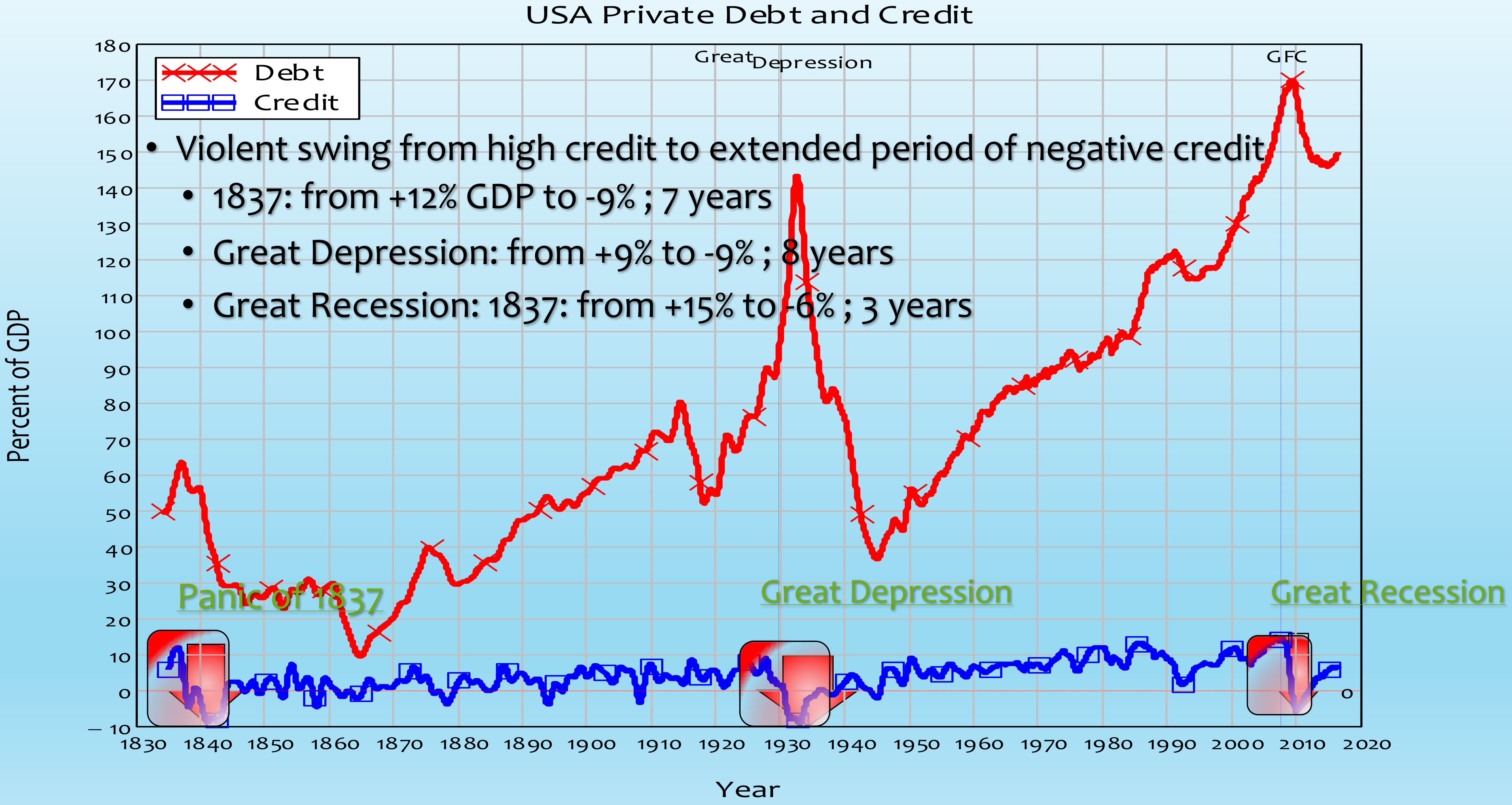
Capitalism’s biggest crises have been credit crises…

- Violent swing from high credit to extended period of negative credit
  - 1837: from +12% GDP to -9% ; 7 years
  - Great Depression: from +9% to -9% ; 8 years
  - Great Recession: 1837: from +15% to -6% ; 3 years



Which mainstream economics ignores ***because of a fantasy***…

- Ben Bernanke 2000: "Absent implausibly large differences in marginal spending propensities among the groups, it was suggested, pure redistributions should have no significant macro-economic effects." (p. 24)
- Paul Krugman 2012: "any individual bank does, in fact, have to lend out the money it receives in deposits."
- That Central Banks are now calling out…
  - ***Bank of England*** **2014**: "Rather than banks receiving deposits when households save and then lending them out, ***bank lending creates deposits.***"
  - ***Bundesbank*** **2017**: "this refutes a popular misconception that banks act simply as intermediaries at the time of lending."
  - ***Central Bank of Norway* 2017*: "banks create money out of nothing and withdraw it when loans are repaid."***

Expenditure IS Income. AND Credit matters

- Example Without Lending:

Expenditure & Income	Tom	Dick	Harry
Tom	-200	100	100
Dick	100	-200	100
Harry	100	100	-200

Expenditure

Income

  - Expenditure≡Income=$600/Year

- With "Loanable Funds" Lending: Dick lends Tom $10 at 10% interest

Expenditure & Income	Tom	Dick	Harry
Tom	-(200+10+1)	100+1	100+10
Dick	(100-5)	-(200-10)	(100-5)
Harry	100	100	-200

- $10 credit-based spending cancels at the aggregate level
- $1 interest is expenditure for Tom and income for Dick
  - Expenditure≡Income=$601/Year

Expenditure IS Income. AND Credit matters

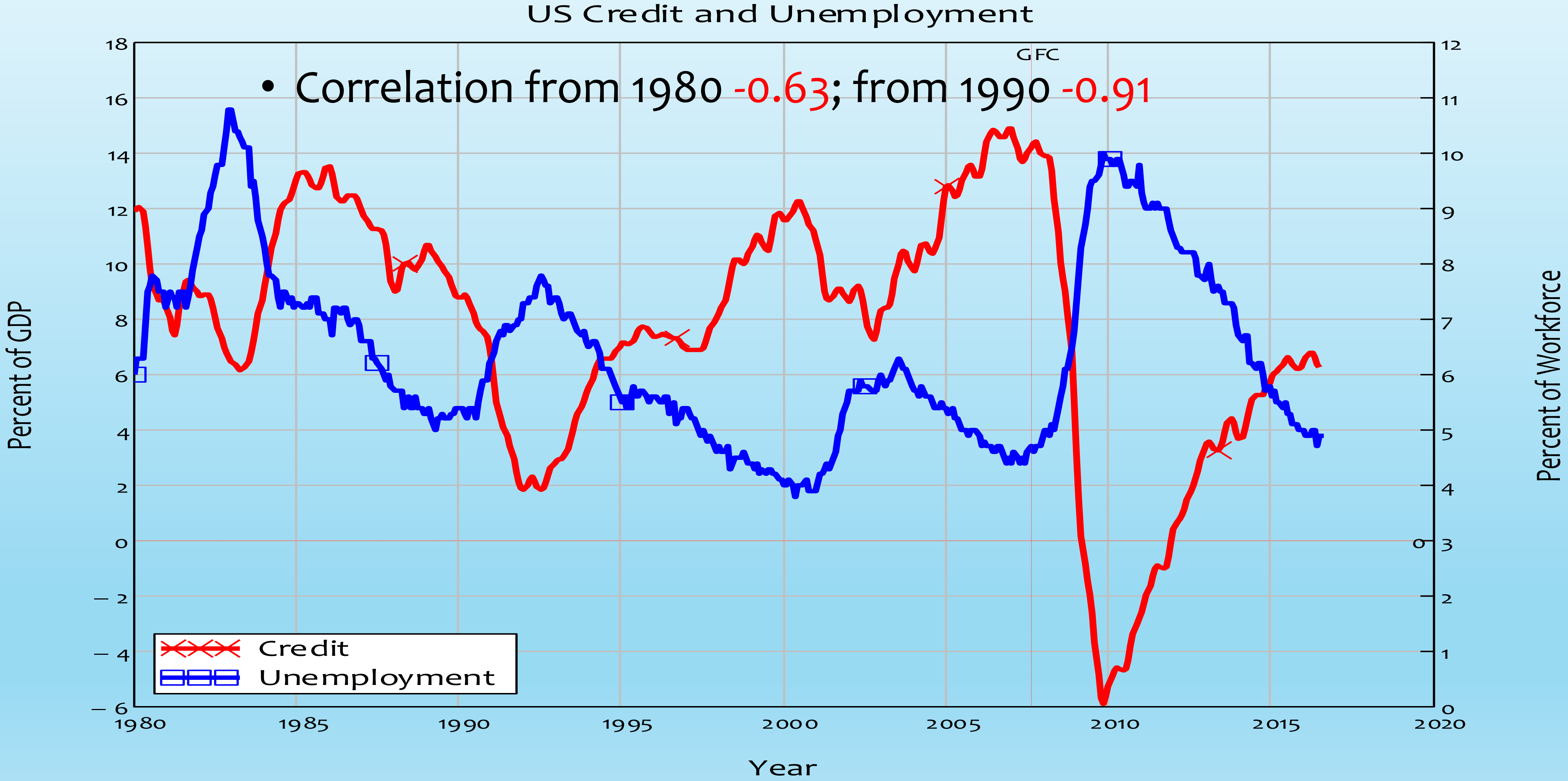
- Real-world "Bank Originated Money & Debt" (BOMD)
  - Tom takes out a loan of $10 (not shown in this table) from the Bank & pays 10% interest on the loan to the Bank
- Total expenditure is total income equals $612/Year...

Expenditure & Income	Tom	Dick	Harry	Bank
Tom	-(200+10+1)	100	100 +10	+1
Dick	100	-200	100	
Harry	100	100	-200	
Bank		+0.5	+0.5	-1

- $10 credit-based spending ***does not*** cancel:
  - $10 created by debt increases bank assets (debt) and liabilities (deposits) equally
  - $10 Demand created by expenditure of new money by Tom is income for Harry
    - $1 interest is expenditure for Tom and income for the Bank
      - Bank spends $1 interest income on Dick & Harry
      - Expenditure by Bank is income for Dick & Harry

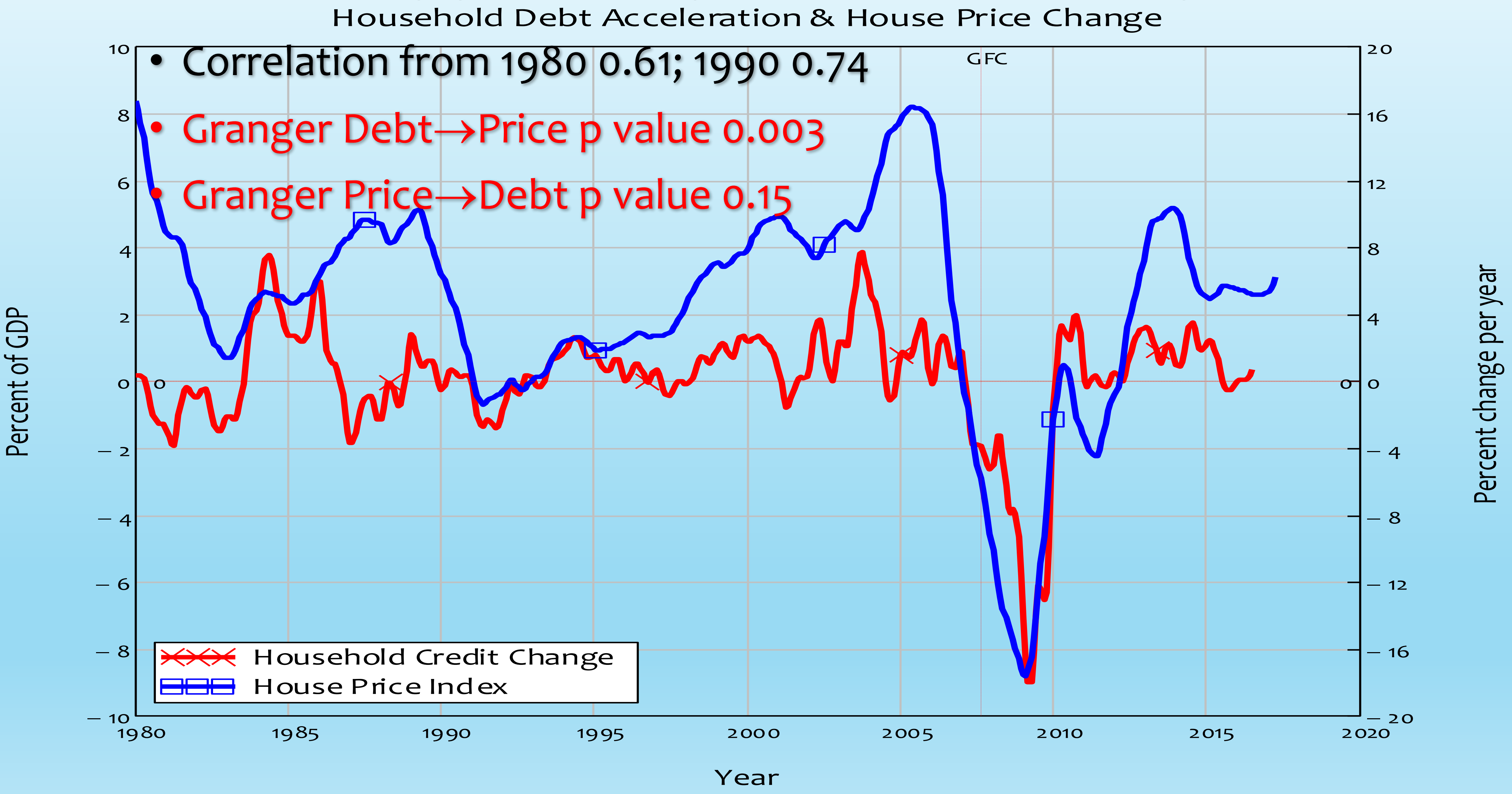
Macroeconomic impact of credit is undeniable

- ***Especially with High Debt/GDP***, Credit drives Employment & GDP



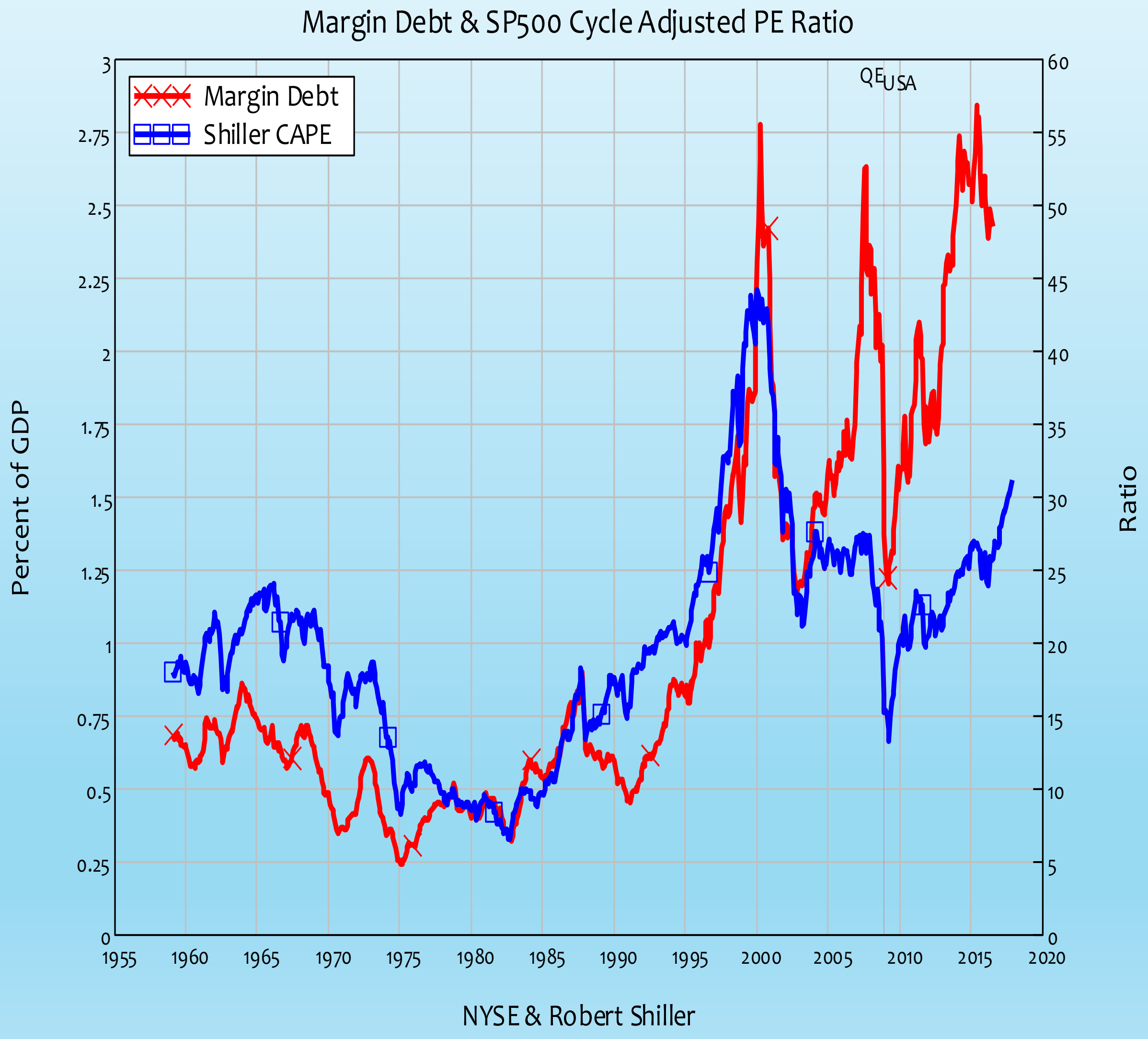
Finance markets impact of credit is undeniable

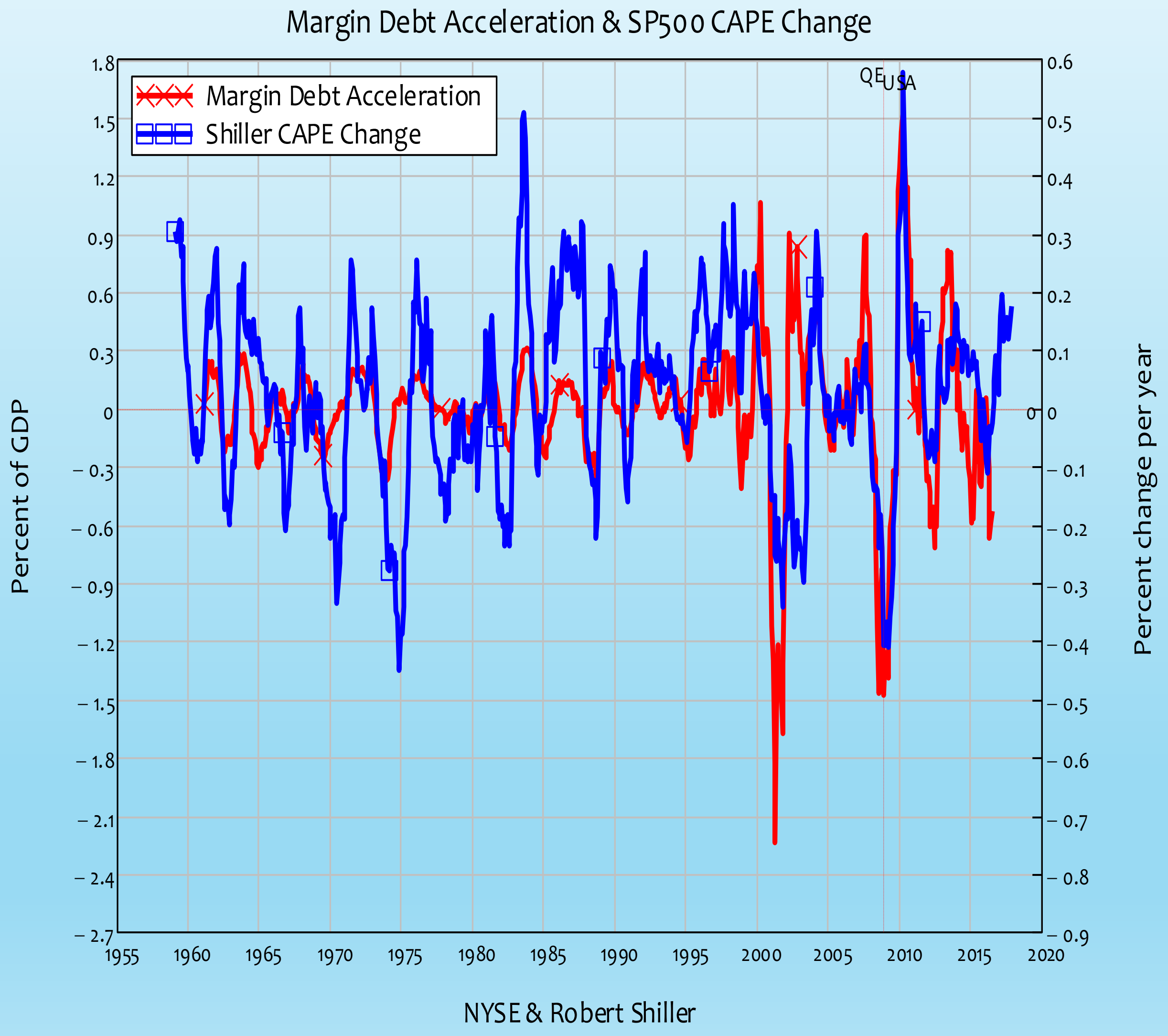
- Acceleration of mortgage debt (Granger) causes house price changes



Finance markets impact of credit is undeniable

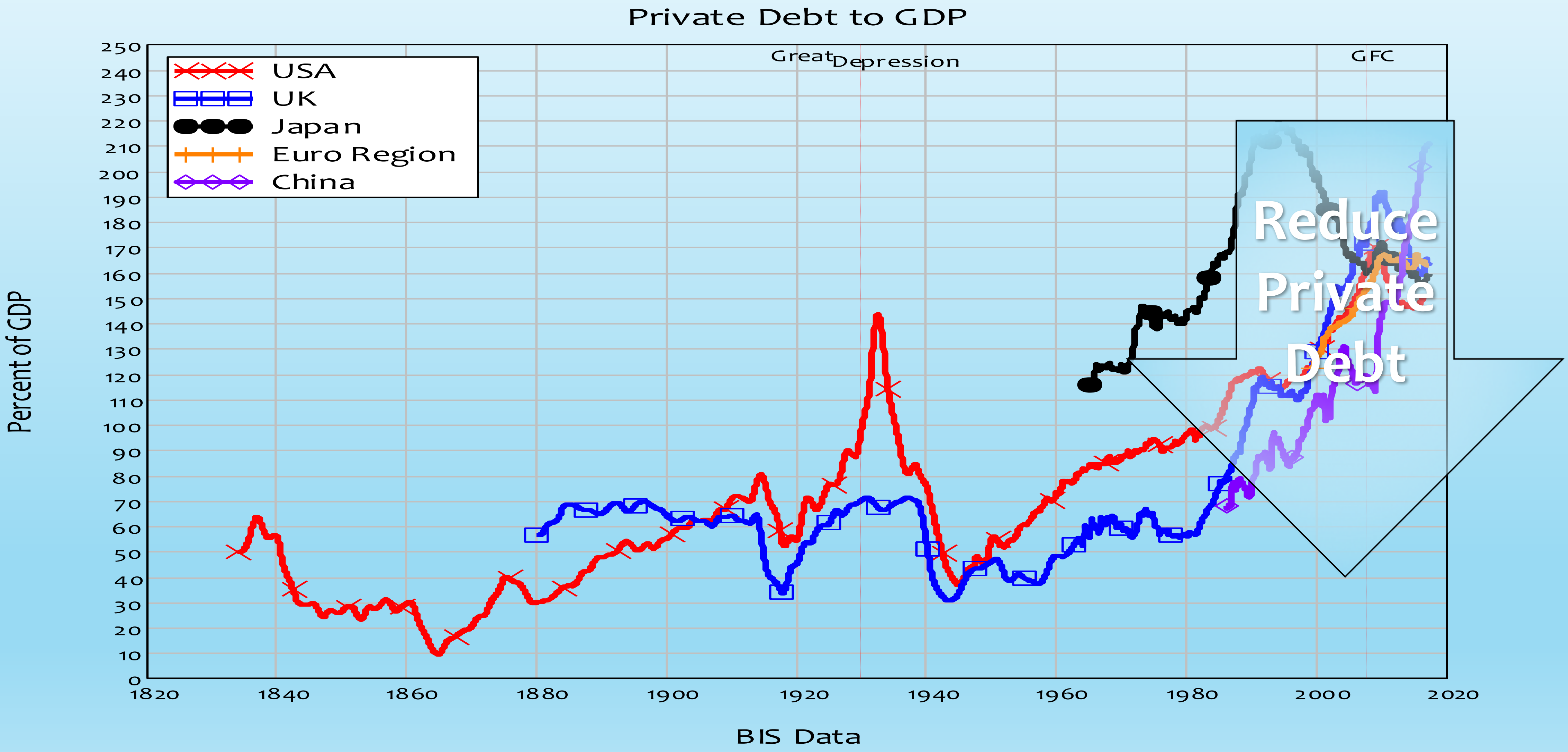
- Margin Debt and the S&P500





Policy Implications

- We have to reverse this mistake

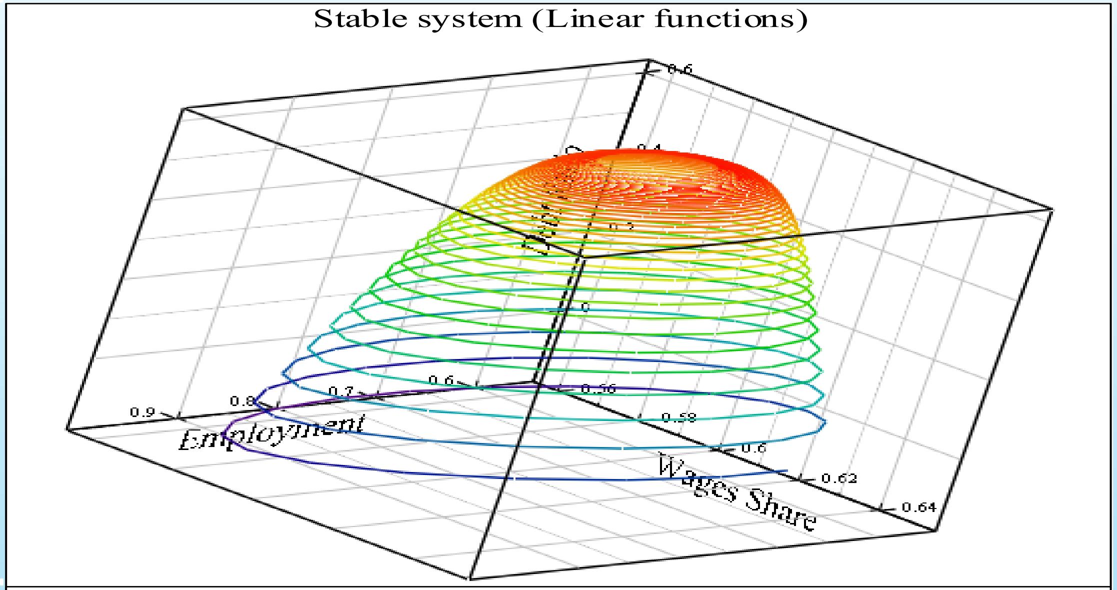


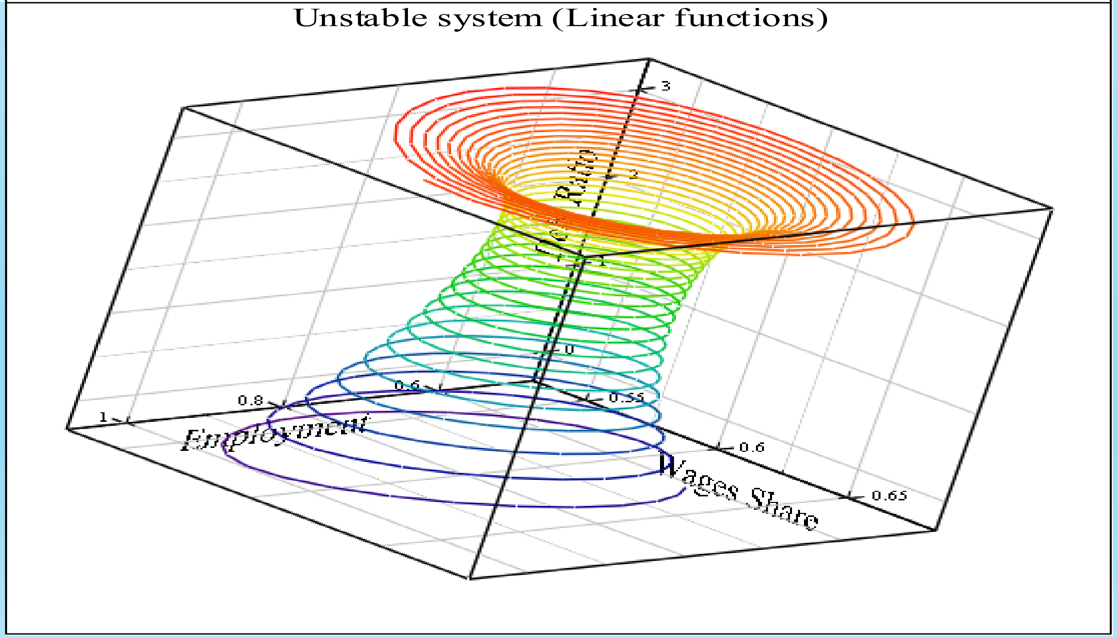
Policy Implications: Modern Debt Jubilee

- "QE For the People"
  - Direct per-capita injection into household bank accounts
    - Those with debt have debt reduced
    - Those without debt get cash injection
      - Cash must be used to buy corporate shares
      - Corporate shares must be used to reduce corporate debt
  - Reverse income inequality rise caused:
    - By private debt bubble in the first place
    - By misguided QE since then
      - Massive increase in share prices has benefited wealthy who own shares
        - Benefit to poor via pension funds, etc., relatively trivial
- The alternative? Continued stagnation like Japan's "Lost Decade"
- Political turmoil as voters reject the political mainstream

Theoretical Implications: Build Macroeconomics ***from Macro***

- Simple "complex systems" model predicts both "moderation" and crisis
- Combine three true-by-definition dynamic statements:
    - *"Employment will rise if **economic growth** exceeds the sum of **population & labor productivity growth**"*
    - *"Wages share of output will rise if **wage rises** exceeds **growth in labor productivity**"*
    - *"Debt ratio will rise if rate of **growth of debt** exceeds rate of **growth of GDP**"*
- Two possible outcomes
    - Stability if Debt/GDP stabilises
    - Moderation/Crisis if it doesn't

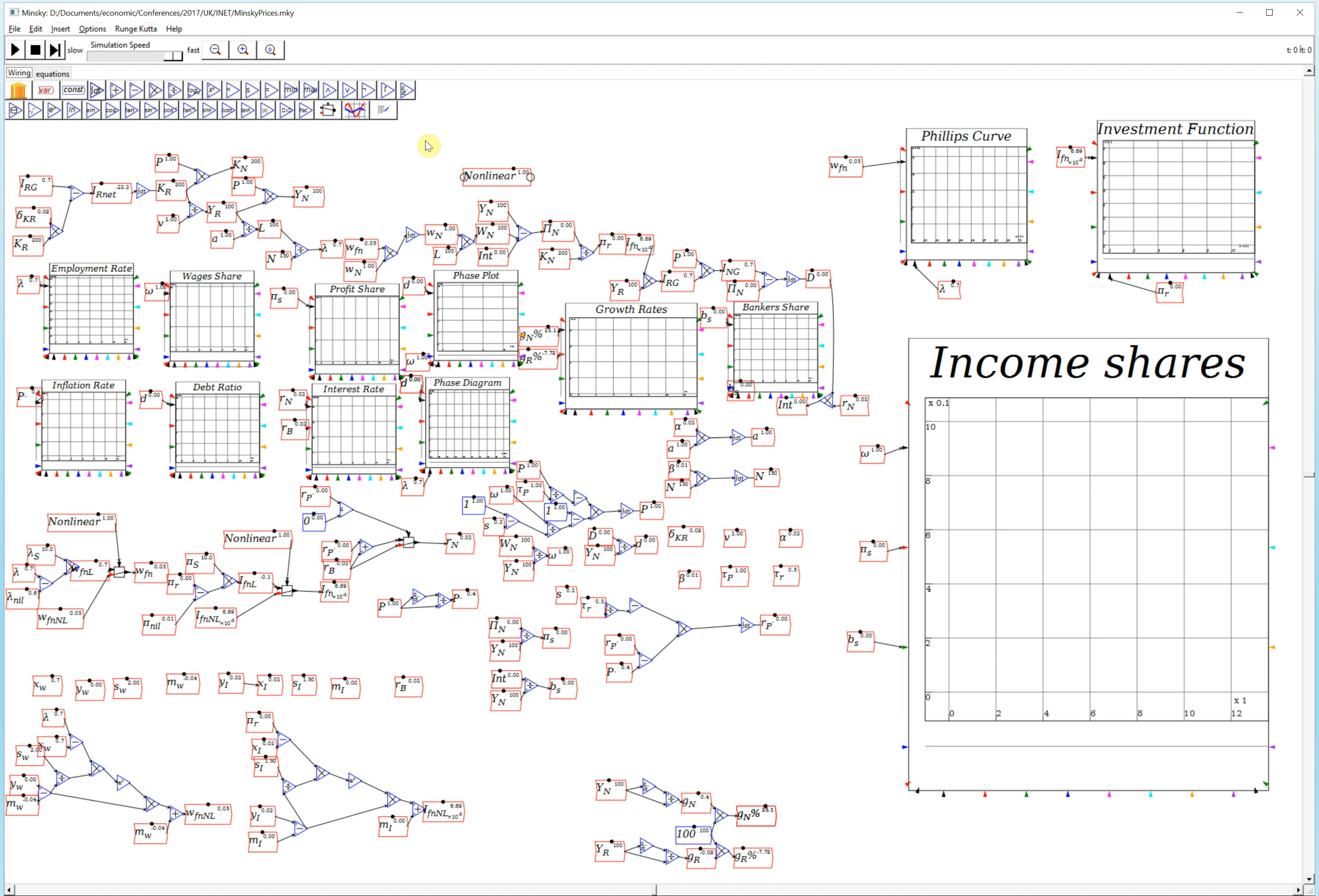


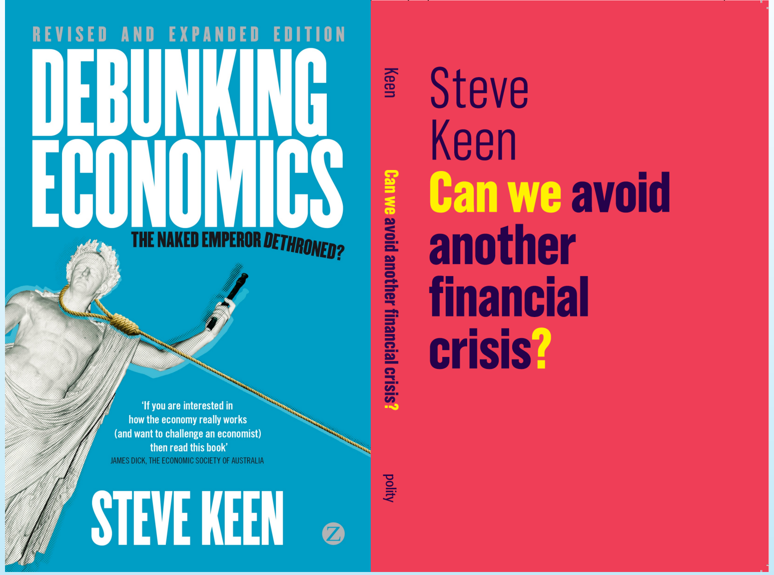


Unstable

Rebuilding Macroeconomics *from Macroeconomics*

- Let's ***finally*** put equilibrium-dependent, barter economics in the dustbin of history





Rebuilding Economics

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15.30

DEBT TRAPS, PUBLIC AND PRIVATE

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Steve Keen
Hashem Pesaran
Moritz Schularick
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Discussants
Roberto Ciccone
Pontus Rendahl

Chair
Richard Vague