How Can The US Economy Grow?

Headwinds and Tailwinds

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Short term growth Issues: The Prospects for consumption?

1). Consuming (rather than saving) gives a short run boost to economic growth (a *tailwind*). However growth in consumption is not a permanent effect.

- Emerging Markets have savings *rates* that are so high that even a modest reduction increases the consumption rate sufficiently for a sustained contribution to their GDP growth. How to encourage the EM into higher consumption rates?

- The US savings rate is already so close to zero that further reduction in the saving rate (increases in the consumption rate) are limited. A housing recovery on the other hand could help in several respects.
High Savings rates in Developing World provide huge potential for increased consumption.
US consumption will be hard pressed to Exceed Income growth?

Savings Rate and Consumption (Annualized Chg.), %

-6 -4 -2 0 2 4 6 8 10


Savings Rate  Consumption
Some increase in the US consumption rate could occur with a recovery in Housing and the restoration of household balance sheets.
But a Housing recovery will generate much construction and add to growth thru output.

Housing starts increase from 609 ths in 2011 to 1,400 ths in 2016.

Change in housing starts, %

Residential investment contribution to GDP growth, %
Short term growth Issues: Dangerous deficits

2). Government deficits (borrowing from the future with the issuance of debt) will increase current consumption, but it also is not sustainable. Deficit reductions then induce temporary contractions. Fiscal debt is (a headwind)

**IMF:** Growth in Debt/GDP = deficit/GDP - GDP growth rate

**Japan:** 8% = 9% - 1%  *hence:* 2012 Debt/GDP = 2.15 x 1.08
**US:** 6% = 9% - 3%  *hence:* 2012 Debt/GDP = .98 x 1.06

As Debt/GDP ratio rises, more GDP must be used to pay for debt interest, less available for savings/investment, slower GDP growth, Debt/GDP increases further...

*Crisis: Sovereign default, call the IMF, ....*
Keynes’ View of Deficits

Good years: *balanced budget*, Debt/GDP declines with the growth rate in GDP (e.g. 3% yearly, 35% per decade)

Recession/Crisis years: run deficits of 5-10% to help restore growth (do so for say 3 years, Debt/GDP rises 15 – 30% during each Crisis).

Over time Debt/GDP stable or declining, countries are always borrowing (a bit) from the future to fight crisis, smooth their economies *UNLESS*

a). You do not balance the budget in good years.
b). Crisis become more common (10 year average)
c). GDP grows more slowly structurally.
d). Your initial D/GDP is (too) high (e.g. >1)
Deficit Reductions: Impact of Taxes

Raising taxes leads to a large negative “Keynesian” shock to output demand as money is siphoned from the private sector to pay off government debt.

In addition high tax rates can lower longer term incentives for individuals to work/save, and for corporations to invest = reduced productivity and slower GDP growth.

“Bad” Taxes:

- Taxes that discourage work effort
- Taxes discouraging investment/savings
- Tax expenditures (same as subsidies)

“Good” Taxes:

- Consumption tax (encourages savings)
- Carbon tax (saves the climate)
- Gasoline taxes (congestion, pollution reductions)
- Estate taxes (silver spoons discourage savings, effort)
Deficit Reductions: Impact of Expenditures

- Public spending cuts: lead to an equally large negative “Keynesian” shock to output demand. Transfers are just another form of consumption.

- In addition to being consumption, some government expenditure has longer term positive productivity effects: schooling, infrastructure, R+D...

- Without discipline, some public expenditures have zero or negative productivity effects: bridge to nowhere...

- BALANCED Policy Making: how does lost productivity from higher tax disincentives compare to that from lower public expenditure?
Longer Term Growth Issues: Aging

3). Workers generate GDP, retirees receive some form of transfer from them. Few developed countries have self sufficient individual savings.

- More workers less retirees = higher GDP per capita.
- More retirees less workers = lower GDP per capita.
- Hence Aging (increase in retirees/workers) is a big drag and will reduce economic growth (headwind).

Even emerging markets have future increases in their “Dependency Ratio” from population’s aging.
“Dependency” Increasing Everywhere: US not as bad as many countries

Old-age dependency ratios: Number of people aged 65+ as % of working-age population (age 15-64)

Source: European Commission
Immigration can help offset Labor Force Declines From aging: “Rational” Immigration reform

Source: OECD (International Migration Outlook 2012).
Longer Term Growth Issues: Continued Global Trade Expansion

4). International trade, “Openness” has greatly expanded over the last 2 decades. Increases in country specialization and trade will always generate higher global GDP (tailwind).

- Theory of “comparative advantage”
- Gains from trade not always balanced or evenly distributed between trading partners
- Time for Emerging Markets to re-align currency, and begin importing from Developed Countries.
- What to do about export imbalances within the EU?
The US Economy Opens up and discovers “Trade”
A Weak Dollar has, will continue to Help US Trade

Source: Bureau of Economic Analysis; Federal Reserve.
US becomes an energy-based exporter?

US Natural gas prices are 35% of those in mainland EU and Japan.

- There is a significant prospect of the US being able to export LNG. US LNG export prices today are 40-50% of German and Japanese import prices.

- Certain types of manufacturing intrinsically use Natural gas in their manufacturing (bulk chemicals). The US now has a huge comparative advantage in these.

- Other types of manufacturing that are energy intensive (aluminum) will find their costs reduced as they either switch to Gas or use gas-generated electricity. More comparative advantage.
Longer Term Growth Issues: Global Warming

5). Adjusting to global warming will require increasingly large investments that absorb GDP without generating increases in our standard of living. Building dikes rather than houses, doing with less because more of GDP is spent trying to stem the floods, keep cool... (headwind).

Rising Oceans, more volatile weather, lower crop yields can be mitigated – but only by devoting GDP to maintaining the status quo in living standards.
Where the US is likely to warm the most: a 60 year Outlook

Climatewizard.org. ESRI, Dark red +10, yellow +2:
Where US Precipitation is likely to increase the most: a 60 year Outlook
Longer Term Growth Issues: Is there a new Industrial Revolution?

6). Robert Gordon: major long term variation in productivity (GDP) growth is due mainly to “Industrial Revolutions”. Can the IT revolution and science wind up saving us *(tailwind)*?

IR#1: 1780-1840: Steam, coal, . Short and quick, productivity growth increases to 0.8% from almost zero.

IR#2: 1870-1970: electricity, clean water, oil-IC engine, radio, health: 2.4% sustained productivity growth for a century (16x increase in std. of living)


- 1970-1995: productivity growth 1.5% *(Why?)*
- 1995-2004: productivity growth 2.5% *(Wow!)*
- 2005-2012: productivity growth 1.3% *(Ugh)*
The current IT Industrial Revolution

Is the IT productivity boom (IR #3) really petering out?

YES
- Most recent IT revolution not really productivity enhancing and just a form of consumption
- IPODs, social networking, streaming video, connectivity have a big “consumption” component.

??
- US changing patent protection: “first to invent” (encourage ex post court claims) to “first to file” (rest of the world). “First to file” favors larger corporations, big patents

NO
- Enormous revolution in logistics has been productivity enhancing with a huge boom to trade.
- Coming revolution in shopping frees up time/travel
- Robotics is not over: 3D “direct” production.
Current Industrial Revolution (continued)

**AND** IT is enabling new Scientific and Technological innovations that have potential for future Industrial Revolutions (IR#4+...)

- The Cloud and new mainframes are boosting corporate and scientific data storage and allowing parallel computing upon “Big Data” bases....

- Quantum computing (if realized) is light years faster than digital computing. A range of fundamental scientific questions could be answered which currently are beyond our reach

- The growing Medical sector has been late to adopt IT and this has enormous potential productivity gains.

- Materials (Nano) technology about to become practical, Carbon (CO2 sequestering) replaces steel, aluminum, copper (CO2 producing)...

**THE BEST HOPE FOR GROWTH**
William Wheaton

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