Excellent conference

■ Monetary & fiscal interactions
  ◊ Any reasonable model has them
    Budget constraint . . .
  ◊ Some reasonable theory says no observable implications
    Leeper, 1995 [just kidding]

■ Rising importance?
  ◊ Euro area esp. with expansion
  ◊ A certain large nation facing “imbalances”
Piazzesi-Schneider

- Interesting, provocative, ambitious paper
- From finance perspective: exploit observed portfolio shares in evaluating portfolio model
- This is a good idea
- Much of the hard work comes in the nitty gritty of characterizing and measuring asset positions

Very useful in its own right
From conference perspective

- Potentially dead on:
  If the quantity of government bonds in public hands rises, what follows?

- In the end, I think model may need to be richer to answer this question
My discussion

- Sketch motivation of paper from a finance perspective as (mis?)perceived by a macro guy
- Give one critique from a macro perspective
Question: can we rationalize observed asset prices and portfolio shares?

Too hard, let’s start with prices

Suppose we ignore most info. on portfolio decisions
Simply assert that some agent holds a bit of everything
Now can try to rationalize prices by studying marginal conditions 
e.g. consumption euler equation

Get a long way without solving the model
Taking quantities more seriously

- Dealing with quantities requires a more complete solution
- Until recently few interesting results in dynamic stochastic setting.
- Past 10 years: explosion of activities just as in dynamic-stochastic macro
  - Brute force: numerical work
  - Clever solutions of particular cases
  - Clever approximation around solved cases for this paper esp. Campbell, Chan, and Viceira, 2003
Macro vs. finance

- Macro dynamic-stochastic work: study GE problem in models with a trivial asset structure
- Finance dynamic-stochastic work: study agent’s portfolio decisions with rich asset structure in trivial setting from GE perspective
- That is, much of finance still partial equilibrium

Or nearly so, or is GE in a trivial or unappealing manner from a macro perspective
Lots of folks trying to integrate these approaches more fully
That’s got to be good
Piazzesi & Schneider playing a major and very constructive role.
Synthesis: the difficulty

- Hard to reconcile asset prices with economic fundamentals
- In beginning stages: documenting symptoms of model inadequacies
- My view: Not near the end of synthesis project
  - nor the beginning of the end,
  - perhaps at the end of the beginning
The issue in both macro and finance (and certainly in the synthesis) is how to expose our current deficient models to data.

We use various ad hoc approaches with the following basic recipe.
Issue: Exposing deficient models to data

- 1. Pick subset of implications of model to take seriously
  e.g., consumption Euler eqn., investment Euler eqn.

- 2. Pick subset of relevant data to examine
  e.g., consumption, a few benchmark returns

- 3. Pick a treatment of expectations
  RE, IV, ad hoc time series

- 4. Pick a metric for success
  formal, e.g., J-test; informal “looks good”
Aside

- Same issues arise in DSGE macro
- A wish for both literatures and this paper in particular: discuss and motivate these choices more explicitly
This paper

- Start from CCV-style solution of dynamic asset allocation model
  Campbell, Chan, Viceira

- CCV show how asset allocation depends on expectations of future returns

- Given model for expectations of returns, CCV back out predicted portfolio allocations
  But don’t compare to actual portfolio data
Given expectations and portfolio allocations, CCV approach implies we can back out prices.

Fits nicely with conventional literature trying to understand asset prices.

Do predicted prices “look good” when compared to actual?
Minor suggestion: pursue all variants

- CCV: Given expectations and prices, we can back out quantities
- PS: Given expectations and quantities we can back out prices
- ??: Given quantities and prices, I think we can back out expectations
  
  Loosely speaking asks, “what were they thinking!?!?”

- Give three different perspectives on how the model looks good/bad
Bottom line

- Nice example of expanding the way we look at the properties of synthesis models
- Allows us to see strengths/weaknesses in a certain dimension and hopefully to improve the models
One Question/critique

- As CCV note: the action in portfolio shares comes from predictable variation in excess returns.
- Thus, merits of empirical work turn on whether we adequately capture real-world predictability.

E.g. CCV take as jumping off point “best practice” in excess stock return prediction
This paper allows only 2 predictors of excess bond returns, a short and long bond.

Little discussion of whether this gets us near “best practice” in capturing excess bond returns.
There is a large literature on excess bond return prediction. I think the authors should at least cite important papers like Cochrane-Piazzesi. But not, perhaps, minor extensions such as Faust-Wright.
An aside: arbitrage free-ness

- Q: Why don’t the authors use richer prediction model for excess returns
- Possible A: In order to impose an “arbitrage free” model of TS
- Common, but from perspective of empirical work hard to motivate.
An aside: arbitrage free-ness

- Suppose we believe AF-ness holds in the data
- Should we impose it in empirical work?
- Answer should be purely pragmatic
don’t necessarily want/need to impose true restrictions

♦ Suppose our functional forms admitAF-ness
   Or can be viewed as providing an arbitrarily good approx. to AF-ness
♦ Merits of imposing mainly issue ofestimation efficiency
The problem

- We don’t know how to impose AF-ness generically
- Thus, we restrict attention to simple special cases that need not be satisfied in reality
- Now we face an unknown bias-variance trade-off. Net benefit unclear.
- The unknown net benefit purchased at non-trivial cost in terms of computational and expositional complexity
Thus,

- I’d like to see someone give a clear treatment of the costs/benefits of imposing AF-ness
- Will vary by problem
- In this paper, strikes me the balance may not favor AF-ness
Switch gears

- Turn to macro and monetary/fiscal interactions; these tend to be GE questions

- Suppose we stick with the example of expanding around simple cases we understand

- Simplest case for thinking about changing Q of bonds vs. other assets: The Modig.-Miller/Ricardian Equiv. world
MM says value of firm satisfies:

\[ V_E + V_D = V \]

where \( V \) set by fundamental activities

Real shock to \( V \):

\[ \Delta V_E + \Delta V_D = \Delta V \]
Model

- Bond returns predictable
- Equities not, and shocks uncorrelated with bonds
- Hard to reconcile model with

$$\Delta V_E + \Delta V_D = \Delta V$$
Ricardian side

- Government chooses to change the timing of tax receipts
  And achieves this by altering the pattern of its fixed income debt
- What happens?
- In Ricardian world, nothing real changes
In the model

- Loosely speaking a portfolio share has changed, must be due to change in expected return on some asset
- But that story not complete
More generally

- There are a bunch of stochastic real streams in the world, taxes, real activities of businesses
- Ultimately the public holds the claims to all of them
- Finance can repackage streams into (quasi-)fixed income and stochastic income streams
- In simple models, that’s all a wash: everything is implied by the underlying real streams.

The asset classes inherently tied
Deeper models

- In deeper models with say info and tax distortions, not a wash
  Mode of finance can have real implications
- But at root, we have real stochastic streams being repackaged by finance
- That repackaging may have some real effects
Deeper models

- But

- important dependencies must remain among fixed and stochastic income assets

- I suspect that most of the eqm dynamics are dictated by the underlying stochastic real streams
This paper

- Fixed income streams modelled basically as a separate block.
- Currently, essentially no dependencies between the two blocks
- Even relaxing the no dependency assumption, the approach here may have trouble

The entire driving force of the stochastic economy is lumped in one residual asset, the return of which we don’t know how to measure very well.
Overall

- Nice direction to go in evaluating synthesis models
- I think we can without great difficulty move in the direction of rectifying most of the issues raised
- More serious treatment of the residual asset is essential and difficult

But the returns to effort in that regard are surely large