

The Oil Drum

DISCUSSIONS ABOUT ENERGY AND OUR FUTURE



The Expected Economic Impact of an Energy Downturn

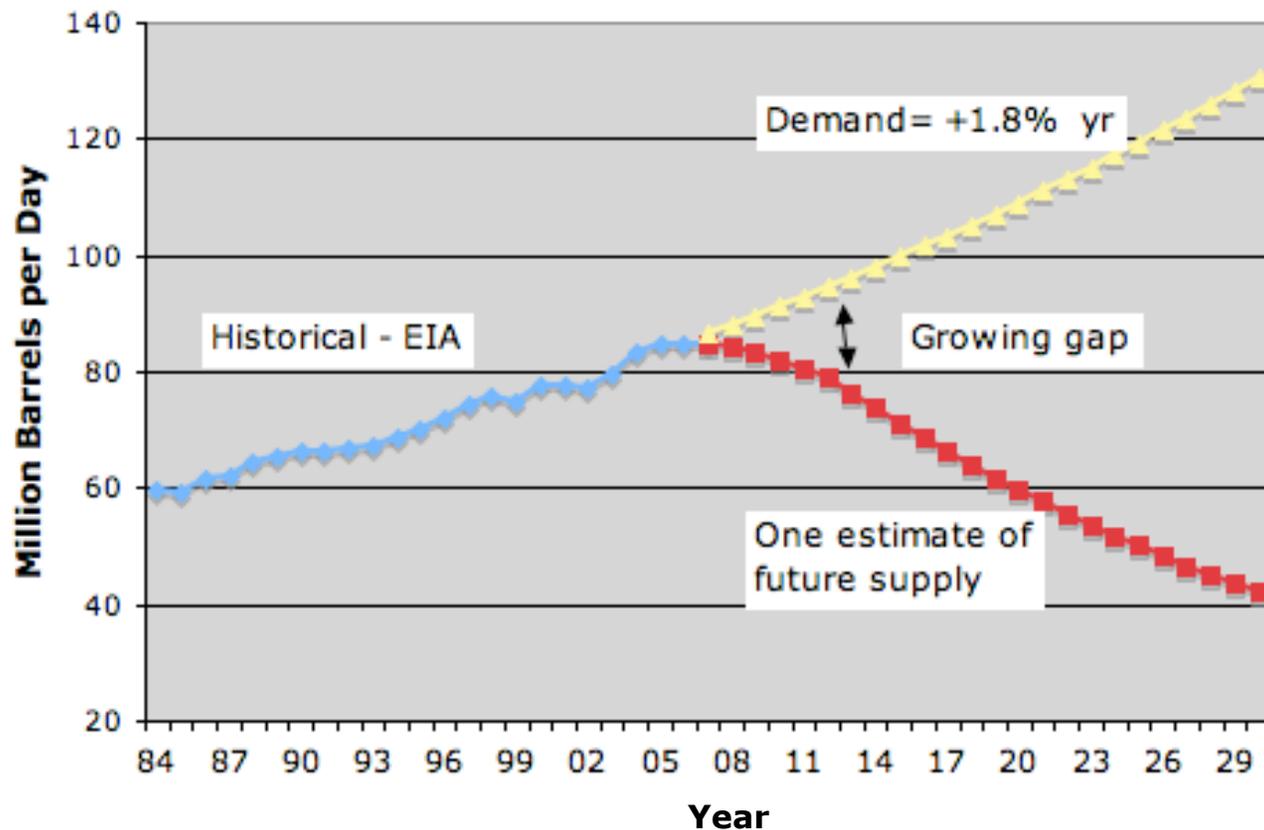
Gail E. Tverberg – April 10, 2008

Ohio State University College of Public Health

Converging Environmental Catastrophes:

A Teach-In on Energy, Climate Change, Water, Agriculture, and Population

A *growing gap* is expected between oil supply and demand



A *small* drop in oil makes a *big* difference

- Without food, we would starve.
- Fuel from oil is like food for cars, trucks, and much equipment
 - Without fuel, they won't work
- Substitutes are a long way off
- No one will tell us the truth

The Earth is *Finite* – We are Reaching its *Limits*

- Easy oil is gone
- Natural gas is in limited supply
- Coal is associated with climate change
- Biofuels are limited by land, fresh water
- High grade ores of uranium and other minerals are depleting

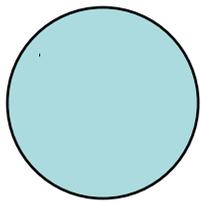
Immediate Economic Impacts

- ***Higher oil prices***
 - Gasoline, diesel, asphalt
 - Spreads to natural gas, coal, electricity
- ***Higher food prices***
 - Partly because of shipping costs
 - Partly because of biofuel use of food

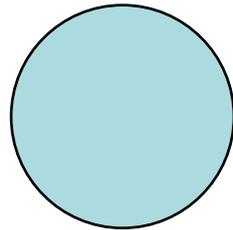
Impacts of higher food and oil prices

- Squeeze out ***discretionary spending***
- Cause ***defaults on loans***
- Leads to ***recession or depression***
- This recession likely to be permanent
 - Reflects continuing energy supply squeeze

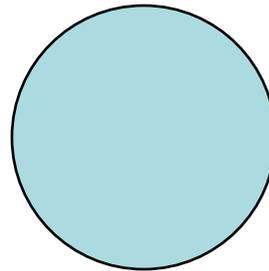
In the recent past, the economy has been ***growing***:



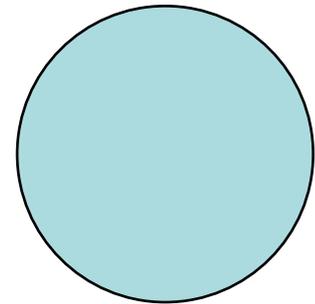
1970



1980

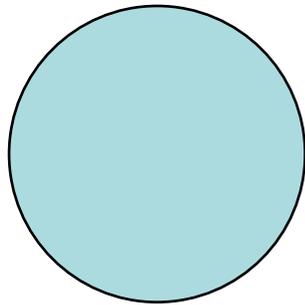


1990

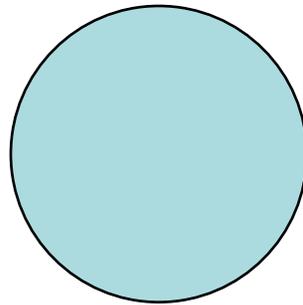


2000

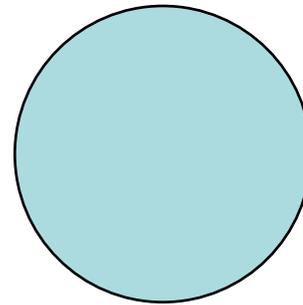
With long-term recession, it may change to a ***no-growth economy***:



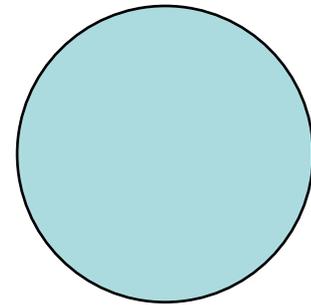
2010



2020

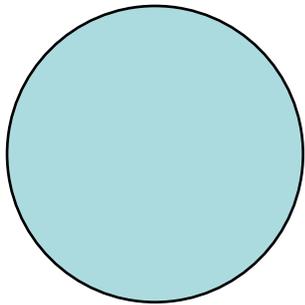


2030

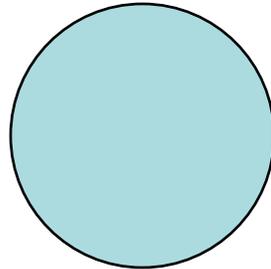


2040

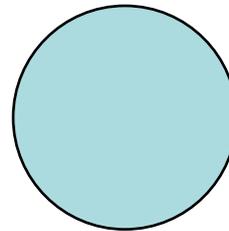
More likely, as resources deplete,
the ***economy will decline***:



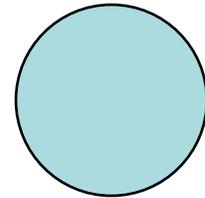
2010



2020

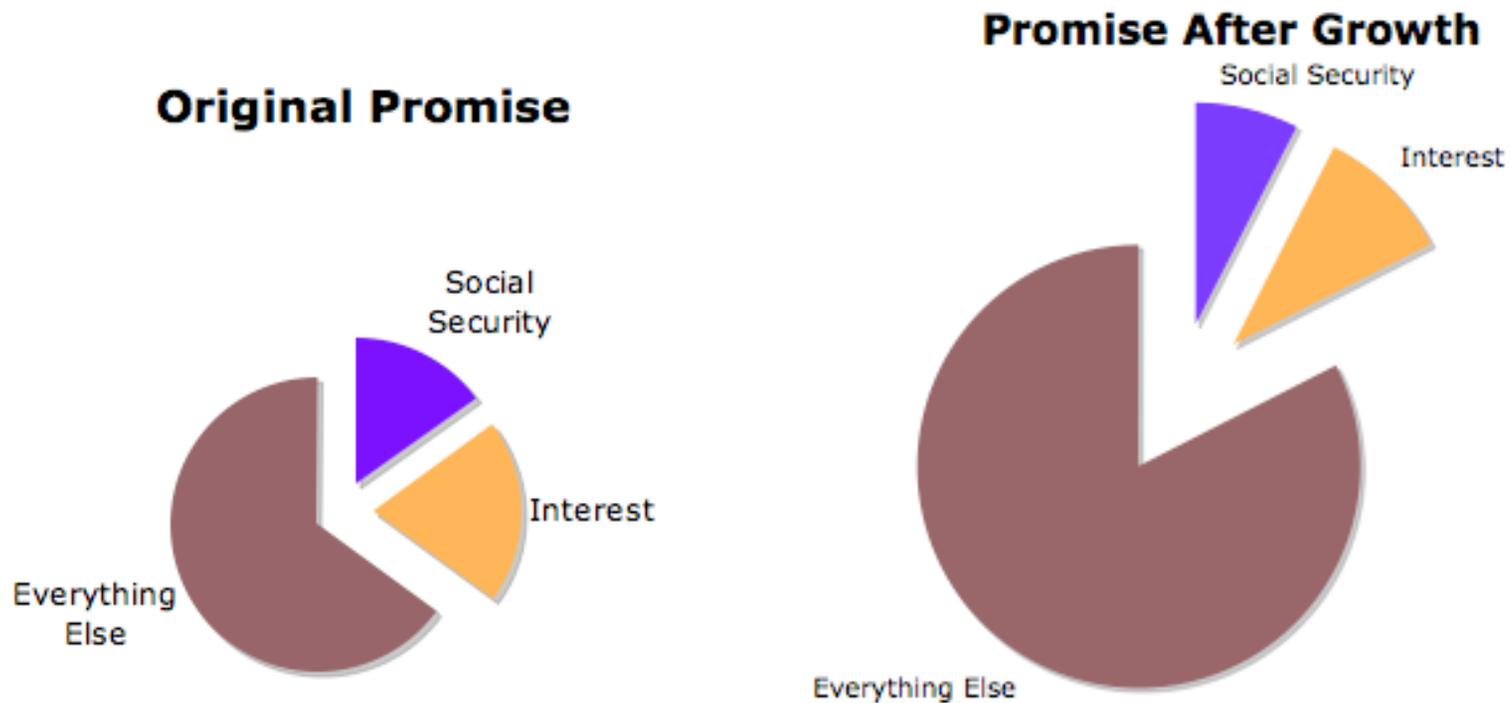


2030



2040

With a ***growing economy***, future promises are relatively easy to fund.

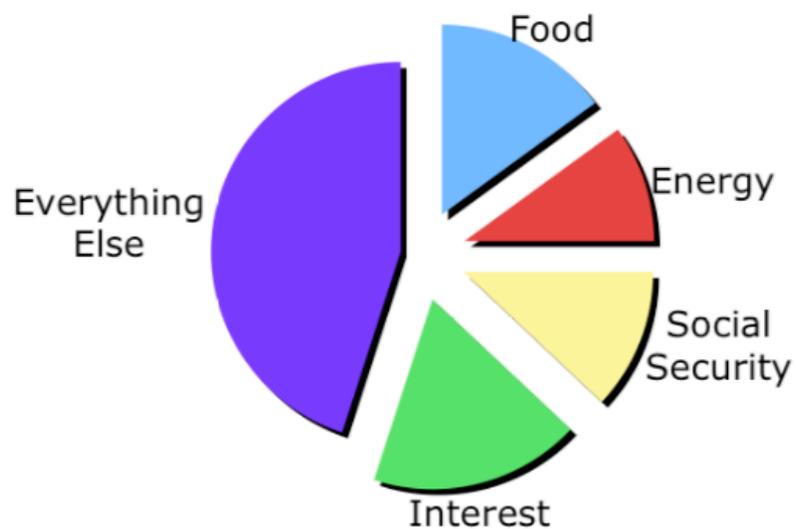


With a flat or declining economy:

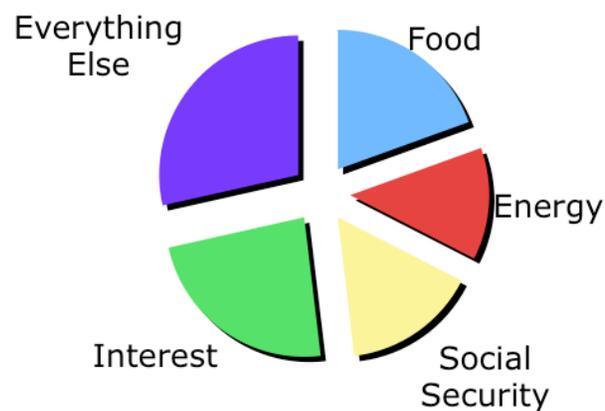
- ***Food and energy*** costs become a bigger share of the economy.
- ***Future promises*** like social security, Medicare, and interest also become a bigger share of the economy.
- Combination is very difficult to deal with
- Little is left for ***everything else***

Too little is left for ***everything else***,
if the economy declines

Original



After Decline



If economy begins ***long-term decline***, lenders will soon catch on

- No point in making more loans
 - Default rate will be too high
- Same logic applies to US balance of payments deficit
 - No point in selling without matching exports
 - Dollars will be worth less later

The world is headed toward a ***credit unwind***

- Could happen very soon
- Could be in steps, or all at once
- Impact is like cutting up credit cards
 - Still liable for unpaid debt
 - Need to make new purchases as well
- US balance of payment deficit may stop
 - Imports could be cut in half over night

World is likely to ***become much poorer***, in the next 20 – 30 years

- Social security and Medicare are likely to be drastically scaled back
- Most stocks and bonds will have little value
- Insurance companies are likely to fail
- Globalization is likely to be scaled back

Transition to poorer world,
after debt unwind, not yet clear

- Ideal: ***Slow transition***, planned by governments
- Equally likely: ***Crash***, accompanied by hyperinflation or bank failures
- New regulatory structure, safety net possibly too late
- Keep our fingers crossed

Health care services in the future

- Likely a ***smaller share*** of economy
- ***Public health*** may be more important
- ***Transportation*** likely more difficult
- More frequent ***electrical interruptions***