Comment on The "News" View of Economic Fluctuations: Evidence from Aggregate Japanese Data and Sectoral U.S. Data, P Beaudry and Franck Portier

Max Gillman

Abstract

Paper applies methods of decomposing time series
-on stock prices and total factor productivity (TFP)
-to examine Japanese and US sectoral evidence.

Based on news view in 2004 *JME* Pigou cycles.
Model with changes in expectations based
on fundamental future productivity.
Causes cyclical movements.

Methodology tests this theory, in authors 2004
"Stock Prices, News and Economic Fluctuations"
Real business cycle model, mark-up profits,
shocks to productivity and money.
Moving average representation to explain
US stock prices and aggregate productivity.

This paper: standard bus cycle model, no deterministic profits.
Now shocks to tastes, productivity; MA rep: bond prices, TFP.
Same testing method: decomposition of the shocks
Finds support for colinear movement of shocks.

1 Last Comment

CEPR conference (April 2004,Vienna)

Bus cycle papers's loose talk on supply, demand shocks.

TFP shock called supply shock, others demand shocks.

I objected: RBC has a single dominant shock, TFP

with both supply and demand components.

No explicit link from models to data was made.

2 Nice Approach

Here specify exactly how shocks in models

translate into shocks in time series

Very interesting: not stuck on supply/demand classification

Rather:

1. What shocks seem important in explaining business cycles
2. See if can link model with such shocks to data

2.1 Use two other papers

"An exploration into Pigou's theory of cycles" 2004 JME 51(6): 1183-1216.

"Stock Prices, News and Econ Fluct" 2004 NBER WP10548.

3 Pigou Paper

Sets out several RBC: expectations of future 1-period

productivity shock cause RBC

May or not be consistent with actual BC

Standard one-sector model, with capital adjust cost

One with sector producing capital good,

Conclude: typical co-movements cannot be captured.

3.1 Fixed factor model

Production of investment capital and non-durable good fixed factor.

Consumption gd CES combo of non-dur gd and capital.

Noisy single about the future productivity.

Positive profits, from the fixed factors,

gradual adjustment, from production of new capital.

Single extraction problem with increase in cons, invest.

up til TFP shock realized, either rightly or wrongly.

Then capital stock keeps going up or falls down if wrong.

Standard Cobb-Douglas leaves labor hours flat; no good.

3.2 Results:

Estimating bivariate VARs: output and stock price,

High correlation between output and stock prices
to a permanent shock to output, as in model.

4 Stock Prices and TFP: Direction to Go

Next two NBER papers also present models,

To provide closer link between the models and data.
Idea is something must capture expectations of
future profit increases from productivity innovations
Best candidate is stock prices.
Problems: how to get future profit changes
leading to current stock price changes
all within a general equilibrium RBC.
Pretty sure of where to go and how to do it,
Question of whether can specify model that fits
View of stock prices leading business cycles
reflecting expected future profitability increases
based in fundamental expected future TFP increases.
Approach consistentwith view Jovanovic 2001:
stock prices reflect future tech productivity.

5 First NBER Paper

Two models: new-Keynesian RBC, mark-up for profits

Standard shocks on technology and money.

Productivity shock has both permanent and short run effects,

Money shock only short run effect.

Stock prices linked to money shock and productivity shock

But SR stock price shock and LR TFP shock orthogonal.

5.1 Second Model

Price fixity dropped, mark-up profits kept

Utility depends only on consumption.

Diffusion of the productivity specified within the technology shock

in contrast to the standard Markov process.

Productivity and stock price shocks now co-linear,

identical impulse respones.

Technology shocks do not impact immediately,

stock prices do, both reflect future rise in the productivity.

US data shown to match;

output and stock prices have similar movements,

but stock prices preceed output changes.

6 Today's Paper

Two models different other two papers,

First: profits now dropped and so is price fixity.

No need for Keynesian model at all.

Standard RBC model, but shock to utility of leisure.

Instead of stock prices, since no profit,

Now how bond prices move in the economy.

Bond price and TFP have shocks:

SR shock to bond prices orthogonal to LR shock on TFP

6.1 Extended Model

Second model: extended shock specification.

Technology shock depends also on taste shock

in an autoregressive way.

Taste shock depends contemporaneously on TFP shock.

Same co-linearity of short run bond price shock

and long run TFP shock.

Find support in Japanese data

still using stock prices; model is of bond prices.

Support for stock prices reflecting expectations

of future TFP, not born out, and 1990s recession;

similar to the US 2001 recession.

6.2 US Sectoral Data Results

Durable goods sectors, equipment and construction,

strongly reflect the stock price innovations over LR.

At odds with paper, but fits including 1st NBER paper.

6.2.1 Note 1. Pigou paper, non-durable good sector leading the TFP cycle

durable good sector deterministic, no role in expectations.

Here evidence is opposite, durable goods sector more strong.

6.2.2 Note 2. Herrendorf and Valentinyi 2005 find equipment sector

has the largest differences in TFP internationally

in the tradeable goods category;

More room for change in the TFP here?

Results part of the stochastic growth path of the country?

7 General Comments

7.1 Change in Models, Same Results

Models change story the same.

Fair enough, But maybe better model.

7.2 Role of Profits

dropped profits and ability to model stock prices.

Might be remedied. Partial no mark-ups since ad hoc
Within RBC, might combine fixed factor approach
with more standard prod funct, eg Hansen/Prescott 2005.
Number of plants, or production locations, is state variable
taken as given to the production process.
Overall prod funct is CRS in labor, capital and plants,
profits can result because of the fixed factor.
Imagine Tech shock with link to the fixed factor.
Could be plant takes time to build.
Innovation to plant design, subsequent output,
eg new Intel wafer plant,
shock separate technology for new plants.
No instant productivity increase,
but rather productivity would arise when plant online.
Meanwhile expected profit stream shocked
Consistent results on durable goods and equipment US
linked to the stock price innovations.
Consistent with story in Japan of fixed factors price fall
when no TFP increase.

7.3 Policy Implications

Central Bank targeting interest rates

consequences for bond and stock prices.

Damaging changes in expectations about future productivity:

Making expectations too high or too low.

Favor strict inflation rate targeting, not output management.