

# Mr. Keynes and the ‘Classics’ a Century Later: Reviewing the IS-LM model

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- World-leading macroeconomists still use it to support their analyses in their blogs and tweets (e.g., Krugman, Simon Wren-Lewis).
- Reason for success: useful and agile tool to study the most likely implications (trade-offs) of policy shocks in the short run.

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- Its accounting structure is, at best, incomplete (e.g., [Godley and Shaikh, 2002](#); [Wray, 2019](#)), as flows impact on stocks and stocks, in turn, produce flows ([Hicks, 1981](#)).
- RQs: is the IS-LM model an acceptable (stylized) representation of a capitalist economy? What happens when we fix it? Can we develop a SFC dynamic IS-LM model? Policy implications?

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	Households	Firms	Central bank	Government	$\Sigma$
Money (liquidity)	$+L$		$-M$		0
Bills	$+B_h$		$+B_{cb}$	$-B_s$	0
Wealth	$-V$			$+V$	0
$\Sigma$	0	0	0	0	0

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- Note: saving (as algebraic sum of incomes and expenditures) must match the total  $\Delta s$  in net wealth components.

# THE TRANSACTIONS-FLOW MATRIX

	Households	Firms		Central bank	Government	$\Sigma$
		<i>Current</i>	<i>Capital</i>			
Consumption	$-C$	$+C$				0
Investment		$+I$	$-I$			0
Gov. spending		$+G$			$-G$	0
Income	$+W$	$-Y$	$+A$			0
Taxes	$-T$				$+T$	0
Interest paym.	$+r_{-1} \cdot B_{-1}$			$+r_{-1} \cdot B_{cb,-1}$	$-r_{-1} \cdot B_{s,-1}$	0
Seign. income				$-r_{-1} \cdot B_{cb,-1}$	$+r_{-1} \cdot B_{cb,-1}$	0
$\Delta$ in money	$-\Delta L$			$+\Delta M$		0
$\Delta$ in bills	$-\Delta B_h$			$-\Delta B_{cb}$	$+\Delta B_s$	0
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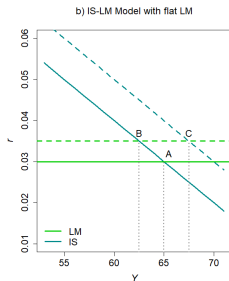
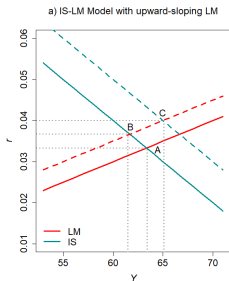
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- b) if  $\iota_1 < B_h^* \cdot (1-\theta)/\theta$ , a higher interest rate ( $> 0$ ) is associated with a higher level of national income in the M/R.
- c) if  $\iota_1 = B_h^* \cdot (1-\theta)/\theta$ , the steady-state level of national income is unaffected by the interest rate.

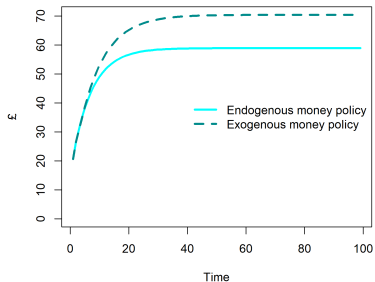
# MODEL PARAMETERS AND EXOGENOUS VARIABLES

Symbol	Description	Value
$\iota_0$	Autonomous investment	2
$\iota_1$	Elasticity of investment to interest rate (absolute value)	20
$\iota_2$	Elasticity of investment to expected demand	0.05
$\alpha_1$	Marginal propensity to consume out of disposable income	0.6
$\alpha_2$	Marginal propensity to consume out of net wealth	0.4
$\lambda_0$	Autonomous share of liquidity demand to disposable income	0.1
$\lambda_1$	Elasticity of liquidity demand to disposable income	0.1
$\lambda_2$	Elasticity of liquidity demand to interest rate (absolute value)	2
$\theta$	Average tax rate on income	0.20
$G_0$	Government expenditure	10
$M_0$	Initial value of money supply	1
$\bar{r}$	Target policy rate	0.03

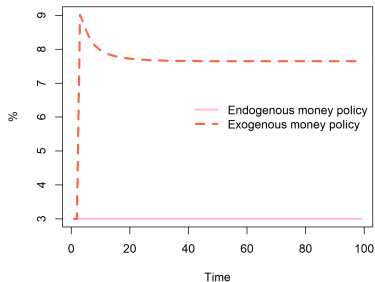


# TRAVERSE AND STEADY-STATE: BASELINE DYNAMICS

a) National income under baseline scenario

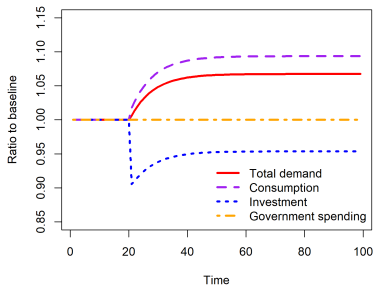


b) Interest rate under baseline scenario

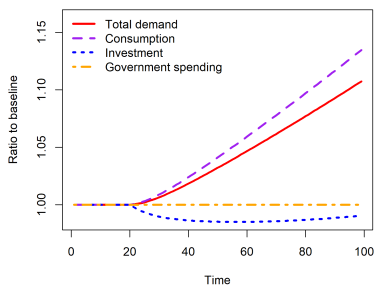


# TIGHT MONETARY POLICY SHOCKS

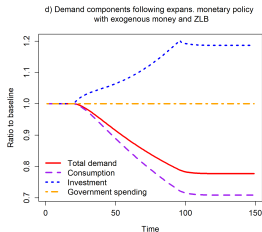
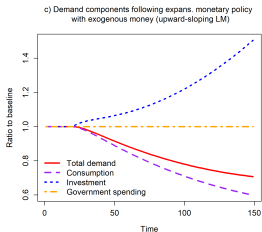
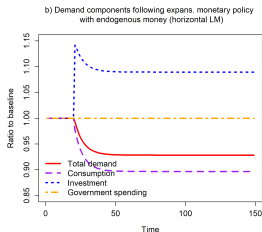
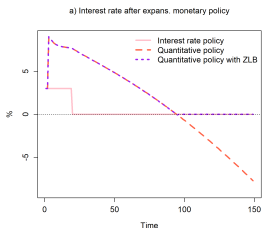
a) Demand components following tight monetary policy with endogenous money (horizontal LM)



b) Demand components following tight monetary policy with exogenous money (upward-sloping LM)



# EXPANSIONARY MONETARY POLICIES



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- This raises questions about quantitative policies: their effectiveness is neither automatic nor linear.
- Geometrically, a tighter monetary policy shifts the LM curve upwards (standard story). However, it also shifts the IS upwards! The final effect is ambiguous...



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- Intersecting the two curves is not even an approximate method. It is a wrong method, generating misleading conclusions.
- Even if it were feasible, controlling monetary aggregates while letting the interest rate fluctuate makes the model unstable.
- Instability does not depend on financial markets being more volatile... ([Poole, 1970](#)), but rather on the destabilizing effect of the endogenous interest rate.

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