

Theory says oil price can increase— but our pocketbooks disagree

Low oil price budget



High oil price budget

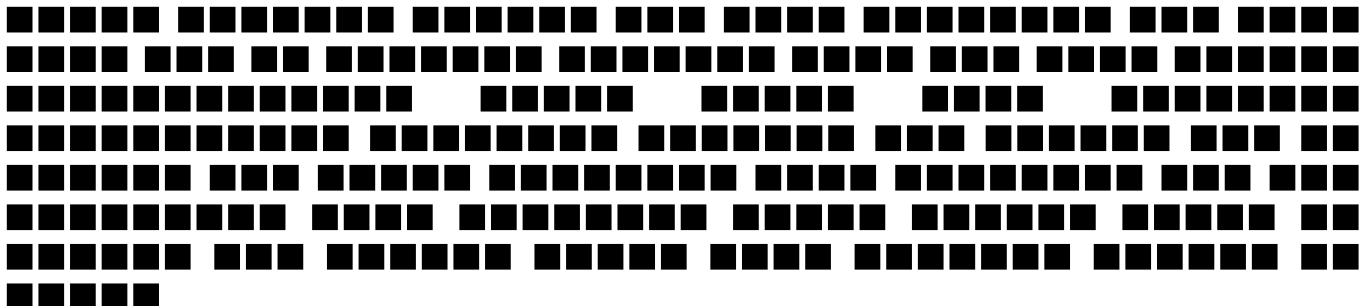
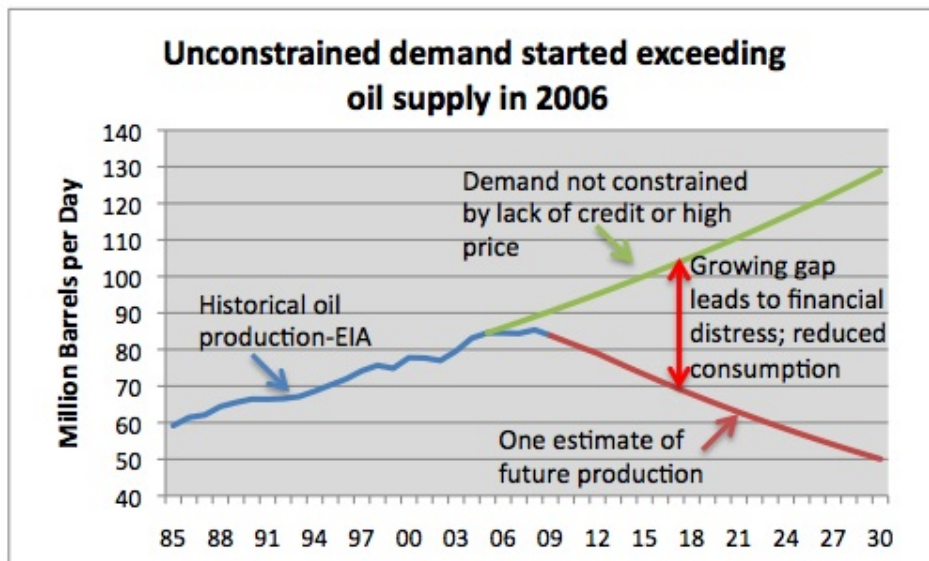
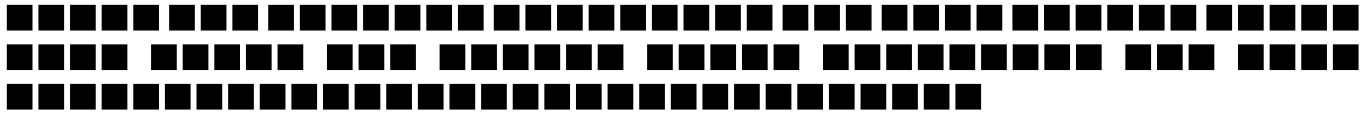


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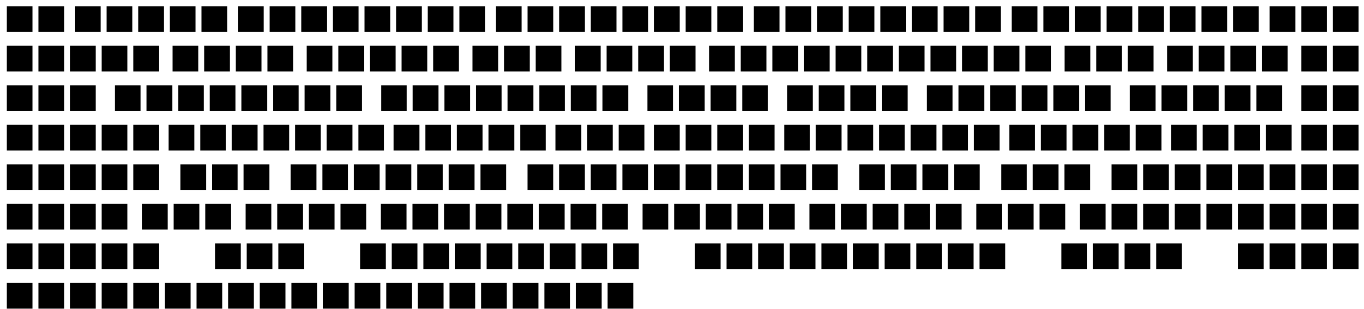
If oil prices rise, something has to “give”

- Either we miss debt payments
 - Banks do badly
 - Cut back on debt availability
- Or we cut back on everything else
 - Fewer new cars
 - Fewer new houses
 - Fewer restaurant meals; donations; etc.
 - Looks like a recession

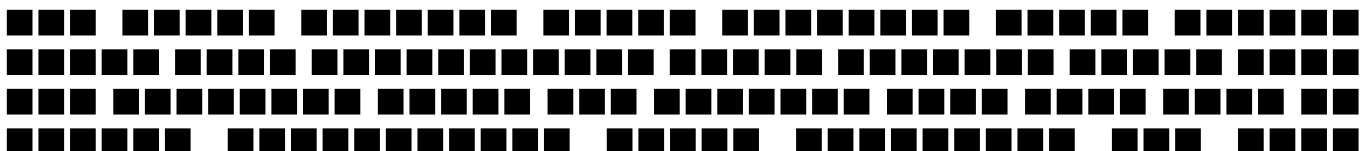
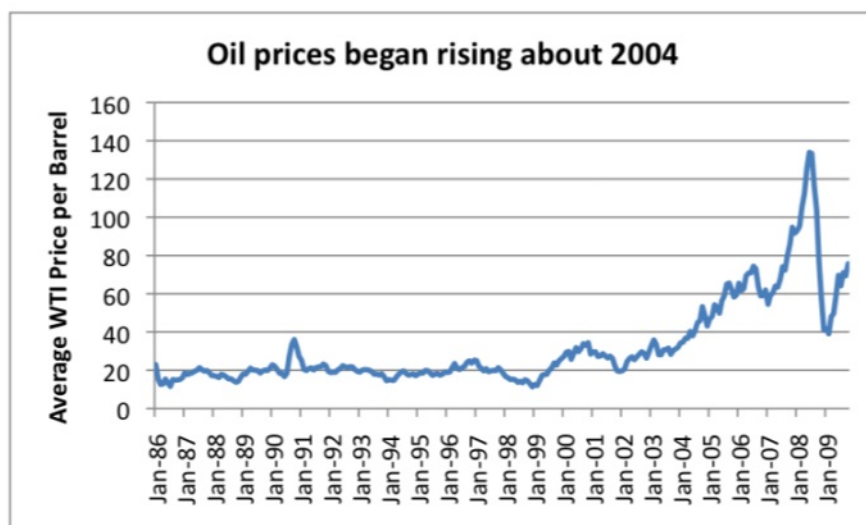


Now the “easy oil” is mostly gone

- There is plenty of oil left
 - But it is expensive, slow-to-extract oil
- There are lots of substitutes
 - But they are generally more expensive than oil
 - Examples: Ethanol; electric cars powered by wind generated electricity
- If we could all get raises, everything would be fine! (And the economists would be right)



Many people thought the problem disappeared when prices dropped



But people's incomes couldn't stand higher oil prices

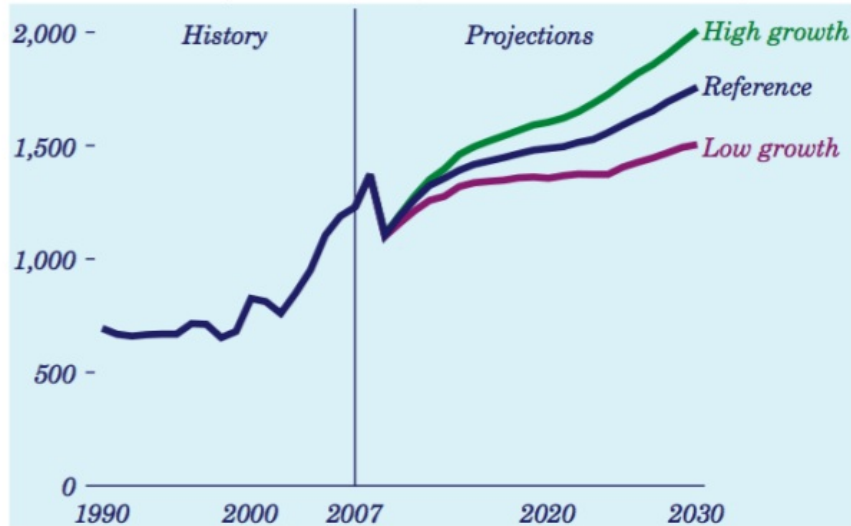
- Mortgage defaults rose
- Banks reported poor results
 - Cut back on new loans
- Suddenly, cut back on credit started affecting oil prices
- Less credit -> less demand -> lower oil prices

US consumer credit “peaked” the same month as oil prices – July 2008



US EIA View of Energy Costs

Figure 30. Energy expenditures in the U.S. economy in three cases, 1990-2030 (billion 2007 dollars)



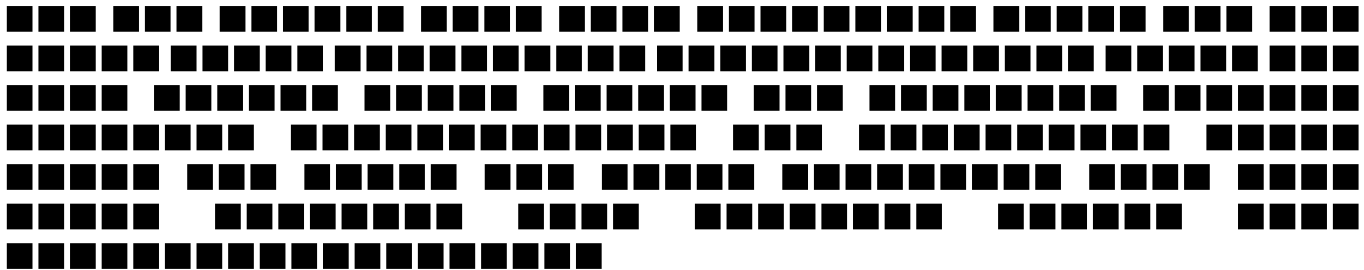
[http://www.eia.doe.gov/oiaf/aeo/pdf/0383\(2009\).pdf](http://www.eia.doe.gov/oiaf/aeo/pdf/0383(2009).pdf)

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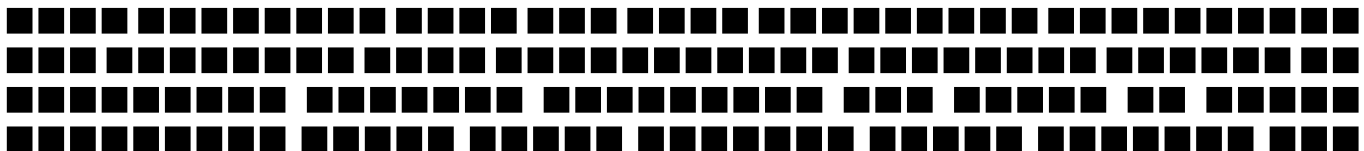
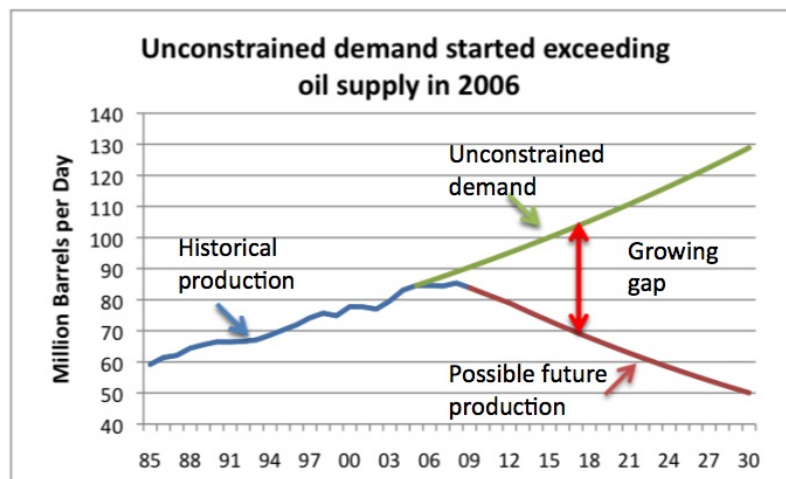
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Where do we go from here?

- We are in uncharted territory
- Economists aren't much help
 - Didn't see the problem coming
 - Expect oil prices will rise, without \$ to pay for oil
- Things are in a "lull" now
 - Oil prices are down somewhat from their high
 - But debt problems persist
 - New flare up is likely



Gap between production and unconstrained demand will likely grow

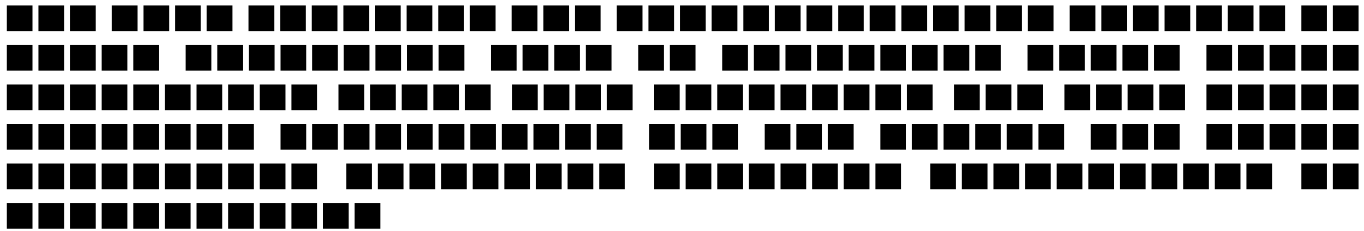
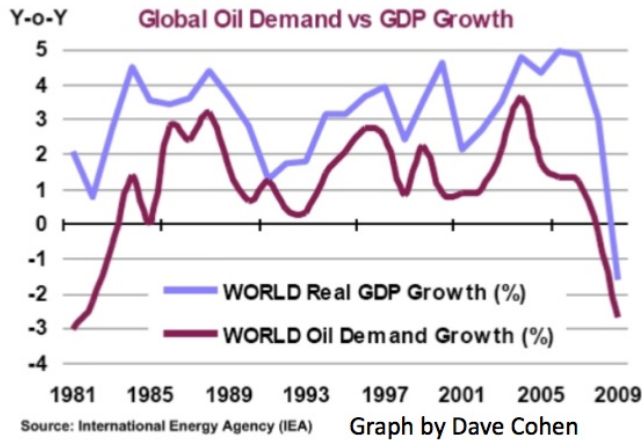


Lower oil production will likely mean continued recession / depression

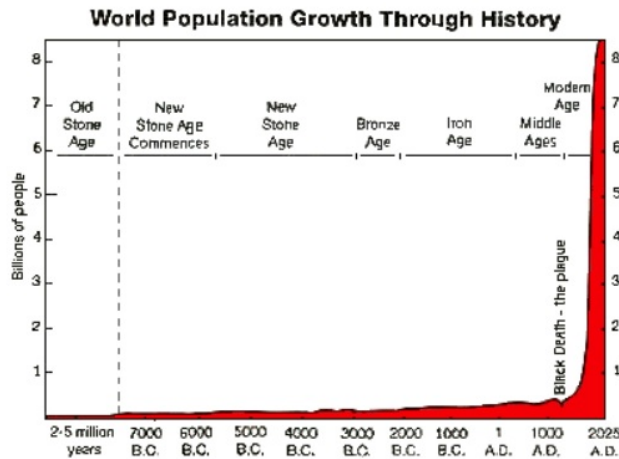
- Prices likely volatile
- May rise for a while
 - Then higher oil and food prices will cause more loan defaults and more recession
 - Oil prices will drop; and there will be more lay offs
- International trade may be impacted

Reason for continued recession is close tie between GDP and oil production

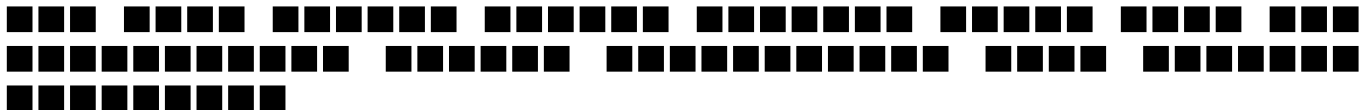
Oil Demand Correlates With Global GDP



World population has grown greatly since discovery of fossil fuels

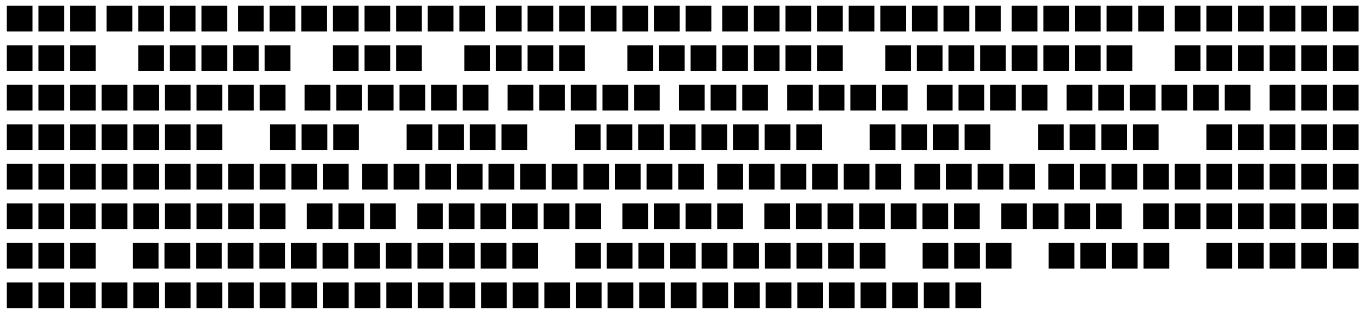


<http://www.susps.org/overview/numbers.html>



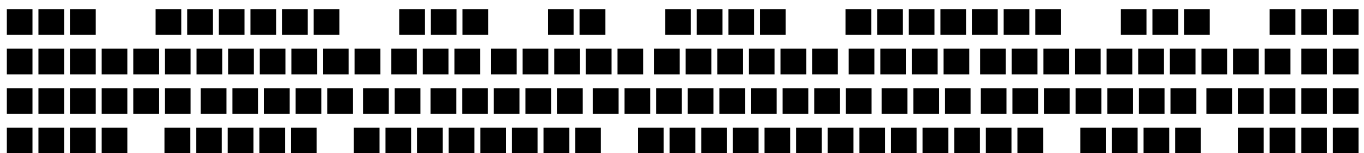
One concern is the ability to continue feeding everyone

- Food is very oil dependent
 - Pumps for irrigation
 - Fuel for tractors
 - Transport food long distances
 - Pesticides, herbicides, fertilizer
- Higher costs alone would be a problem
 - If food becomes unavailable in some places, there will be a real problem



No one is telling us about our predicament

- No good solution in sight
- Probably too late for huge technology changes
 - But may be some partial mitigation
- Most alternatives are too expensive
- My view:
 - Need to re-localize food and manufacturing
 - May need local financial systems
 - Need to completely change educational system



[REDACTED]



[REDACTED]

[REDACTED]

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