Retrospective of the CE-PCE Comparisons and a look to the future

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Outline

- Consumer Expenditures (CE) Overview
- Personal Consumption Expenditures (PCE) Overview
- The Comparison
- Retrospective
- Going Forward
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**Consumer Expenditure Survey Overview**

- CE Surveys collect the following data:
  - Expenditures
  - Demographics
  - Income
  - Assets and Liabilities

- The only nationally representative survey to collect the complete range of all three.
Consumer Expenditure Survey Overview

- The CE is a nationwide survey designed to represent the entire U.S. civilian noninstitutionalized population.

- Under contract, the BLS pays the U.S. Census Bureau to collect CE data from consumer units (CUs) or households - people living at one address who share living expenses.

- Survey participants report dollar amounts for all non-investment purchases. Business expenses and reimbursements are excluded.
Consumer Expenditures Overview

- CE provides survey weights for the Consumer Price Index.
- Relative importance of categories is derived from the share of total expenditures.
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Personal Consumption Expenditures Overview

- Consumer spending is the value of the goods and services purchased by, or on the behalf of, U.S. residents.

- Drawn from a mix of establishment and household surveys.
  - Economic Census
  - Services Annual Survey
  - Quarterly Services Survey
  - Annual Retail Trade Survey
  - Advance Monthly Retail Sales Survey
  - Consumer Expenditure Survey
Personal Consumption Expenditures Overview

- Produced and released monthly as a part of the National Income and Product Accounts (NIPA).

- The source data used for the PCE estimates are complete only for benchmark years (e.g., 2007, 2012)

- Extrapolation used to create the monthly values.
  - Retail control method for most goods is based on data from the Monthly Retail Trade Survey (MRTS)
  - The remaining items are estimated using other indicator series.

- End result is aggregate spending for the nation by category.

- Estimates going back a few years are adjusted with releases.

- A price index, used by the Fed, is generated from PCE data.
CPI and PCE Levels

Index 2000=100

Source: FRED, Federal Reserve Bank of St. Louis.

2014 data
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The Comparison

- Both data sources purport to measure the same basic phenomenon—personal expenditures for consumers.

- Inherent differences are present between the two data sources.
  - Coverage
  - Definitional
  - Measurement
Coverage

- Included in PCE but not in CE
  - Nonprofit Institutions Serving Households (NPISH)
    - About 2 to 3 percent of PCE expenditures
  - Institutionalized populations
  - Domestic military on post
  - Military stationed abroad
  - U.S. citizens working abroad for less than 1 year who usually live in the U.S.

- Included in CE but not in PCE
  - Students
  - Temporary workers
  - Foreign nationals residing in the U.S. who are employees of other countries.
Definitional

- Households vs. Consumer Units
- Expenditures in PCE with no CE counterpart
  - Third party expenditures by government and employers
  - Financial Services and Insurance
- Insurance is often non-comparable
  - PCE measures this based on costs incurred by companies
  - CE measures this based on premiums paid by consumers
- Transfer payments in CE
  - Social Security, Charitable Contributions, and Donations
Measurement

- Underestimation by households in CE
  - Gambling, Alcohol, and Tobacco
  - Respondent underestimation of other household members’ expenditures
- Sampling error in PCE source surveys
- Response rate decline in all surveys
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Retrospective

- Topline comparison of aggregate values, adjusted for comparability and population, produced a CE-PCE ratio of 77 percent for the most recent data (2017).

- Comparable categories are consistent over the last eight years.

- Durables ratio appears to be improving and services ratio appears to decrease, though changes may be due to variance alone.

- Re-benchmarking could potentially change the comparison values considerably.
Comparable "Sin" Ratios over Time

- Gambling
- Alcohol
- Tobacco
Highly Comparable Ratios over Time

Motor Vehicles and Parts
Rent and Utilities
Communication
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Going Forward

- Benchmark Year
  - Updating the concordance
  - Shifting categories and reorganization of items

- Allocating previously unallocated expenditures can reduce the percentage of non-allocated items.

- Survey redesign may improve measurement issues on the CE side.
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