Prof. Dellas **Advanced Macro**
Class note: 3/11/98

A. Rational expectations (cont.)

POLICY IMPLICATIONS OF RE (POLICY INEFFECTIVENESS):
Monetary policy matters only to the extent that it is unanticipated/misperceived
$\Rightarrow$ systematic policy does not matter
For instance, counter-cyclical monetary policy will not stabilize output
Political business cycle ?

ECONOMETRIC IMPLICATIONS OF RE:
a) Cross equations restrictions
b) Policy regime switch

B. The Real Business Cycle (New Classical) paradigm

The RBC model emphasizes exclusively the role of supply disturbances in a frictionless world with representative agents, complete asset markets, perfectly rational individuals and flexible prices.

1. How did it come into existence?
A. Two empirical findings concerning monetary policy and AD shocks opened up the way for the RBC model

a) Most macroeconomic series seem to follow a random walk (Nelson and Plosser, 1981) $\Rightarrow$ Changes in macroeconomic activity are mostly permanent (business cycles have a large permanent component) $\Rightarrow$ AD cannot (?) induce permanent changes in quantities $\Rightarrow$ AS shocks must be behind macroeconomic fluctuations

$x(t) = x(t-1) + u(t)$ $\quad \ldots = u(t) + u(t-1) + u(t-2) + \ldots..$
Random walk: Stochastic trend, shocks have permanent effects

b) Money did not seem to matter for economic activity in VARs (Sims):
But what is the instrument of monetary policy?
B. Disatisfaction with the flexible price RE model (Lucas). The informational lags it required are not plausible

2. An important **methodological** development: Calibration and simulation of stochastic GE models.

Model evaluation: Explicitly matching the joint probability distribution predicted by the model for the variables of interest to their actual world counterparts.

Empirical performance: How well does the standard RBC model explain the behavior of actual economies?

The original model: Kydland and Prescott
Accounting for the lack of correlation between productivity and hours worked.
Indivisible labor: Hansen
Household production: Greenwood, Rogerson and Wright
Fiscal policy: Christiano+Eichenbaum, McGrattan, Braun
Human capital: Einnarson and Marquis

Additional developments:
A. Fiscal policy: Ricardian equivalence. Irrelevance of tax induced deficits for real interest rates and economic activity.

B. Unemployment
Worker-job mismatch. Job creation and destruction.

C. Monetary aspects
Non-neutrality of money. **Frictions**
Fixed wages
Fixed –good- prices (monopolistic competition)
Liquidity (limited participation) model

Performance of RBC models with money. Rather poor.

D. Rules vs discretion: Part II
Time inconsistency: Ex post vs ex ante decisions
Inflation bias when unemployment target differs systematically from the natural rate

Credibility and disinflation. The cost of disinflation

C. New Keynesian theory

Heterogeneity Complementarity of interactions (strategic, macroeconomic)
Example: Prisoner's dilemma

	C	NC
C	(-1,-1)	(0,-3)
NC	(-3,0)	(2,2)

Coordination failure ⇒ Multiple equilibria ⇒ Opens up the way for government intervention to select the most favorable equilibrium (recurrent theme in Keynesian economics: market failures, govt serving the public interest)

Coordination games

a) Production complementarities (increasing returns to scale)
If an agent works or produces more the remaining agents become more productive
$U=u(c) -v(n)$ c = consumption, n = work effort
$c = f(n, N)$ $f12 > 0$

b) Search
Trade: The larger the fraction of agents searching the easier it is to find a partner (IRS to search)

c) Imperfect competition
Multiple sectors. Each sector has a small number of firms producing a homogeneous good
Strategic substitutability within sectors
Strategic complementarity across sectors

D. Are aggregate shocks important?

Are business cycles due to aggregate shocks. Empirical evidence on the source of aggregate fluctuations: Aggregate vs "idiosyncratic shocks.