Discussion "Land Prices and Unemployment" by Liu, Miao, and Zha

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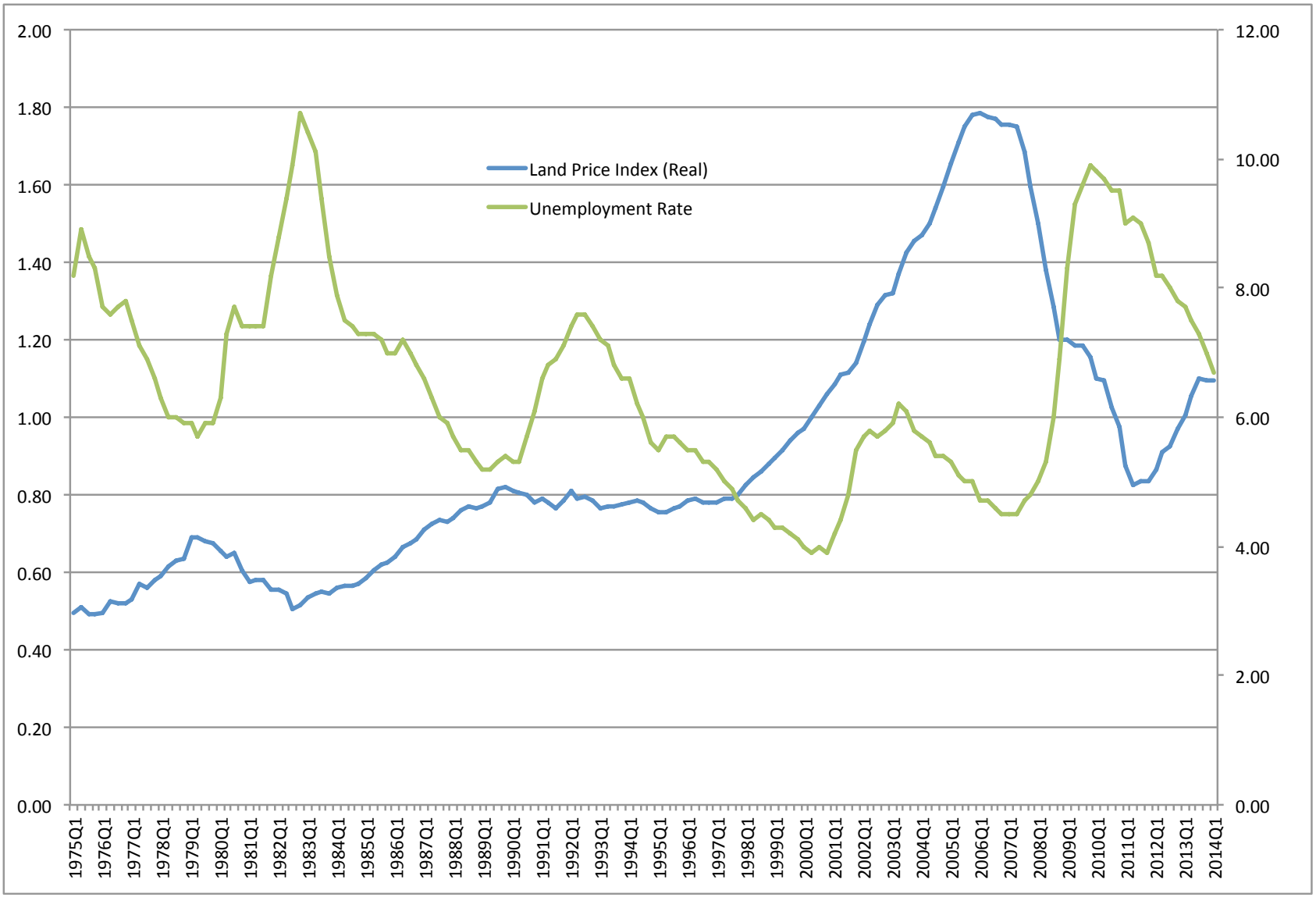
Motivation: Comovement land prices and unemployment

Declines in land/house prices are followed by an increase in the unemployment rate



This Paper

- **Question:** Can housing demand shocks account for the high volatility of labor markets (unemployment) and the performance of other key macroeconomic variables?
- **Methodology**
  - Use a BVAR to establish the statistical connection between the two relevant variables (land prices and unemployment)
  - Develop a stochastic general equilibrium model with housing and unemployment. The model is an extension of Liu, Miao, and Zha (ECA, 2013) with unemployment.
- **Mechanism:** Two channels
  - **Credit channel (Firms):** Tightening of credit reduces future vacancies, decreases the job finding rate, and increases the unemployment
  - **Labor channel (Households/Workers):** Shocks to housing reduce private consumption (both goods are complements), that tends to increase the reservation wage, and wages do not decline as much. Firms respond with fewer vacancies

Quantitative Findings

- **BVAR:** The statistical model establishes a decline in land prices leads to a simultaneous increase in unemployment and a decline in consumption, investment, total hours, and vacancies
- **Structural model**
  - The model indicates that 10% drop in land prices would lead to a 0.34% increase in the unemployment rate relative to the steady state value of 5.5%
  - Moreover, shocks to housing demand can still account for the observed high Shimer volatility ratio of 27.5

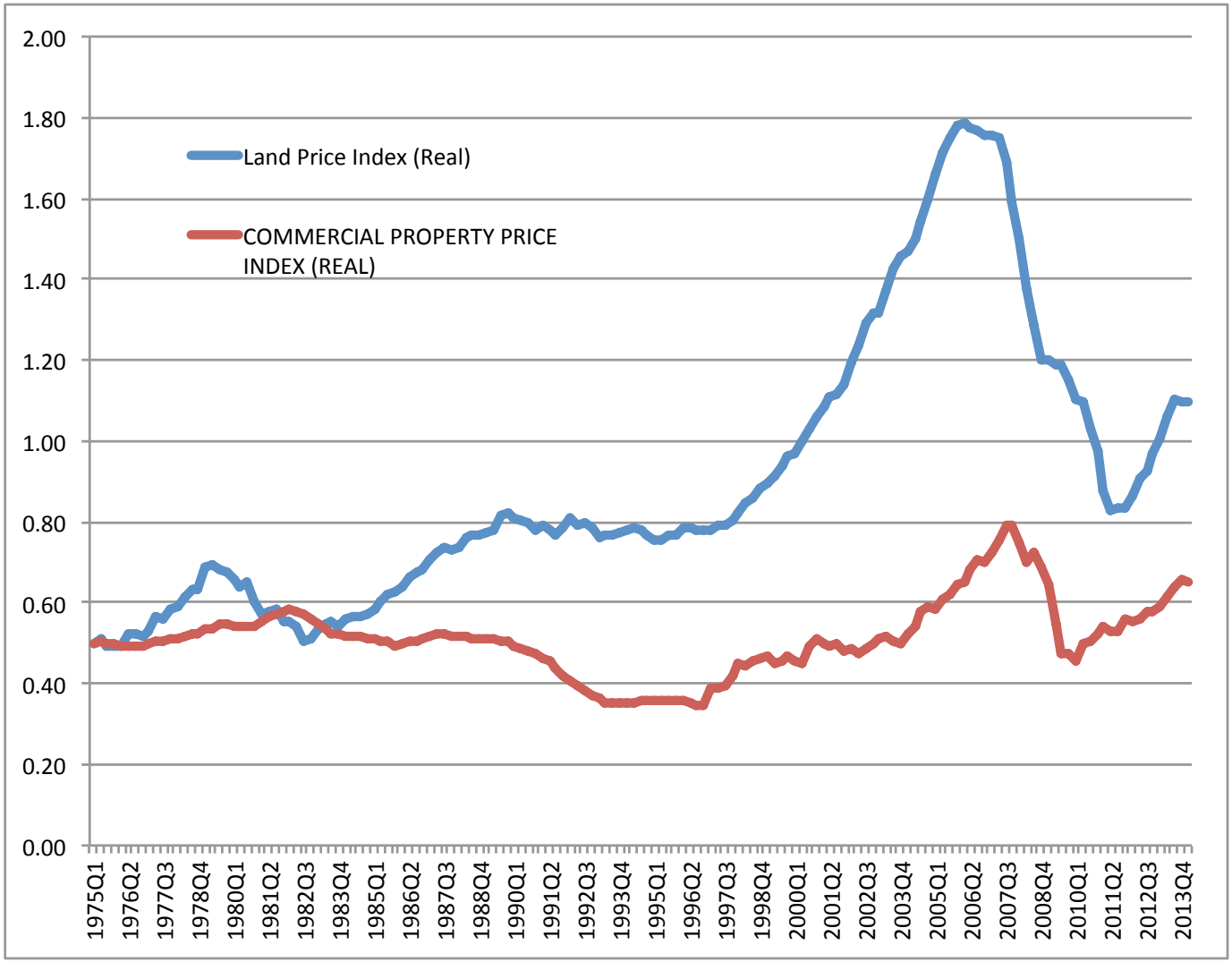
Comments

- This paper addresses a very important question in macroeconomics
- There are substantial theoretical challenges when connecting housing and labor markets. Some compromises are needed, especially when the model has to be estimated.
- A structural economic model is needed for policy/regulatory prescriptions. The paper will not get us there, but it is a step in the right direction.
- In sum, I really like the topic and the approach
- Going to provide 4 comments and conclude with some random thoughts

Comment 1: Prices? What Prices?

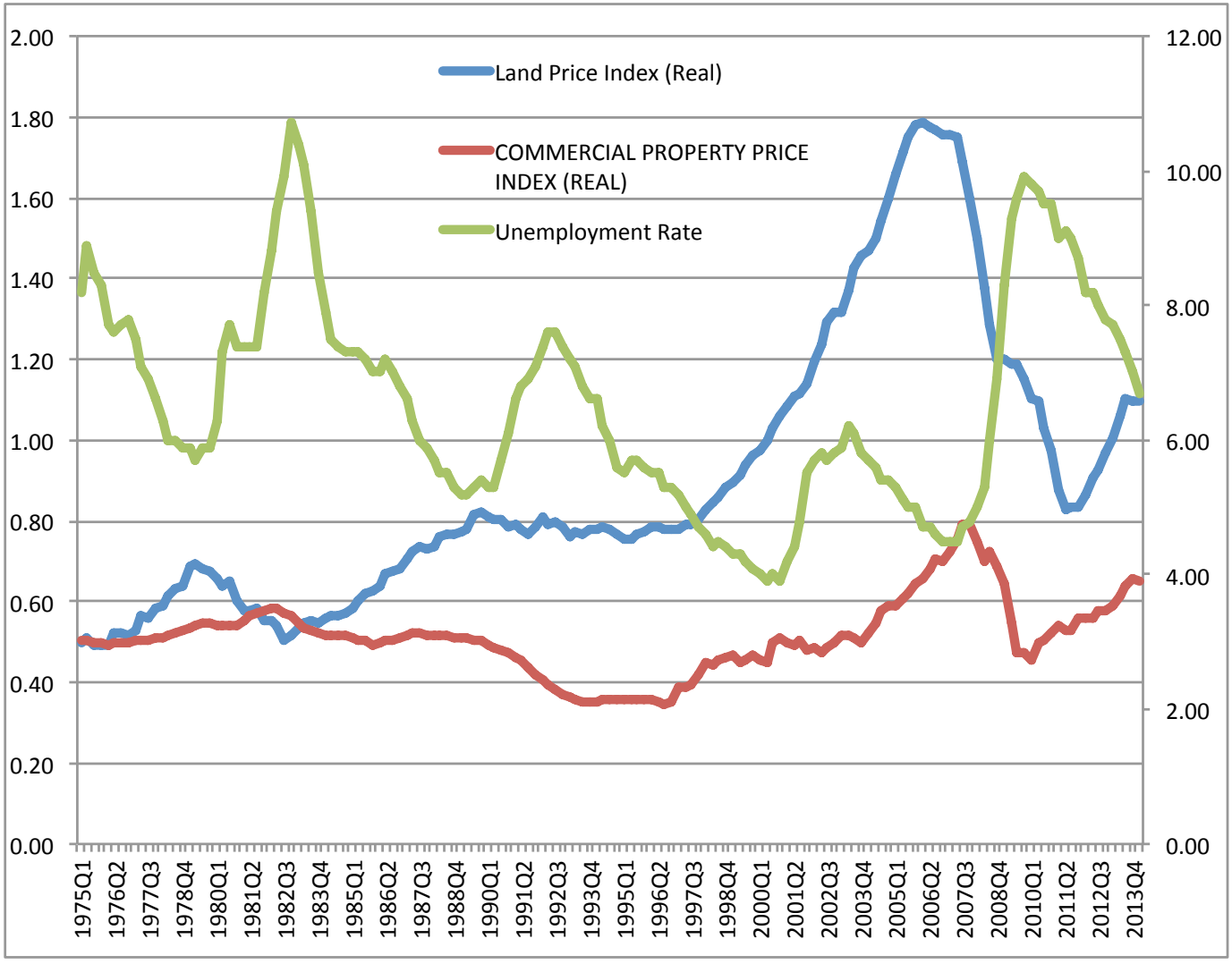
Are commercial and residential land prices the same?

In the model are rival, but in the data...



Are commercial and residential land prices the same?

The co-movement with commercial prices is weaker



Comment 2: Is crowding-out essential?

How important is crowding-out in the housing market?

- Assume an extreme case where individuals receive a permanent shock that makes them allergic to housing.
- In the model the business sector will be forced to buy all the housing stock.
- The equilibrium price will be determined by the marginal product of housing in the production function of the business sector.
- The decline of total demand eliminates the crowding-out from households and can makes the borrowing constraint tighter.
- This generates a decline in output and increases unemployment.

Alternative story without crowding-out

- Assume an extreme case where individuals receive a permanent shock that makes them allergic to housing.
- Individuals stop buying houses from the construction sector.
- When housing is also complementary to non-housing consumption, total demand decreases.
- This can easily generate a recession that gets amplified when the sectorial activity (construction and other production activities are interconnected).
- Decline in construction employment generates a decline in total employment.
- This mechanism accounts for 50% of the movement in total employment during the housing boom and bust (Boldrin, Garriga, Peralta-Alva, and Sanchez, 2012)

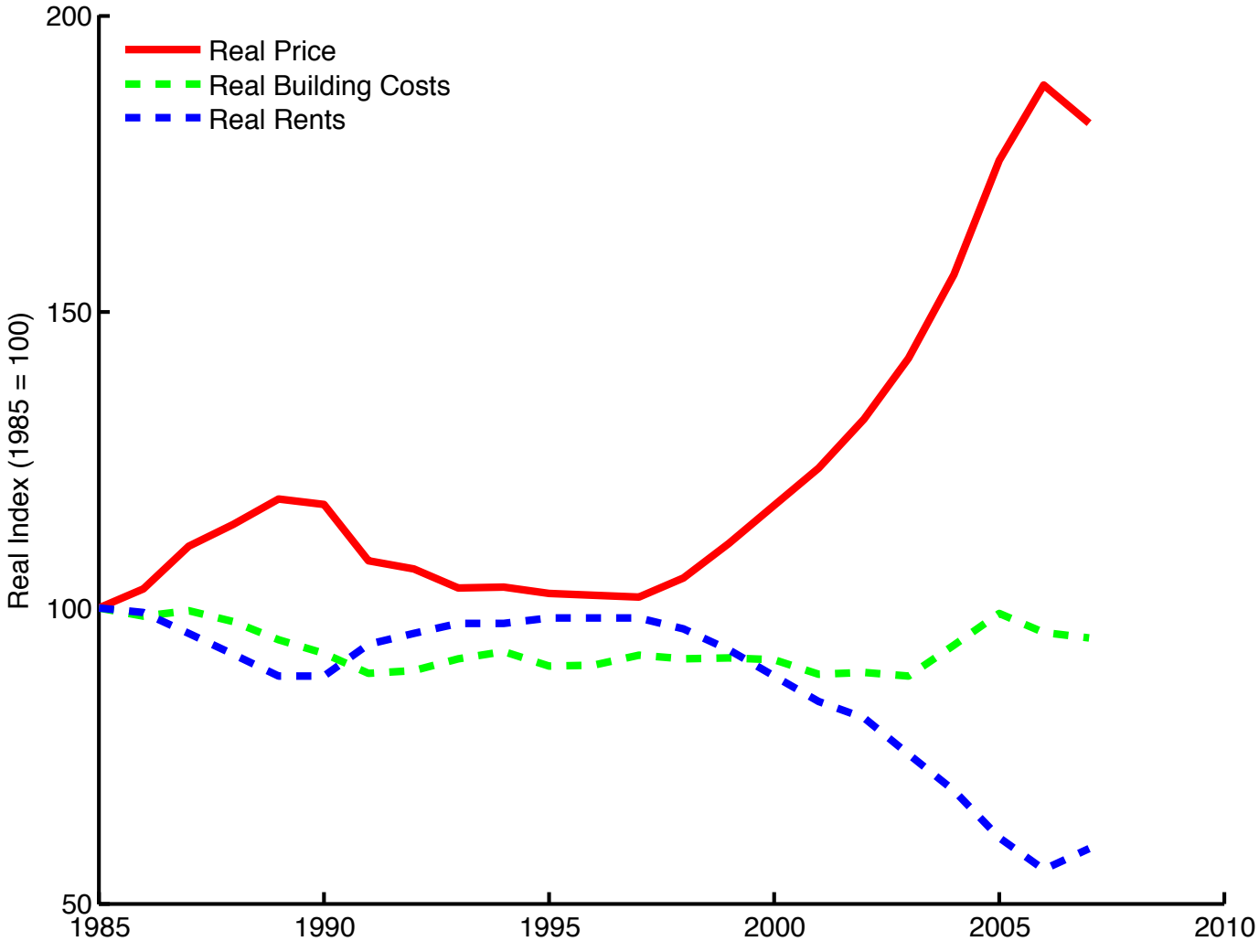
Comment 3: Shiller Puzzle

The Driver of House Price Movements

- Housing models do not allow for free lunch.
- Things that move house prices (preference shocks) also move rents
- A macro model should ensure the proper dynamics between residential rents and house prices
- This is when one has to confront the Shiller puzzle (rents are disconnected from house prices)
- This one is harder than the Shimer Puzzle
- In the model the shock must make rents more volatile than house prices. This is at odds with Shiller's evidence

$$R_t = Z_t^h \frac{U_{h_t}}{U_{c_t}}$$

Disconnectedness



Comment 4: Commercial Real Estate Debt

Magnitude of Commercial RE Debt

- Commercial purchases of real estate have traditional been very different than households (equity vs. debt).
- In the recent years, commercial purchases are similar to residential and this is important for changes in the lead-lag of residential investment (Kydland, Rupert, and Sustek, 2012).he Shiller puzzle (rents are disconnected from house prices)

Mortgage Debt Outstanding	**2010**	**%**
Single family (1-4 units)	10,444,612	75.7
Multifamily	851,211	6.2
Non residential	2,342,162	17.0
Farm	154	1.0
Total	13,792,084	100

Minor Comments on Housing Finance

- **Flow of credit (model vs data):** In the model the household sector lends to firms. The household sector purchases houses without mortgage. In the data
  - 40% households do not own a house or other assets
    - Only 30% of the housing stock is free and clear from loans
    - A bulk of mortgage financing comes from the top of the wealth distribution
  - In the U.S. mortgage debt held by households is around 3/4 times output while corporations have been hoarding cash.
- **The role of mortgage finance:** How does mortgage finance (for households and firms) affect the connection between prices and unemployment? With long-term contracts, the constraint is only tight for new investment, but not for the existing stock of capital?