

THE IS-LM MODEL

First developed 1937 by J.R. Hicks, as a way to understand Keynes' "General theory of employment, interest, and money"

Codified in more or less modern form 1944 by MIT's Franco Modigliani

IS-LM is the workhorse of applied macroeconomics. It is the way most policy-oriented macro analysts do back-of-the-envelope analyses; it underlies basic policy formation at the Fed and the Treasury. Extended IS-LM is the basis for much international macroeconomics, policy advice to IMF clients, etc.

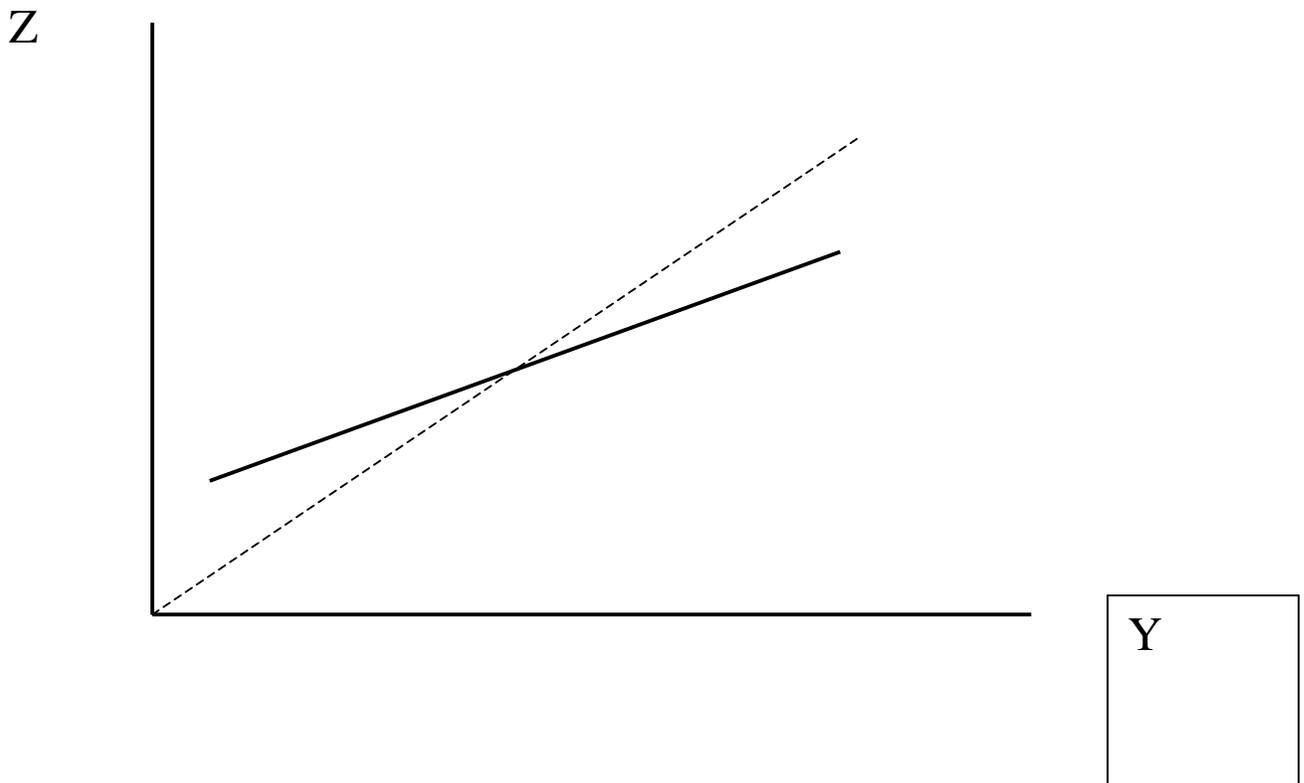
THE IS RELATIONSHIP

We now allow investment to be *endogenous*, depending among other things on Y and i . So

$I = I(Y, i)$ positive impact of Y , negative of i .

Expenditure $Z = C(Y-T) + I(Y, i) + G$

So 45-degree diag for *given* i is:



Higher i shifts Z down for any given Y , hence IS relationship:

Meanwhile, i determined by equality of supply and demand for money:

But higher Y shifts money demand out, raising equilibrium i :

Hence LM relationship:

which together with IS determines interest rate and GDP simultaneously:

TWO KINDS OF MACROECONOMIC POLICY:

1. Fiscal policy: Congress and President can change taxes or gov't spending. This shifts IS curve.
2. Monetary policy: central bank (Federal Reserve) engages in open-market ops., changing money supply. This shifts LM curve.

Different effects:

Fiscal expansion: raises Y and i .

Monetary expansion: raises Y , lowers i .

Four different policy “mixes”. Some real examples:

Germany, early 90s: Expansionary fiscal (demands of reunification), contractionary monetary (fear of inflation)

US, early 90s: Contractionary fiscal (long-run deficit issues), expansionary monetary (trying to get out of recession)

Japan now: Expansionary monetary and fiscal – effort to fight stubborn recession

Brazil now: contractionary monetary and fiscal – must reduce deficit to assure investors, keep i high to protect currency

A HOT TOPIC, AFTER MANY YEARS: THE LIQUIDITY TRAP

Monetary, not fiscal, policy usually bears the main burden of fighting recessions. But Keynes and Hicks thought that under depression conditions LM curve might be nearly horizontal, so that monetary policy is ineffective. This was of purely theoretical and historical interest until recently – but Japan now seems to be in the “liquidity trap”

What should Japan do? “Structural” reform? Massive fiscal stimulus? Try to create inflationary expectations?