# Neither Mr. Keynes nor the 'Classics': Debunking the IS-LM model

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# Introduction

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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 | Σ |
|---|---|---|---|---|---|---|
| | | *Current* | *Capital* | | | |
| 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 |
| Δ in money | $-\Delta L$ | | | $+\Delta M$ | | 0 |
| Δ in bills | $-\Delta B_h$ | | | $-\Delta B_{cb}$ | $+\Delta B_s$ | 0 |
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Note 2: $r \geq 0$ if $\lambda_0 \cdot V + \lambda_1 \cdot YD \geq M$.

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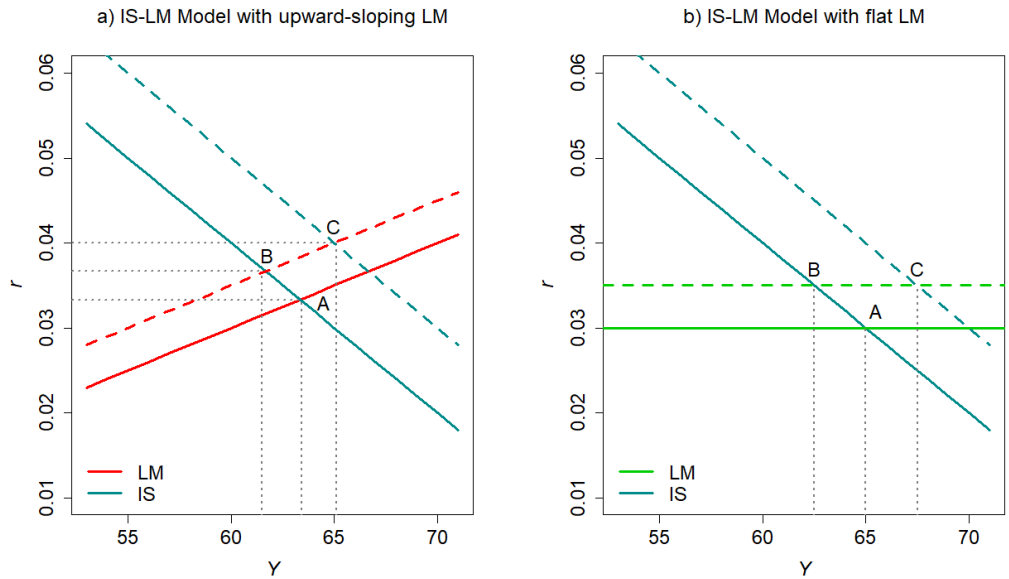

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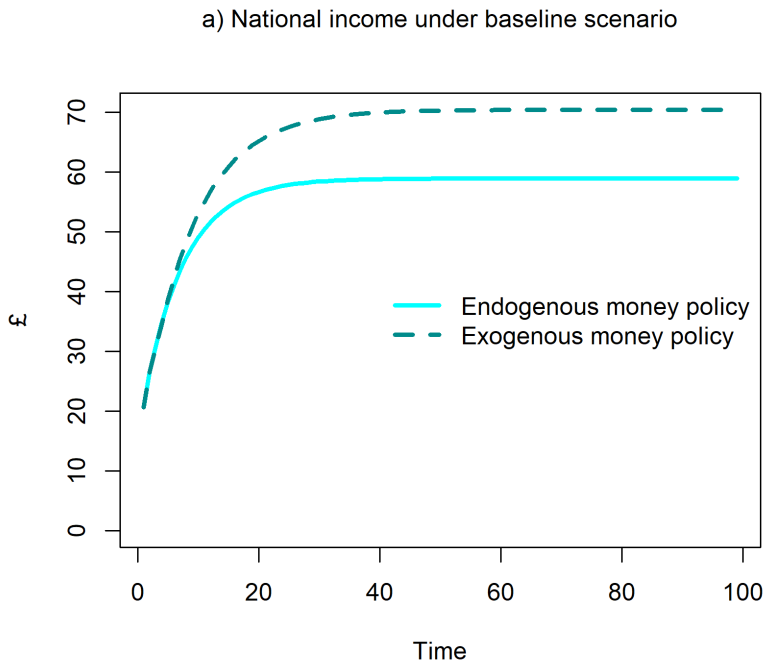
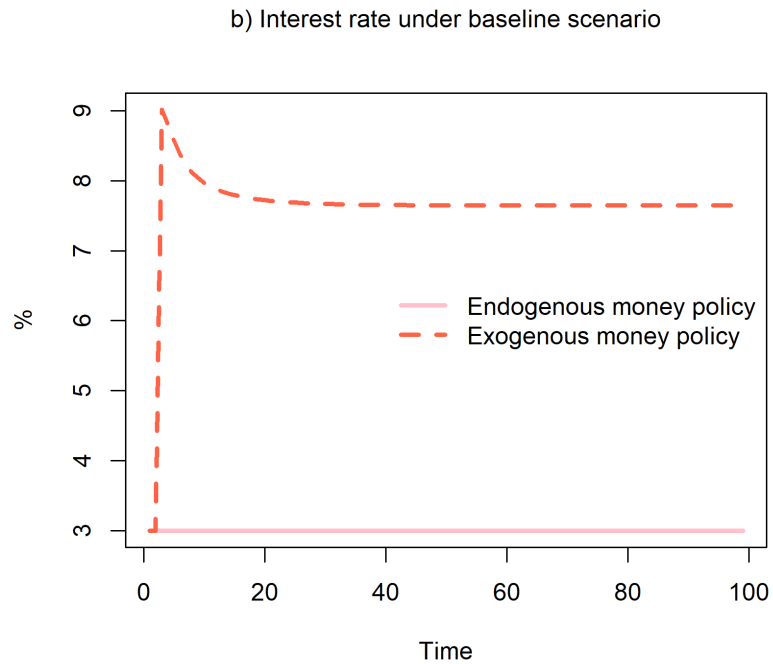
*c*) if $\iota_1 = B_h^* \cdot (1-\theta)/\theta$, the steady-state level of national income is unaffected by the interest rate.

# Model parameters and exogenous variables

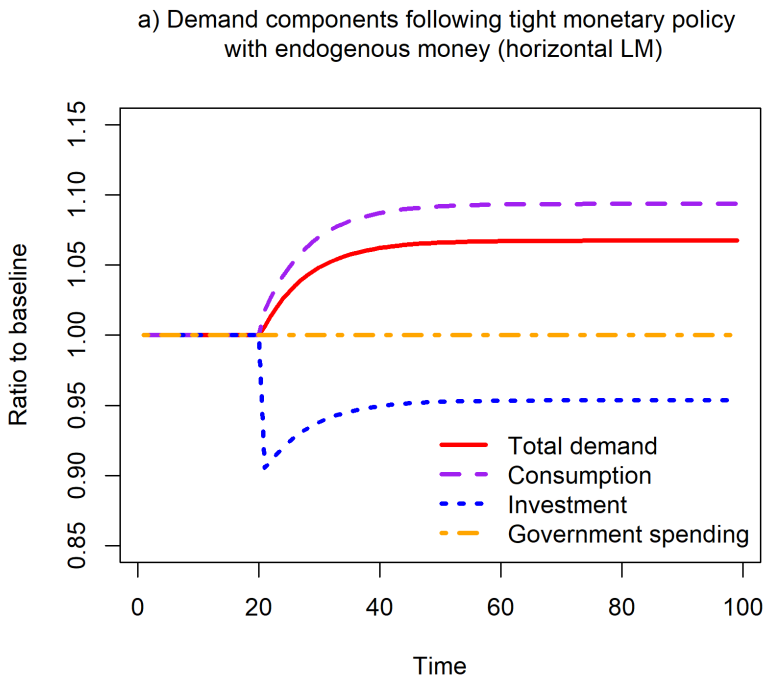
| Symbol | Description | Value |
|---|---|---|
| $\iota_0$ | Autonomous investment | 2 |
| $\iota_1$ | Elasticity of investment to interest rate (absolute value) | 20 |
| $\iota_2$ | Elasticity of investment to expected demand | 0.05 |
| $\alpha_1$ | Marginal propensity to consume out of disposable income | 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 |

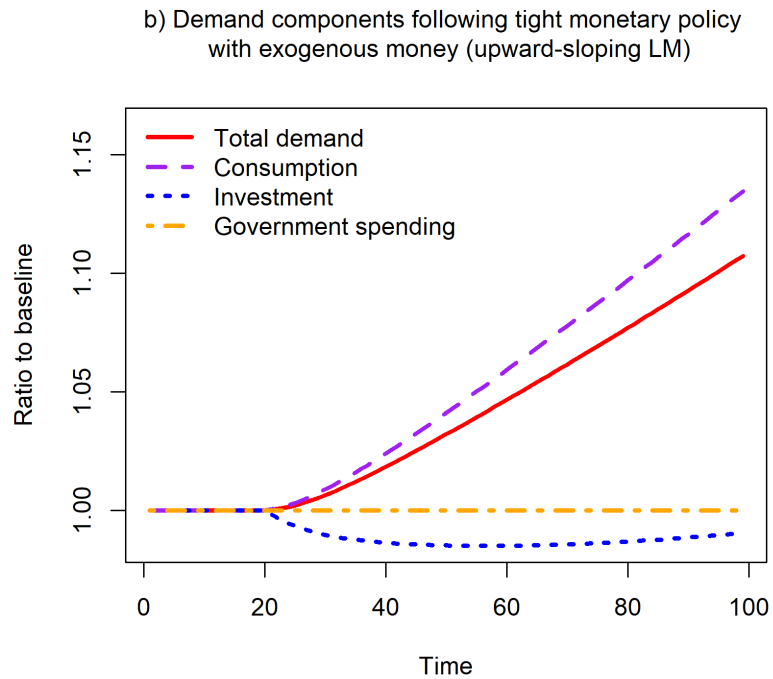
# Traverse and steady-state: baseline dynamics



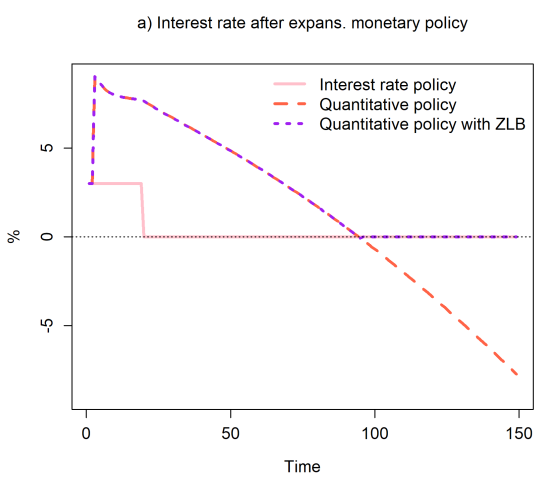



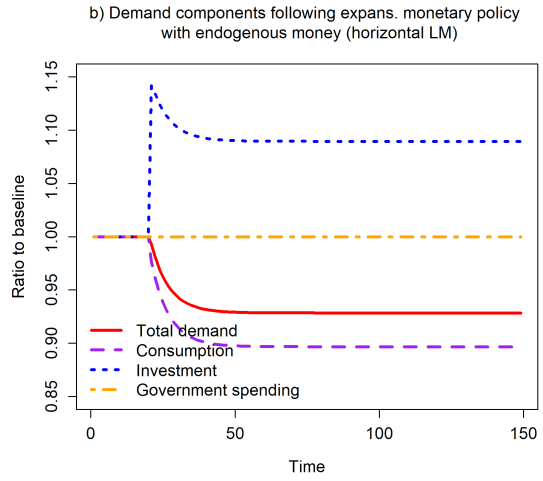
# Tight monetary policy shocks

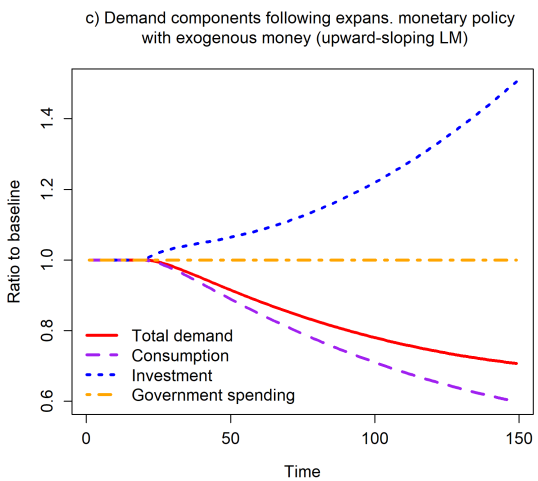


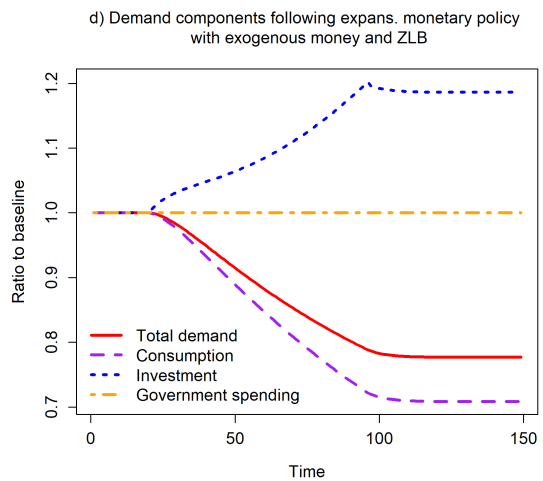



# Expansionary monetary policies



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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.

# Thank you

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