

Recap Information 1:

Stylized facts, empirical problems and issues

“Monetary Economics: Macro Aspects,” Spring 2004

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The lecture slides associated with this part of the course, clearly provide the most comprehensive information about what I find of relevance. Nevertheless, this note briefly lists the key concepts that you are supposed to know and be able to explain. Subsequently, some discussion about the flavor of the potential questions for the exam will be provided.

Key concepts you should know

- The long-run correlation between inflation and nominal money growth
- The (potential) long-run correlation between inflation, nominal money growth and output
- The (approximately) vertical Phillips curve
- Short-run effects of money on output: Causality problems
- St. Louis regressions
- The Lucas critique of simple regressions of money on output
 - Observational equivalence
 - Only unanticipated money may have effects on output; yet, St. Louis estimations may look as if systematic money matters
 - Dependence of estimated parameters on policy regime
- VAR analyses and identification problems
- VAR analyses and problems with choosing the “right” monetary policy variable

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- Consensus finding from VAR literature: Negative money shocks have negative and hump-shaped effects on output
- Structural econometric models and their problems
- The narrative approach
- Examination of disinflations: Identification and credibility issues

Flavor of exam questions

General comments

First of all, note that the exam is a closed-book exam. Hence, there will rarely be questions that consider models, which are elaborate extensions and variations on those covered in the curriculum and lectures. After all, it is the material covered in the curriculum and lectures that you are supposed to master. Note therefore that the questions in the Walsh book are more difficult than the questions you will get to the exam. Those questions are meant to be solvable when you have access to both your brain and the curriculum (hence, his questions are often based on variations of the models covered). But to the exam you “only” have your brain.

The exam set will generally be a combination of small questions testing knowledge about concepts across the curriculum (like a number of small questions like: “In Model A, is money is neutral in the short run or not? Explain your answer”). Then there will be longer questions where some math will be required. The math will be at a level corresponding to that used in the lectures, and the main purpose of the math is to form a basis for intuitive explanations about how agents behave in the economy. I.e., the math is a platform upon which consistent statements can be made about properties of a given model. In the end, the purpose of any question is that you should demonstrate a knowledge about the central **economic** mechanisms and properties of the model, e.g., how monetary policy shifts may or may not affect, say, output.

So, you should master the math, but the math is only there to provide an aid for explaining the functioning of the economy. You will therefore *never* get a question which requires solving a linear rational expectations model by undetermined coefficients, and where there are seven of these coefficients, and where identifying these will take two hours — if lucky. If the process of solving this math has no economic contents in itself, it is just math (necessary though), and will only demonstrate algebraic skills and not economic skills. Such demonstrations are utterly unimportant here. It is knowledge about **the economics** of the models that is of importance.

This is central, so let’s repeat it in boldface: **It is knowledge about the economics of the models that is of importance.**

Specific comments

What could be a candidate type of exam question for this part of the curriculum?¹ As it is a rather “model-free” curriculum, it will mainly serve as a platform for brief questions. However, a potential, more formal, type of question could be:

Sample question 1

Assume that the log of nominal money, m_t , follows the following stochastic process:

$$m_t = -\phi y_{t-1} + u_t, \quad \phi > 0, \quad (1)$$

where y_{t-1} is log of output in period $t - 1$, and u_t is a money supply shock. Assume the true model of log of output in the economy is the following:

$$y_t = Au_t + \gamma y_{t-1} + \varepsilon_t, \quad 0 < \gamma < 1, \quad A > 0, \quad (2)$$

where ε_t is an output shock.

(i) Discuss equations (1) and (2).

Assume now that an econometrician (who doesn't know the true model) runs a regression of the form

$$y_t = \alpha_0 m_t + \alpha_1 y_{t-1} + \varepsilon_t. \quad (3)$$

- (ii) Based on your knowledge about the true model, (2), and the money supply process, (1), what will the estimated coefficients α_0 and α_1 be?
- (iii) Will the econometrician believe that systematic nominal monetary policy affects output? Why? Explain.
- (iv) Now the econometrician, based on the obtained estimates, gives the policy advice that ϕ in (1) should be increased so as to dampen the impact of y_{t-1} on y_t . Will the policy advice, if followed, have the wanted effect? Why or why not? Explain.

¹Note that the curriculum is interrelated, so some questions dealing with issues covered in later parts of the course, could very well require knowledge about earlier parts of the curriculum. Hence, gambling by reading only parts of the curriculum is obviously **not** an advisable strategy!