Green Energy and Economic Bubble

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What is Economic Bubble

“A market phenomenon characterized by surges in asset prices to levels significantly above the fundamental value of that asset.”
Example 1: “Tulip Bubble” (Classic Economic Bubble)

- Netherlands (year 1636 – 1637)
- Dutch Golden era
  → VOC-Vereenigde Oost-Indische Compagnie
  → Rich Citizen/Merchants
- Tulips Mania
  → Origin from Turkey
  → Wealth Symbol
- Price
  → High Demand
  → Rising
  → Crash
Video – Tulip Bubble

Tulip mania: The first bubble
Internet Dotcom Bubble

- High PER (200x)
- More than 50% of IT based company could not survive
Subprime Mortgage

- USA in the year 2000’s
- Subprime Customer
- Greedy Investment Banks → They Knew at first place, subprime costumer couldn’t pay the loan
- People bought expensive houses using loan with low interest rates
- Suddenly the rates would increase → Borrowers could not afford
- Foreclosure and other factors caused the market to decline
- When borrowers could not pay back → Bank lost money
Effect of Subprime Mortgage

- Americans lost more than 25% of their net worth
- At the end of 2008, Stock Market (S&P) down 45% from highest in 2007
- Housing Prices dropped to 35% at 2010 compared to 2006
- Retirement Assets dropped to 22%
- Systemic Effect (Construction sectors and investors lost confidence in the economy)
- Domino’s Effect to the rest of the world
Is Green Energy (Renewable Energy) bubble happening??

Wall Street: “the world is facing an over-investment in renewable energy and that the current levels of debts in many clean tech companies are unsustainable.”
SunEdison Case – The Death of Solar Star

SunEdison:
- Peak Assets Value 32.13 Bio USD
- Big Leverage (not by organic Growth) → 21 Bio USD total leverage
- Fairy Tale of Media Darling
- Over Expansion
Abengoa – The collapse of Spanish Giant

Abengoa:
- Peak Assets Value 25.3 Bio USD
- Big Leverage (not by organic Growth) → 16.5 Bio USD total leverage
- Fairy Tale of Media Darling
- Over Expansion
How to Predict a Bubble

Irving Fisher:

• Assets price is rocketing
• Everyone talks about investment even in family dinner time
• At the beginning, every investors act like the winner
• “This Time must be different” syndrome
Cycle of Bubble

Source: Raymond James Investment Co
Key Question about Green Energy Bubble

- Is Renewable Energy (RE) producers commercial?
- Should you fund from tax payer allocated to for RE?
- Why Development is very progressive?
- Same Pattern with Internet dotcom Bubble (end of 1990’s)?

- Green Energy is a Revolution
- If Environmental Cost taken into account, RE Sector will be competitive
Thank You