C.J.Lawrence®
ESTABLISHED 1864

PORTFOLIO STRATEGY SERVICE

#22 Apocalypse Now? (NOT!)

#23 The End Of The Cold War Is Bullish

#24 Hard Or Soft Landing?

#25 The High-Tech Revolution In The US of @

Topical Study #26

THE US ECONOMY'S MEGA-TRENDS

July 10, 1995

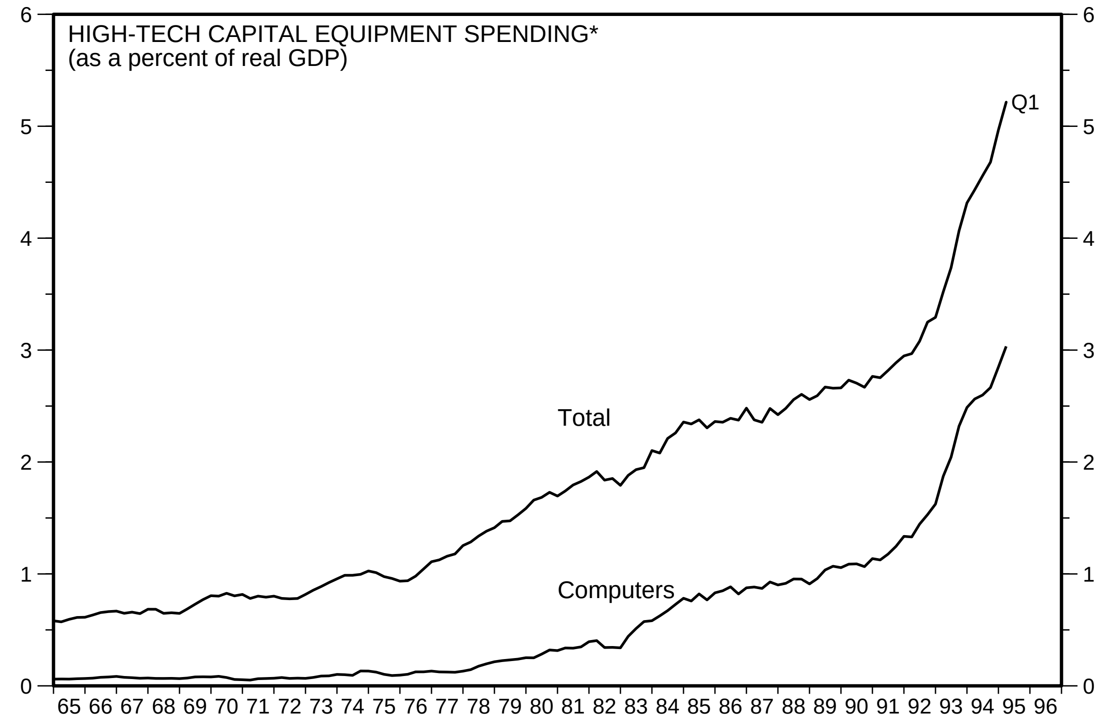
❖

Dr. Edward Yardeni
Chief Economist

- The High-Tech Revolution -

High-tech capital equipment spending, currently over 5% of real GDP, likely to rise to 12% by 2000. Including software, high-tech share of GDP could rise from an estimated 8% to 17%.

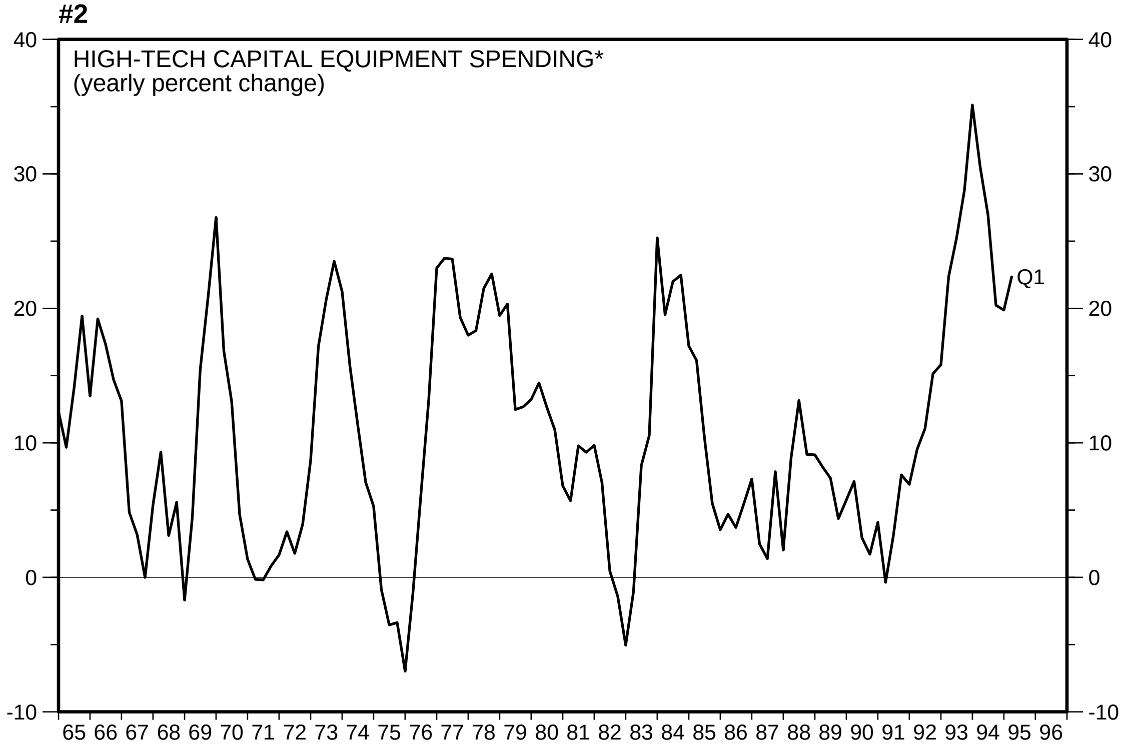
#1



* Producers' durable equipment spending in 1987 dollars on office and store machinery, communication equipment, photographic equipment, and scientific and engineering instruments.

High-tech spending, including software, will rise 20% per year if it will account for 17% of real GDP by 2000.

#2



* Producers' durable equipment spending in 1987 dollars on office and store machinery, communication equipment, photographic equipment, and scientific and engineering instruments.

THE US ECONOMY'S MEGA-TRENDS

I. The Winners

In the June 12 issue of the *Weekly Economic Analysis*, I predicted that business spending on high-tech, including both hardware and software, will rise from 8% of real GDP to 17% by the year 2000. This forecast implies a compounded annual growth rate of 20%. High-tech business spending on capital equipment alone is currently 5.2% of real GDP, up dramatically from 3.0% three years ago. Business computer purchases are 3.0% of real GDP, up from 1.3% three years ago (Exhibits 1 and 2).

The Commerce Department doesn't provide data on software outlays, which are expensed rather than capitalized in the national accounts. Data on high-tech spending by consumers are also not easy to find. My estimate is that total business and consumer high-tech outlays are currently 10% of real GDP and are on the way to 25% of real GDP by 2000, with business at 17% of real GDP and consumers at 8%.

"If high-tech is likely to continue to outperform overall economic growth, which sectors will underperform? Will any other economic sectors show relatively fast growth?" This was the question that a top stock portfolio manager asked me recently.

I believe that the ***Fast Growth Sectors*** over the next five years will be:

1) high-tech capital equipment spending,
2) consumer spending on health care goods and services,
3) consumer spending on recreation, including entertainment and travel, and
4) exports, particularly exports of high-tech capital goods.

Together, these four fast growers currently account for 35% of real GDP, up from 24%, 21%, and 14% ten, twenty, and thirty years ago, respectively (Exhibit 3).

II. The Losers

The remaining "Slow Growth Sectors" fell from 86% of real GDP in 1965 to 65% in 1995 (Exhibit 3). The Slow Growers can be subdivided into two categories: "Cyclicals" and "Secular Underperformers."

The ***Slow Growth Cyclicals*** in real GDP include:

1) consumer and producer outlays for motor vehicles,
2) residential investment on both single- and multi-family housing units,
3) nonfarm business inventory investment, and
4) low-tech capital equipment spending.

These four have fluctuated between a low of 9% and a high of 17% of real GDP since 1960 (Exhibits 4, 5, and 6). Over the past 25 years, each peak of the auto and housing cycle has fallen short of the previous one. In other words, in addition to the cycle in these two, there is also a noticeable downward trend relative to real GDP (Exhibit 6).

The ***Slow Growth Secular Underperformers*** have declined from 76% of real GDP to 53% of real GDP over the past 35 years (Exhibit 4). Among the numerous categories in this "catch-all" group are consumer spending on durable goods excluding autos, on all nondurable goods except drugs, and on services excluding medical and recreation. Also in this group is government outlays including federal spending on defense, which, of course, was a fast grower for a relatively short time during President Ronald Reagan's administration.

III. The High-Tech Revolution In The US of @

High-tech currently accounts for 12% of the market capitalization of the S&P 500, up from only 7% in 1992. I predict that by the end of this century, it will at least match the previous record high of 17% during 1984 and will probably exceed 20%.

I first started to write about the High-Tech Revolution in early 1993, when the S&P semiconductor stock price index was 135. Today, it is at 337, up a whopping 150%. It is up 35% since March 1995, when I published my *Topical Study #25*, "The High-Tech Revolution In The US of @."

I believe that the extraordinary uptrend in high-tech will prevail and overwhelm any cyclical downturn in the overall economy. Personal computers are no longer limited to the spreadsheet work that was the most popular business application during the 1980s. Multimedia, communications, publishing, information archiving, and medical applications will be among the forces propelling the extraordinary demand for computers and software into the next century. As the hardware becomes more powerful and cheaper, it seems to accelerate the demand for itself. The sky truly is the limit: When cars were first introduced, there ultimately were demographic limits to car sales. Even if you believe that there eventually will be demographic limits to high-tech demand, there are still billions of folks around the world that don't yet own a Pentium machine with 1 Gigabyte of memory, a 28,800 baud modem, and a Sound Blaster.

IV. The Demographics Of Health & Play

The Baby Boomers currently account for about half of the adult population and are 31-49 years old. By the year 2000, they will be 36-54 years old. This is a group that has "bought it" and they "have it." They purchased their cars and houses earlier in their adult lives than did previous generations. More than 70% of them own homes. They are moving less often than when they were in their 20s.

Not only are the Baby Boomers aging, they are also likely to live longer than previous generations. Indeed, in 1945, life expectancy was 66 years. Today, it is 76 years. By the time the first Baby Boomers turn 65, during 2011, average life expectancy might be close to 80!

In my opinion, all this adds up to a very positive outlook for health care and recreation consumption, which together rose from 8% to 16% of real GDP over the past 35 years (Exhibits 7, 8, 9, and 10). I believe that this ratio will rise to 20% by 2000. That's not quite as exciting as the prospects for high-tech, but investors in health care and recreation, including entertainment, should be rewarded with above average returns for the foreseeable future.

The Baby Boomers that remain in good health will play golf, ski, watch movies, travel, visit theme parks, and buy multimedia computers. Those that are in poor health will want the best medical attention money can buy. They will be big consumers of the services that use the latest high-tech medical technologies.

V. Export Boom

Exporters' share of real GDP is up sharply in recent years from 7% in 1985 to 13% currently (Exhibit 11). The weak dollar certainly has been an important reason for this trend. However, American companies are also more competitive globally because labor cost pressures have been subdued and the quality of the goods and services offered to overseas buyers has improved dramatically. Furthermore, as a result of the end of the Cold War, the global marketplace for American-made goods has increased dramatically.

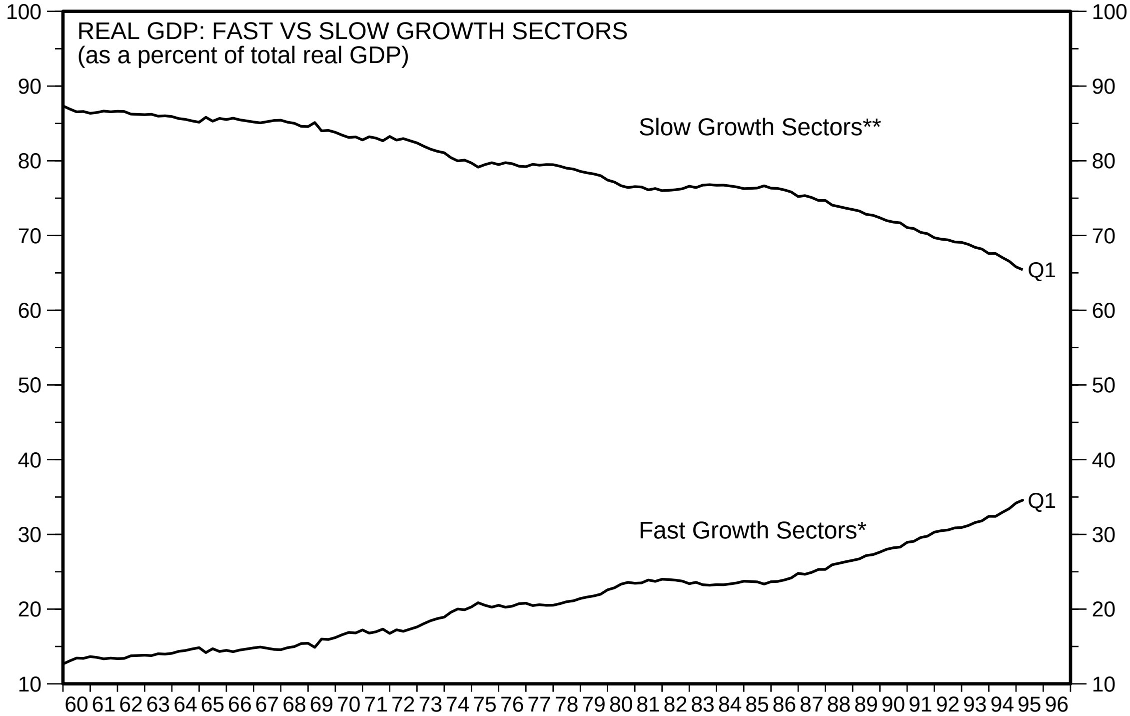
American name-brand consumer nondurable goods are especially popular in overseas markets, but these products tend to be produced abroad. The big export winners should continue to be capital goods exporters, especially those in the high-tech sector (Exhibit 12).

To review: By 2000, business spending on high-tech hardware could be 12% of real GDP. (It would be 17% if we could measure and include software.) Consumer spending on health and recreation could be 20% of real GDP. And exports of goods and services could rise to 18% of real GDP. So the Fast Growth Sectors could be 50% of real GDP by 2000, up from 35% currently. Including high-tech spending by consumers would push this forecast close to 60% of real GDP.

- Relative Growth -

Fast growth sectors have risen from less than 15% of real GDP in early 1960s to 35% currently.

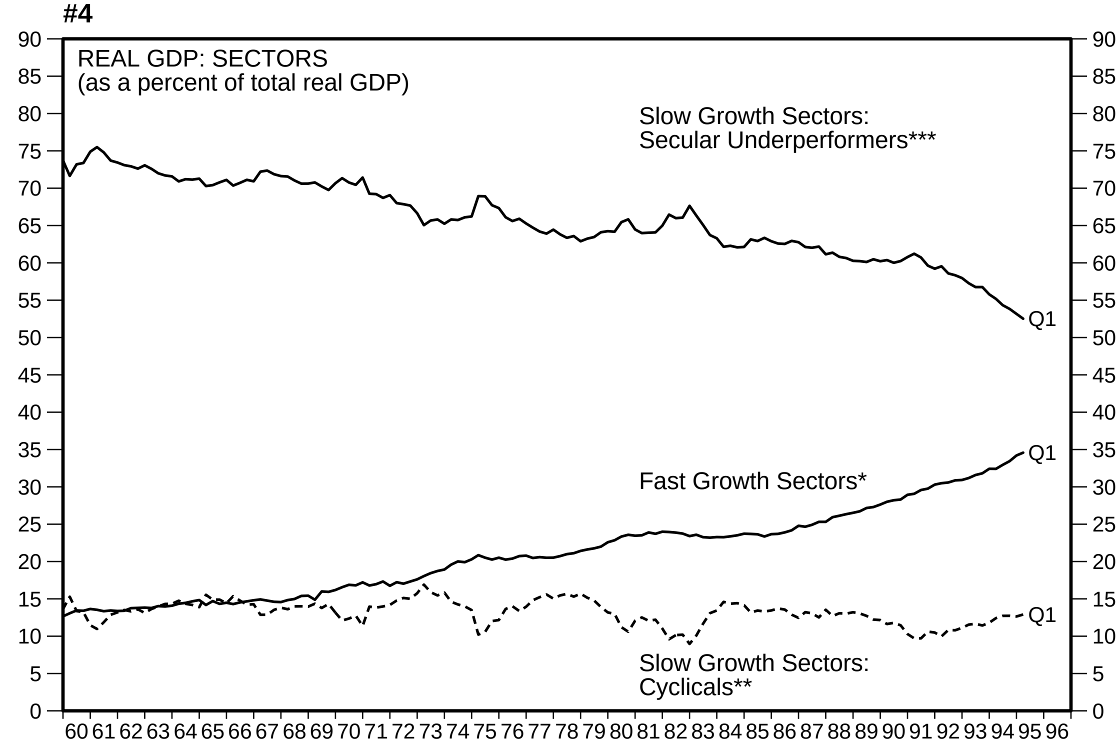
#3



* High-tech producers durable equipment spending, consumer spending on medical care and recreation, and exports of goods and services.
** Real GDP minus Fast Growth Sectors.

Excluding cyclicals, slow growth "underperformers" are down from about 75% of real GDP in 1960 to about 50% recently.

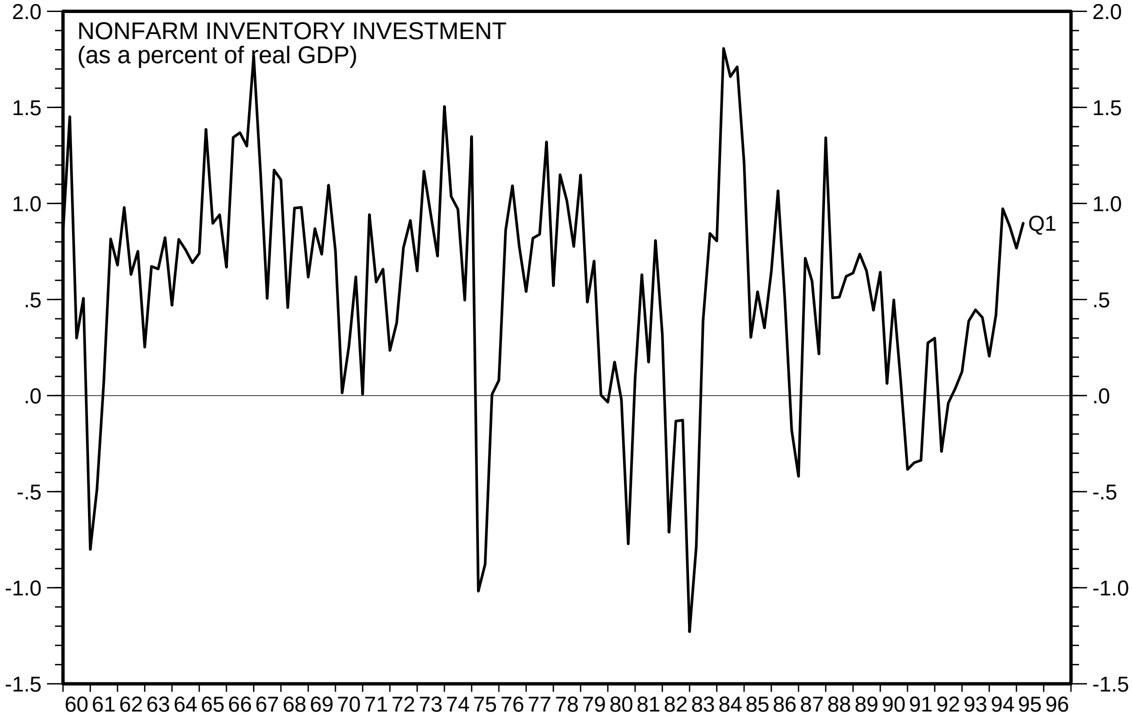
#4



* High-tech producers durable equipment spending, consumer spending on medical care and recreation, and exports of goods and services.
** Auto output, residential investment, nonfarm business inventory investment, and low-tech capital equipment spending.

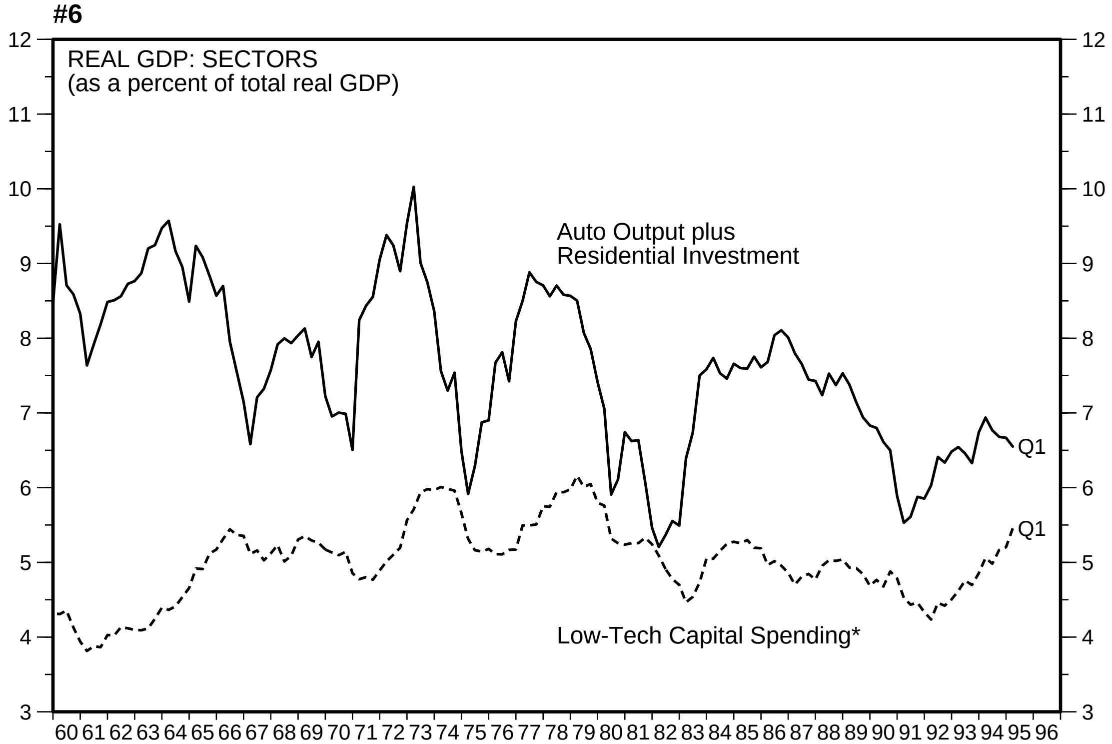
- Relative Growth -

#5



Inventory investment is very volatile, but very small relative to real GDP.

#6



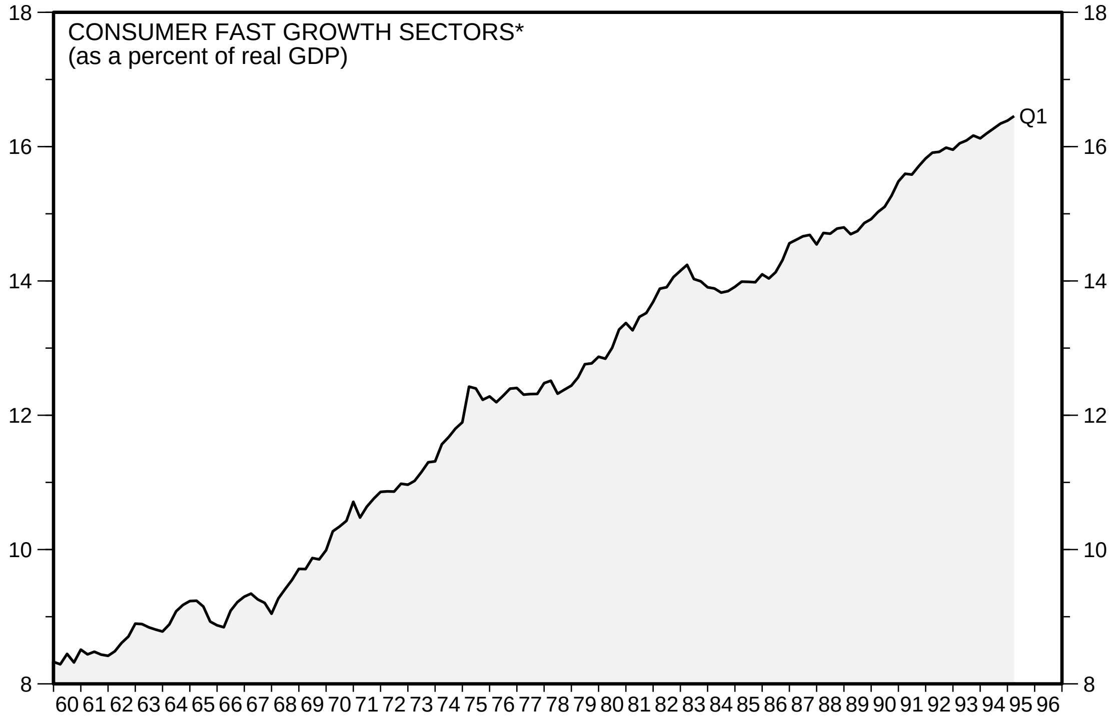
* Including heavy industrial equipment, transportation equipment, and other equipment.

Auto and housing activities are major sources of the business cycle. So is low-tech capital equipment spending.

- Consumer Growth -

The two fastest growing consumer sectors, medical and recreation, have doubled from 8% to 16% of real GDP over the past 35 years.

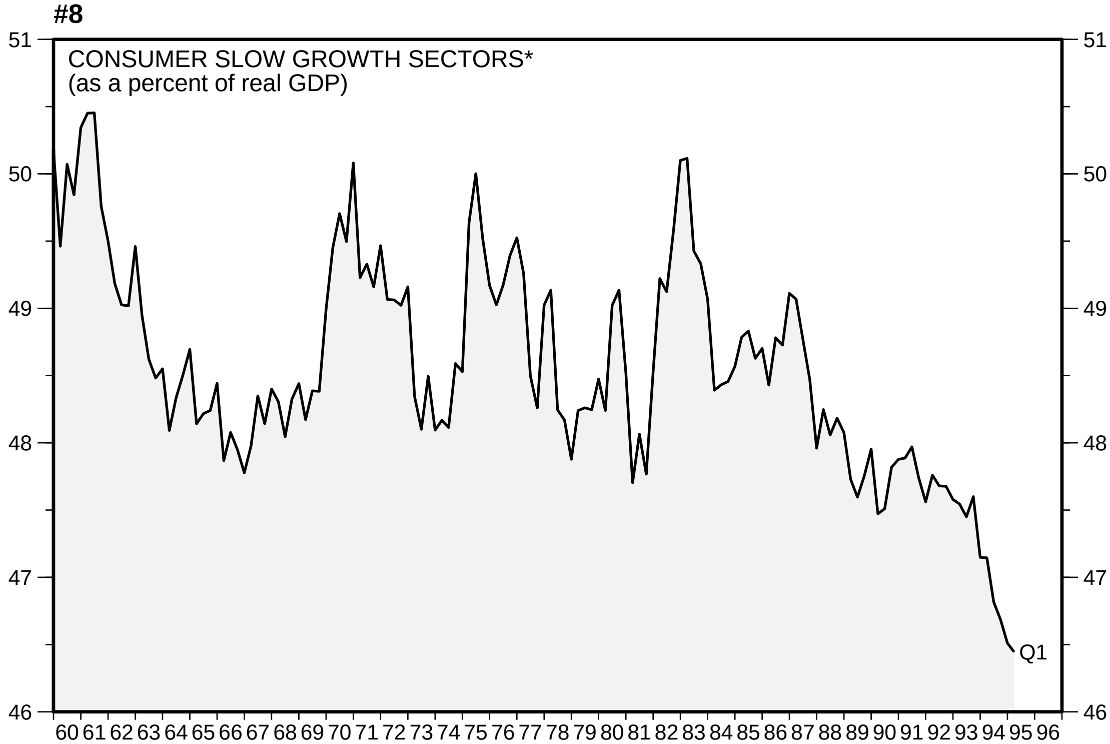
#7



* Real consumer spending on medical care and recreation.

Slow growth consumer sectors hovered just south of 50% of real GDP during the previous 3 decades. Now they are down to 46.5% and falling rapidly.

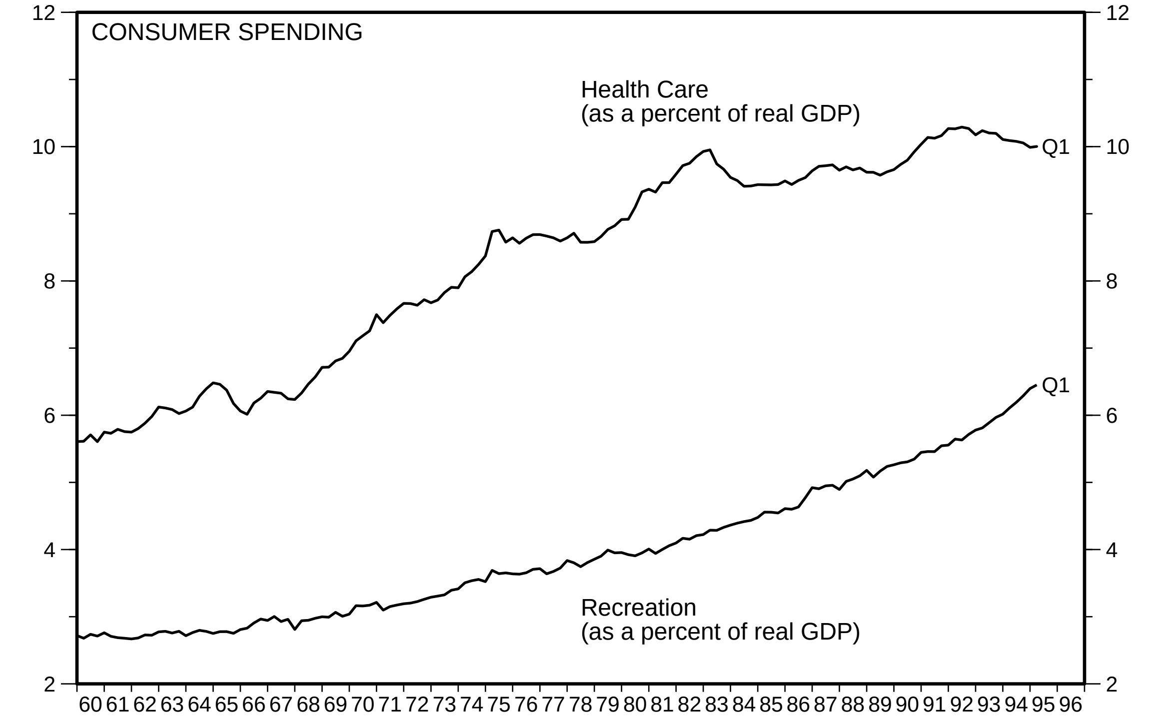
#8



* Real consumer spending less autos, medical care and recreation.

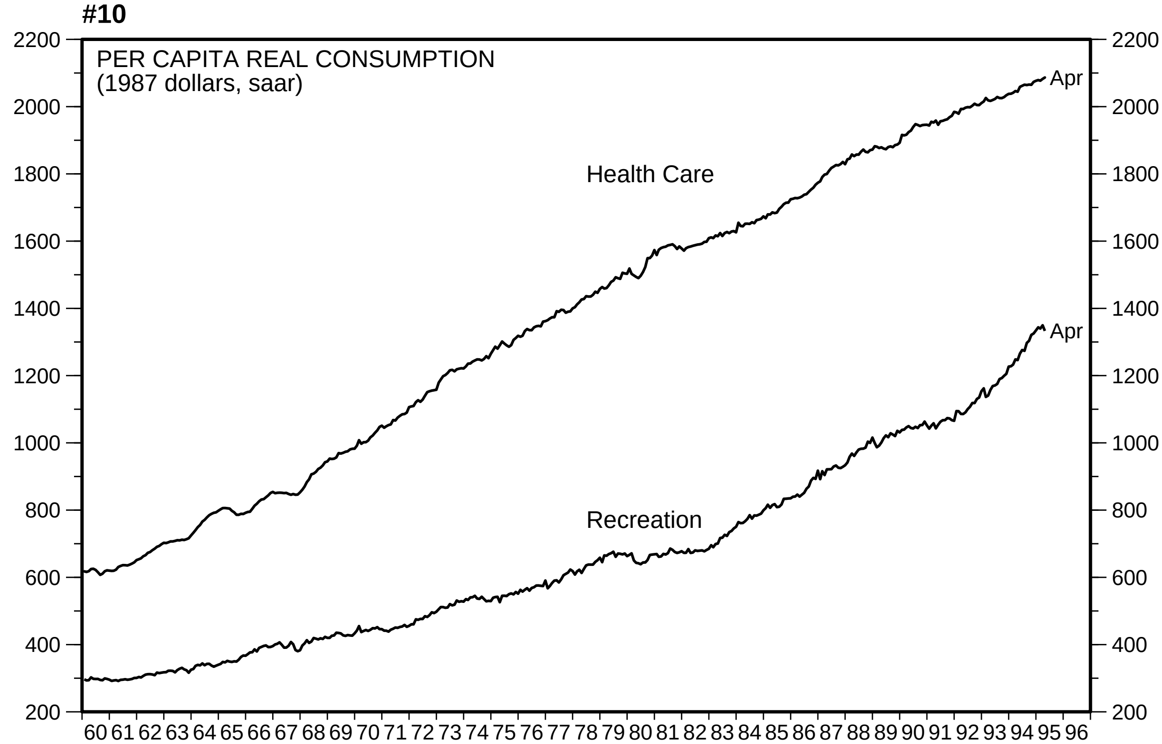
- Consumer Growth -

#9



In real terms, health care rose faster than real GDP from mid-1960s through early 1980s. Since then, it has been just keeping up with GDP. Demographic trends suggest it should rise faster than GDP again soon. Recreation continues to rise faster than GDP.

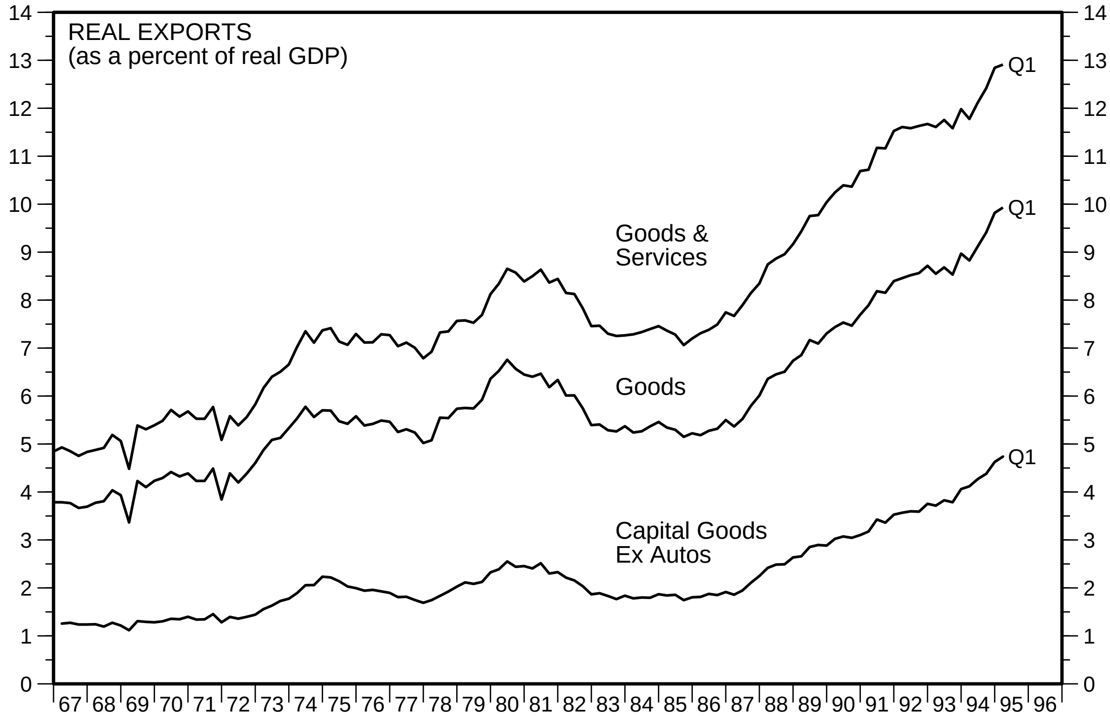
#10



On a per capita basis, both health care and recreation spending are growing rapidly.

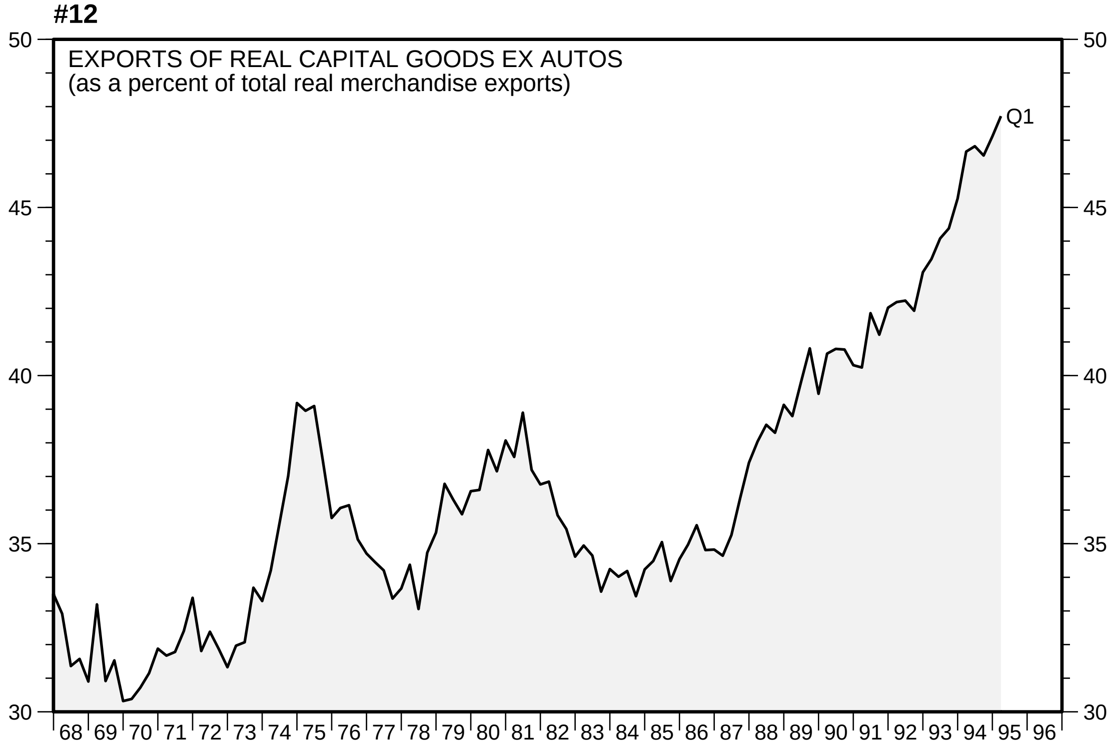
- Export Growth -

#11



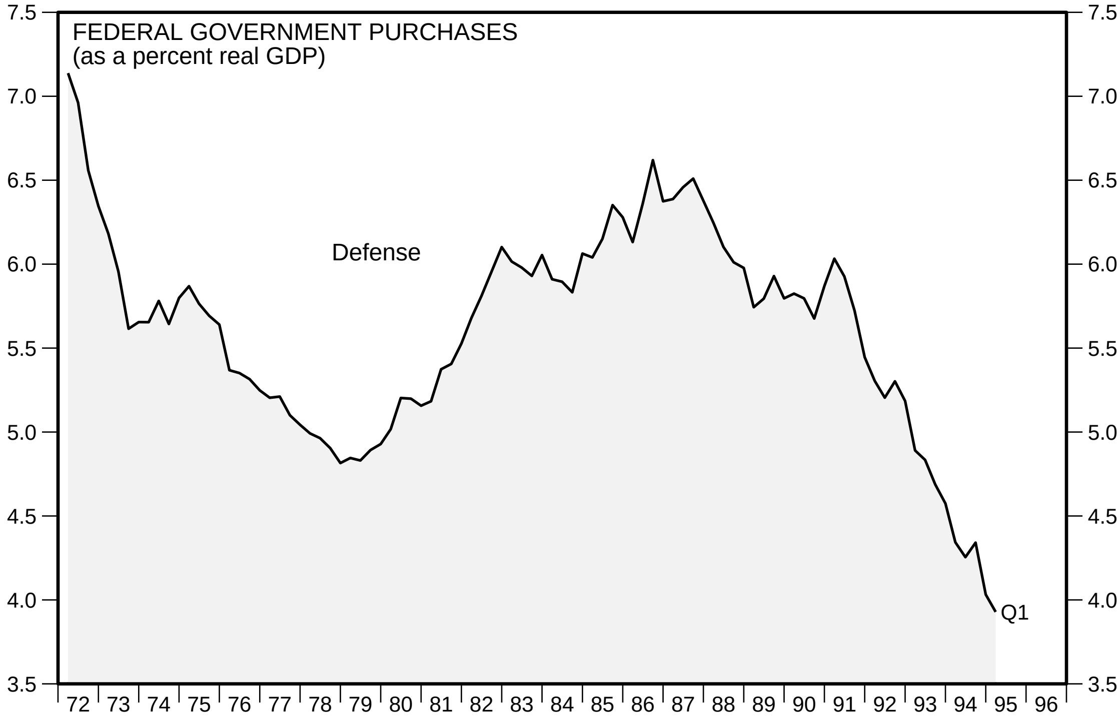
Exports' share of real GDP is on sharp uptrend led by capital goods.

#12



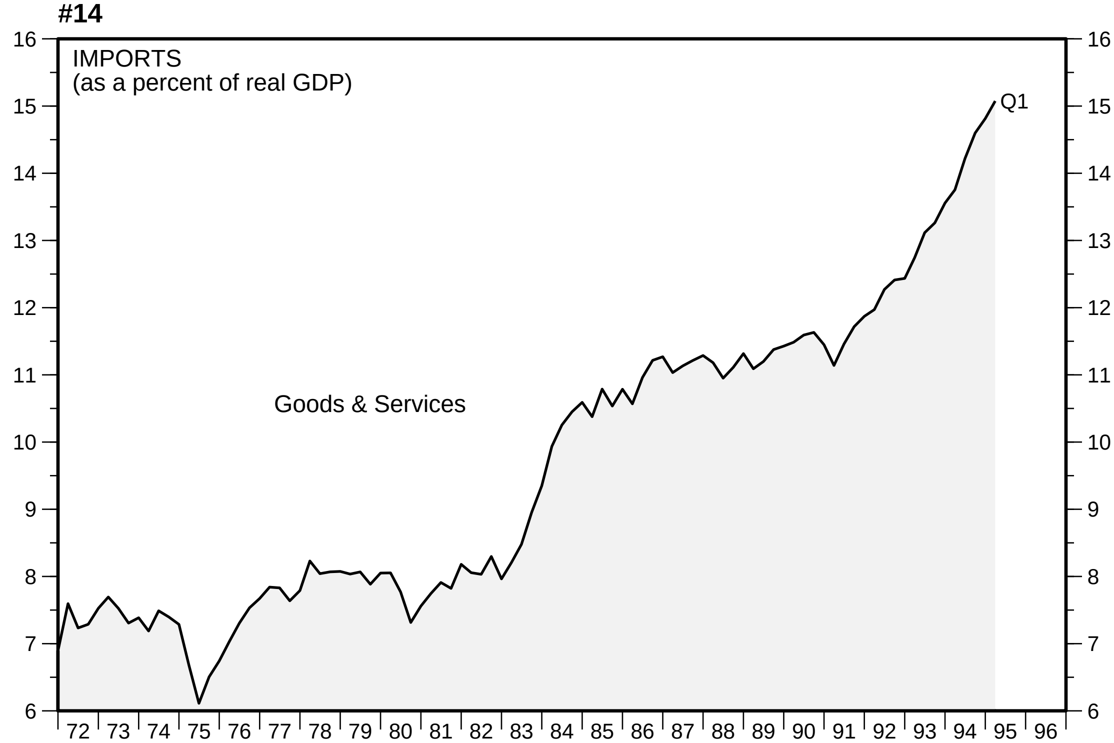
- Drags On Growth -

#13



Defense spending remains a major drag on growth.

#14



Imports are also a drag on growth.

TOPICAL STUDIES

#1	Dr. Edward Yardeni, *Exports Should Weaken U.S. Recovery*, March 22, 1983 *
#2	Dr. Edward Yardeni, *The Ten Pillars Of Faith*, April 6, 1984 *
#3	Deborah Johnson, *Behind The Corporate Borrowing Binge*, June 13, 1984 *
#4	Dr. Edward Yardeni, *Why Has The Leading Index Of Inflation Failed So Badly?*, October 24, 1984 *
#5	Dr. Edward Yardeni, *The Case For Lower Oil Prices*, December 12, 1984 *
#6	Dr. Edward Yardeni, *The True Story Behind The Mighty Dollar*, January 9, 1985 *
#7	Dr. Edward Yardeni, *Plenty Of Cash Around To Fuel Additional Stock And Bond Gains*, January 30, 1985 *
#8	Dr. Edward Yardeni, *No Shortage Of Gluts*, July 10, 1985 *
#9	Dr. Edward Yardeni, *The Protectionist Road To Depression*, September 9, 1985
#10	Dr. Edward Yardeni, *The U.S. Becomes The World's Largest Debtor, So What?*, July 14, 1987
#11	Dr. Edward Yardeni and Deborah Johnson, *The Restructuring Of Corporate America Is Bullish*, December 9, 1987
#12	Dr. Edward Yardeni, *How The Baby Boomers Are Changing The Economy*, April 6, 1988
#13	Dr. Edward Yardeni, *The Coming Shortage Of Bonds*, June 20, 1988
#14	Dr. Edward Yardeni, *Could Real Estate Prices Fall? And What If They Do?*, August 24, 1988
#15	Dr. Edward Yardeni and David Moss, *The New Wave Manifesto*, October 5, 1988
#16	Dr. Edward Yardeni with Amalia Quintana, *The Baby Boom Chart Book*, January 25, 1989
#17	Dr. Edward Yardeni, *The Triumph Of Capitalism*, August 1, 1989
#18	Dr. Edward Yardeni and Deborah Johnson, *Dow 5000*, May 9, 1990
#19	Dr. Edward Yardeni and David Moss, *The Triumph Of Adam Smith*, July 17, 1990
#20	Dr. Edward Yardeni, *The Collapse Of Communism Is Bullish*, September 4, 1991
#21	Dr. Edward Yardeni with Amalia Quintana, *The Baby Boom Chart Book 1991*, October 9, 1991
#22	Dr. Edward Yardeni, *Apocalypse Now! (NOT!)*, May 8, 1992
#23	Dr. Edward Yardeni, *The End Of The Cold War Is Bullish*, September 10, 1993
#24	Dr. Edward Yardeni, *Hard Or Soft Landing?*, February 6, 1995
#25	Dr. Edward Yardeni, *The High-Tech Revolution In The US of @*, March 20, 1995

* Out of print.