

**THE U.S. OUTLOOK:
CAPITAL SPENDING AND
PRODUCTIVITY GROWTH**

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- Mike Mussa has provided an assessment of the economic outlook for the US economy (<http://www.iie.com/policybriefs/news02-2.htm>) with which I agree. Recent economic data now point solidly to a recovery.
- There are several risks to the recovery, including the threat of higher oil prices. In this presentation, however, I will address two of the more standard economic points. First, what are the prospects for capital spending? The recovery could flag quickly if investment were to remain weak. Second, what is the prospect for productivity growth? Sustaining the recovery over the longer term will be much easier to do if the productivity growth trend is strong.
- The current slowdown had two steps. There was an abrupt growth slowdown starting in mid-2000, followed by a very mild recession starting after the first quarter of 2001. The first chart shows that the slowdown started in 2000 as an inventory cycle, reinforced by weak equipment spending. The recession period in 2001 was dominated by weak investment.

The Current Slowdown and Recession were Driven by Inventories and Investment

Contributions to the GDP slowdown, percent.

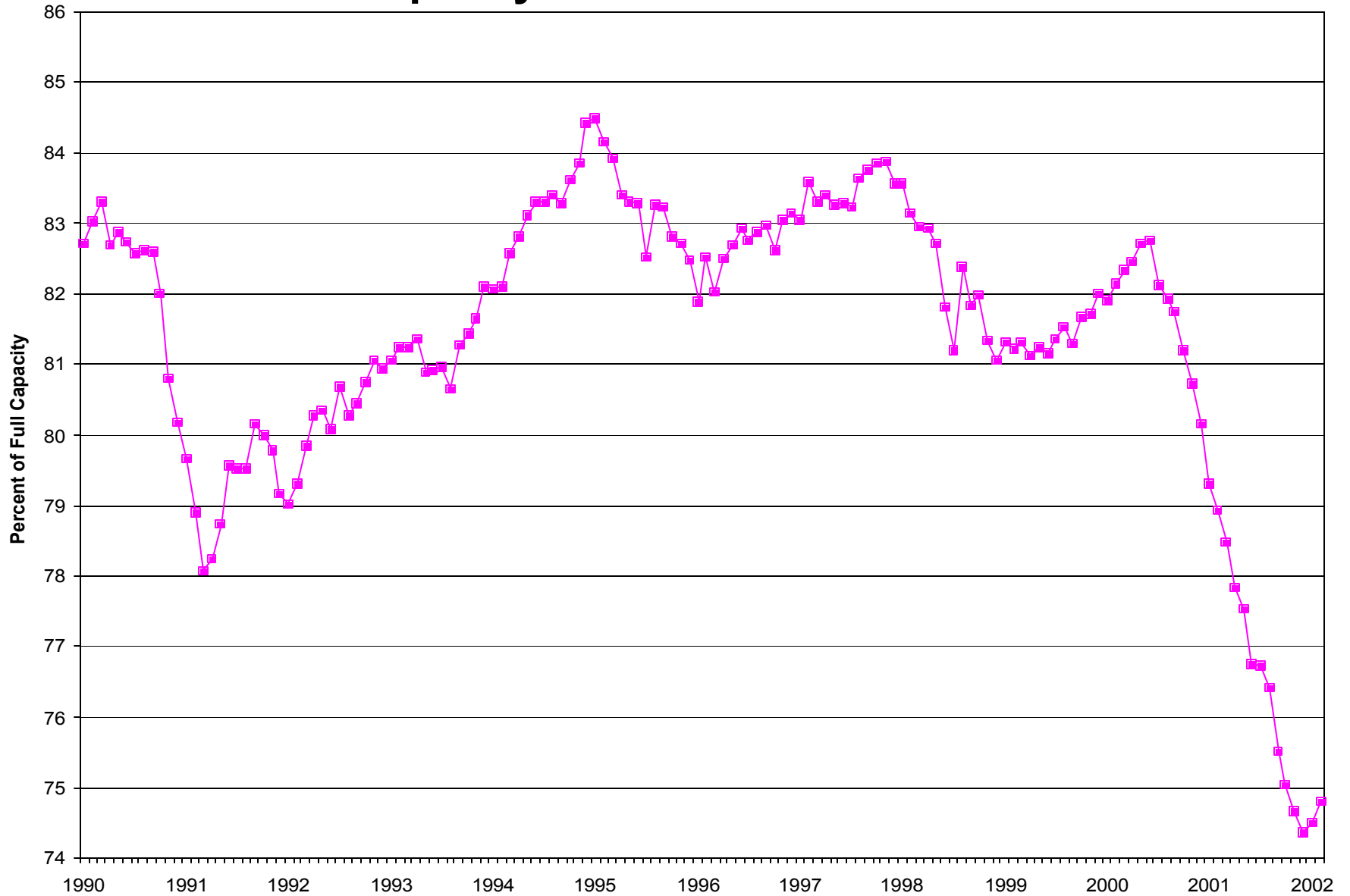
Three quarters after peak compared to four quarters prior to and including peak.

	Inventories	Equipment and software	Other investment	Personal consumption	Net exports	Government expenditure
Prior recession average	33	29	10	36	-14	5
2000-II	50	33	-2	27	-17	9
2001-I	24	52	39	9	-6	-17

Source: Bureau of Economic Analysis, authors' analysis

- The manufacturing sector has been hard hit in this slowdown, in part because of the strong dollar. Capacity utilization has fallen dramatically, well below its low of the early 1990s (down to the level of 1983).
- Capital spending in manufacturing is likely to remain weak – although manufacturing is only a small part of the total economy.

Capacity Utilization 1990-2002



Source: Federal Reserve

Issues for Capital Spending

Negatives

- Corporate profits are weak. They fell 15.9% last year.
- The strong dollar is still hurting manufacturing.
- Capacity utilization remains low.
- Companies are keeping tighter controls on IT spending.
- Overseas markets are still weak.

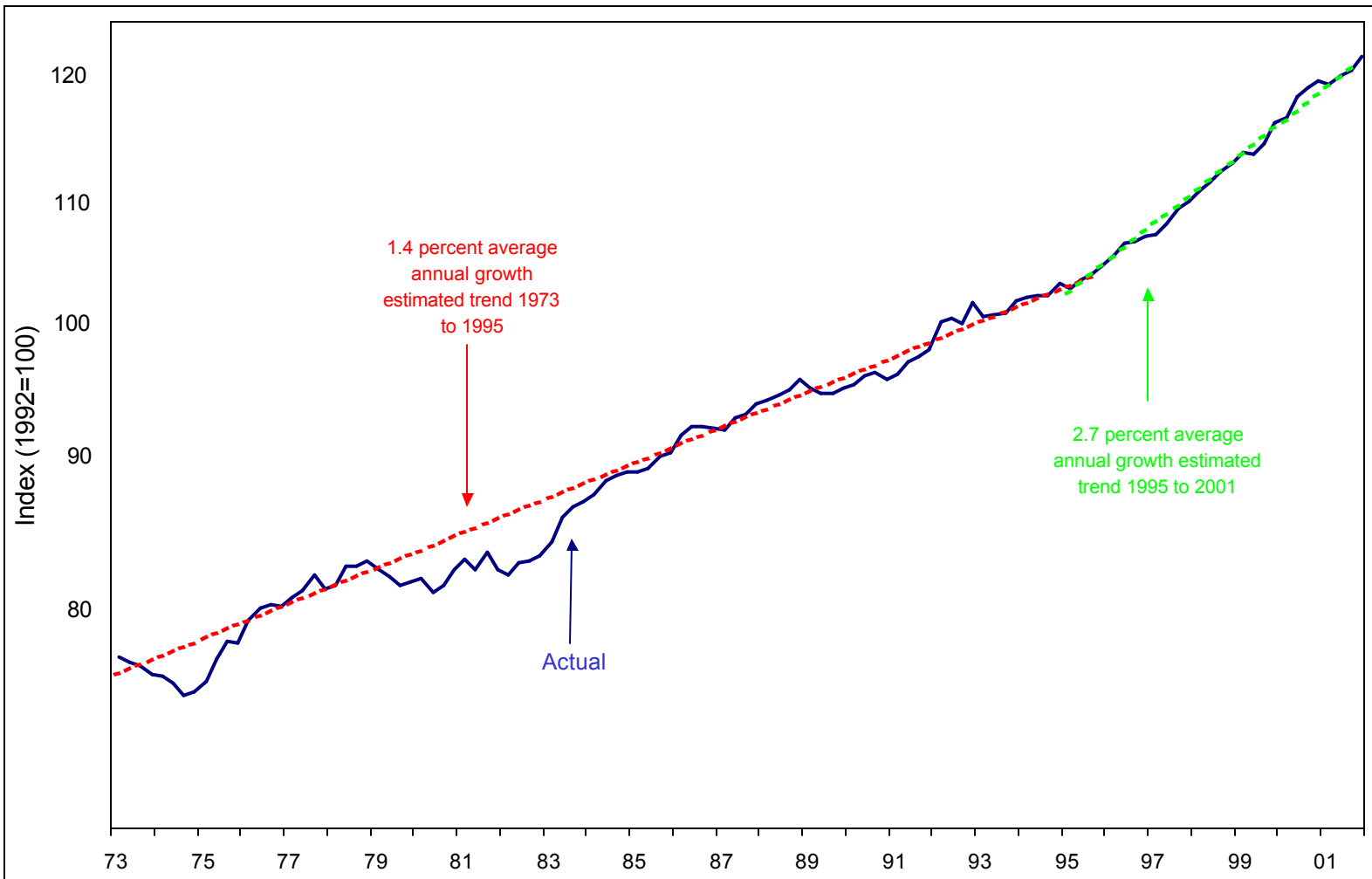
Positives

- Investment always lags in a recovery.
 - It should pick up in the second half of the year.
- Strong productivity growth should boost profits as the economy recovers.
- Europe is recovering.
- Investment fell so sharply, most or all of the capital overhang was eliminated.
- Stimulus package: thirty percent expensing of investment

- On balance, the mainstream forecasts of 4-5 percent growth in business investment this year and around 10 percent next year, look sensible. But the risks are real; weakness in investment could drive a weaker-than-expected recovery.
- Turning now to the productivity trend: As you know, productivity growth increased after 1995; it nearly doubled.

The rate of productivity growth increased after 1995

Output per Hour in the Nonfarm Business Sector



Note: Productivity is the average of income and product side measures.

Sources: Department of Commerce (Bureau of Labor Analysis) and Department of Labor (Bureau of Labor Statistics)

Capital Spending and Productivity Growth

- We do not know for sure whether the trend of faster growth will continue, but one way to make an assessment is to evaluate what caused productivity to accelerate.
- A standard tool of economists to make this evaluation is growth accounting.

Contributions to the Productivity Acceleration After 1995

Percentage per year

Information Technology Capital	0.59	?	42% from the use of IT
Other Capital	-0.15	?	other capital spending was weak
Labor Quality	0.04		
Computer Sector MFP	0.18	?	13% from MFP within IT sector
Other MFP	0.72	?	52% from other innovation
Output Per Hour	1.39		

Note: Labor productivity accelerated by 1.39 percentage points comparing 1995-2000 to 1973-1995.
Average of income and product measures.

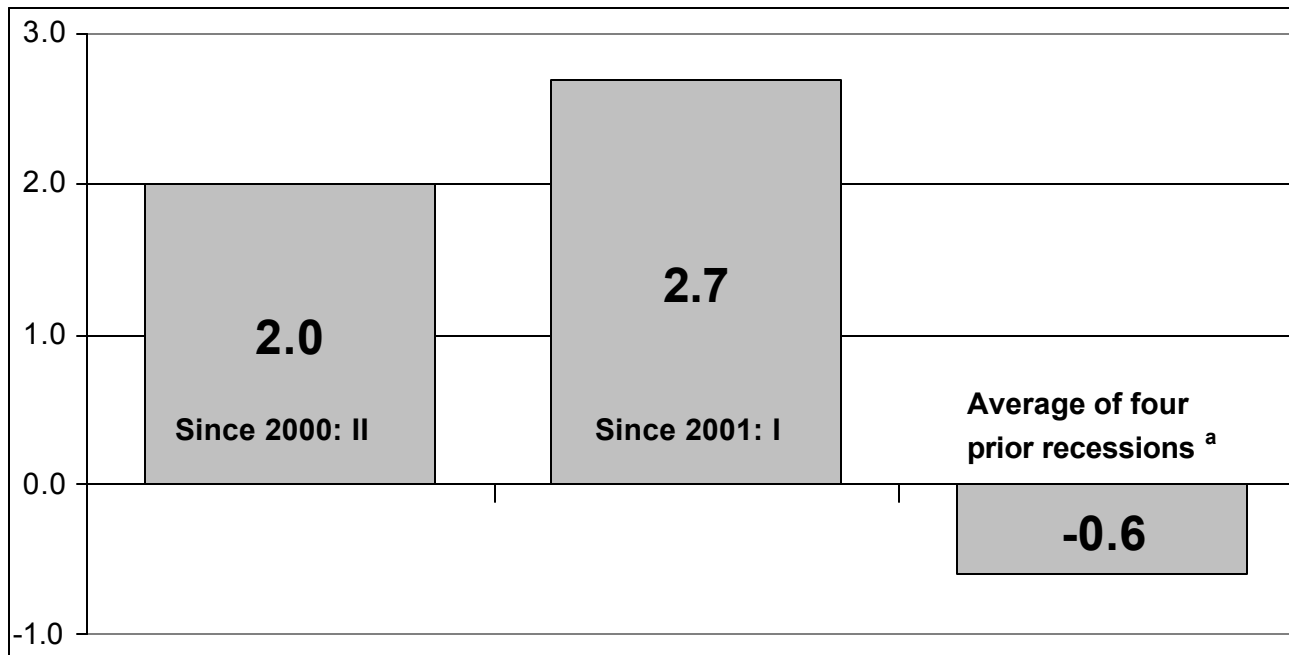
Source: Martin Baily, using data provided by Steven Braun of the CEA.

- Growth accounting estimates by other economists have reached somewhat different conclusions. And there are alternative approaches to determine causality.
- My own assessment of this literature is that productivity grew faster because of an increase in competitive intensity in the US economy, the increasing impact of globalization and the availability of information technology at rapidly falling prices.
- These same forces are still at work in the US economy, suggesting a continuation of strong growth. Some temporary factors boosted productivity in the 1990s and these will not continue.
- Another reason to be optimistic is that productivity growth in recent quarters has been amazingly strong. Unless there turn out to be large negative data revisions, this will be a very unusual downturn for productivity.

Note: See Martin Neil Baily “The New Economy: Post Mortem or Second Wind?” also available on the IIE website.

Productivity Growth Has Been Very Strong in Recent Quarters

Rate of Growth or decline of output per hour, percent per year.



Note: ^a The average annual rate of growth in the three quarters following the business cycle peaks in 1973: IV, 1980: I, 1981: III, 1990 III

Source: BLS

Recent data are often revised. Productivity growth in the first quarter of this year is likely to be high.

- My own estimate of the productivity trend has become more optimistic recently. The key test for the productivity revival was whether it survived the downturn. Based on available data, it is passing that test with flying colors.
- Although explanations of the acceleration vary by study, the range of values for expected future growth are in a fairly narrow band.

Estimates of Labor Productivity Trend

Percent per year

	Expected	Range
Jorgenson-Ho-Stiroh	2.24	1.33-2.98
Oliner-Sichel	n/a	2.00-2.75
McKinsey Global Institute	2.0	1.6-2.5
Baily	2.4	2.2-2.7
Administration	2.1	n/a
CBO	2.2	n/a
Average ^a	2.2	n/a

Note: ^a Expected Oliner-Sichel taken as the midpoint of their range.

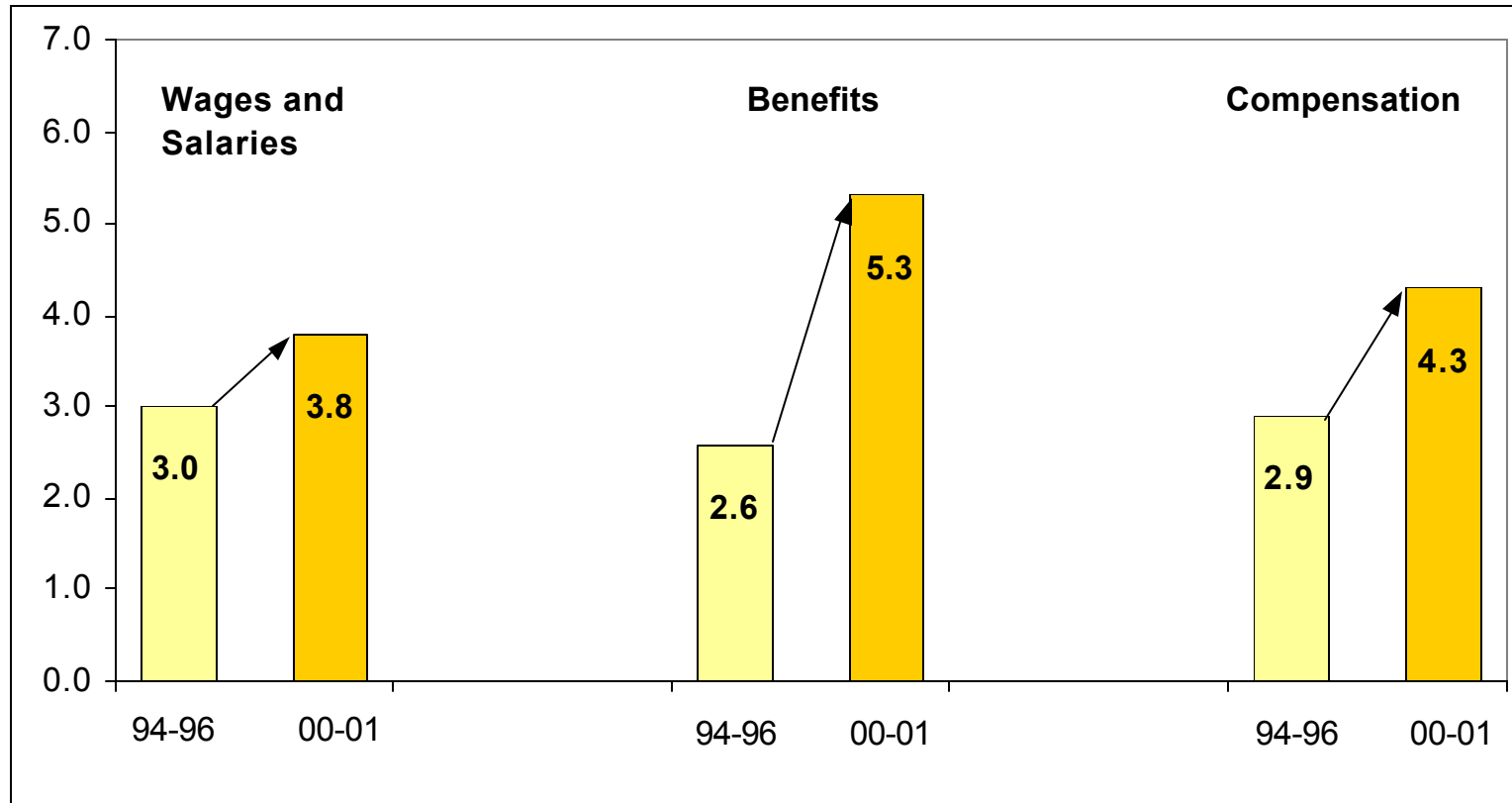
- **Faster productivity growth contributed heavily to the strong economic performance of the 1990s.**
 - allowed low unemployment and inflation
 - allowed faster GDP growth, which helped the budget
 - fueled strong profit growth and a strong equity market
 - encouraged capital inflow and a strong dollar

- **However, *some* of the benefits of faster growth are temporary.**

- I will focus on one important part of that story – low unemployment with low inflation. In the late 1990s, unemployment dropped to four percent and stayed there while inflation pressures were very moderate (oil price fluctuations are a separate story). Previous estimates had suggested the US economy could not sustain unemployment below six percent, without rising inflation.
- Wage inflation is “sticky”. Average wage growth in one year is linked to wage increase the previous year, so an increase in productivity growth drives down unit labor costs (or reduces the rate of increase). For a period, the economy can enjoy lower inflation or lower unemployment, or both.
- Over time, however, wage inflation adjusts, and some of the impact of faster productivity growth on the unemployment/inflation tradeoff disappears.

Wages and Benefits are Growing Faster Now Than in the Mid-1990s

Percent per year



Average annual growth Dec 1993 - Dec 1996 and Dec 1999 - Dec 2001.
Employment cost index.

Source: BLS

- There were other factors at work:
 - The shift to managed health care held down benefit costs in the mid-90s. Currently, health care costs are rising rapidly.
 - The growth of temporary help services and other changes have made the labor market more efficient at matching people to jobs, thereby lowering unemployment.
 - Demographic changes have reduced the fraction of the workforce that is unemployment-prone (a smaller cohort of young people and a large increase in the number of people incarcerated).
- Current estimates put the sustainable unemployment rate at 5 to 5.5 percent.
- The next chart summarizes more broadly some implications for the economy of a strong or weak productivity trend.

If productivity growth continues at a rate of 2.2 to 2.4 percent a year:

- Potential GDP growth is 3-3.5 percent per year.
- Unemployment of around 5 percent can be sustained.
 - But not 4 percent.
- Dollar will likely remain strong in the short term.
 - But will need to adjust down against the Euro over time.
- Growth will sustain profitability and the market.
 - But does not ensure profit growth will meet market expectations.
- Growth will be consistent with CBO projections.
 - Future deficits or surpluses will depend on policy.

If productivity growth falls back to 1.4 percent a year:

- Potential GDP growth is around 2.5 percent per year.
- Unemployment and/or inflation will rise.
- Dollar and the stock market will likely weaken and could fall sharply.
- Large budget deficits will likely return. If the productivity trend is 1.4 rather than the CBO's 2.2, this would have an adverse effect of \$1.2 trillion on the federal budget over 10 years.