

Comments on

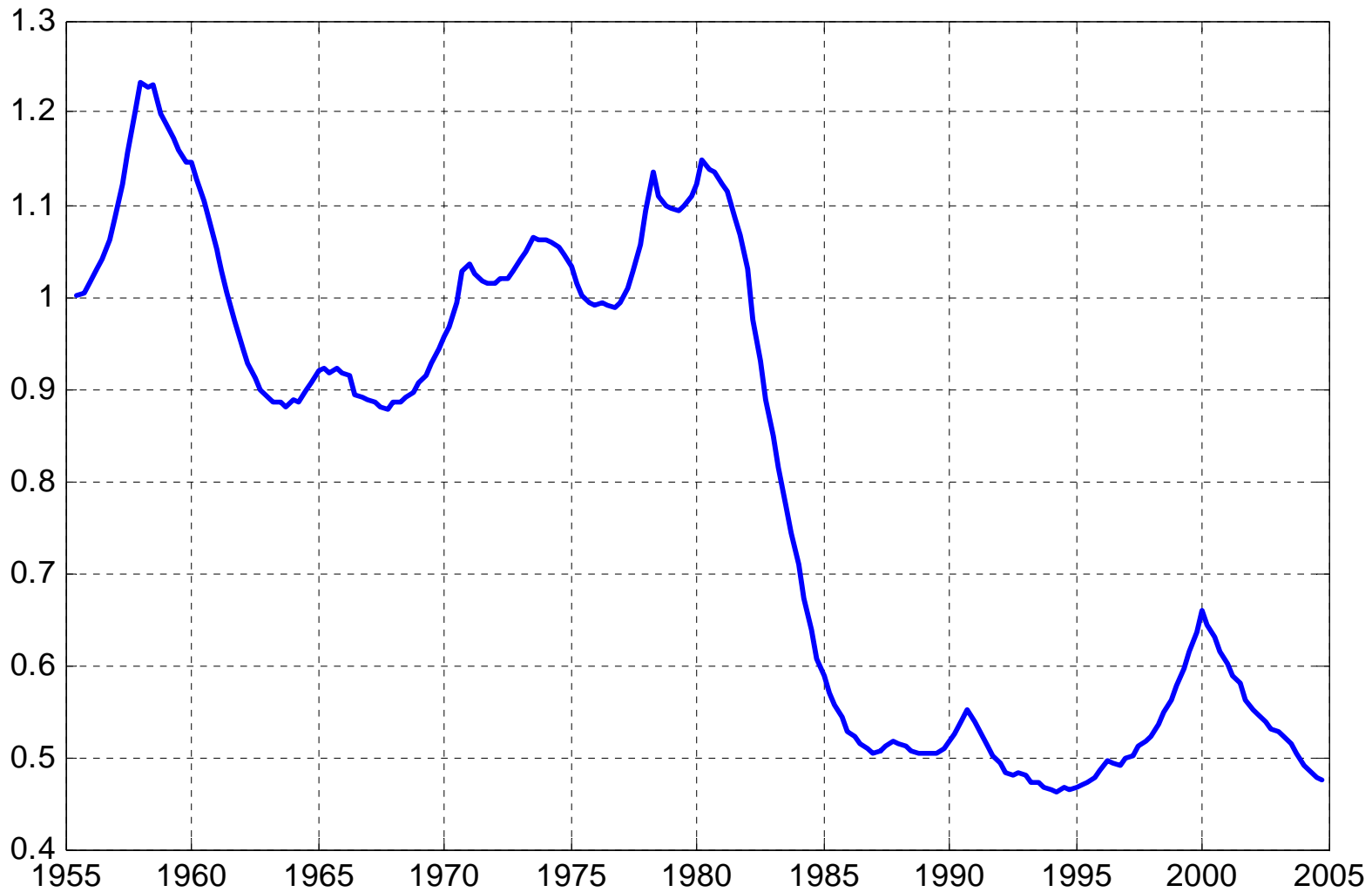
# **Financial Innovations and Macroeconomic Volatility**

by **Urban Jermann and Vincenzo Quadrini**

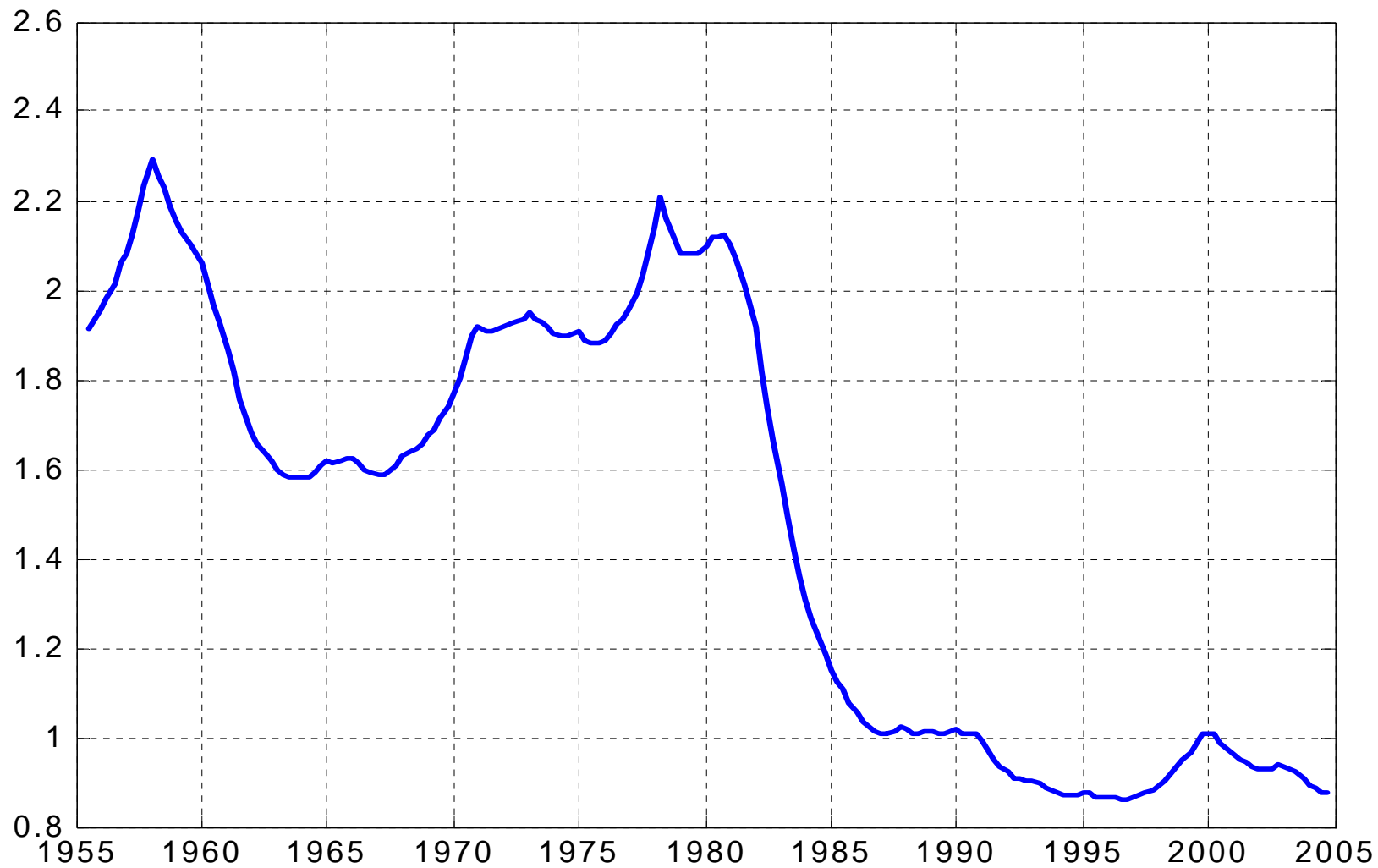
Giorgio Primiceri  
Northwestern University

November 17, 2006

# Standard deviation of US GDP growth



# Standard deviation of US GDP (HP filter)



## This paper...

---

- **Financial structure** of firms has become **more volatile** after 1984
- Model in which financial factors are key to generate fluctuations
- Two financial frictions:
  - Endogenous borrowing limit (limited commitment)
  - Exogenous cost of paying out dividends

## Main result

---

- Model calibrated to US data pre and post-1984
- Explain the Great Moderation as a consequence of firms' greater financial flexibility

# Outline of my Comments

---

1. Will tell you why this is a very nice paper
2. Comments on the empirical motivation
3. Comments on the theoretical framework

## Why I think this is the right direction

---

- A look at the Great Moderation from a different perspective

## Why I think this is the right direction

---

- A look at the Great Moderation from a different perspective
- **Justiniano and Primiceri (2005):**  
Large scale DSGE model with time varying volatility of structural shocks



## Why I think this is the right direction

---

- A look at the Great Moderation from a different perspective
- **Justiniano and Primiceri (2005):**  
Large scale DSGE model with time varying volatility of structural shocks
- Reduction in volatility of GDP explained by a reduction in volatility of a **shock to the real return on capital**

## Why I think this is the right direction

---

- This shock is a “wedge” in the Euler Equation pricing the capital stock
- Might proxy for un-modeled financial frictions (CKM, 2006)

## Why I think this is the right direction

---

- This shock is a “wedge” in the Euler Equation pricing the capital stock
- Might proxy for un-modeled financial frictions (CKM, 2006)
- Interpretation: Great Moderation comes from a reduction in financial frictions
- Bingo!

# Outline of my Comments

---

1. Will tell you why this is a very nice paper
  - Larger scale models indicate this as a promising direction

# Outline of my Comments

---

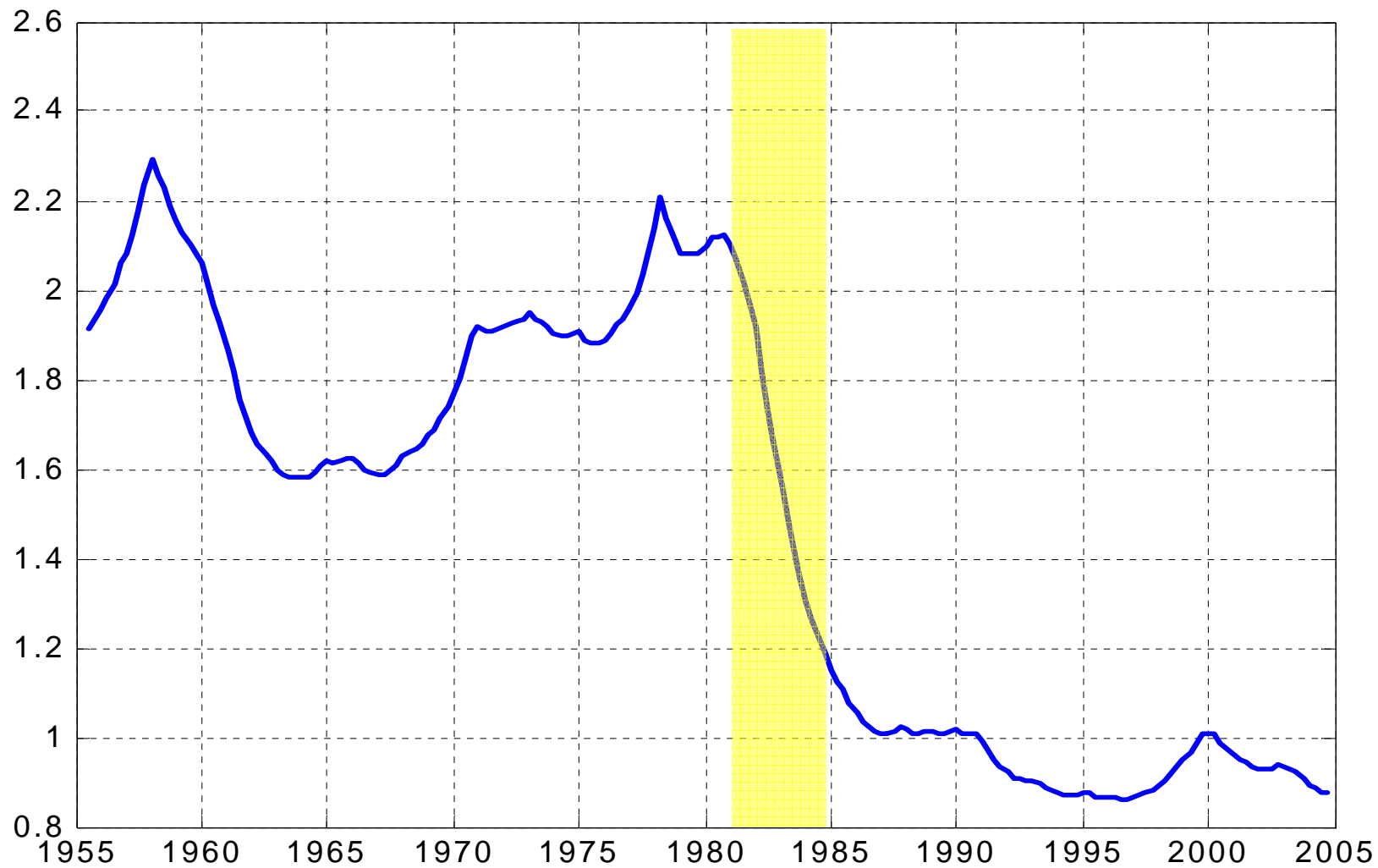
1. Will tell you why this is a very nice paper
  - Larger scale models indicate this as a promising direction
2. Comments on the empirical motivation

## A closer look at the empirical motivation of JQ

---

- Decline in volatility of GDP in early 1980s **is very sharp**

# Volatility of US GDP



## A closer look at the empirical motivation of JQ

---

- Decline in volatility of GDP in early 1980s **is very sharp**
- This is the real puzzle
- This is why the Monetary Policy hypothesis has received so much attention

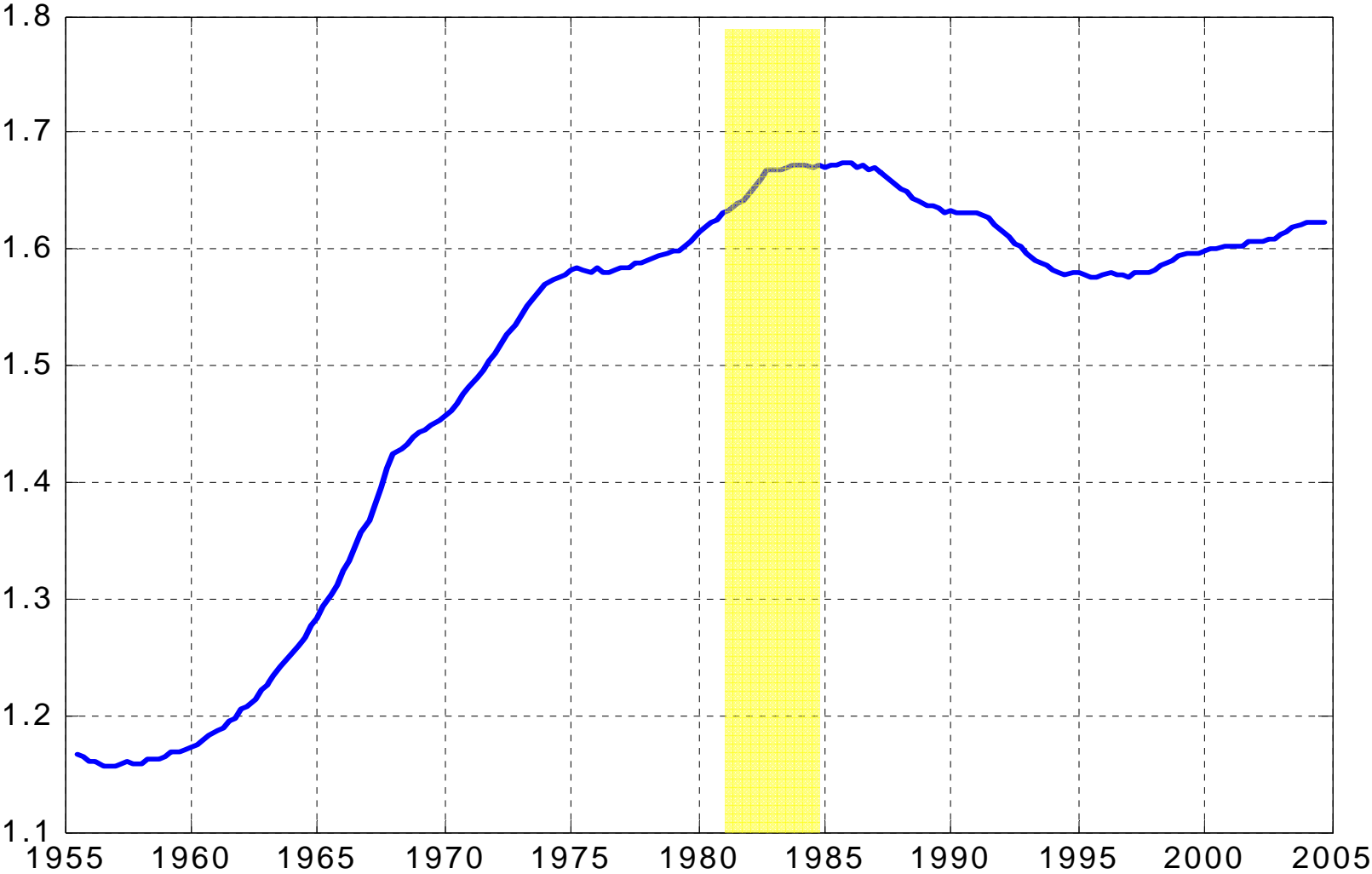


## A closer look at the empirical motivation of JQ

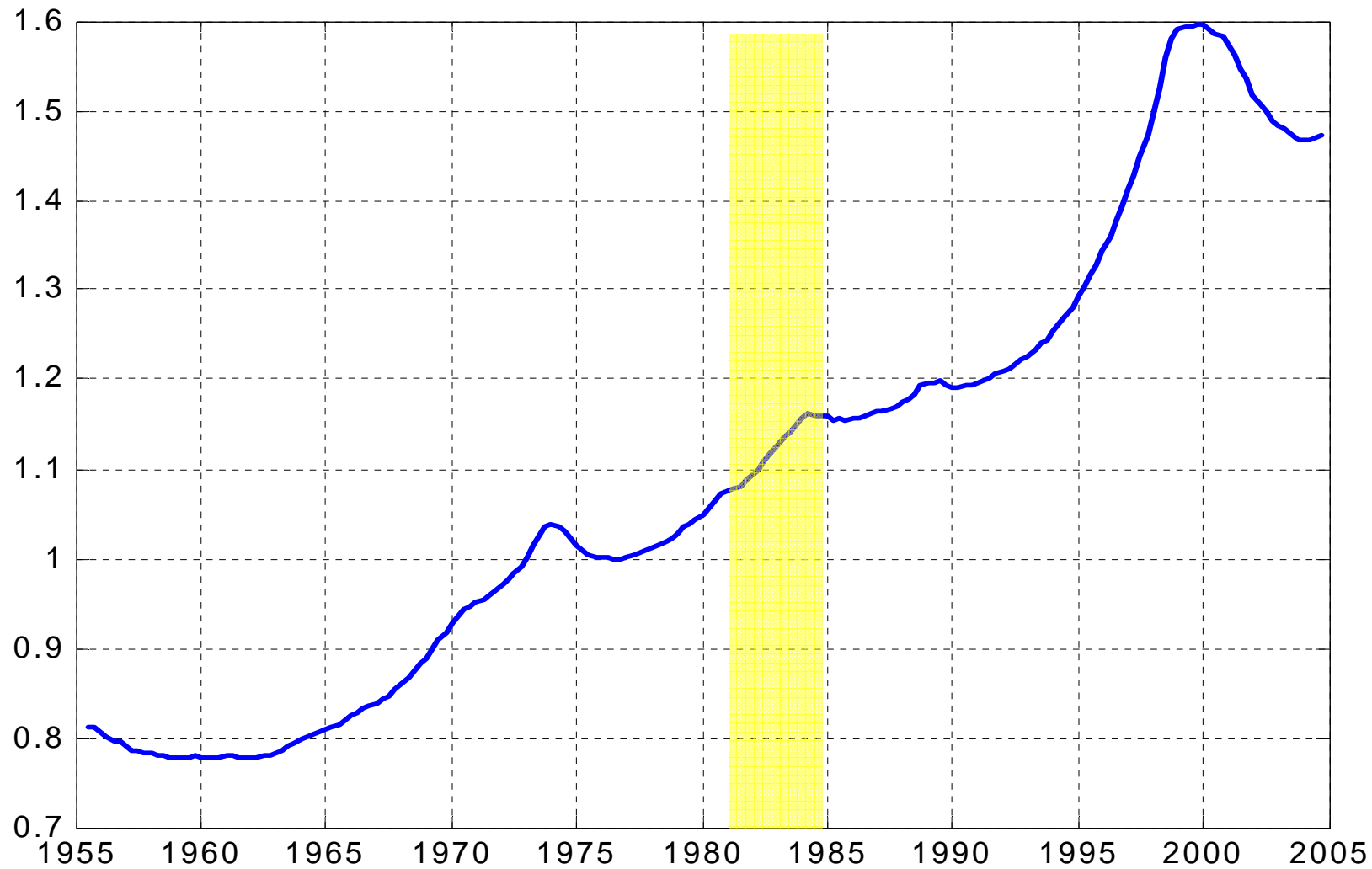
---

- Decline in volatility of GDP in early 1980s **is very sharp**
- This is the real puzzle
- This is why the Monetary Policy hypothesis has received so much attention
- Let's have a look at the financial variables examined in JQ

# Time varying SD of Debt Repurchase



# Time varying SD of Equity Payout



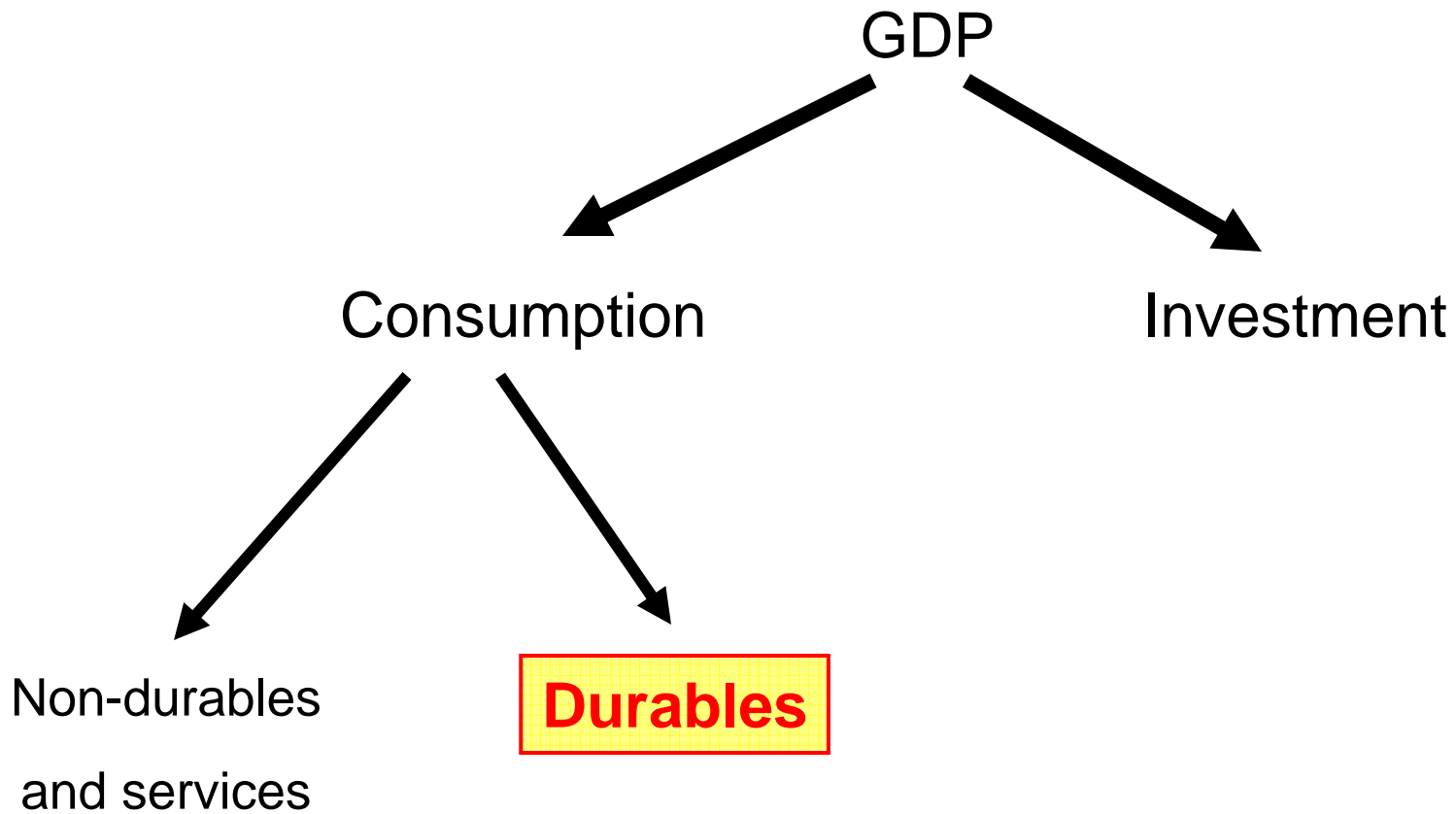
## Reduction in vol. of components of GDP

---

- Which component of GDP has experienced the sharpest and most dramatic reduction in volatility?

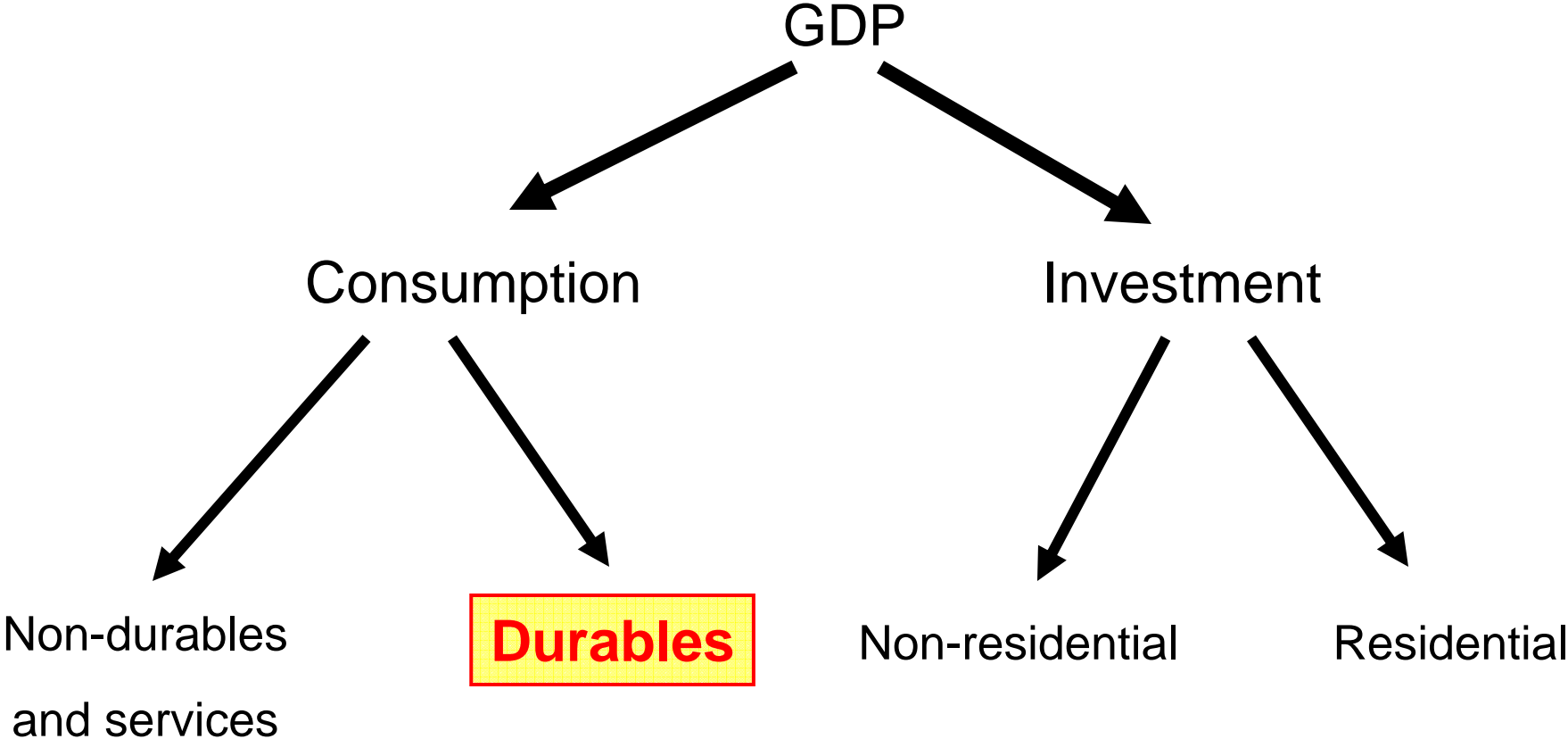
# Reduction in vol. of components of GDP

---

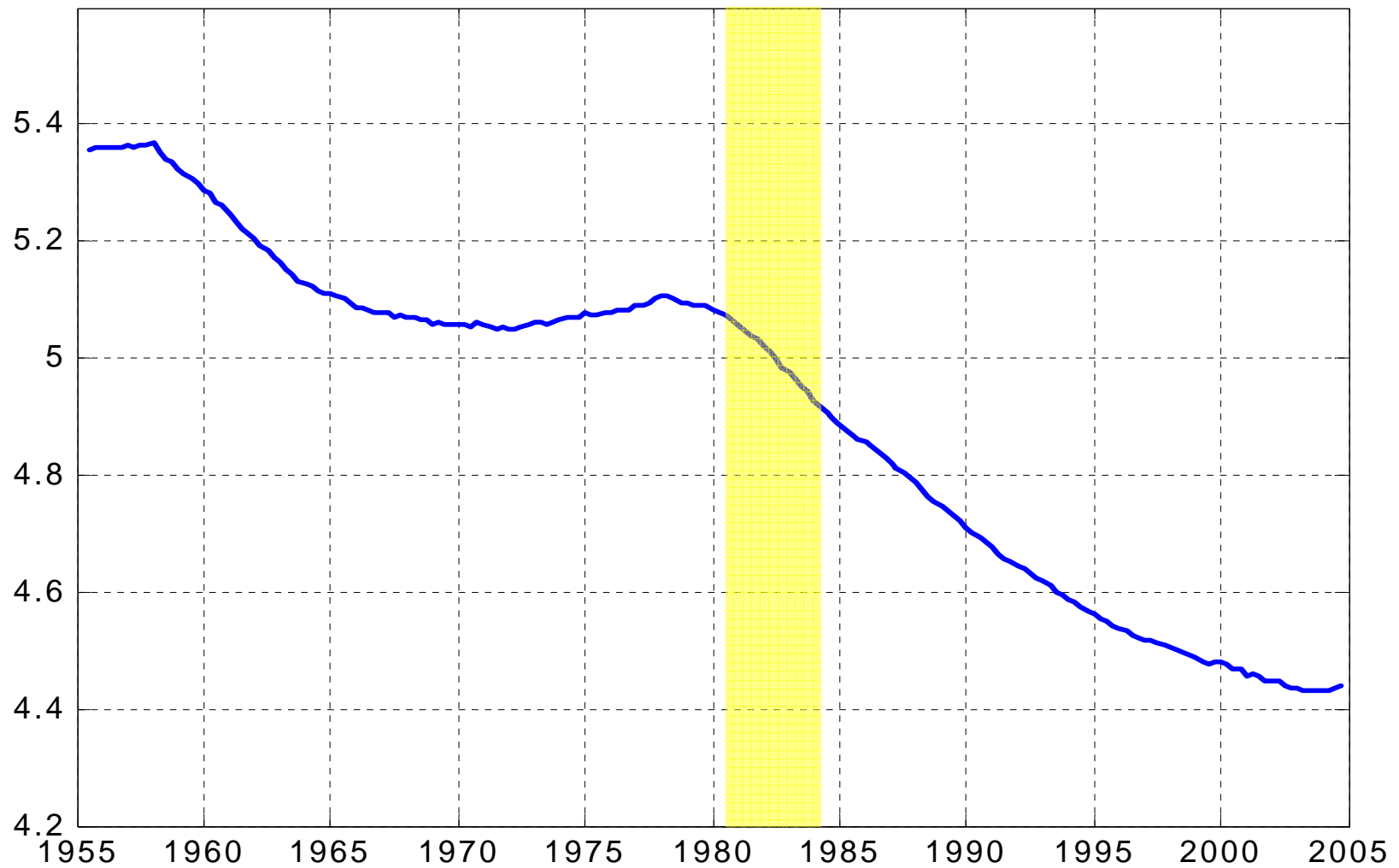


# Reduction in vol. of components of GDP

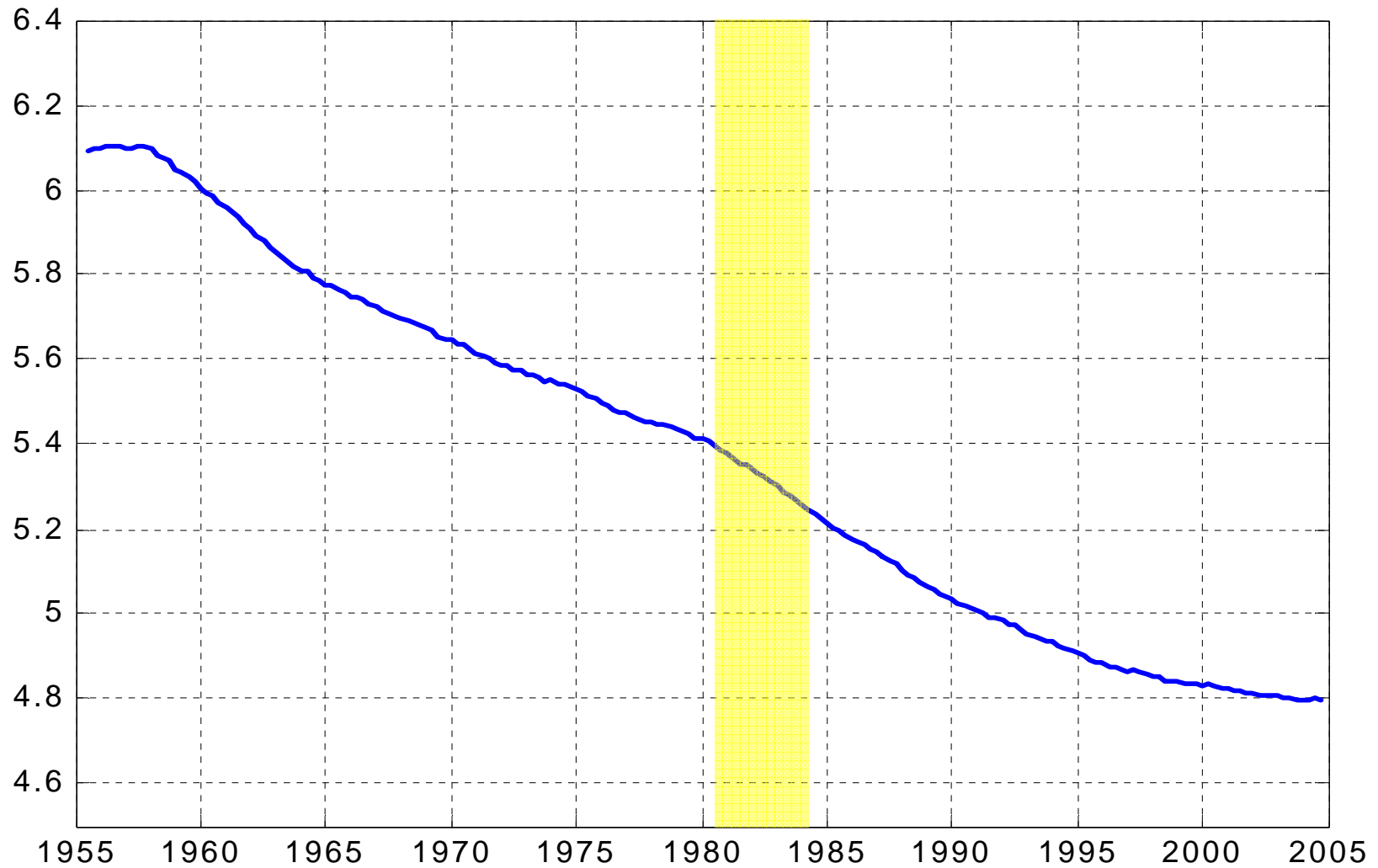
---



# Time varying SD of Non-Residential investment

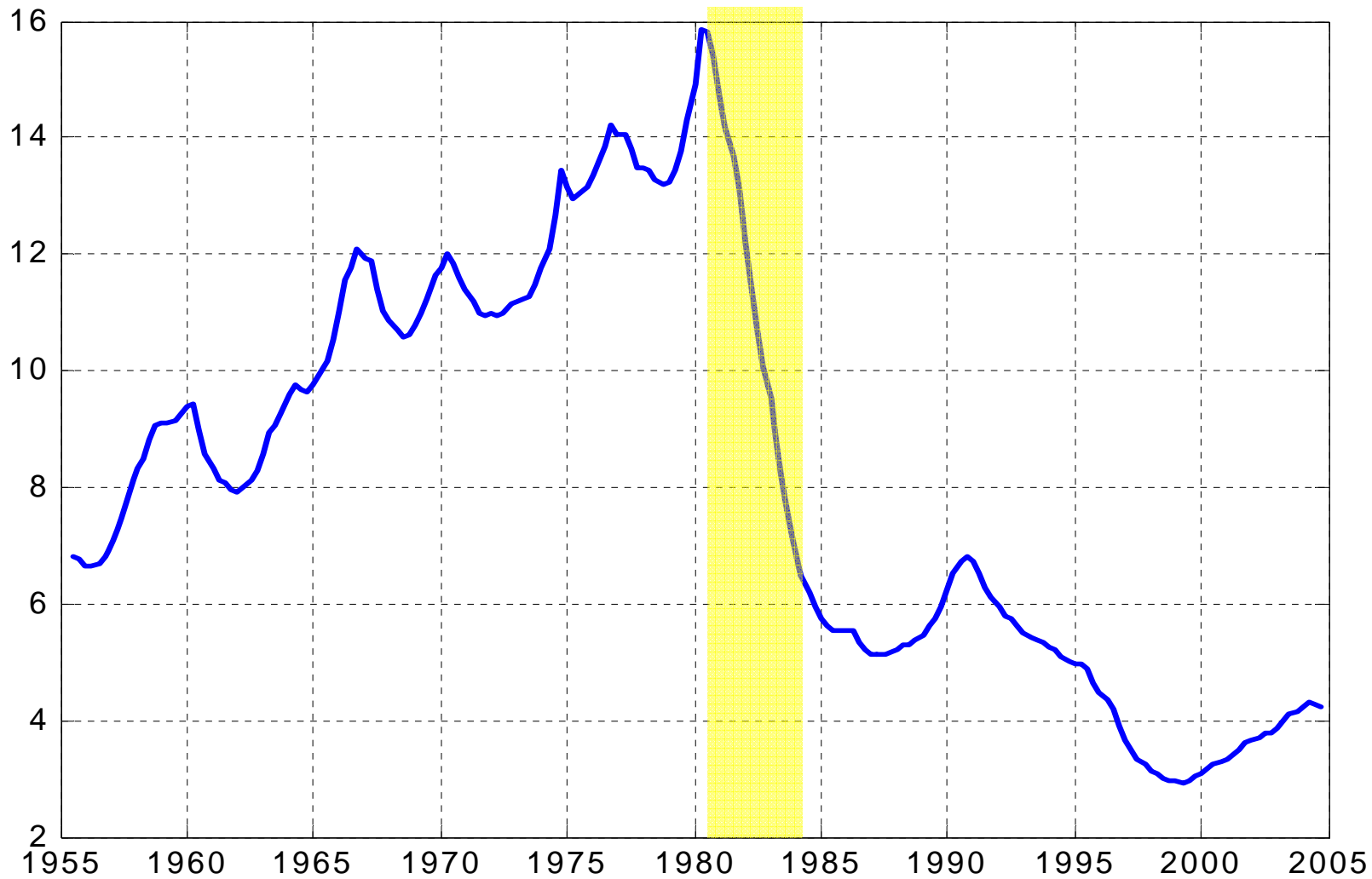


# Time varying SD of **Equipment & Software**



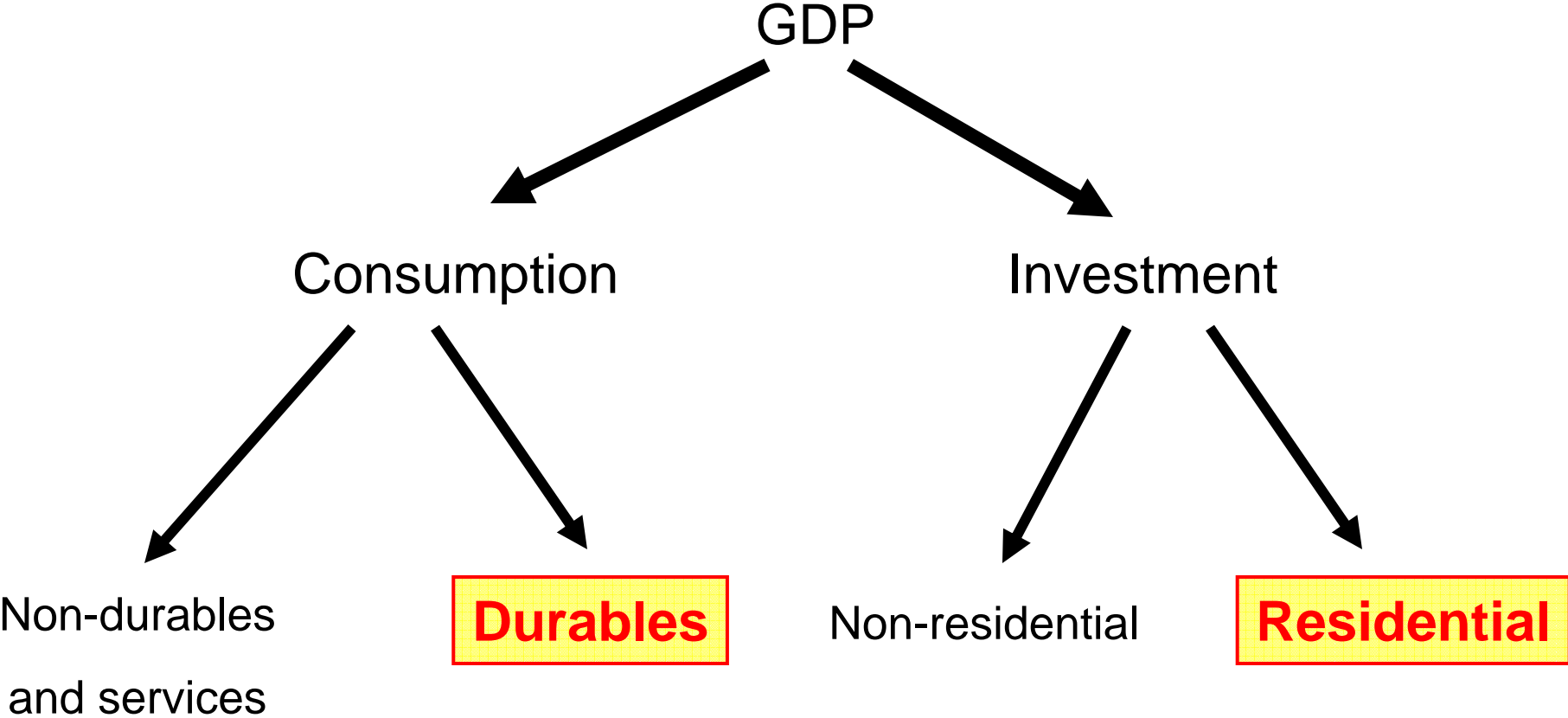


# Time varying SD of Residential investment

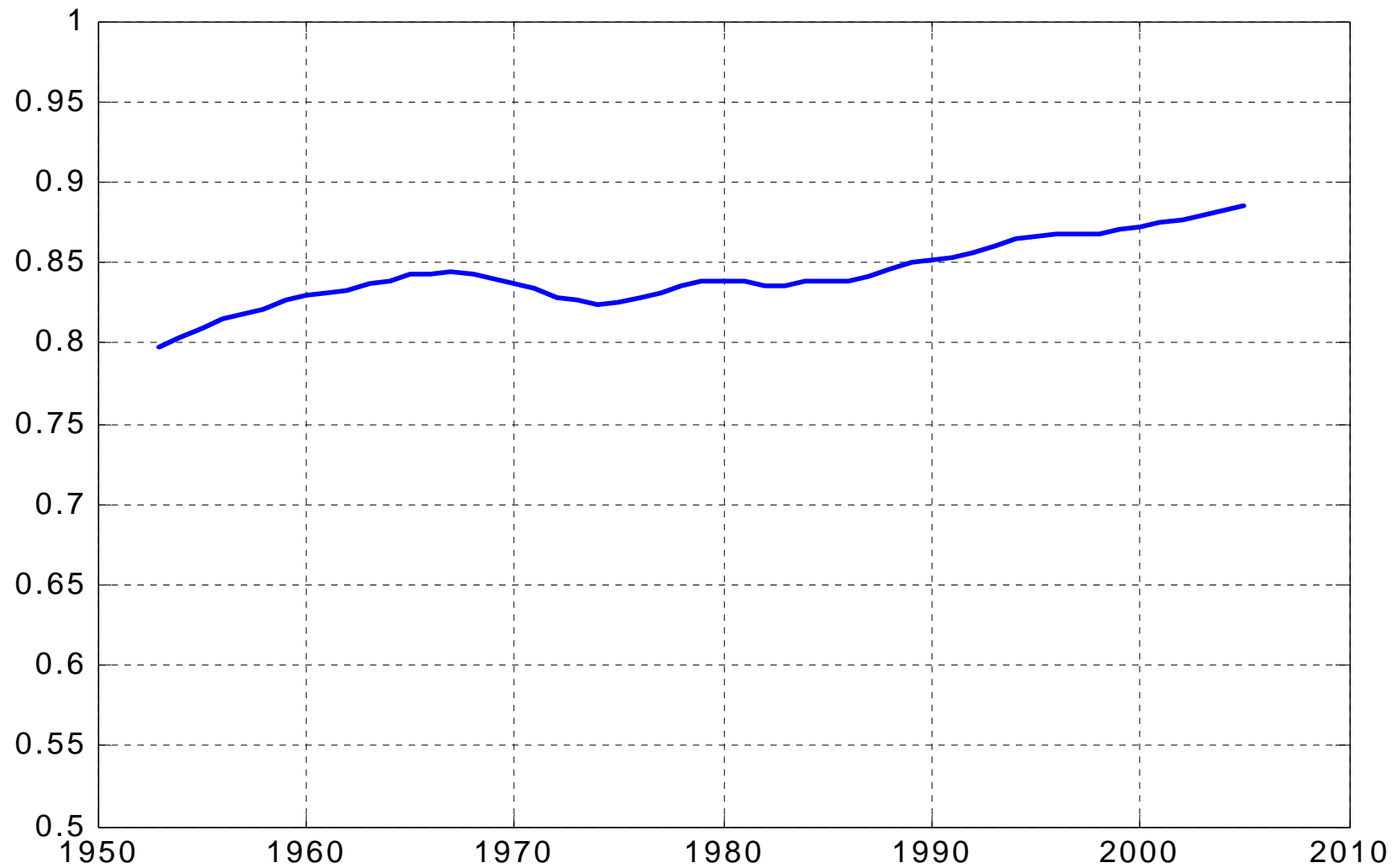


# Reduction in vol. of components of GDP

---



# Share of residential assets owned by HH



## What do we learn?

---

- **Household** sector owns most of **residential** assets (85%)
- **Business** sector owns most of **non-residential** assets

## What do we learn?

---

- **Household** sector owns most of **residential** assets (85%)
- **Business** sector owns most of **non-residential** assets
- Smooth change in volatility of firms' financial structure is consistent with smooth change in volatility of non-residential investment!

## What do we learn?

---

- Household sector owns most of residential assets (85%)
- Business sector owns most of non-residential assets
- Smooth change in volatility of firms' financial structure is consistent with smooth change in volatility of non-residential investment!
- Shouldn't we pay more attention to the **household sector** to explain the Great Moderation?
  - Campbell and Hercowitz (2006)
  - Mertens (2006)
  - Guerron (2006)

# Outline of my Comments

---

1. Will tell you why this is a very nice paper
  - Larger scale models indicate this as a promising direction
2. Comments on the empirical motivation
  - Change in volatility of financial structure is too smooth
  - Household sector seems to be key

# Outline of my Comments

---

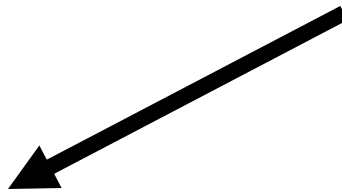
1. Will tell you why this is a very nice paper
  - Larger scale models indicate this as a promising direction
2. Comments on the empirical motivation
  - Change in volatility of financial structure is too smooth
  - Household sector seems to be key
3. Comments on the theoretical framework



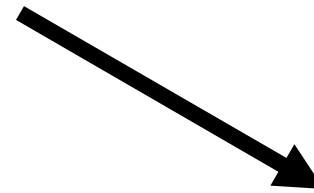
# Theoretical issues: a closer look at the model

---

Key elements



Limited commitment



Quadratic cost of paying out  
dividends



# Theoretical issues: a closer look at the model

---

Key elements

```
graph TD; A[Key elements] --> B[Limited commitment]; A --> C[Quadratic cost of paying out dividends];
```

## Limited commitment

- Strong micro-foundation
- No role in the Great Moderation

## Quadratic cost of paying out dividends

# Theoretical issues: a closer look at the model

---

## Key elements

```
graph TD; A[Key elements] --> B[Limited commitment]; A --> C[Quadratic cost of paying out dividends];
```

### Limited commitment

- Strong micro-foundation
- No role in the Great Moderation
- Natural questions:
  - Why do we need it?
  - Can't we write a simpler model?

### Quadratic cost of paying out dividends

# Theoretical issues: a closer look at the model

---

## Key elements

```
graph TD; A[Key elements] --> B[Limited commitment]; A --> C[Quadratic cost of paying out dividends];
```

### Limited commitment

- Strong micro-foundation
- No role in the Great Moderation
- Natural questions:  
Why do we need it?  
Can't we write a simpler model?

### Quadratic cost of paying out dividends

- Crucial for the quantitative result!
- Non-standard
- Ad-hoc

# Theoretical issues: a closer look at the model

---

- Ad-hoc quadratic costs of paying out dividends
- Shouldn't we think of structural interpretations?
  - Signaling problem
  - Progressive taxation
  - Risk adverse entrepreneurs
- Either non-symmetric cost or more appropriate interpretation for private equity

# Outline of my Comments

---

1. Will tell you why this is a very nice paper
  - Larger scale models indicates this as a promising direction
2. Comments on the empirical motivation
  - Increase in volatility of financial structure is too smooth
  - Household sector seems to be important!
3. Comments on the theoretical framework
  - What is the role of limited commitment?
  - Quadratic adjustment costs of paying out dividends???