



# **Discussion**

# **“Common Uncertainty Shocks”**

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# Plan of the talk



- (Very) Short Summary of the paper

A few questions:

- How the uncertainty factors can be interpreted?
- What can be taken from the huge TVP models' literature?
- Effects of uncertainty shocks on the business cycle: a linear relation? What about some counterfactual analysis?
- Conclusions

## Summary of the paper

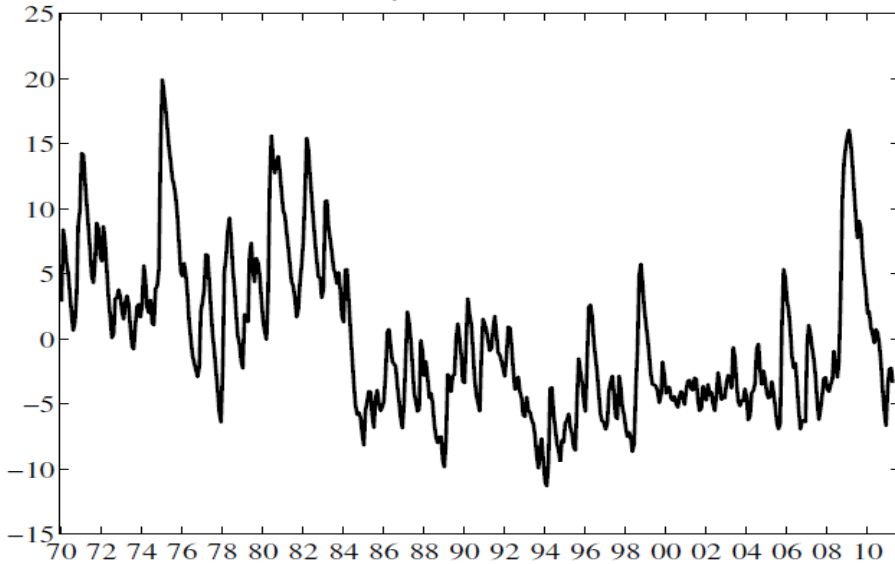


- They measure uncertainty in single US series modeling the time-varying variance as the exponentially weighted moving average.
- They specify a Dynamic Factor Model and identify two fundamental shocks:
  - a) The first one related to uncertainty about the domestic business cycle.
  - b) The second one interpreted as an international commodity prices uncertainty shock.
- They study the (linear) relation between these uncertainty factors and single variables in first moments finding a weak correlation with most of the series (except for employment).
- They relate uncertainty factors to first-moments factors finding mainly a long run relation between international commodity prices uncertainty and the factor related to real variables.

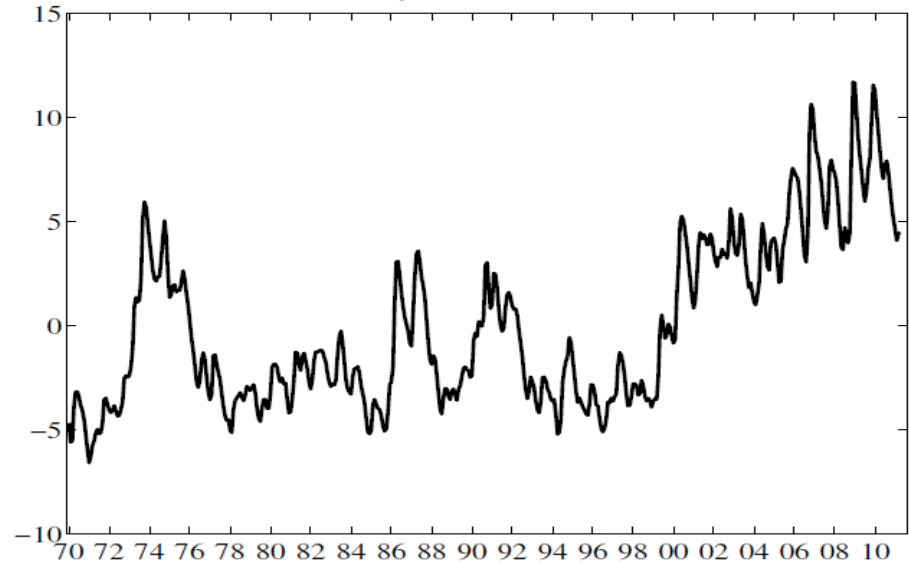
# How do you interpret the uncertainty factors?



Dynamic factor: 1

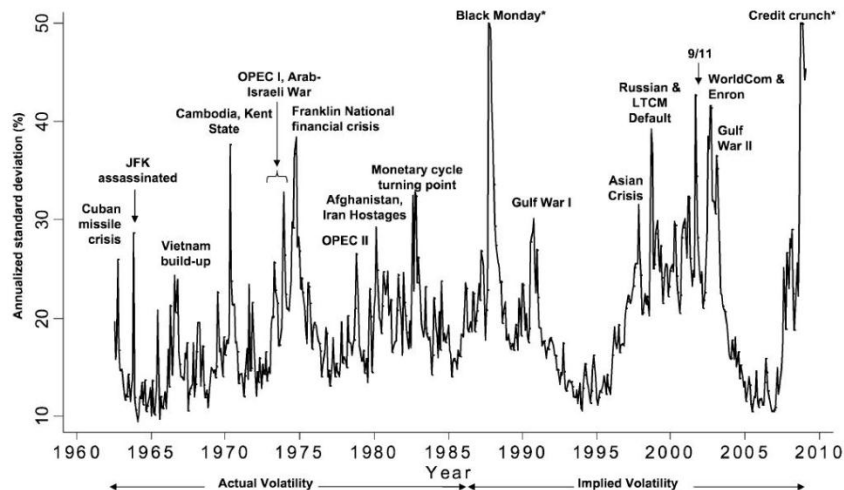


Dynamic factor: 2



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• Bloom shows the relation between events and Stock Markets volatility.

• How do you interpret the two dynamic factors? Oil supply shocks, financial crisis, higher demand for commodities from EMs?

• Can you try alternative identification schemes?

# Consider the large TVP models' literature



Many papers with stochastic volatility modelled as RW:

- TVP-VARs: Cogley-Sargent (2003), Primiceri (2005).
- TVP-FAVARs: Korobilis (2009), Baumeister-Liu-Mumtaz (2010), Eickmeier-Lemke-Marcellino (2011).
- TVP-DFMs: Del Negro-Otrok (2008).
- DSGE models: Huge literature on *good luck vs good policy*  
Ex: Fernandez-Villaverde, Guerron-Quintana, Rubio-Ramirez (2010).

# Example in Korobilis (2009) (TVP-FAVARs)

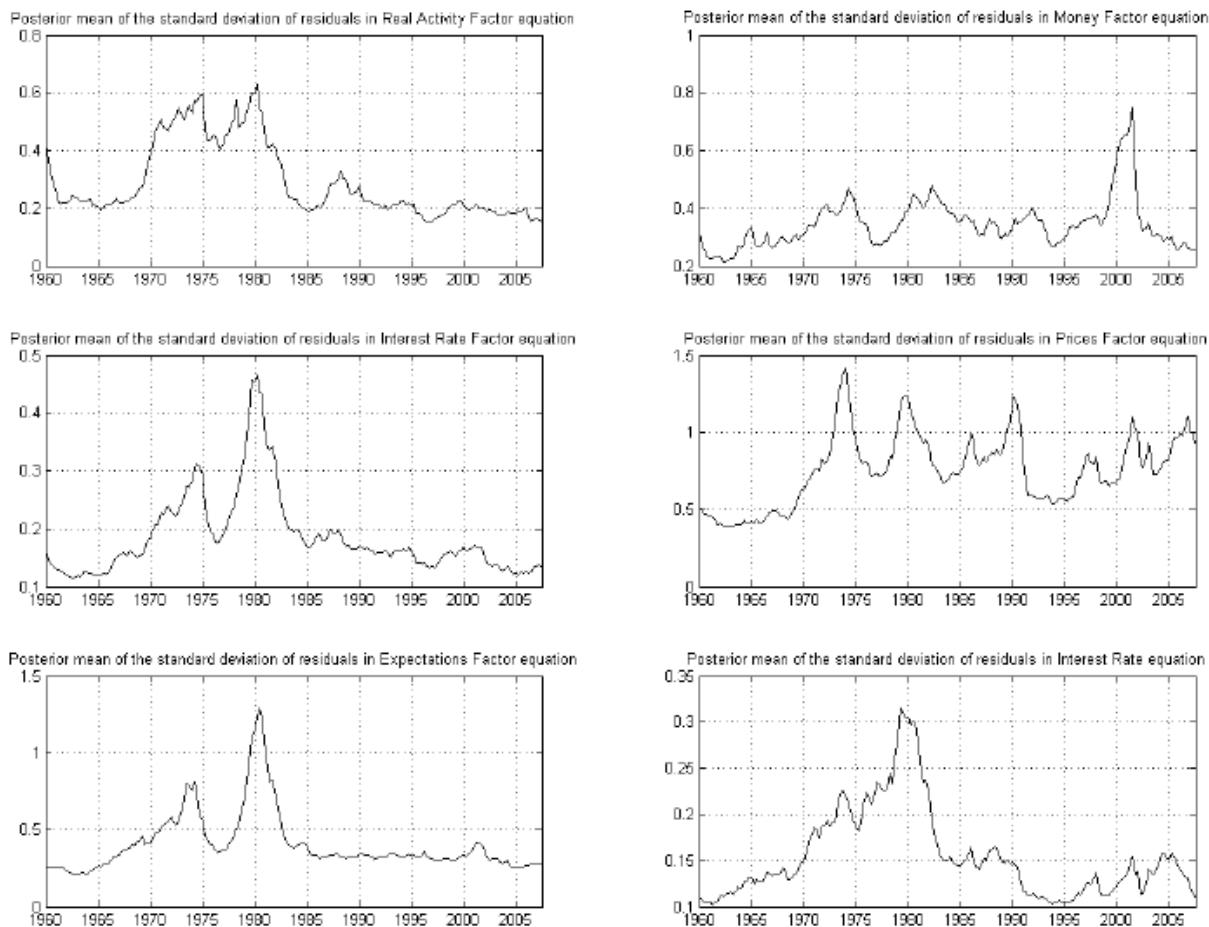
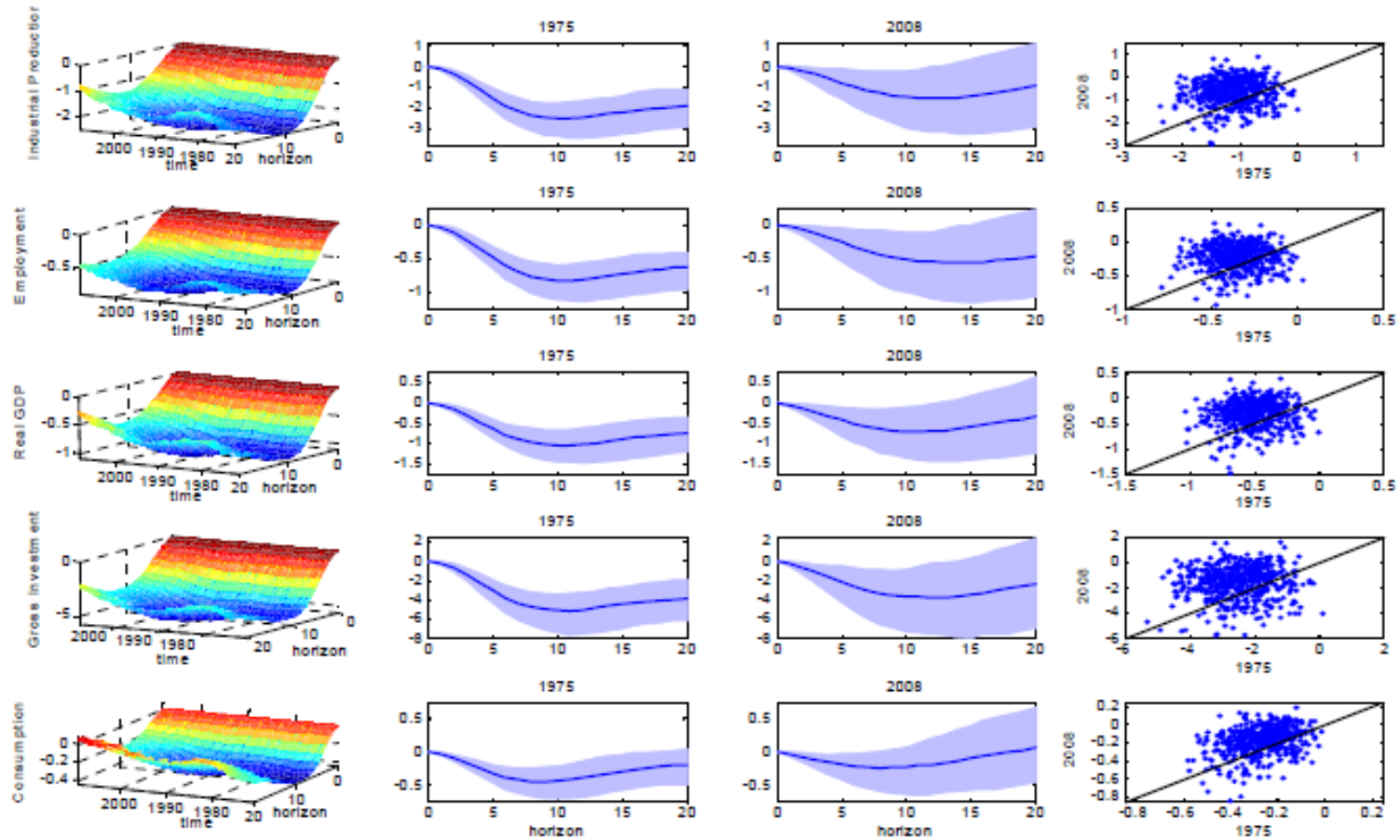


Figure 4: Time-varying standard deviations of errors in the TVP-FAVAR with block factors.

# Estimated uncertainty: TV-IRs Baumeister et al. (2010)



# Counterfactual analysis: FV-GQ-RR 2010 “Fortune vs Virtue”

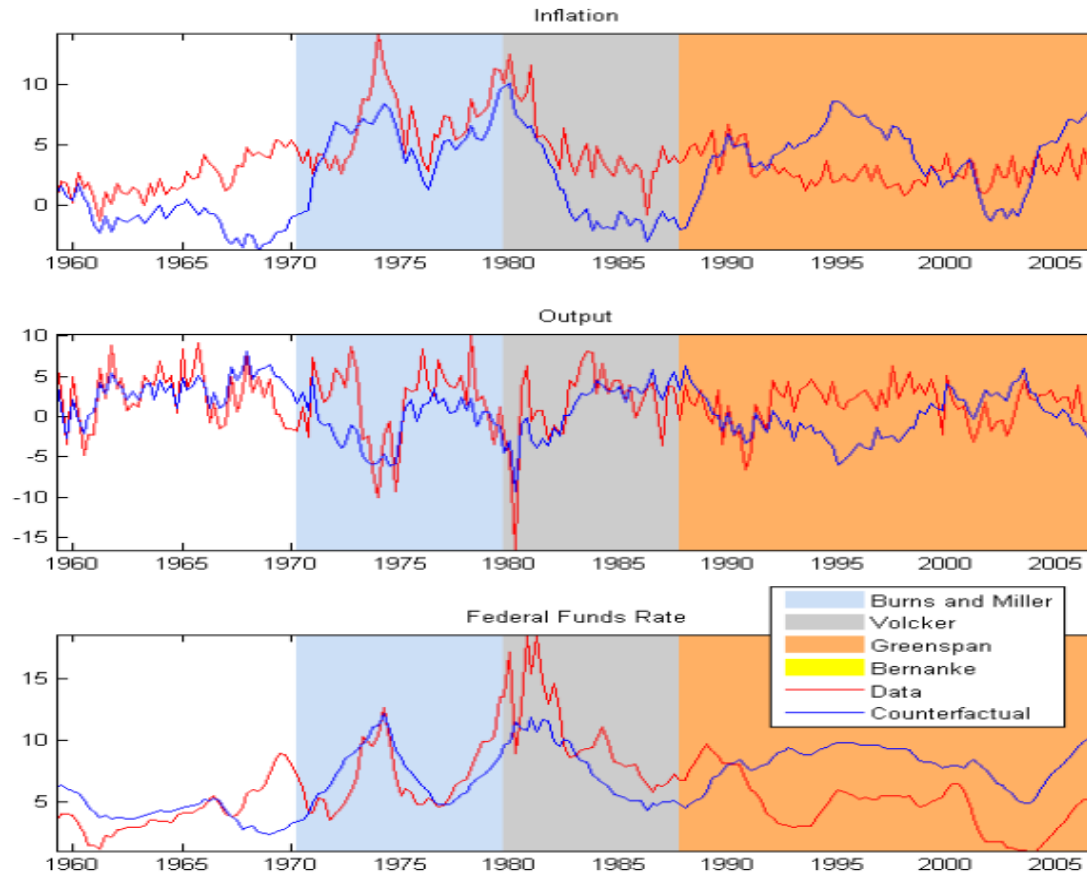


Figure 10.1: Counterfactual history with no changes in volatility.



# Conclusions



- You can try different identification schemes (ex block structure).
- You can simulate your model and see if your two-steps procedure is a viable alternative to bayesian methods.
- Conterfactual analysis: a jump in volatility affect your impulse responses?
- Other issues: nonlinearities, large shocks.