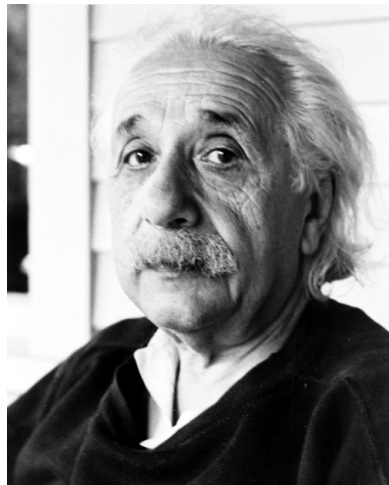


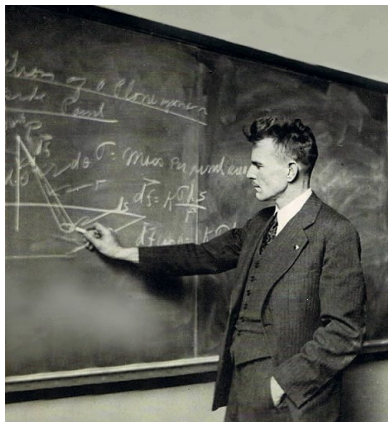
60 years ago

I recently discussed with an intelligent and well-disposed man the threat of another war, which in my opinion would seriously endanger the existence of mankind, and I remarked that only a supra-national organization would offer protection from that danger. Thereupon my visitor, very calmly and coolly, said to me: "Why are you so deeply opposed to the disappearance of the human race?"

I am sure that as little as a century ago no one would have so lightly made a statement of this kind. It is the statement of a man who has striven in vain to attain an equilibrium within himself and has more or less lost hope of succeeding. It is the expression of a painful solitude and isolation from which so many people are suffering in these days.

— From Albert Einstein, "Why Socialism?"
(Published in the first issue of *Monthly Review*, May 1949.)

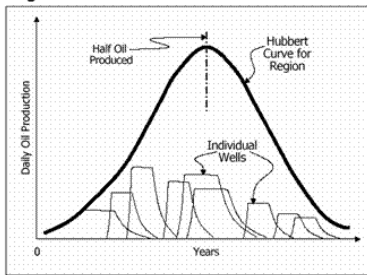




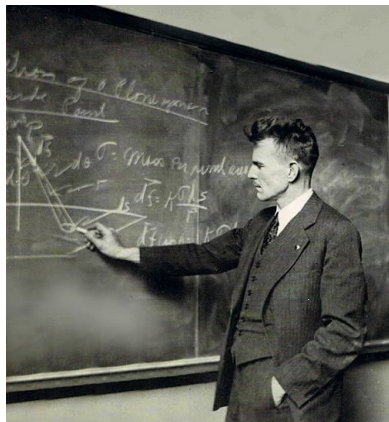
M. King Hubbert:

- Geologist at Shell.
- 1956: Predicted US oil production would peak around 1970.

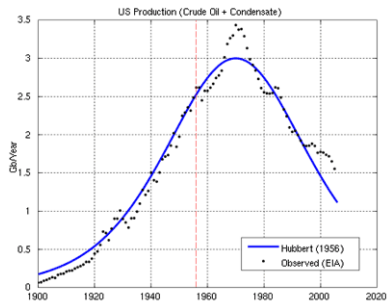
HUBBERT CURVE Regional Vs. Individual Wells



M. King Hubbert

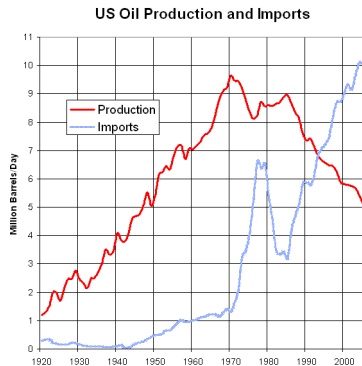


Hubbert's prediction was dismissed, but, in the end, was correct.

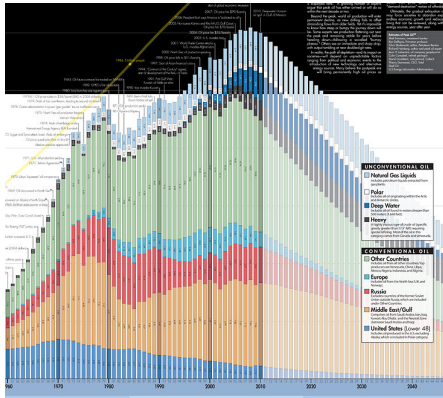


The US and oil

With its oil production past its peak, the US became a large importer...



But the world can't import oil



oilposter.org

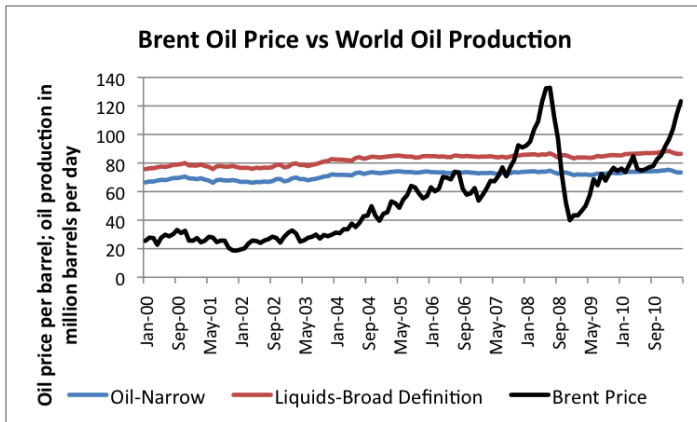
But the world can't import oil.

Hubbert predicted that, if present trends continued, world oil production would peak in 1995.

But he added that, if OPEC were to restrict supply, the peak could be delayed about 10 years, putting it at 2005.

In fact, conventional oil production peaked in 2005 and has been decreasing every year since: Hubbert was proven right again.

The new energy regime



In the last decade, oil prices have risen dramatically, to the point of causing economic damage. Normally, increases in price provide incentive for producers to increase their production. However, this hasn't happened, indicating the limits have been reached.

But fossil fuels are bad, right?

Global warming—a whole other story, no less serious or depressing.

It's obviously a good thing we don't have unlimited oil, and what we do have is probably too much anyway.

But... our civilization is dependent on fossil fuels, and especially oil (which is easy to store and transport).

A 2005 study commissioned by the US government, the Hirsch report, concluded that a crash program needed to be enacted 10 years prior to peak oil to avoid acute liquid fuel shortages.

Some studies, such as one by the German military, have been leaked. Slowly, governments are coming out into the open, as peak oil becomes harder to ignore or deny.

Further... increasing energy use is required for **economic growth**.

And economic growth is required for... ???



Harpo Marx
(Mr. Moneybags photo not available)

Within our economic system, production of goods is determined by the potential for profits.

This is **Marx's M-C-M' cycle**:

1. Money, M , is used to produce commodities, C .
2. The commodities, C , are sold for money, M' .

But M' must be more than M , or the capitalist would be better off just forsaking production and keeping the money, M .



Groucho Marx

Investment for profit (i.e. capitalism) depends on the accumulation of wealth ($M' > M$).

For some people to accumulate wealth, the total must grow, or the rest of the population must be impoverished.

Money can be printed or, as in our system, lent into existence (see fractional reserve banking).

But 'real wealth' can't keep growing, given our energy (and other) limits.

So we get **PROBLEMS**.

No growth → no capitalism



Groucho Marx

PROBLEMS

Financial crises

Unemployment

Sovereign debt crises

'Austerity' measures

etc.

**And people can't be impoverished
without limit:**

Civil unrest.

And, later on, who knows?

Totalitarianism? War? Revolutions?

Chaos?

Many things are possible, but
economic growth or capitalism aren't.

Well, my day's ruined... or is it?



Reverend Gary Davis
(1896-1972)
Blues & gospel
*The devil is the deceiver,
He don't treat nobody right.
Say no to the devil, say no.*

So what do we do?

1. Don't buy any nonsense (literally or metaphorically).
2. Embrace simplicity (a virtue in most religions).
3. Strive for virtues: patience, kindness, compassion, mindfulness, wisdom, steadfastness, etc.
4. Strengthen your mind: meditation and all-around mindfulness.
5. Gain useful knowledge and skills, according to your strengths and interests.
6. Don't let the blues get you down.
7. Don't become a cannibal.

1. Peak Oil

- <http://www.aspousa.com> (ASPO: Association for the Study of Peak Oil & Gas)
- <http://www.energybulletin.net/primer/>
- <http://www.guardian.co.uk/environment/2009/nov/09/peak-oil-international-energy-agency>
- IEA acknowledges peak oil in retrospect.
<http://earlywarn.blogspot.com/2010/11/iea-acknowledges-peak-oil.html>
- On alternative energy: Richard Heinberg, "Searching for a miracle".
<http://www.postcarbon.org/report/44377-searching-for-a-miracle>
- Responses to Daniel Yergin's recent piece on peak oil (just one example of a peak oil denier):
 - (a) <http://www.energybulletin.net/stories/2011-10-24/daniel-yergin-massively-reduced-his-energy-estimates>
 - (b) <http://www.aspousa.org/index.php/2011/09/yergin-is-half-right-about-oil-but-other-half-is-what-matters/>
 - (c) <http://www.theoildrum.com/node/8391>

2. Economic growth and 'development': possible? necessary?

- Richard Heinberg, *The end of growth*. Excerpts available at <http://richardheinberg.com/222-the-end-of-growth> and elsewhere on his website.
- Why capitalism needs growth. <http://monthlyreview.org/2011/01/01/capitalism-and-degrowth-an-impossibility-theorem>
- Gail Tverberg on growth and energy: <http://ourfiniteworld.com/2011/11/15/is-it-really-possible-to-decouple-gdp-growth-from-energy-growth/>
- Capitalism and sustainability. <http://monthlyreview.org/2010/03/01/what-every-environmentalist-needs-to-know-about-capitalism>
- A world-system perspective. http://www.foreignpolicy.com/articles/2011/01/02/unconventional_wisdom?page=0,9
- Immanuel Wallerstein, "After Developmentalism and Globalization, What?". <http://www.iwallerstein.com/wp-content/uploads/docs/CORNELL.pdf>

3. Economics and finance

- John Bellamy Foster and Fred Magdoff, *The Great Financial Crisis: Causes and Consequences*. Monthly Review Press, 2009.
- Thorstein Veblen, *The Theory of Business Enterprise*. Transaction Books, 1904 (public domain, available online).
- <http://www.nakedcapitalism.com>
- John Kenneth Galbraith, *The Great Crash, 1929*. Houghton Mifflin, 1954.
- <http://theautomaticearth.blogspot.com/2010/05/may-16-2010-oil-credit-and-velocity-of.html>
- John Ruskin, *Unto This Last*. (1880 essays, in public domain, available online)

4. All around excellent blog combining energy, finance, economics, and global politics:

- <http://theautomaticearth.blogspot.com/>

5. The food system

- Masanobu Fukuoka, *The One-Straw Revolution: An Introduction to Natural Farming*. Rodale Press, 1978. (also available online)
- Michael Pollan, *The Omnivore's Dilemma*. Penguin Press, 2006.
- A recently released 30-year comparison study between organic and industrial farming techniques: <http://www.rodaleinstitute.org/fst30years>

6. Meditation, religion, spirituality.

- Ven. Henepola Gunaratana, *Mindfulness in Plain English*.
http://www.urbandharma.org/pdf/mindfulness_in_plain_english.pdf
- Aldous Huxley, *The Perennial Philosophy*. Harper & Row, 1945.
- "Aspects of Christian Meditation", a 1989 letter of the Catholic Church.
- James Finley, *Christian Meditation: Experiencing the Presence of God*. HarperOne, 2005.
- Henry David Thoreau, *Walden*. Ticknor and Fields, 1854 (in public domain, available online).