



## What's Ahead? Two Scenarios

Gail Tverberg, Editor

The Oil Drum

ASPO – USA Conference, Oct. 11, 2009

# Two Post-Peak Scenarios Predominate

---

- Slow Slide
- Quick Crash

# Slow Slide Scenario

---

- Shortages of lots of things – oil, water, minerals mined using oil
- Shortages gradually grow worse
- Technology provides fixes
- Alternate fuels are helpful in this
- Learn to live with less
- World becomes the “New Cuba”

# Questions about “Slow Slide”

---

- How fast will net energy decline?
- Will alternatives scale fast enough to matter?
- Isn't there a strong BAU assumption:
  - International trade keeps working
  - Lending keeps working as today
  - Continue making complex equipment, with materials from around the world

# One Alternative – Quick Crash

---

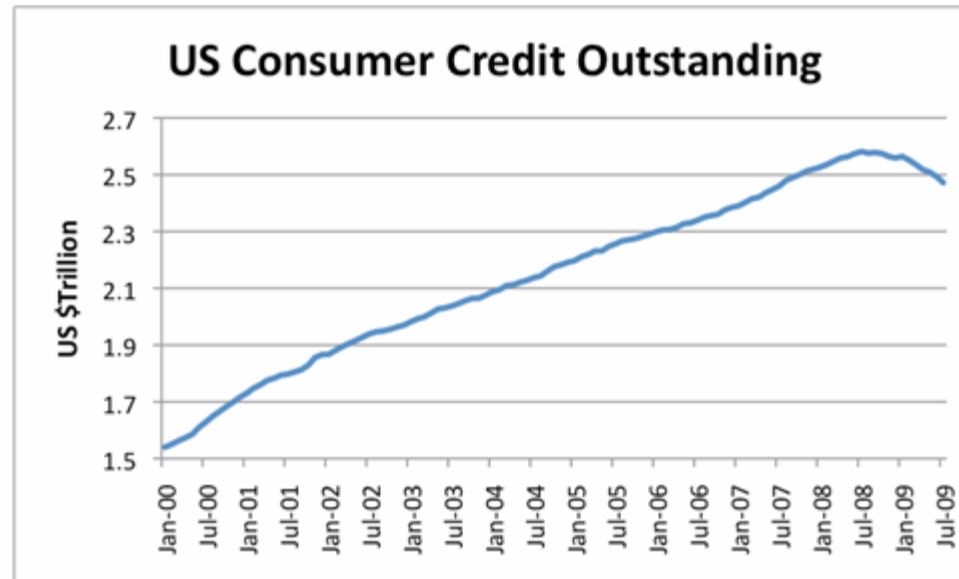
- We live in a highly networked system
  - Everything interdependent
  - Manufacturing depends on international trade
  - Businesses depend on credit and manufactured goods
  - Business and manufacturing depend on electricity
  - Electric utilities depend on credit and on replacement parts

# Systemic Risk

---

- Problem in highly networked systems
- Like computer crash
- One thing stops working
  - Everything else stops working
- Risk areas:
  - International trade
  - International finance
  - Credit

# Close link of credit to oil extraction



Source: US Federal Reserve

US consumer credit peaked in July 2008 – Just as oil production peaked

# Connection with credit is complex

- Credit enables oil production
- Credit enables demand for oil, by allowing consumers to buy houses, cars, etc.
- Credit enables economic growth
  - With growth, it is easier to pay back loans
- Shrinking oil supplies limit economic growth
  - Leads to defaults on loans
  - Forces lenders to cut back on loans

# Net impact of credit on oil

- Provides *positive* reinforcement of rising production on the way up
- Provides *negative* reinforcement of declining oil production on the way down
- Result seems to be peak oil = peak credit
- Contributes to systemic risk of networked system

# If Quick Crash

- International trade likely to drop quickly
  - Replaced by bilateral trade
  - Much more limited
- Manufacturing of all types drops off quickly
  - Can't get imports needed
- Defaults on debts become more and more problematic
- Currencies become more local

# Quick Crash - Continued

---

- Net impact
  - Current model of food production may cease to work
  - Current transportation model may cease to work
  - Re-localization may be necessary
  - Much lower standard of living
  - Population likely to decline

# Mythology supports slow slide

- Myth goes: Oil will never “run out”
  - We will have a “dribble forever”
- But what are the real limits on oil production?
  - Globalization—high tech machinery; expertise
  - Credit—producers and buyers
  - Distribution—who gets available oil
- Perhaps “slow slide” is a comfortable myth
  - “Overshoot and crash” should be considered as well