

# **Two Views of the Financial Crisis: Equilibrium Theory and Reflexivity Theory**

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# Current thinking about the financial crisis

- Why did the financial crisis happen?
- What can be done to prevent the crisis from getting worse?
- How can a similar crisis be prevented in the future?

# Overview

- The message of this paper is that the current financial crisis requires not only stimulus activities and new regulations
- We also need a new theory of economics
- However, acceptance of a new theory requires also an expanded philosophy of science

# Why the crisis happened

- The crisis is the result of the bursting of a “super bubble” in credit
- Low interest rates made money cheap
- An expanded “banking sector” created unregulated lenders
- Financial innovations separated those who made loans from those who bore the risk
- Rating companies did not know how to evaluate the new financial instruments
- Faith in markets and in deregulation went too far

# Actions taken so far

- Funds have been given to banks in the hope that they will start lending
- Mortgage companies and insurance companies and have received government guarantees
- The FDIC has increased the guarantee of bank deposits from 100,000 to 250,000
- Interest rates have been lowered to zero to encourage business activity and to support the housing market

# Actions that will be taken

- A market for troubled assets will be created through the CFTC
- The federal government will spend large sums on infrastructure to create jobs
- There will be reforms of accounting standards, rating agencies and insurance companies
- There may be moves to vary the leverage ratio in a counter-cyclical manner

# A change in economic theory is also needed

- Institutional and regulatory reforms are not sufficient
- When people are surprised, either their understanding is flawed or it is incomplete
- We need an improved understanding of economic systems
- We need to change from assuming that markets are in equilibrium to looking for boom and bust cycles

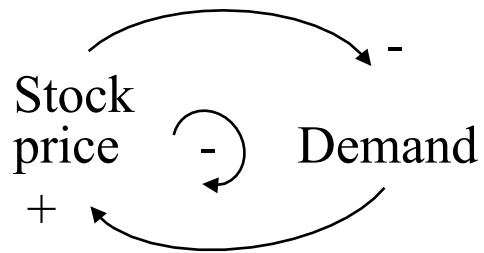
# From equilibrium to reflexivity

- George Soros has argued against equilibrium theory, which assumes that markets go quickly to equilibrium
- He believes that people can be misled by an ideology, such as market fundamentalism
- In reflexivity theory a bias in perception can actually influence the world

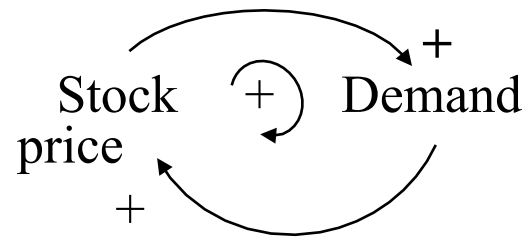
# Equilibrium vs. Reflexivity

- Information becomes immediately available to everyone
- People are rational actors
- Economic systems go quickly to equilibrium
- Observers do not influence the system
- People act on incomplete information
- People are influenced by their biases
- Social systems display boom and bust cycles
- Observers do influence the system

## Equilibrium Theory



## Reflexivity Theory



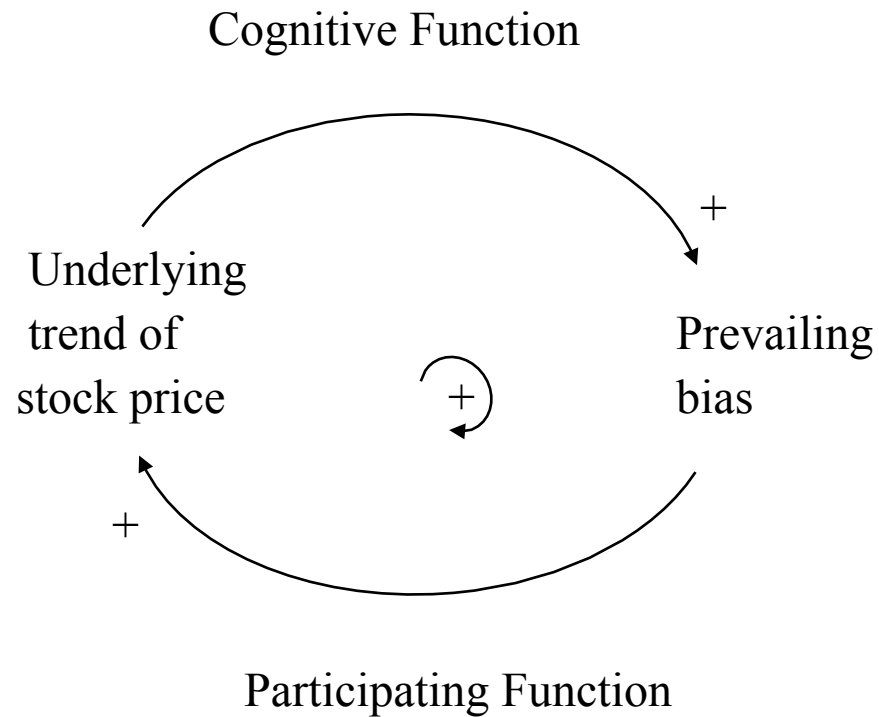
**Equilibrium theory assumes negative feedback;  
reflexivity theory observes positive feedback**

# Equilibrium vs. reflexivity

- An increase in demand will lead to higher prices which will decrease demand
- A drop in supply will lead to a higher price which will increase supply
- For “momentum investors” rising price is a sign to buy, hence further increasing price
- A falling price will lead many investors to sell, thus further reducing price

# The effect of “bias” in social systems

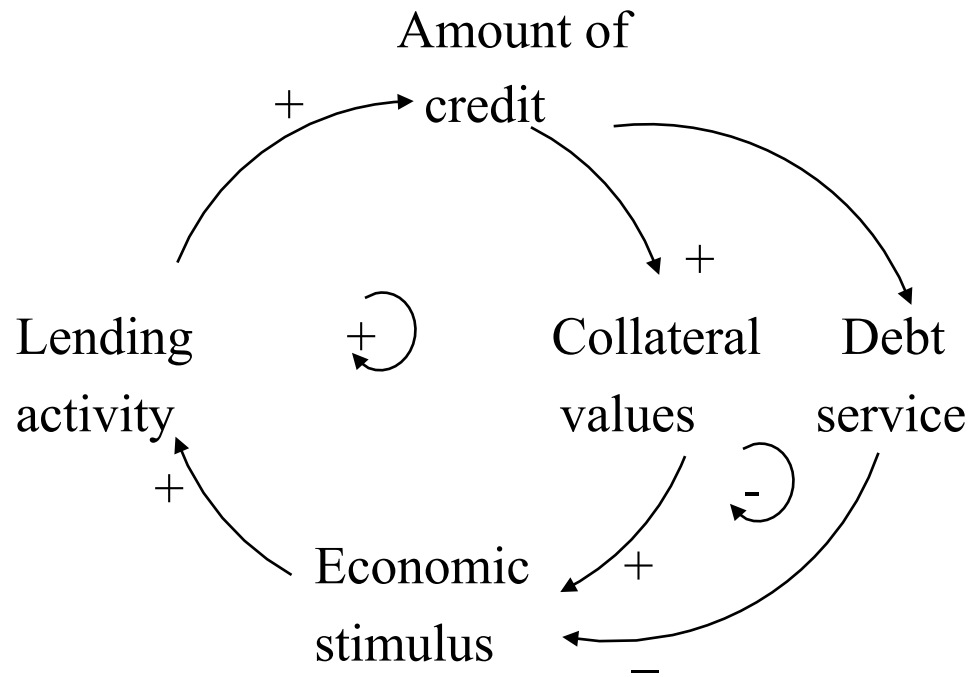
- Ways of thinking influence situations
- Cognition:  $\text{perception} = f(\text{situation})$
- Action:  $\text{situation} = f(\text{perception})$
- Both: reflexivity



**The two functions in reflexivity theory**

# Reflexivity and the financial crisis

- According to reflexivity theory the financial crisis is the result of a super bubble caused by policies based on the ideology of “market fundamentalism”
- Under Reagan and Thatcher deregulation made economic systems more efficient
- However, belief in markets as opposed to regulation went too far



## The credit cycle

# From exuberance to loss of confidence

- Investment banks increased leverage to take advantage of the economic expansion
- Success bred imitators and more leverage
- The drop in stock prices was the result of a huge margin call

# An obstacle to accepting reflexivity

- Reflexivity theory goes beyond behavioral economics
- It does not simply question assumptions about rationality and perfect information
- Instead, it claims that beliefs influence the system itself
- This point of view requires a change in the philosophy of science, not just in economics

# Changing the philosophy of science

- In the physical sciences a change in theory does not change the phenomenon described
- But in social systems theories are created in order to change the way the social system operates
- However, social scientists are still imitating physical scientists

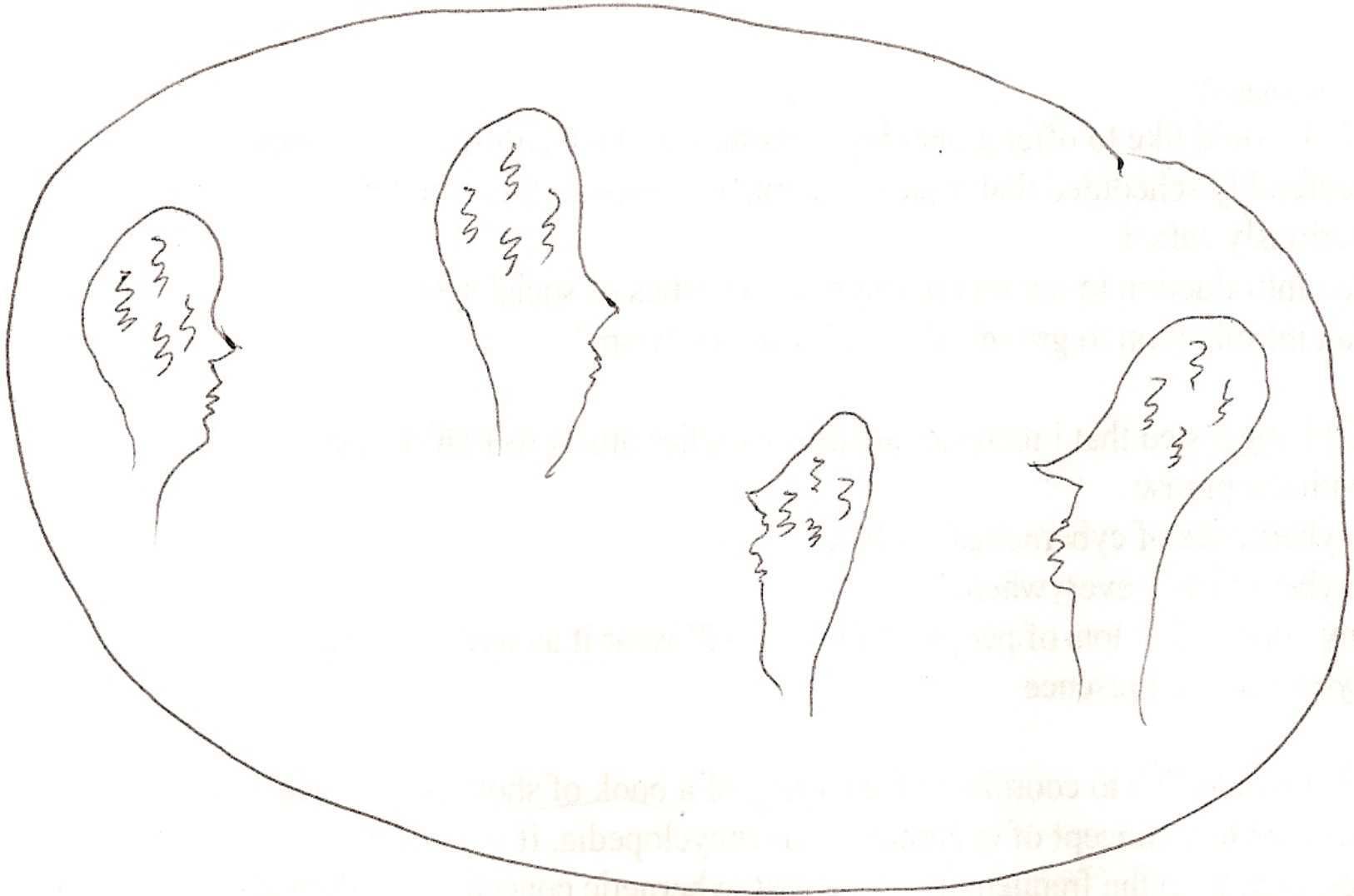
## Observation



## Self-awareness



## Reflexivity in a social system



# Expanding economic theory

- Only when economists and other social scientists accept the combination of cognition and participation will it be possible for them to accept a different basic model for economics
- The change from equilibrium theory to reflexivity theory requires a change in the underlying model of economic activity

# Conclusions

- Soros offers an alternative to equilibrium theory as the foundation of economics
- He suggests a way to anticipate major economic events by looking for biases in perception

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