Personal Consumption Expenditures

New Classification System

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BEA Advisory Committee Meeting
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PCE Classification

Background

- PCE classification system born in 1944
  - Since 1944 . . .
    - Large increases in consumer incomes
    - Changes—demographic, technological, cultural, legal, tastes
    - Many new goods and services
    - Increased importance of services, including nonprofit organizations
    - Marginalization/obsolescence of other goods and services
    - New and expanded sources of funding

- PCE classification in 2008
  - About the same as 1944
## PCE Functional Structure

<table>
<thead>
<tr>
<th>1944</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and tobacco</td>
<td>Food and tobacco</td>
</tr>
<tr>
<td>Clothing, accessories, and jewelry</td>
<td>Clothing, accessories, and jewelry</td>
</tr>
<tr>
<td>Personal care</td>
<td>Personal care</td>
</tr>
<tr>
<td>Housing</td>
<td>Housing</td>
</tr>
<tr>
<td>Household operation</td>
<td>Household operation</td>
</tr>
<tr>
<td>Medical care and death expenses</td>
<td>Medical care</td>
</tr>
<tr>
<td>Personal business</td>
<td>Personal business</td>
</tr>
<tr>
<td>Transportation</td>
<td>Transportation</td>
</tr>
<tr>
<td>Recreation</td>
<td>Recreation</td>
</tr>
<tr>
<td>Private education and research</td>
<td>Education and research</td>
</tr>
<tr>
<td>Religious and welfare activities</td>
<td>Religious and welfare activities</td>
</tr>
<tr>
<td>Foreign travel and remittances, net</td>
<td>Foreign travel and other, net</td>
</tr>
</tbody>
</table>
## PCE Product Structure

<table>
<thead>
<tr>
<th>1954</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Durable goods</strong></td>
<td><strong>Durable goods</strong></td>
</tr>
<tr>
<td>Automobiles and parts</td>
<td>Motor vehicles and parts</td>
</tr>
<tr>
<td>Other</td>
<td>Furniture and household equipment</td>
</tr>
<tr>
<td><strong>Nondurable goods</strong></td>
<td><strong>Nondurable goods</strong></td>
</tr>
<tr>
<td>Food</td>
<td>Food and beverages</td>
</tr>
<tr>
<td>Clothing and shoes</td>
<td>Clothing and shoes</td>
</tr>
<tr>
<td>Gasoline and oil</td>
<td>Gasoline, fuel oil, and other energy goods</td>
</tr>
<tr>
<td>Other</td>
<td>Fuel oil and coal</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td><strong>Services</strong></td>
</tr>
<tr>
<td>Housing</td>
<td>Household operation</td>
</tr>
<tr>
<td>Household operation</td>
<td>Household operation</td>
</tr>
<tr>
<td>Electricity and gas</td>
<td>Other</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td><strong>Transportation</strong></td>
</tr>
<tr>
<td>Other</td>
<td>Medical care</td>
</tr>
<tr>
<td>Other</td>
<td>Recreation</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>
New PCE Classification
What It Is

- New structures
  - Type of expenditure (functional)
  - Type of product (by durability)

- Functional structure combines structures for individual and nonprofit consumption in the 1993 UN System of National Accounts
  - Classification of Individual Consumption by Purpose (COICOP)
  - Classification of Total Outlays of Non-Profit Institutions Serving Households (NPISH) by Purpose (COPNI)

- Product structure more closely aligned with functional structure
New PCE Classification

What It Accomplishes

- Creates a relevant, logical and demand-based structure
- Accounts for transactions between households and NPISH
- Achieves greater consistency with household surveys
- Improves PCE deflation by precisely matching categories with associated price indexes
- Facilitates comparisons with other countries
- Achieves greater consistency with NAICS
New PCE Classification Incorporation

- 2002 I/O benchmark estimates
  - Released in September 2007
  - New PCE categories, not full aggregation structure

- Benchmark estimates in 2009
  - Time series back to 1929
# PCE Functional Classification: New and current

<table>
<thead>
<tr>
<th>NEW</th>
<th>1997 ($billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Consumption Expenditures</strong></td>
<td></td>
</tr>
<tr>
<td>1. Food and beverages purchased for off-premise consumption</td>
<td>474.9</td>
</tr>
<tr>
<td>2. Clothing and footwear</td>
<td>263.8</td>
</tr>
<tr>
<td>3. Housing and utilities</td>
<td>986.4</td>
</tr>
<tr>
<td>4. Furnishings, household equipment and routine household maintenance</td>
<td>282.7</td>
</tr>
<tr>
<td>5. Health</td>
<td>932.8</td>
</tr>
<tr>
<td>6. Transportation</td>
<td>634.4</td>
</tr>
<tr>
<td>7. <strong>Communication</strong></td>
<td>121.6</td>
</tr>
<tr>
<td>8. Recreation</td>
<td>521.9</td>
</tr>
<tr>
<td>9. Education</td>
<td>98.3</td>
</tr>
<tr>
<td>10. <strong>Food services and accommodations</strong></td>
<td>348.0</td>
</tr>
<tr>
<td>11. <strong>Financial services and insurance</strong></td>
<td>427.6</td>
</tr>
<tr>
<td>12. <strong>Other goods and services</strong></td>
<td>368.8</td>
</tr>
<tr>
<td><strong>Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)</strong></td>
<td>107.3</td>
</tr>
</tbody>
</table>

- **No change in total**

<table>
<thead>
<tr>
<th>CURRENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Food and tobacco</td>
</tr>
<tr>
<td>2. Clothing, accessories, and jewelry</td>
</tr>
<tr>
<td>3. Personal care</td>
</tr>
<tr>
<td>4. Housing</td>
</tr>
<tr>
<td>5. Household operation</td>
</tr>
<tr>
<td>6. Medical care</td>
</tr>
<tr>
<td>7. Personal business</td>
</tr>
<tr>
<td>8. Transportation</td>
</tr>
<tr>
<td>9. Recreation</td>
</tr>
<tr>
<td>10. Education and research</td>
</tr>
<tr>
<td>11. Religious and welfare activities</td>
</tr>
<tr>
<td>12. Foreign travel by U.S. residents</td>
</tr>
</tbody>
</table>

**Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)**

- No change in total
PCE Functional Classification: New and current

NEW

Household Consumption Expenditures
1. Food and beverages purchased for off-premise consumption
2. Clothing and footwear
3. Housing and utilities
4. Furnishings, household equipment and routine household maintenance
5. Health
6. Transportation
7. Communication
8. Recreation
9. Education
10. Food services and accommodations
11. Financial Services and Insurance
12. Other goods and services
13. Net foreign travel and expenditures abroad

Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)

CURRENT

1. Food and tobacco
2. Clothing, accessories, and jewelry
3. Personal care
4. Housing
5. Household operation
6. Medical care
7. Personal business
8. Transportation
9. Recreation
10. Education and research
11. Religious and welfare activities
12. Foreign travel by U.S. residents

Disappearing Categories
PCE Functional Classification: New and current

NEW
Household Consumption Expenditures
1. Food and beverages purchased for off-premise consumption
2. Clothing and footwear
3. Housing and utilities
4. Furnishings, household equipment and routine household maintenance
5. Health
6. Transportation
7. Communication
8. Recreation
9. Education
10. Food services and accommodations
11. Financial services and insurance
12. Other goods and services
13. Net foreign travel and expenditures abroad

Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)

CURRENT
1. Food and tobacco
2. Clothing, accessories, and jewelry
3. Personal care
4. Housing
5. Household operation
6. Medical care
7. Personal business
8. Transportation
9. Recreation
10. Education and research
11. Religious and welfare activities
12. Foreign travel by U.S. residents

www.bea.gov
PCE Functional Classification: New and current

NEW
Household Consumption Expenditures
1. Food and non-alcoholic beverages
2. Clothing and footwear
3. Housing and utilities
4. Furnishings, household equipment and routine household maintenance
5. Health
6. Transportation
7. Communication
8. Recreation
9. Education
10. Food services and accommodations
11. Financial services and insurance
12. Other goods and services
13. Net foreign travel and expenditures abroad

Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)

CURRENT
1. Food and tobacco
2. Clothing, accessories, and jewelry
3. Personal care
4. Housing
5. Household operation
6. Medical care
7. Personal business
8. Transportation
9. Recreation
10. Education and research
11. Religious and welfare activities
12. Foreign travel by U.S. residents

www.bea.gov
PCE Functional Classification: New and current

NEW
Household Consumption Expenditures
1. Food and beverages purchased for off-premise consumption
2. Clothing and footwear
3. Housing and utilities
4. Furnishings, household equipment and routine household maintenance
5. Health
6. Transportation
7. Communication
8. Recreation
9. Education
10. Food services and accommodations
11. Financial Services and Insurance
12. Other goods and services
13. Net foreign travel and remittances

Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)

CURRENT
1. Food and tobacco
2. Clothing, accessories, and jewelry
3. Personal care
4. Housing
5. Household operation
6. Medical care
7. Personal business
8. Transportation
9. Recreation
10. Education and research
11. Religious and welfare activities
12. Foreign travel by U.S. residents
New PCE Functional Classification

- Household Consumption Expenditures
  (Categories 1 to 13)
  - Includes: Purchases from nonprofits

- Final Consumption Expenditures of Nonprofit Institutions Serving Households (NPISH)
  - Equals: Gross Consumption Expenditures Less
    Sales to Households
# PCE Product Classification

## NEW Structure

<table>
<thead>
<tr>
<th>Category</th>
<th>1997</th>
<th>CURRENT Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Durable Goods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor vehicles and parts</td>
<td>721.6</td>
<td>692.7 Motor vehicle and parts</td>
</tr>
<tr>
<td>Furnishings and durable household equipment</td>
<td>293.1</td>
<td>305.1 Furniture and household equipment</td>
</tr>
<tr>
<td><strong>Recreational goods and vehicles</strong></td>
<td>166.0</td>
<td>256.2 Other</td>
</tr>
<tr>
<td>Other durable goods</td>
<td>154.6</td>
<td>131.4 Other</td>
</tr>
<tr>
<td><strong>Nondurable Goods</strong></td>
<td>107.8</td>
<td></td>
</tr>
<tr>
<td>Food and beverages purchased for off-premise consumption</td>
<td>1292.8</td>
<td>1619.0 Food</td>
</tr>
<tr>
<td>Clothing and footwear</td>
<td>474.9</td>
<td>796.2 Purchased meals to services</td>
</tr>
<tr>
<td>Gasoline and other energy goods</td>
<td>249.3</td>
<td>258.1 Clothing and shoes</td>
</tr>
<tr>
<td>Other nondurable goods</td>
<td>147.7</td>
<td>147.7 Gasoline, fuel oil &amp; other energy goods</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>421.0</td>
<td>416.9 Other</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>3533.0</td>
<td>3235.8 Services</td>
</tr>
</tbody>
</table>
### NEW Structure

<table>
<thead>
<tr>
<th>Services</th>
<th>1997</th>
<th>CURRENT Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household consumption expenditures</td>
<td>3533.0</td>
<td>3235.8</td>
</tr>
<tr>
<td>Housing and utilities</td>
<td>3425.7</td>
<td></td>
</tr>
<tr>
<td>Health care</td>
<td>973.2</td>
<td>842.6</td>
</tr>
<tr>
<td>Transportation services</td>
<td>803.8</td>
<td>337.0</td>
</tr>
<tr>
<td>Recreation</td>
<td>206.9</td>
<td>245.7</td>
</tr>
<tr>
<td>Food services &amp; accommodations</td>
<td>213.9</td>
<td>873.0</td>
</tr>
<tr>
<td>Financial services and insurance</td>
<td>348.0</td>
<td>215.1</td>
</tr>
<tr>
<td>Other services</td>
<td>427.6</td>
<td>722.4</td>
</tr>
<tr>
<td>Final consumption expenditures of nonprofit institutions serving households</td>
<td>452.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>107.3</td>
<td></td>
</tr>
</tbody>
</table>
### NEW Structure

**Durable Goods**
- ……

**Nondurable Goods**
- Food and beverages purchased for off-premise consumption
  - ……
  - Nondurable recreational items, n.e.c.
- ……

**Services**
- ……
  - Food services & accommodations
- ……

### CURRENT Structure

**Durable Goods**
- Motor vehicle and parts
- Furniture and household equipment
- Others

**Nondurable Goods**
- Food
  - ……
  - Clothing and shoes
  - Gasoline, fuel oil & other energy goods
  - Others

**Services**
- Housing
- Household operation services
- Transportation services
- Medical care services
- Recreation services
- Other services

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durable Goods</td>
<td>474.9</td>
</tr>
<tr>
<td>Nondurable Goods</td>
<td>18.2</td>
</tr>
<tr>
<td>Services</td>
<td>303.2</td>
</tr>
</tbody>
</table>

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*Source: www.bea.gov*
PCE Food Shares

1959
- Fresh food: 35%
- Other food: 43%
- Purchased meals and beverages: 22%

2007
- Fresh food: 17%
- Other food: 44%
- Purchased meals and beverages: 39%
PCE Food Price Indexes

Percent change from previous month, annual rate

Food and alcoholic beverages at home
Purchased meals and beverages
Volatility of PCE Food and Other Non-Energy Prices

RMSE of 1-month annual rate percent changes vs. trend

Food prices have very low volatility compared to other broad PCE categories

1997 to 2006
Volatility of prices excluded in current PCE excluding food and energy price index

- Purchased meals and beverages—Low
- Food purchased for off-premise consumption—Higher
  - Processed foods—Moderate
  - Fresh foods—High
- Energy—Very high

PCE excluding food and energy in the new classification will not exclude purchased meals and beverages

- Also true for market-based PCE excluding food and energy
- PCE less energy will also be available