



# The Global Firm

## Lecture 2

# Firm Theory in Global Context: A brief introduction

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Feb. 10, 2012

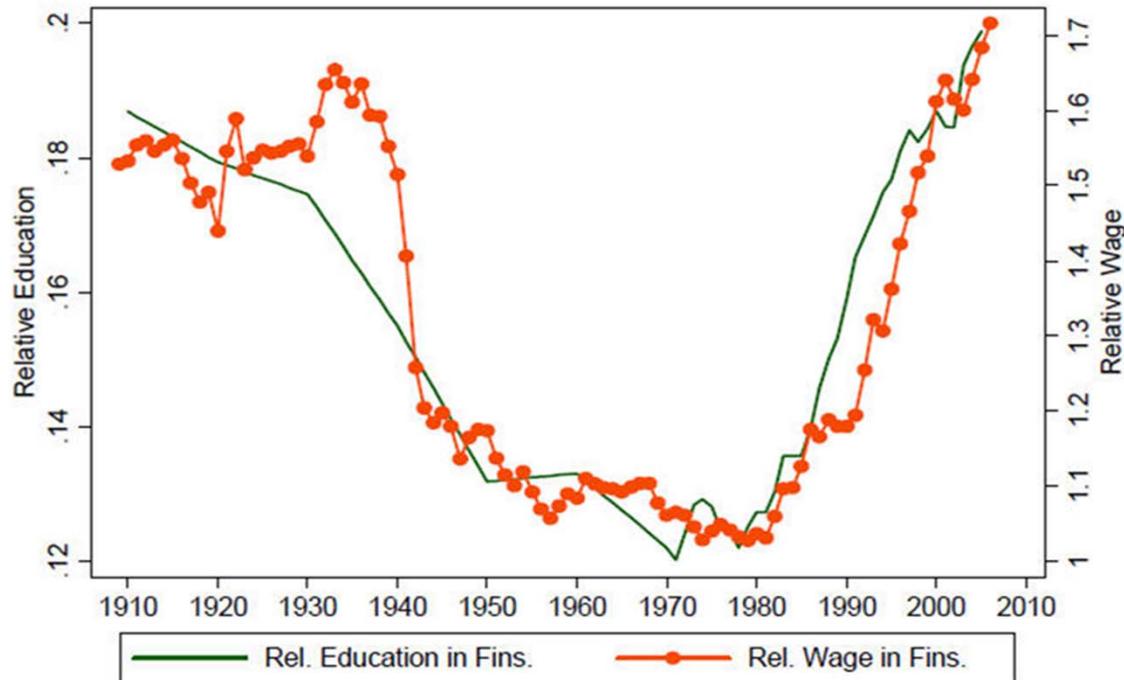


# Today's Plan

- Some “Big Picture” notes
- Firm theory in global context
- Introduction to positive economics (if time allowed)

# Why are we in an extraordinary time of history? - The Big Pictures (#1)

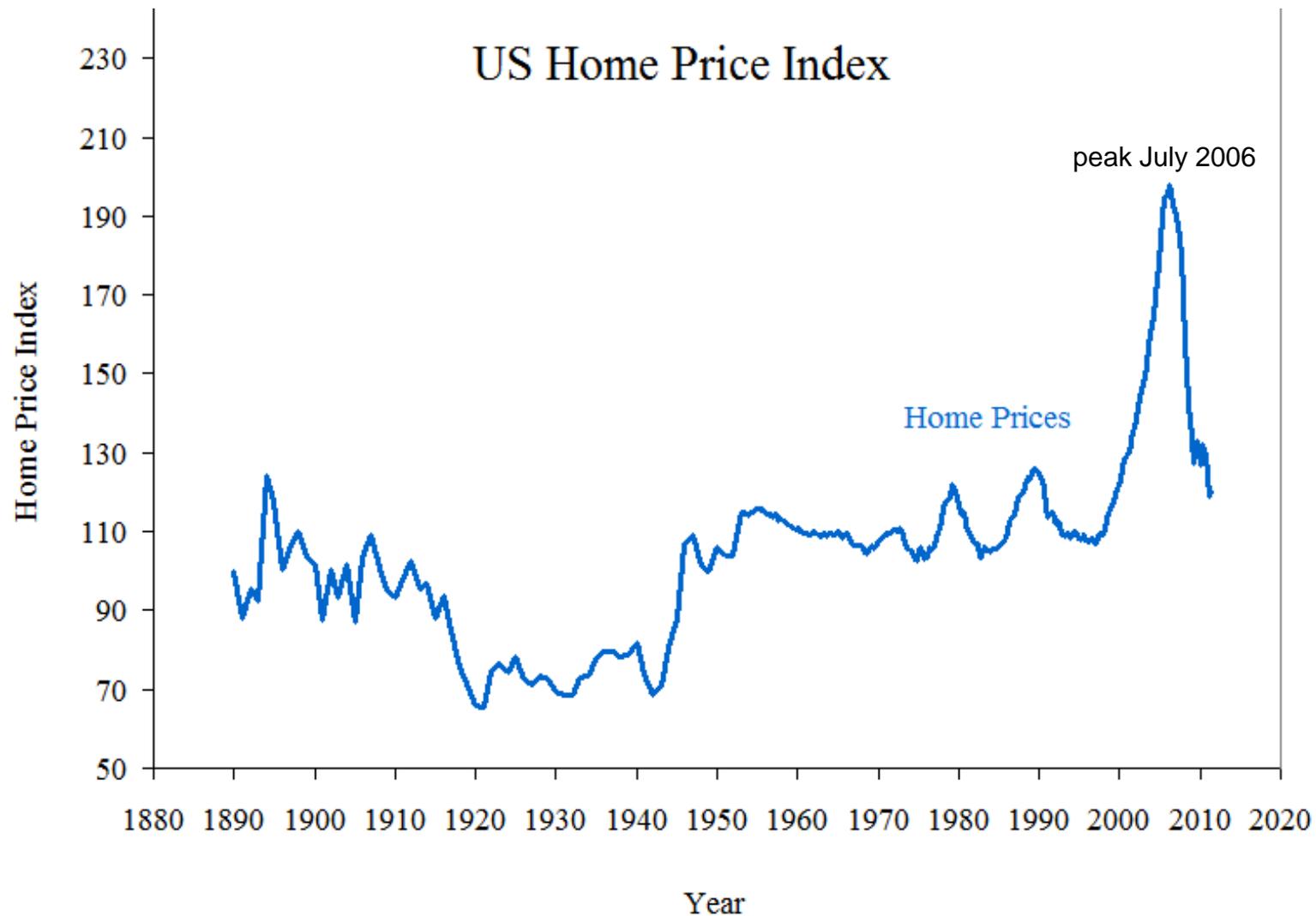
Figure 1: Relative Wage and Education in the Financial Industry



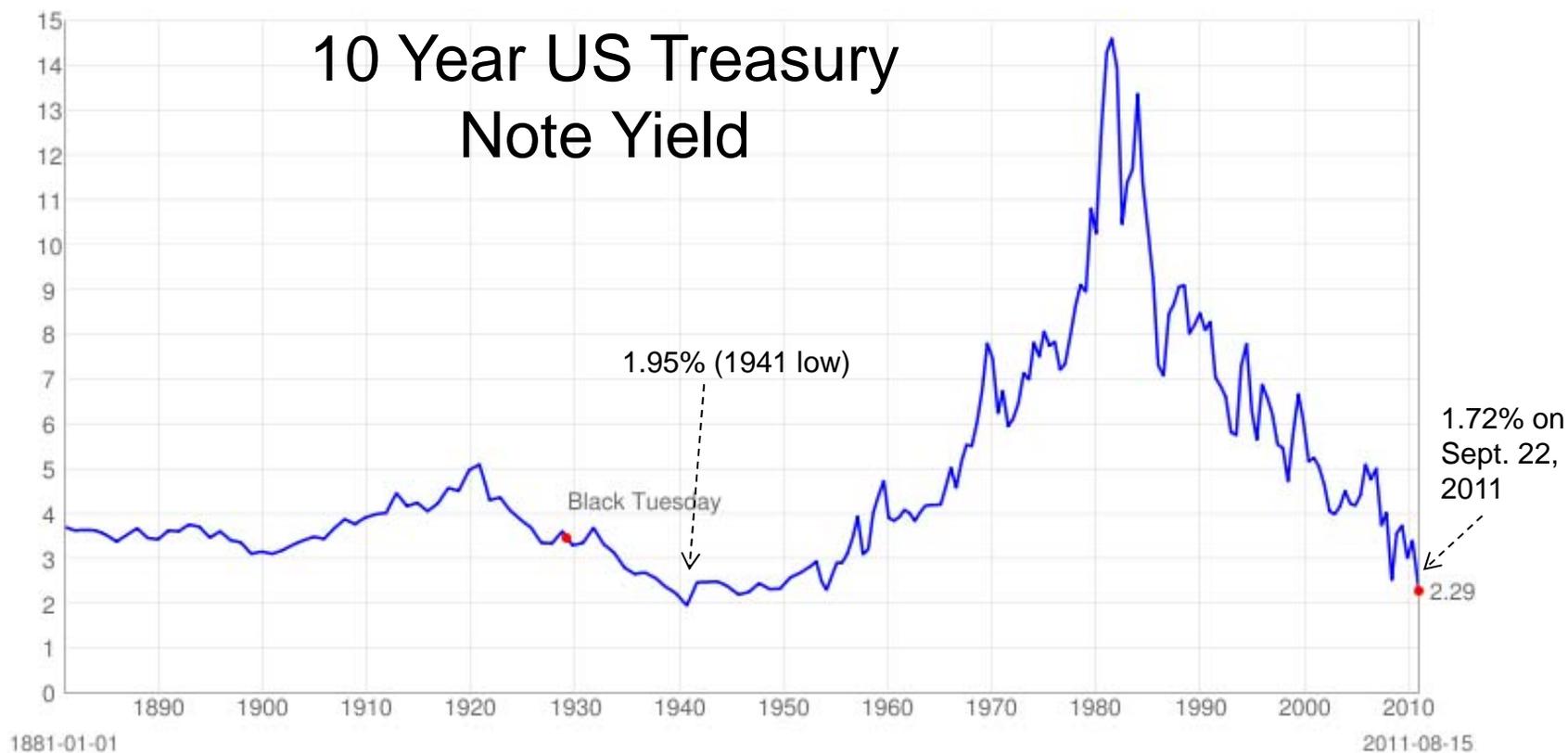
# Why are we in an extraordinary time of history? - The Big Pictures (#2)



# Why are we in an extraordinary time of history? - The Big Pictures (#3)

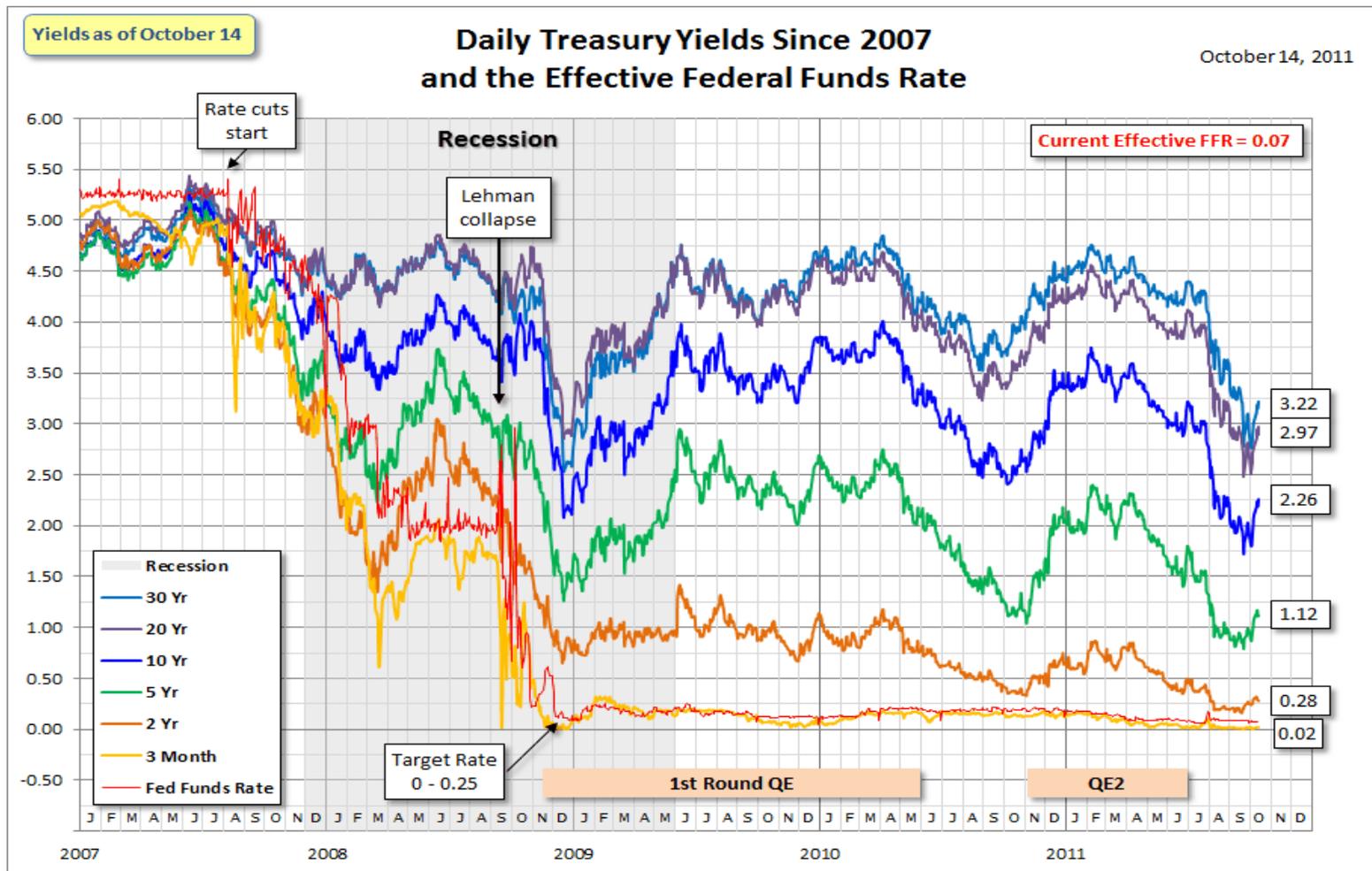


# Why are we in an extraordinary time of history? - The Big Pictures (#4)



# Why are we in an extraordinary time of history?

## - The Big Pictures (#5)



# Why are we in an extraordinary time of history? - The Big Pictures (#6)



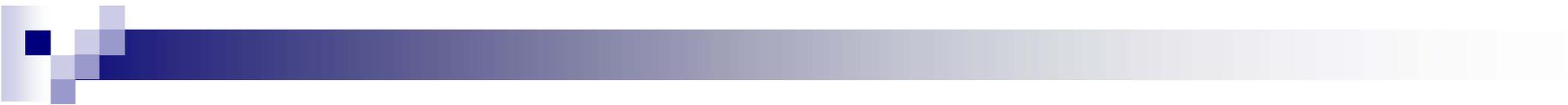
Robert Fogel

The Global Distribution of Gross Domestic Product (GDP) in 2040, by Grouping of Nations

Grouping	Population (in millions)	Percent of total	GDP in billions of \$ (PPP)	Percent of total
United States	392	5	41,944	14
European Union (EU 15)	376	4	15,040	5
India	1,522	17	36,528	12
China	1,455	17	123,675	40
Japan	108	1	5,292	2
6 South East Asian Countries (SE6)	516	6	35,604	12
Subtotals	4,369	50	258,083	85
Rest of the World	4,332	50	49,774	16
World	8,701	100	307,857	101*

Note: GDP in U.S. dollars of 2000.

\*Total equals more than 100 percent due to rounding.



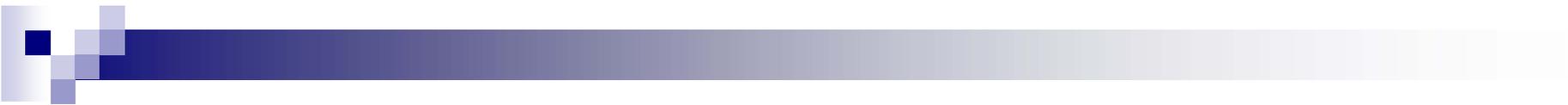
# Introduction

- Economic theories have plenty to say about how the market works, but much less about firms, especially what's inside of a firm
- Firms are frequently treated as a **production black-box**: input → firm → output
- In the second half of the 20th century, there has been some big advancement in firm theory, but our understanding toward firms remain rudimentary when compared to other fields of economics
- In the past, economists have been trying to figure out a few important questions →



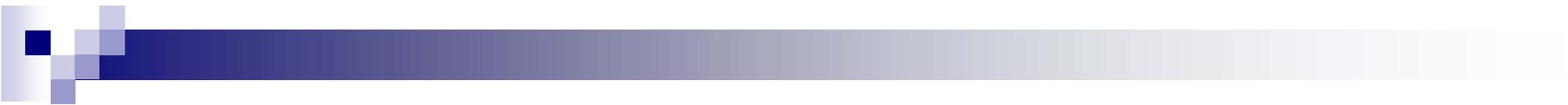
# Fundamental Issues about Firms

- Why do firms exist? What's different: firm vs. market?
- What determines firm's scope or boundaries? ...This includes what are the incentives for
  - M&As
  - Spin-offs
  - Alliances
- What determines firm's organizational forms?
  - Corporations vs. partnership vs. proprietary
  - Chain stores vs. franchises vs. alliances
  - For MNEs:
    - Wholly owned subsidiaries vs. joint-ventures;
    - horizontal vs. vertical FDIs;
    - Why R&D is mostly done at MNE's headquarters



# Outline of the Progress of Firm Theory

- Ronald Coase (1937), *The Nature of the Firm*  
↓
- Principal-agent theory  
↓
- Oliver Williamson and transaction cost economics (or TCE)  
↓
- Oliver Hart and *property rights theory of the firm*



# Coase 1937

- Why do firms exist?

- Certain things firms do better than markets

- Transaction cost matters, e.g.,

- search cost – labor, parts inventory

- haggling cost – labor contract

- contracting cost – wage

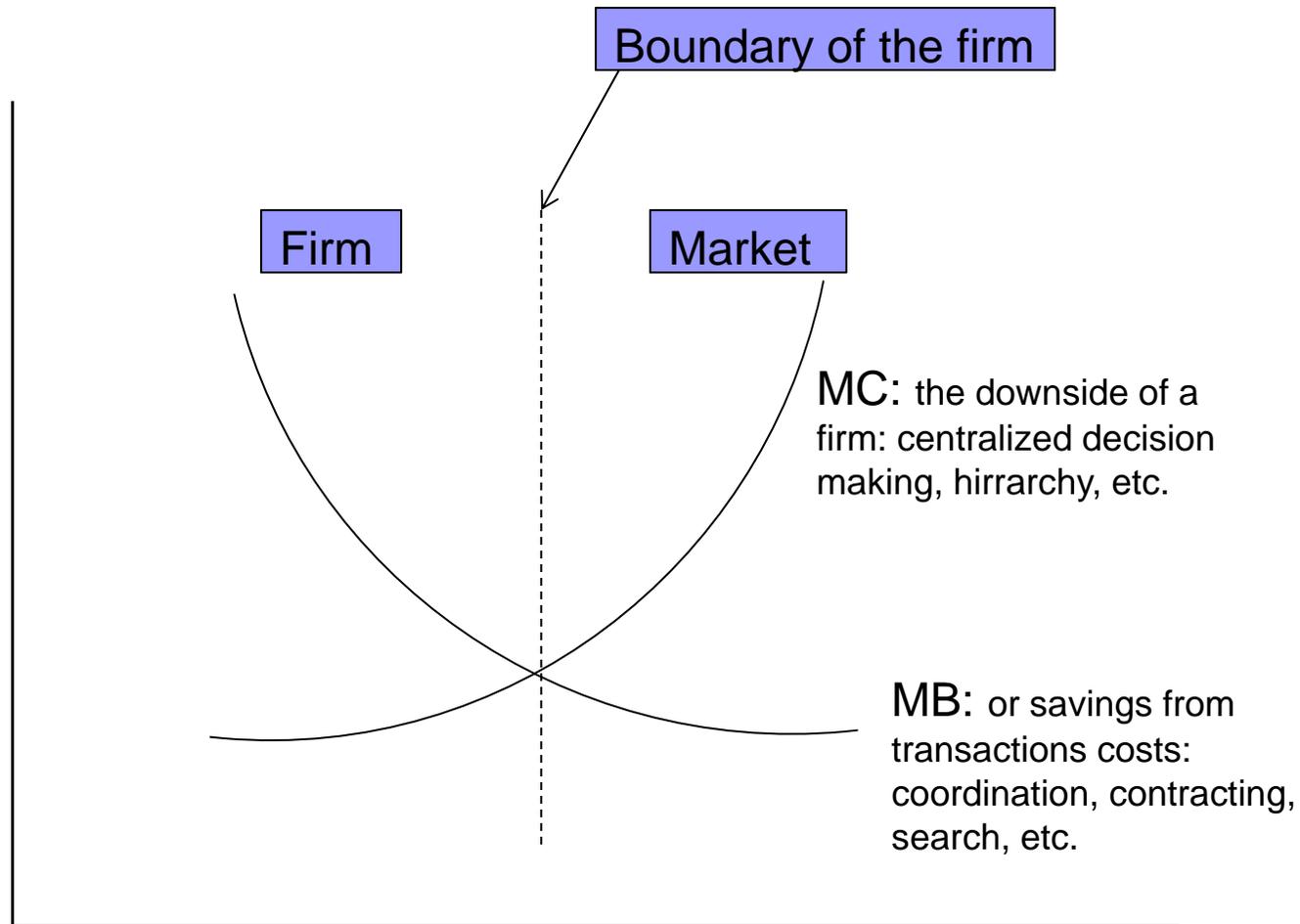
- coordination cost – working colleagues vs. strangers

- According to Coase,

When the transaction costs through market exchange are high, it may be less costly to coordinate production through a formal organization than through a market.

The boundaries of the firm occur at the point where the marginal benefit (transaction cost savings) equal marginal cost of firm activities, such as the error and rigidity from a centralised authority, i.e., when  $MB = MC$

# Coase's Idea





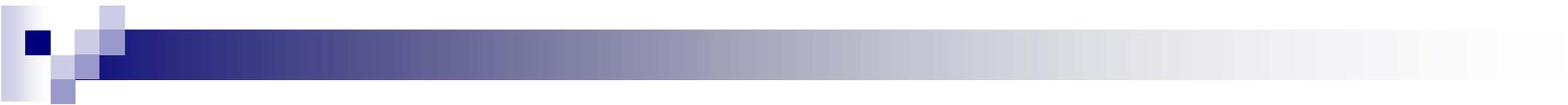
# The Principal-Agent Theory

- Like neoclassical theory, principal-agent theory still views firm as a production set
- But professional managers (or agent) make decisions, rather than the owner (or principal) – the separation of management and ownership
- An important theory to understand how incentive works inside a firm, but fails to explain what defines a firm, its nature and scope.
- Nonetheless, offers some deep insights into optimal incentive schemes within a firm, especially in explaining why state (or publicly) owned firms will always tend to under-perform the private ones – one of the most important reasons for the demise of socialist economies.



# Williamson and TCE

- Further development of Coasian idea of transaction costs
- Core idea: relationship-specific investments, in other words, investments of the two parties are locked-in, e.g.,
  - auto maker and its specialized parts supplier
  - electricity generation plant and the adjacent coal mine
- Without integration,
  - The two parties sign contract, and follow through it
  - When business condition or circumstance changes, they then engage in ex post negotiations – remember, contract will always be incomplete ex post, no matter how detailed it was written ex ante.
  - There are risks and costs involved – what if the auto maker stops buying from the parts supplier or the supplier suddenly demands a ridiculously high price?
- The nature of incomplete contract and the cost of ex post negotiations provide strong incentives to integrate; Otherwise, it tends to lead to under investment ex ante



# Hart: Property Rights Theory of the Firm

- Further improvement on Williamson's TCE approach --- it analyzes the mechanism of how integration reduces opportunism ex post
- Hart views firms as a set of property rights, and he introduces two important concepts:
  - residual rights control (ex post)
  - Holdup
- When contracts are incomplete, as almost always the case, owning the assets (or integration) gives one party full claim (control) of the residual rights ,thus mitigating the holdup problem.



# Case Study of Property Rights Approach

## GM and Fisher Body

- Fisher supplies car bodies to GM under contract.
- There is a sudden increase of car demand out of the stipulation of the contract, and GM wants an increase of supply of car bodies from Fisher to meet the demand shock.
- Since Fisher is an independent company, it may refuse to do so or it demands a much higher price – remember, this sudden change of demand was not foreseen by anyone when the contract was negotiated.
- In other words, now Fisher Body can hold up supply in order to get a higher price – the claim to these unforeseen benefits are called residual rights. This is definitely not the situation GM wants to be in.
- To remove similar contract uncertainties that may potentially disrupt its production, GM has strong incentive to integrate or acquire Fisher Body.



# Limitations

## ■ Holmstrom and Roberts (1998)

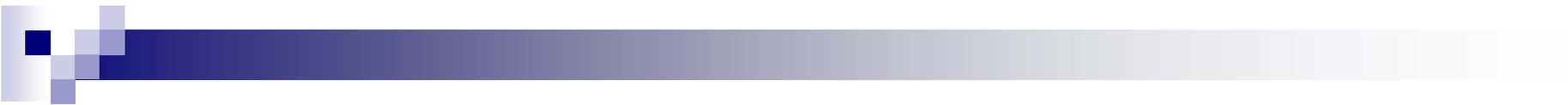
- Property rights theory of the firm predicts owning assets as a way to resolve holdup problem, but in practice, a lot of M&As took place without large assets involved. Why?
  
- Some phenomena can't be explained using Hart's property rights approach:
  - US integration vs. Japanese subcontracting in auto industry
  - Airline alliances



# Limitations

## ■ Holmstrom and Roberts (1998)

- Japanese subcontracting in auto industry
  - Repeated game vs. one-shot game
  - Long-term reputation matters
    - Supplier won't hold up because they bear long-term relationship in mind
    - Plus, there are only a few limited suppliers per auto maker. In other words, if suppliers behave, their contract with auto maker is guaranteed in the long term.
  - The role of associations to mitigate information asymmetry
    - Auto maker won't cheat on supplier either because suppliers form association and make the price information between auto maker and suppliers very transparent



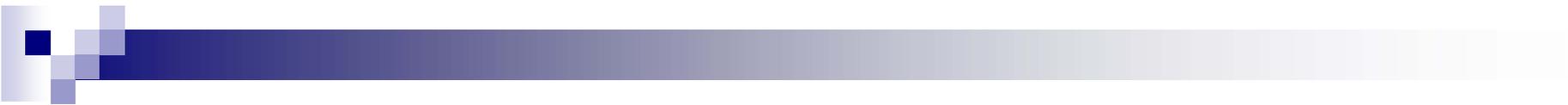
# Limitations

- Holmstrom and Roberts (1998): More than just investment incentives
  - Agency problems: other incentives for ownership
    - Case study: IKEA and its shipping subcontractor
      - Workers for the shipping co. are not on IKEA's payroll
      - IKEA customers often with unpleasant delivery experience
      - How could customer's satisfaction be improved?
  - Market monitoring as incentives for spinoffs
    - Self owning and monitoring vs. spinoff and market monitoring
    - Market does a better a job in monitoring – incentives for spinoff
  - Knowledge capital
    - R&D headquarters
    - Wholly owned subsidiaries instead of licensing or joint ventures.



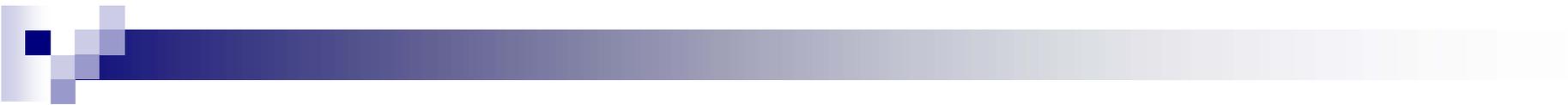
# Friedman on Positive Economics (Part I)

- What is positive economics vis-a-vis normative economics?
- Economic theories and assumptions
- In part 2, we'll discuss what is a good theory



# Friedman on Positive Economics (Part I)

- What is positive economics vis-a-vis normative economics?
  - Positive economics
    - "what is"
    - Independent of any particular ethical position or value judgements
  - Normative economics
    - "what ought to be"
    - Often with value judgement
    - For example: majority of Karl Marx's theories; issue of fairness; some policy discussions on issues related to inequality

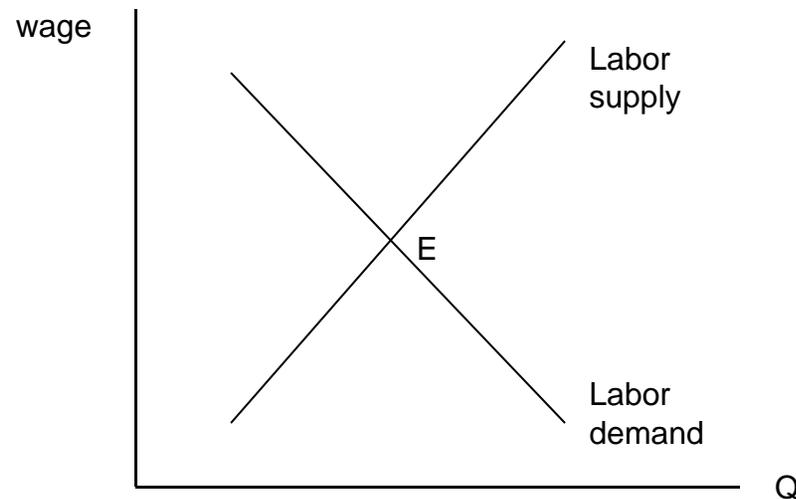


# Friedman on Positive Economics (Part I)

- What is positive economics vis-a-vis normative economics?
  - Example: minimum wage
    - the goal is to raise living standards of poor people or the low skilled, or to prevent them being exploited
  - Normative approach tends to argue the issue from morality and ethics
  - Positive approach will look at (and analyze) the effect of raising minimum wage on poor people's actual living standards

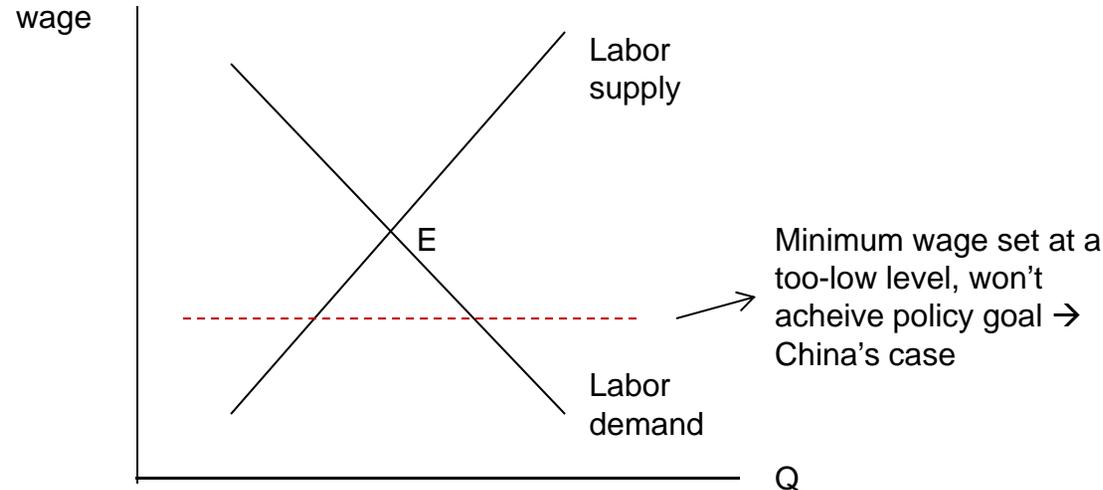
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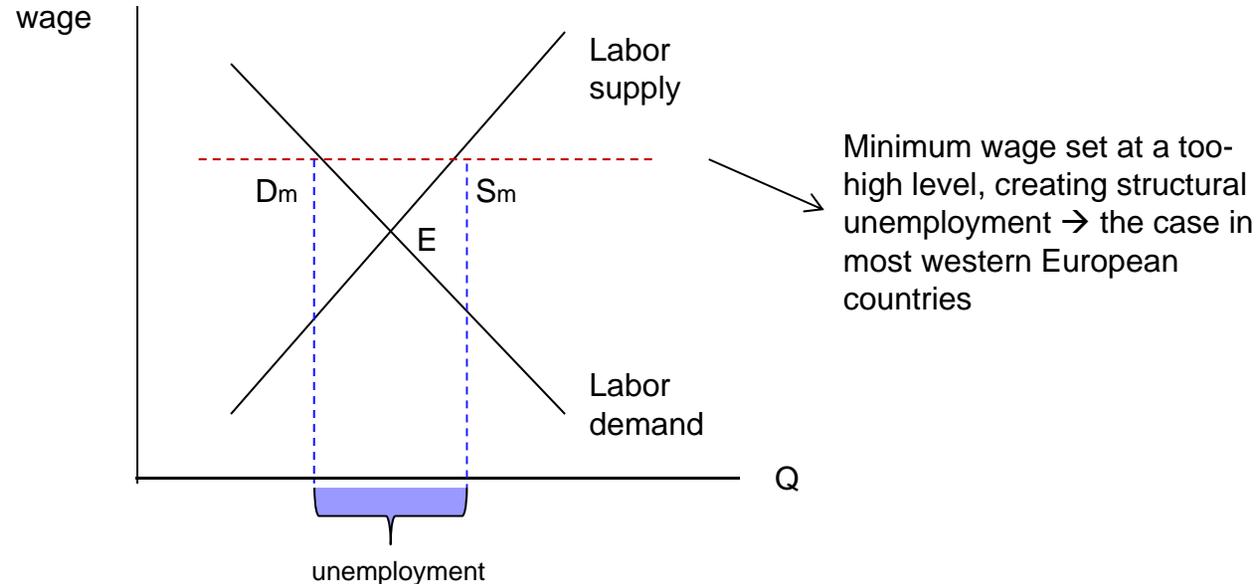
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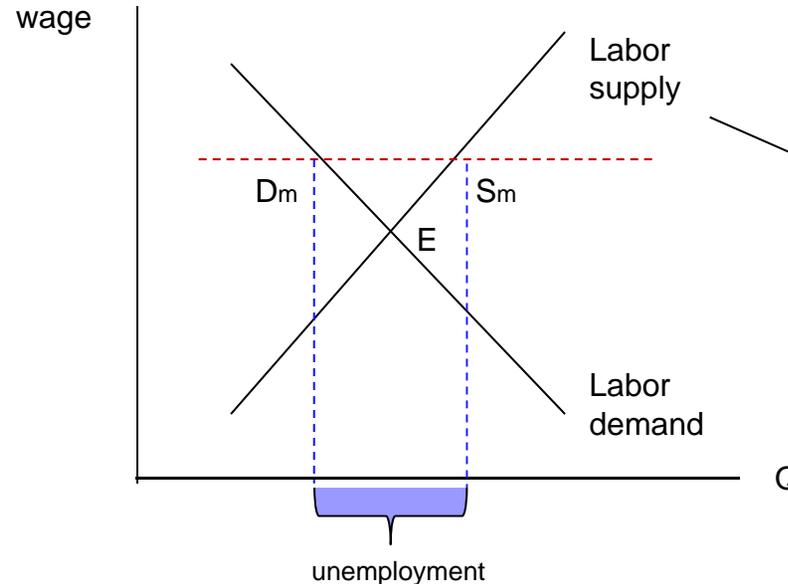
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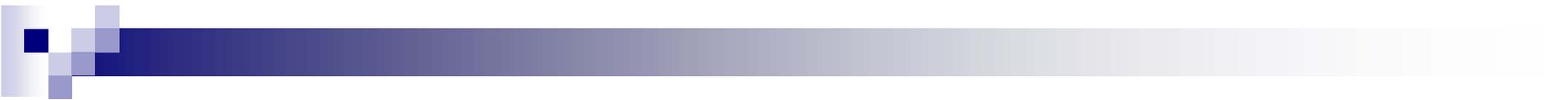
Minimum wage set at a too-high level, creating structural unemployment → the case in most western European countries

A perfect example of policies with **“good intentions but ended up with bad outcomes”!**



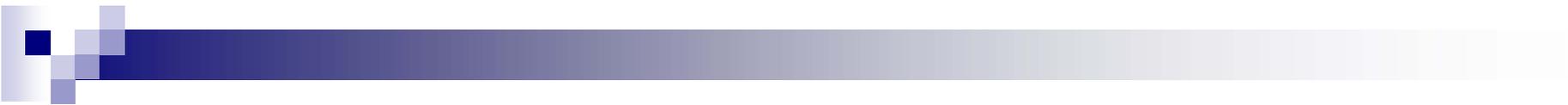
# Friedman on Positive Economics (Part I)

- Economic theory and its assumptions
  - How realistic should the assumptions be?
  - Do unrealistic assumptions lead to bad theories? Or do realistic assumptions necessarily lead to good theories?
  - How should a theory be judged ultimately? (to be discussed next time)



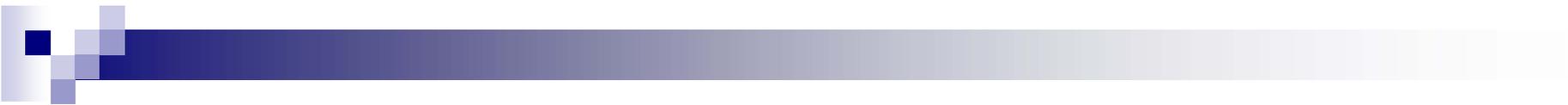
# Friedman on Positive Economics (Part I)

- Economic theory and its assumptions
  - How realistic should the assumptions be?
    - Theory, by definition, is abstract from reality, so it cannot be completely realistic, including its assumptions.
    - The best theory is often the *simplest* with the *widest* applications. So its assumptions often cannot cover every aspect of reality.
    - Often times, "unrealistic" assumptions help capture human behavior **as if** people behave in such a way. For example,
      - the assumption of **rationality** in human behavior
      - the assumption of **profit-maximization** of a firm



# Friedman on Positive Economics (Part I)

- The assumption of **rationality** in human behavior
  - Rationality is one of the most questioned assumptions in economics
  - But most criticisms are NOT to the point
  - Indeed, psychological studies show that there can be many cases where human behave irrationally, but
  - in most cases, human beings behave **as if** they were rational
  - More importantly, economic theories, mostly based on rationality assumptions, have quite good *prediction power* in how people *are going to* behave.
  - For example,
    - Denmark's paternity-leave policies, and Danish birth rate
    - US cigarette tax and its effect on smoking



# Friedman on Positive Economics (Part I)

- The assumption of firm's profit-maximization
  - Businessmen in classroom often label the assumption one of the "craziest" . In their own words: "we never do such optimization, we never draw MR and MC, we don't even know our own firm's supply curve, not to mention the demand curve..."
  - Oh, yes – all the above is true, but again they are not to the point
  - The assumption of profit-maximization just states that firms behave **as if** they knew the relevant cost and demand functions, calculated MC and MR, etc.
  - But more importantly, as we will discuss later, the realism of assumptions do not really matter, as long as the theory can predict what's going to happen, with fairly good precision.
  - You may contrast what you observe in reality with the predictions you learned in firm theory. They are fairly close ---
    - for example, firm's profit margin is going to be driven down just as the theory would predict. In this case, firm behaves *as if* they were under perfect competition. (for more detailed discussion on this, read Friedman, p.21-22).



# Friedman on Positive Economics (Part I)

- Economic theory and its assumptions
  - Do unrealistic assumptions lead to bad theories? Or vice versa?
    - The answer is NO.
    - Most good theories have very unrealistic assumptions
    - If a theory has very realistic assumptions, i.e., assumptions trying to cover every detail of reality, the theory often becomes too complex (the opposite of simplicity) to be comprehended and often without much general use.
    - This leads Milton Friedman to conclude the following,  
*"the more significant the theory, the more unrealistic the assumptions."*  
→ sounds like a pretty crazy idea, but think about it...
    - In other words, a theory or a hypothesis is important "if it explains much by little"!



## Next time...

- Continue on Friedman's "the methodology in positive economics"
- Read Ethier, 1986, "The Multinational Firm"