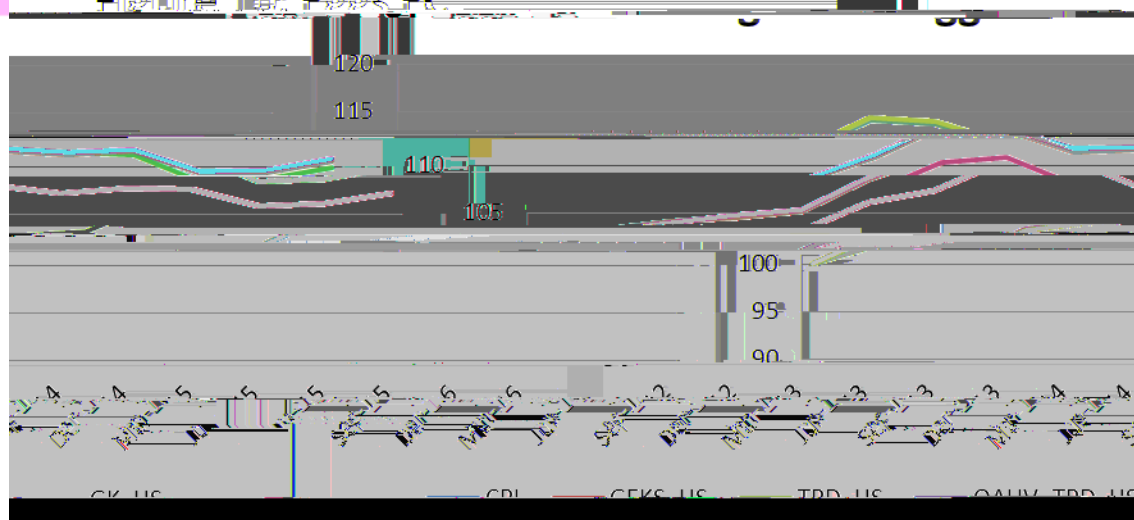
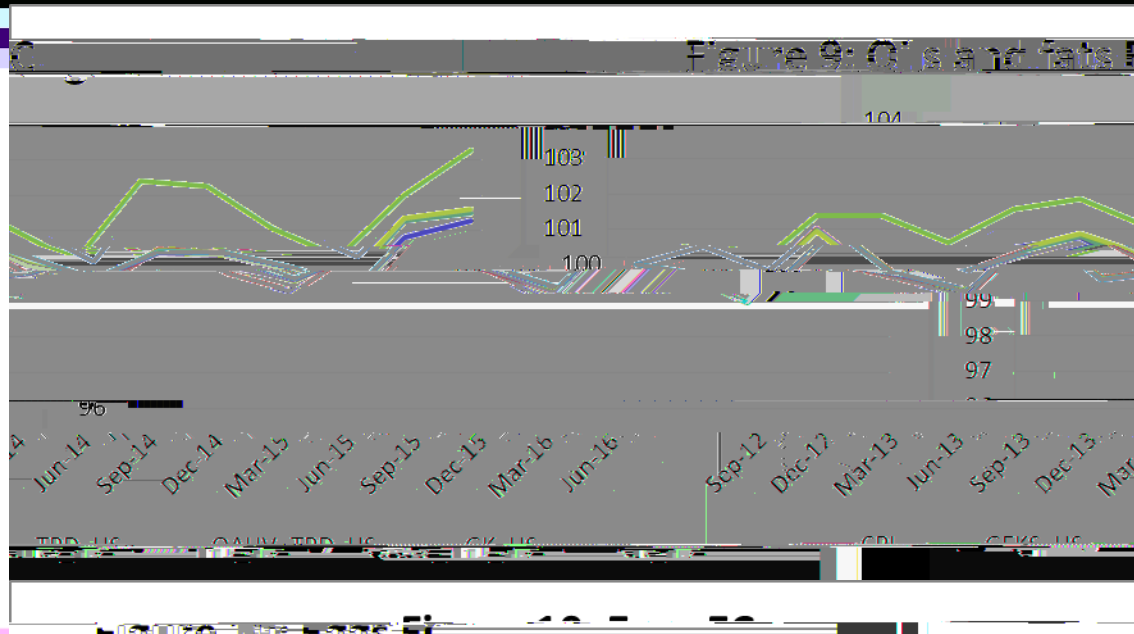
# Empirical results: 'respondent x city' level



# Empirical results: 'respondent x city' level



# Empirical results: published level



# Empirical results: published level

Figure 11: Tobacco-EC



Figure 12: Fruit-EC



# Conclusions

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