Predicting the Markets: Chapter 6 Charts: Predicting Consumers

April 2, 2021

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thinking outside the box
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PERSONAL CONSUMPTION EXPENDITURES
(as a percent of nominal GDP)

Source: Bureau of Economic Analysis.

Figure 2.
PERSONAL CONSUMPTION EXPENDITURES
(as a percent of nominal GDP)

Source: Bureau of Economic Analysis.
Figure 3.

**LIVE BIRTHS***
(millions)

<table>
<thead>
<tr>
<th>Generation</th>
<th>Age Range</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greatest Generation</td>
<td>1910-1927 91-108 yrs old</td>
<td>47 million</td>
</tr>
<tr>
<td>Silent Generation</td>
<td>1928-1945 73-90 yrs old</td>
<td>52 million</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>1946-1964 54-72 yrs old</td>
<td>76 million</td>
</tr>
<tr>
<td>Gen X</td>
<td>1965-1980 38-53 yrs old</td>
<td>55 million</td>
</tr>
<tr>
<td>Gen Y Millenials</td>
<td>1981-1996 22-37 yrs old</td>
<td>62 million</td>
</tr>
<tr>
<td>Gen Z</td>
<td>1997-2010 8-21 yrs old</td>
<td>57 million</td>
</tr>
<tr>
<td>Gen Alpha</td>
<td>2011-2024 0-7 yrs old</td>
<td>28 million</td>
</tr>
</tbody>
</table>

* Ages shown for each group are as of 2018.

Figure 4.

**BIRTHS & GENERAL FERTILITY RATES**

* General Fertility rate measures live births per 1,000 women aged 15-44.
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Figure 5.

HOUSEHOLD & FAMILY AVERAGE SIZE

Average Number Of Persons
- Family
- Household

Source: Current Population Reports.

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US CONSUMER PRICE INDEX: TOTAL vs. COLLEGE COSTS
(1982-84=100)

Total
College Tuition & Fees

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Figure 7.
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(percent of labor force 16-34 years old)

Note: Oldest and youngest Baby Boomers turned 16 in 1962 and 1980, respectively.

Figure 8.
CIVILIAN LABOR FORCE PARTICIPATION RATE*
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* Labor force as percent of working-age population.
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Source: Census Bureau.

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(percent, weekly)

Source: Federal Home Loan Mortgage Corporation.
AVERAGE & MEDIAN DURATION OF UNEMPLOYMENT
(weeks, sa)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

HIRES, SEPARATIONS, LAYOFFS, and QUILTS
(12-month sum, millions)

Figure 15.

HOUSEHOLD & PAYROLL EMPLOYMENT
(millions, sa, ratio scale)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

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HOUSEHOLD & PAYROLL EMPLOYMENT
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Note: Extreme values for April not shown.
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PAYROLL EMPLOYMENT: REVISIONS
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**Figure 19.**

**PAYROLL EMPLOYMENT: REVISIONS**  
(12-month sum, millions)


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**PAYROLL EMPLOYMENT MEASURES**  
(monthly change, thousands, sa)

* Monthly change in nonfarm private payroll employment.  
Note: Extreme values for April not shown.  
Source: Bureau of Labor Statistics and ADP.
Figure 21.

PAYROLL EMPLOYMENT MEASURES
(Yearly change, millions)

Private Payrolls*
- ADP
- BLS

* Monthly change in nonfarm private payroll employment.
Source: Bureau of Labor Statistics and ADP.

Figure 22.

ADP NONFARM PRIVATE PAYROLL EMPLOYMENT BY COMPANY SIZE
(Millions, sa)

Company Size (by employees)
- Small (1-49)
- Medium (50-499)
- Large (over 500)

Source: ADP.
Figure 23.

ADP NONFARM PRIVATE PAYROLL EMPLOYMENT BY COMPANY SIZE*
(as a percent of total ADP payrolls)

Company Size (by employees)
- Small
- Medium
- Large

* Company size by employees: Small (1-49), Medium (50-499), and Large (over 500).
Source: ADP.

Figure 24.

MOST IMPORTANT PROBLEMS SMALL BUSINESSES FACE
(percent, 6-ma)

Source: National Federation of Independent Business.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: National Federation of Independent Business.
Figure 25.

**NFIB "POOR SALES" & UNEMPLOYMENT RATE (percent)**

Small Business Owners:
Percent Reporting Poor Sales (6-ma)
Unemployment Rate

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

Figure 26.

**NFIB: SMALL BUSINESS EARNINGS & POOR SALES (percent, 12-ma)**

Percent Reporting Poor Sales (inverted scale)
NFIB: Earnings Higher Minus Lower Past 3 Months

Source: National Federation of Independent Business.
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Figure 27.

NFIB SMALL BUSINESS SURVEY: JOB OPENINGS & UNEMPLOYMENT RATE

NFIB: Small Business with Job Openings* (percent, 3-month average)

Unemployment Rate (percent)


* First month of every quarter from 1974 to 1986, then monthly.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.


Figure 28.

LABOR FORCE & NOT IN LABOR FORCE (millions, sa, ratio scale)

Labor Force

Not In Labor Force

Figure 29.

NOT IN LABOR FORCE*
(millions, nsa)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Total</td>
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<td>53</td>
<td>54</td>
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<td>56</td>
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<td>65</td>
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<tr>
<td>16-24 Year Olds</td>
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<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
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<td>21</td>
<td>22</td>
<td>23</td>
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<tr>
<td>25-54 Years Old</td>
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<td>114</td>
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<td>121</td>
<td>122</td>
<td>123</td>
<td>124</td>
<td>125</td>
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<tr>
<td>65 Years &amp; Older</td>
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<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
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<td>15</td>
<td>16</td>
<td>17</td>
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<td>19</td>
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</table>

* Working-age population data are not seasonally adjusted.

Figure 30.

YRI EARNED INCOME PROXY vs. PRIVATE WAGES & SALARIES IN PERSONAL INCOME
(quarterly percent change)

<table>
<thead>
<tr>
<th>Year</th>
<th>YRI Earned Income Proxy*</th>
<th>Private Wages &amp; Salaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2.5</td>
<td>0.0</td>
</tr>
<tr>
<td>2008</td>
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<tr>
<td>2009</td>
<td>3.5</td>
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<td>4.0</td>
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<td>2011</td>
<td>4.5</td>
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<tr>
<td>2022</td>
<td>10.0</td>
<td>7.5</td>
</tr>
</tbody>
</table>

* Aggregate weekly hours times average hourly earnings of total private industries times 52.
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**Figure 31.**

**AVERAGE WORKWEEK**
(hours, sa)

Private Industry Workweek
- Manufacturing Workers
- Production & Nonsupervisory Employees
- All Workers

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

**Figure 32.**

**PRODUCTION & NONSUPERVISORY EMPLOYEES**

Percent of:
- Total Private Payroll Employment
- Total Payroll Employment

REAL AVERAGE HOURLY EARNINGS
PRODUCTION & NONSUPERVISORY EMPLOYEES*
(2012 dollars per hour, ratio scale)

* Average hourly earnings deflated by personal consumption expenditures deflator.

PERSONAL INCOME COMPONENTS*
(as percent of Personal Income)

* Pre-tax.
Source: Bureau of Economic Analysis.
Figure 35.
SUPPLEMENTS TO WAGES & SALARIES IN PERSONAL INCOME
(trillion dollars, saar)

Source: Bureau of Economic Analysis.

Figure 36.
SUPPLEMENTS TO WAGES & SALARIES IN PERSONAL INCOME
(as a percent of Wages & Salaries plus Supplements)

Source: Bureau of Economic Analysis.
**Figure 37.**

**PRE-TAX CORPORATE PROFITS & PROPRIETORS’ INCOME**
(billion dollars, saar, ratio scale)

- Corporate Profits* (2294.3)
- Proprietors’ Income* (1759.7)

* Including Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj), which restate the historical cost basis used in profits tax accounting for inventory withdrawals and depreciation to the current cost measures used in GDP.

Note: Shaded areas are recessions according to the National Bureau of Economic Research.

Source: Bureau of Economic Analysis.

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**Figure 38.**

**RATIO PROPRIETORS’ INCOME TO PRE-TAX CORPORATE PROFITS***

* Pre-tax corporate profits from current production and proprietors’ income both include Inventory Valuation Adjustment and Capital Consumption Adjustment, which are used to restate the historical cost basis used in profits tax accounting for inventory withdrawals and depreciation to the current cost measures used in GDP.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

Source: Bureau of Economic Analysis.
Figure 39.

RENTAL INCOME OF PERSONS IN PERSONAL INCOME*
(billion dollars, saar, ratio scale)

* For tenant-occupied property, rental income of persons is the income of the landlord from current production less the related expenses, such as depreciation, maintenance and repairs, property taxes, and mortgage interest. For owner-occupied property, rental income of persons is the imputed net income of the owner.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

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Figure 40.

TENANT & OWNER-OCCUPIED RENT IN PERSONAL CONSUMPTION EXPENDITURES
(billion dollars, saar, ratio scale)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.
**Figure 41.**

US GOVERNMENT SOCIAL BENEFITS TO PERSONS IN PERSONAL INCOME  
(percent of personal income)

*Source: Bureau of Economic Analysis.*

**Figure 42.**

PERSONAL CURRENT TAXES* IN PERSONAL INCOME  
(as a percent of Personal Income)

*Consists mostly of individual income taxes. Does not include payroll taxes.  
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.  
*Source: Bureau of Economic Analysis.*
Figure 43.

REAL DISPOSABLE PERSONAL INCOME vs. REAL PERSONAL CONSUMPTION EXPENDITURES  
(trillion 2012 dollars, saar ratio scale)

- Real Personal Consumption Expenditures
- Real Disposable Personal Income

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.  
Source: Bureau of Economic Analysis.

Figure 44.

REAL DISPOSABLE PERSONAL INCOME vs. REAL PERSONAL CONSUMPTION EXPENDITURES  
(yearly percent change)

- Real Personal Consumption Expenditures
- Real Disposable Personal Income

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.  
Source: Bureau of Economic Analysis.
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Figure 45.

PERSONAL SAVING RATE (percent)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 46.

REAL PERSONAL SAVING PER HOUSEHOLD* (thousand 2012 dollars, saar)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis and Census Bureau.

* 12-month sum in personal saving.
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Figure 47.
REAL PERSONAL CONSUMPTION EXPENDITURES PER HOUSEHOLD
(thousand 2012 dollars, saar, ratio scale)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

Figure 48.
REAL PERSONAL CONSUMPTION EXPENDITURES PER HOUSEHOLD
(thousand dollars, saar)

Source: Bureau of Economic Analysis.
Figure 49.

PERSONAL CONSUMPTION EXPENDITURES
(as percent of Disposable Personal Income)

- **Services**
- **Durable + Nondurable Goods**
- **Personal Saving Rate**

Source: Bureau of Economic Analysis.

Figure 50.

PERSONAL CONSUMPTION EXPENDITURES: HEALTH CARE SERVICES
(as percent of nominal Disposable Personal Income)

Source: Bureau of Economic Analysis.
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Figure 51.
PERSONAL CONSUMPTION EXPENDITURES: NONDURABLE GOODS
(as percent of Disposable Personal Income)

Source: Bureau of Economic Analysis.

Figure 52.
PERSONAL CONSUMPTION EXPENDITURES: FOOD & CLOTHING
(as percent of nominal Disposable Personal Income)

Source: Bureau of Economic Analysis.
Figure 53.

PERSONAL CONSUMPTION EXPENDITURES: DURABLE GOODS
(as percent of Disposable Personal Income)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 54.

PERSONAL CONSUMPTION EXPENDITURES: MOTOR VEHICLE & PARTS
(as a percent of Disposable Personal Income)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.
CONSUMER SURVEYS: OVERALL INDEXES

- Consumer Confidence Index* (1985=100, sa)
- Consumer Sentiment Index** (Q1-1966=100, nsa)

** Quarterly from 1953 through 1977, then monthly data begins in January 1978. Not seasonally adjusted.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: The Conference Board and the University of Michigan Survey Research Center.

CONSUMER SURVEYS: CURRENT CONDITIONS INDEXES

- Consumer Confidence Index (1985=100, sa)
- Consumer Sentiment Index (Q1-1966=100, nsa)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: The Conference Board and the University of Michigan Survey Research Center.
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Figure 57.

CONSUMER SURVEYS: EXPECTATIONS INDEXES
- Consumer Confidence Index
  (1985=100, sa)
- Consumer Sentiment Index
  (Q1-1966=100, nsa)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: The Conference Board and the University of Michigan Survey Research Center.

Figure 58.

CONSUMER OPTIMISM INDEX*
- Total
- Present
- Expectations

* Average of Consumer Sentiment Index and Consumer Confidence Index.
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: The Conference Board and the University of Michigan Survey Research Center.
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Figure 59.

CONSUMER CONFIDENCE SURVEY: AVAILABILITY OF JOBS*
(percentage saying so, sa)

* Every other month from 1967 through mid-1977, then monthly since July 1977. Seasonally adjusted.
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: The Conference Board.

Figure 60.

JOBS AVAILABLE*
(percentage saying so)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Figure 61.

**CONSUMER CONFIDENCE SURVEY: CURRENT CONDITIONS & JOBS AVAILABILITY**

- Jobs Plentiful Minus
- Jobs Hard To Get* (percent saying so)
- Current Conditions Index

* Every other month from 1967 through mid-1977, then monthly since July 1977. Seasonally adjusted.

Source: The Conference Board.

Figure 62.

**NFIB SMALL BUSINESS SURVEY: JOB OPENINGS & JOBS AVAILABILITY**

- Small Business with Job Openings* (3-ma)
- Consumer Confidence Survey: Jobs Plentiful**

* First month of every quarter from 1974 to 1986, then monthly.

** Every other month from 1967 through mid-1977, then monthly since July 1977. Seasonally adjusted.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

CONSUMER CONFIDENCE SURVEY: JOBS AVAILABILITY & UNEMPLOYMENT RATE (sa)

Jobs Hard to Get* (percent saying so)

Unemployment Rate (percent)

* Every other month from 1967 through mid-1977, then monthly since July 1977. Seasonally adjusted.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

CONSUMER CONFIDENCE SURVEY: JOBS AVAILABILITY & UNEMPLOYMENT CLAIMS (sa)

Initial Unemployment Claims (thousands, sa, 4-week ma)

Jobs Hard To Get* (percent saying so)

* Every other month from 1967 through mid-1977, then monthly since July 1977. Seasonally adjusted.

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Figure 65.

Average Hourly Earnings* (yearly percent change)

Consumer Confidence Survey: Jobs Plentiful**

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.

Figure 66.

ECI Wages & Salaries vs Jobs Plentiful

ECI: Wages & Salaries Private Industry (yearly percent change)

Jobs Plentiful* (percent saying so)
