"2010 Nobel in Economics"

Yannis Ioannides

Economics Society, November 16, 2010

Outline of discussion

The Laureates

- Peter A. Diamond, MIT, age 70
  US born
  Honored work is only a part of many contributions
- Dale Mortensen, Northwestern, age 71
  US born
  Honored work offered provided completely new tools for studying markets with frictions
- Christopher A. Pissarides, London School of Economics, age 62
  Cyprus born
  Influenced by Mortensen (and the Phelps volume), less so by Diamond, but integrated their insights into a macroeconomic theory
  Mortensen and Pissarides have coauthored extensively on work that was cited by the award

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"Markets with Frictions"

- What are markets?
- What are markets with frictions?
- Where do they apply?
- "It takes time for workers to find jobs and for employers to find workers."
- "Rarely has the prize committee been better able to match the honored work with the moment" Edward Glaeser
  Most significant for understanding equilibrium unemployment, its determinants, its dynamics
  How labor markets, housing markets adjust, even marriage markets.
- At its inception, work was thought as a disequilibrium phenomenon. See Pissarides (1974)
  Then people realized that in its own terms, constrained equilibrium may be defined.

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Peter Diamond

- Regarded as a giant
- Why did it take so long?
- What are his other contributions?
  Public debt, price dispersion (Diamond's paradox), models of search (the coconut model), multiplicity of equilibria
- Was passed up in the past; committee finally found a way to reward him
  See column by David Warsh, `www.economicprincipals.com`
- Citation take s a broad view of frictions, like those caused by incomplete markets and cites Diamond (1967)
  Government too is limited by market incompleteness
- Diamond (1965) public debt in the overlapping generations model, another instance of incompleteness, or intergenerational market inefficiencies.
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Peter Diamond, cont'd

- Took time to recognize the significance of missing markets, relative to complete and perfect markets against all contingencies
- In the context of overlapping-generations models, many markets are missing, simply due to the demographic structure of our economies
  conceptual similarity between missing markets, externalities, emergence of trading uncertainty
- I dont know with whom I would be able to trade. If all potential traders are *there* — what is there? — fine, markets will clear, but
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Dale Mortensen

- Far-reaching modeling tool: the Poisson model of arrivals of offers
- Why did it take so long? Perhaps because he himself showed little interest in empirical implementation of his theories
- What are his other contributions? Generally focused to markets with frictions.
  Motivated by Phelps volume, *Microeconomic Foundations of Employment and Inflation Theory*
  Rarely has a volume of papers had so much influence.
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- About 1400 citations in the *Web of Science*
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Christopher Pissarides

- Full disclosure: a close friend
- Arguably more than the other two, a profound interest in the real world, almost exclusively focused on labor issues in the macroeconomy, the problems of the unemployed, the consequences for the income distribution. Became a favorite about 5–10 years ago.
- Specifically motivated by persistent unemployment after the oil price shocks in the 1970s, looking for systematic ways to study such persistence.
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Equilibrium unemployment vs. disequilibrium unemployment

- "natural rate of unemployment" as "the level that would be ground out by [a] system of general equilibrium equations" provided those equations were able to capture important aspects of the economy by having "imbedded in them the actual structural characteristics of the labor and commodity markets, including market imperfections, stochastic variability in demands and supplies, the cost of gathering information about job vacancies and labor availabilities, the costs of mobility, and so on." Friedman 1968.
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- Critical modeling steps:
  When agents come together, how do they decide on remuneration?
  Pissarides: more conventional in terms of modeling, unless he had to get over a hurdle, in which case very inventive!
  Minute attention to detail; justify every step
  Labor market adjusts through flows, from employed to unemployed or to out-of-the-labor force, from unemployed to employed or to out-of-the labor force; from out-of-the-labor force to unemployed.
- So compatible with structural unemployment and Keynesian business cycles.

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Why now?

- Easy to theorize it is because of unemployment being a big problem
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- An additional explanation:
  increasing attention led to criticism, like it did not explain everything.
- That is how science progresses: ground through criticism that one should take and build on.
- New research extended it, made it capable of explaining perceived weakness, generalized and expanded it.

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- It then become a foregone conclusion that he will get it.
- Some of Pissarides' greatest critics, like by Robert Shimer of Chicago on the weakness of the theory in explaining all business cycle facts, ended up adding to the strengths. His statement on the award (at his site) one of the best.
  Shimer's and Hall's were *constructive* criticisms that augmented the power of the Diamond–Mortensen–Pissarides model.
  Sudden realization that we can deal intelligently with questions we could not handle before.
- Recognition that body of research gave a new view of the persistent economic problems, like unemployment that are serious and do not disappear. As we see right now.
- A symmetric view: individuals cannot find work right away; they will have to wait: unemployed
  Firms cannot fill jobs right away: unfilled vacancies

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Pissarides more details

- Matching model: $\theta \equiv v/u$,
  $\alpha = h(uL, vL)/uL = h(1, v/u) = \alpha(\theta)$
  Firms fill vacancies at rate: q,
  $q = h(uL, vL)/vL = h(u/v, 1) = q(\theta)$.
- Jobs break up at rate ϕ. Then at steady state,
  $\phi(1-u)L = \alpha(\theta)uL$. Or:

$$u = \frac{\phi}{\phi + \alpha(\theta)}.$$

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- Individuals
  $rU = b + \alpha(\theta)(W - U)$ $rW = w + \phi(U - W)$.
- Firms:
  $rV = -k + q(\theta)(J - V)$. $rJ = y - w + \phi(V - J)$.
- Where do wages come from?
  Bargaining between firm and worker:

$$\max_w [W(w) - U]^\beta [J(w) - V]^{1-\beta}$$

- Surplus sharing rule:

$$w = (1 - \beta)b + \beta(y + k\theta).$$

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- Individuals
  $rU = b + \alpha(\theta)(W - U)$ $rW = w + \phi(U - W)$.
- Firms:
  $rV = -k + q(\theta)(J - V)$. $rJ = y - w + \phi(V - J)$.
- Where do wages come from?
  Bargaining between firm and worker:

$$\max_w [W(w) - U]^\beta [J(w) - V]^{1-\beta}$$

- Surplus sharing rule:

$$w = (1 - \beta)b + \beta(y + k\theta).$$

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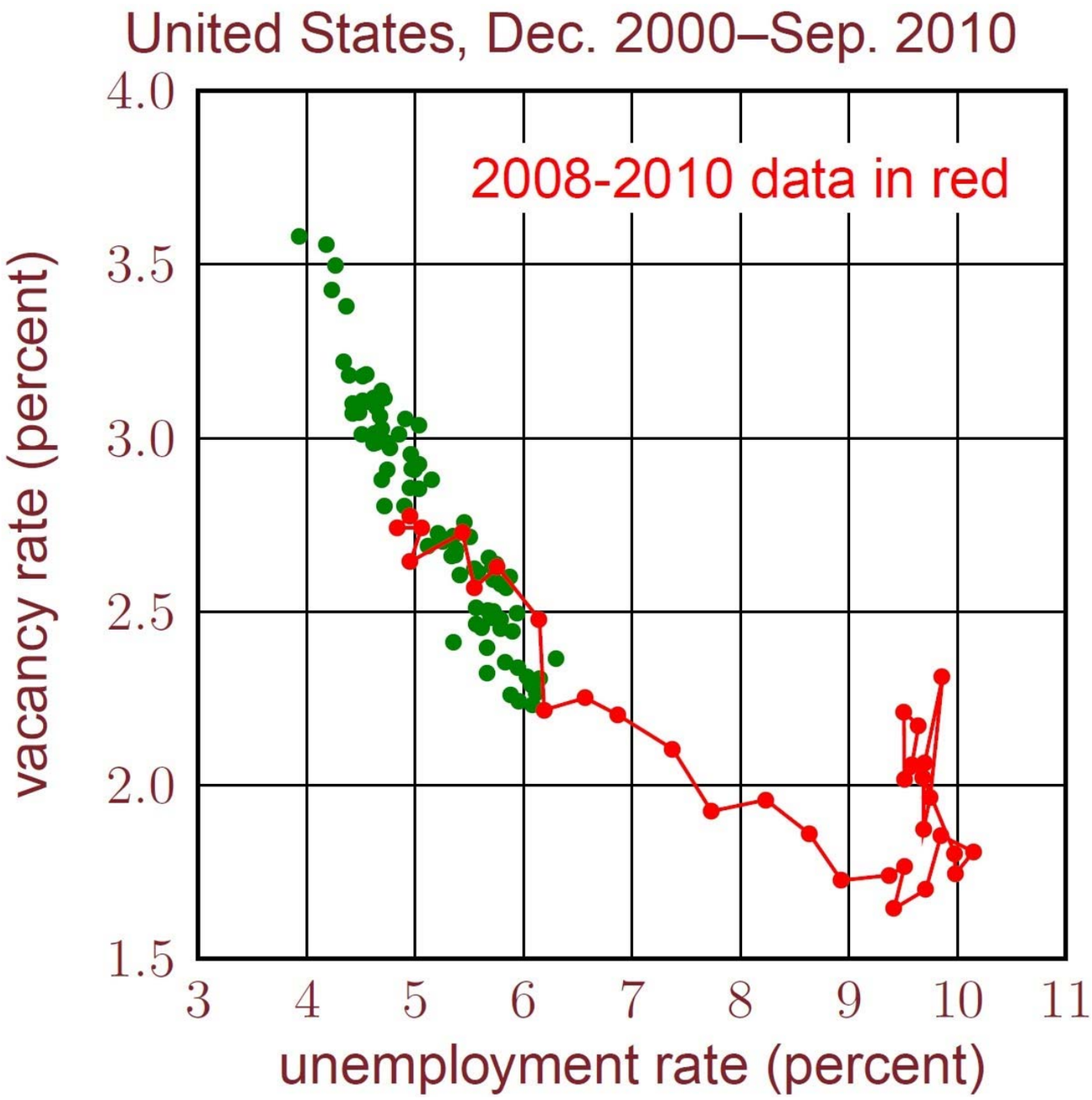
United States, Dec. 2000–Sep. 2010
2008-2010 data in red
vacancy rate (percent)
4.0
3.5
3.0
2.5
2.0
1.5
3
4
5
6
7
8
9
10
11
unemployment rate (percent)

How is the Nobel in economics awarded?

- For narrowly identifiable contributions that change the way we think.
- Not necessarily because of the greatest number of publications See RePEC statistics are based on data from 25995 authors. Latest Rankings for the top 5% authors are available at: `http://ideas.repec.org/top/top.person.all.html`
- Starting from top, some very prolific people might not get it.
- If you go on in economics and get an NSF fellowship as a graduate student, you may invited to meet laureates, at a conference organized every year in Switzerland, at a very nice place, by the economics Nobel prize committee!
- And who knows, why not bigger and better things thereafter
- Thank you!
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