

Blinder, Chapter 1: The Theory of Economic Policy

Chapter 1:

Blinder discusses the theory of macroeconomic policy and highlights complications that a central banker must deal with.

Key Terms: Structural and Reduced Form Models

A structural model can be written as:

$$y = F(y, x, z) + \varepsilon$$

Where

y – a vector (i.e. list) of endogenous variables

x – a vector of policy instruments

z – a vector of non-policy exogenous variables

ε – a vector of stochastic disturbance terms

An example: The Keynesian IS-LM model

The structural model is:

behavioral equations {

$C = a + b(Y - T_0)$	consumption function
$I = I_0 - dr$	investment function
$G = G_0$	government purchases
$L = eY - fr$	money demand

equilibrium {

$Y = C + I + G$	equilibrium in the goods market
$M/P = L$	equilibrium in the money market

(a, b, I_0, d, e, f) - positive constants

(C, I, r, Y) - endogenous variables

(T_0, G_0, P) - exogenous variables

For convenience, assume $P = 1$.

Derive the reduced form model – defined as

Endogenous variables = f(exogenous variables)

Or, using the notation given earlier: $y = G(x, z) + \varepsilon$

For the Keynesian model:

$$Y = C + I + G$$

$$Y = a + bY - bT_0 + I_0 - dr + G_0$$

$$Y = \frac{a}{1-b} - \frac{b}{1-b}T_0 + \frac{1}{1-b}I_0 + \frac{1}{1-b}G_0 - \frac{d}{1-b}r \quad (\text{IS curve})$$

$$M = eY - fr \quad (\text{LM curve})$$

Express the LM curve in terms of r and substitute into IS curve.

Making the substitution

$$Y = \frac{1}{1-b} (a - bT_0 + I_0 + G_0) - \frac{d}{1-b} \left(\frac{e}{f}Y - \frac{1}{f}M \right)$$

$$Y \left(\frac{(1-b)f+de}{(1-b)f} \right) = \frac{a-bT_0+I_0+G_0}{1-b} + \frac{d}{(1-b)f}M$$

$$Y = \frac{f(a-bT_0+I_0+G_0)}{(1-b)f+de} + \frac{d}{(1-b)f+de}M \quad (\text{reduced form for } Y)$$

Use this in the LM curve

$$r = \frac{e}{f} \left(\frac{f(a-bT_0+I_0+G_0)}{(1-b)f+de} + \frac{d}{(1-b)f+de}M \right) - \frac{1}{f}M$$

$$r = \frac{e(a-bT_0+I_0+G_0)}{(1-b)f+de} - \frac{(1-b)}{(1-b)f+de}M \quad (\text{reduced form for } r)$$

Back to Blinder

So, we have the reduced form of the model:

$$y = G(x, z) + \varepsilon$$

Where

y – a vector (i.e. list) of endogenous variables

x – a vector of policy instruments

z – a vector of non-policy exogenous variables

e – a vector of stochastic disturbance terms

Next, we must specify the policymaker's preferences:

$$W = W(y)$$

Formally, the problem faced by the policymaker is:

$$\max_x E [W (y)] \quad \text{subject to } y = G (x, z) + \varepsilon$$

This leads to the policy rule:

$$x^* = H (z)$$

Blinder asks: What is wrong with this framework?

Nothing and Everything

Nothing is wrong:

This is the way policymakers think about the conduct of policy:

They have an economic model.

They have policy instruments.

They have preferences over the outcomes.

But – the Devil is in the details.

What makes it difficult to implement:

1. **Model Uncertainty**: Estimating the parameters in the reduced form model.
2. **Lags**: It is difficult to estimate when policy changes will work their way through the economy.
3. **Need for forecasts**: If there are lags, then I need to forecast path of z . And like in Lucas critique paper, these must be consistent with the way households form expectations.

Complications to the theory, continued.

4. Choice of Instrument:

This introduces some vocabulary:

1. Goals of Monetary Policy: Stable inflation, low unemployment, stable economic growth.
2. Targets of Monetary Policy: Long term interest rates, broad monetary aggregate, exchange rates.
3. Instruments of Monetary Policy: Short term interest rates, monetary base.



So – what is the best instrument? (We will analyze this.)

Complications to the theory, continued

5. The Objective Function: What does the policymaker care about?

Implementing the theory is difficult – but what is the alternative? Ask your uncle??

For Larry Summers, not such a bad idea:

Solow and Samuelson – both Nobel Prize winners.