Predicting Technology

Figure 1.

S&P 500 INFORMATION TECHNOLOGY: EARNINGS & MARKET-CAP SHARES
(percent)

Capitalization Share (24.6)
Earnings Share* (20.5)

* Using S&P 500 12-month forward consensus expected operating earnings.
Source: Thomson Reuters I/B/E/S.

Figure 2.

FORWARD P/E RATIOS FOR S&P 500*

S&P 500 (19.1)
S&P 500 Technology (23.0)

* S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings per share.
Source: Thomson Reuters I/B/E/S.
Predicting Technology

Figure 3.

IT EQUIPMENT, SOFTWARE, AND RESEARCH & DEVELOPMENT SPENDING
(as a percent of total capital spending in nominal GDP)

Percent of Total Capital Spending

- **IT Equipment, Software, and R&D**
- **IT Equipment & Software**

Source: Bureau of Economic Analysis.

Figure 4.

IT CAPITAL SPENDING IMPLICIT PRICE DEFLECTORS
(2012=100, ratio scale)

Implicit Price Deflators

- **Information Processing Equipment**
- **Software**

Source: Bureau of Economic Analysis.
Figure 5.

PRIVATE NONRESIDENTIAL FIXED INVESTMENT IN REAL GDP:
IT EQUIPMENT & SOFTWARE
(billion 2012 dollars, saar, ratio scale)

Information Processing Equipment
Plus Software

Source: Bureau of Economic Analysis.

Figure 6.

PRIVATE NONRESIDENTIAL FIXED INVESTMENT IN REAL GDP:
IT EQUIPMENT & SOFTWARE
(billion 2012 dollars, saar, ratio scale)

Software
Information Processing Equipment

Source: Bureau of Economic Analysis.
Figure 7.
PRIVATE NONRESIDENTIAL FIXED INVESTMENT IN REAL GDP:
COMPUTERS & PERIPHERAL EQUIPMENT
(billion dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.

Figure 8.
PRIVATE NONRESIDENTIAL FIXED INVESTMENT IN REAL GDP:
OTHER INFORMATION PROCESSING EQUIPMENT
(billion 2012 dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.
Figure 9.

RETAIL SALES: IN-STORE GAFO* & ONLINE
(billion dollars, saar)

* GAFO (general merchandise, apparel and accessories, furniture, and other sales) includes retailers that specialize in department-store types of merchandise such as furniture & home furnishings, electronics & appliances, clothing & accessories, sporting goods, hobby, book, and music, general merchandise, office supply, stationery, and gift stores.

** Electronic shopping and mail order houses.

Source: Census Bureau and Haver Analytics.

Figure 10.

RETAIL SALES: ONLINE SHOPPING
(as a percent of In-Store GAFO* + Online**)

* GAFO (general merchandise, apparel and accessories, furniture, and other sales) includes retailers that specialize in department-store types of merchandise such as furniture & home furnishings, electronics & appliances, clothing & accessories, sporting goods, hobby, book, and music, general merchandise, office supply, stationery, and gift stores.

** Electronic shopping and mail order houses.

Source: Census Bureau and Haver Analytics.
Figure 11.

PERSONAL CONSUMPTION EXPENDITURES IN NOMINAL GDP
(billion dollars, saar, ratio scale)

Computers & Peripheral Equipment Plus
Computer Software & Accessories

Source: Bureau of Economic Analysis.

Figure 12.

PERSONAL CONSUMPTION EXPENDITURES IN NOMINAL GDP
(billion dollars, saar, ratio scale)

Nominal Consumer Spending on IT

Source: Bureau of Economic Analysis.
Figure 13.

PERSONAL CONSUMPTION EXPENDITURES IN REAL GDP
(billion 2012 dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.

Figure 14.

PERSONAL CONSUMPTION EXPENDITURES IN REAL GDP
(billion 2012 dollars, saar, ratio scale)

Real Consumer Spending on IT
- Computers & Peripheral Equipment
- Computer Software & Accessories

Source: Bureau of Economic Analysis.
Figure 15.

COMPUTERS AND PERIPHERAL EQUIPMENT IN NOMINAL GDP
(billion dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.

Figure 16.

COMPUTERS AND PERIPHERAL EQUIPMENT IN REAL GDP
(billion 2012 dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.
Figure 17.
SOFTWARE IN NOMINAL GDP
(billion dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.

Figure 18.
SOFTWARE IN REAL GDP
(billion 2012 dollars, saar, ratio scale)

Source: Bureau of Economic Analysis.
**Figure 19.**

**AGE COMPOSITION OF LABOR FORCE***

(percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent of Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>60% 16-34 Year Olds</td>
</tr>
<tr>
<td>1980</td>
<td>50% 35-65 Years &amp; Older</td>
</tr>
</tbody>
</table>

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


**Figure 20.**

**NONFARM BUSINESS PRODUCTIVITY & REAL HOURLY COMPENSATION**

(20-quarter percent change, annual rate)

- Productivity
- Real Hourly Compensation (using NFB deflator)

Figure 21.

**PRODUCTIVITY MEASURES**

(20-quarter percent change, annual rate)

**Productivity Cycle**
- Nonfarm Business
- Manufacturing
- Nonfinancial Corporations

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

Figure 22.

**PRODUCTIVITY: MANUFACTURING**

Manufacturing Productivity
(20-quarter percent change, annual rate)

Manufacturing Productivity Proxy*
(60-month percent change, annual rate)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Labor Statistics and Federal Reserve Board.

* Manufacturing industrial production divided by payroll employment in manufacturing.
Figure 23.

MANUFACTURING PRODUCTION & CAPACITY
(2012=100, ratio scale)

Manufacturing
- Blue: Production
- Red: Capacity

Note: C = China joined WTO on December 11, 2001. Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Federal Reserve Board.

Figure 24.

MANUFACTURING PRODUCTIVITY & CAPACITY
(ratio scale)

Manufacturing
- Blue: Capacity
  (index = 100 during 2012)
- Red: Productivity
  (index = 100 during 2009)

Note: C = China joined WTO on December 11, 2001. Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Labor Statistics and Federal Reserve Board.
C = China joined WTO on December 11, 2001.
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Federal Reserve Board.

* Manufacturing industrial production divided by payroll employment in manufacturing.
Source: Federal Reserve Board and Bureau of Labor Statistics.
Figure 27.

US CRUDE OIL FIELD PRODUCTION
(million barrels per day, weekly, nsa)

Source: US Department of Energy and Haver Analytics.

Figure 28.

FARM & MANUFACTURING EMPLOYMENT SHARES

SERVICE-PRODUCING PAYROLL EMPLOYMENT
(as a percent of civilian total nonfarm payrolls)


PAYROLL EMPLOYMENT: INFORMATION INDUSTRIES*
(millions, sa)

* Publishing; Motion Picture & Sound Recording; Broadcast; Telecommunications; Data Processing, Hosting, and Related Services, Computer & Electronic Products Manufacturing, and Other Information Services.