

# What drives the LEK/EUR exchange rate?

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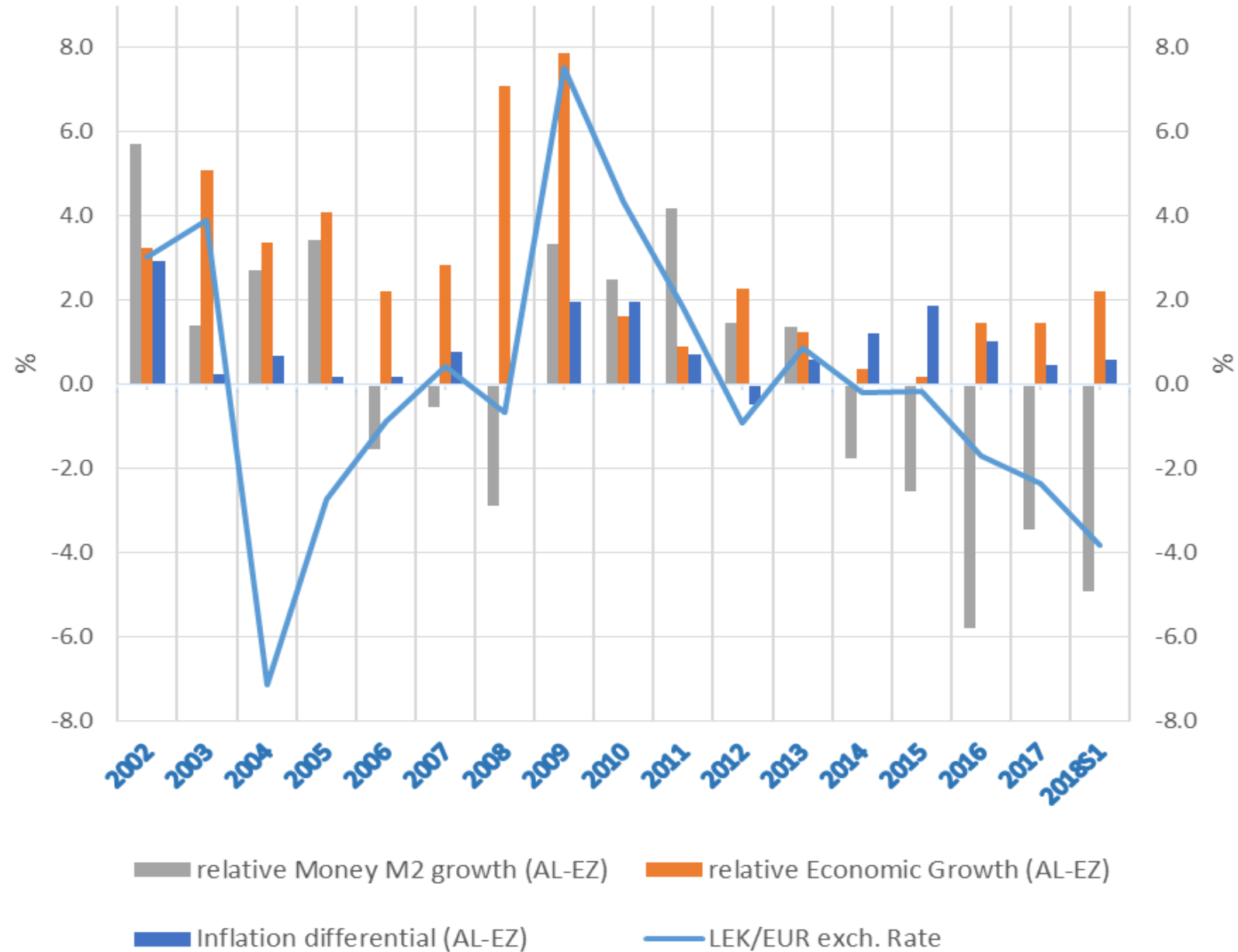
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- This study aims to assess lek exchange rate sensitivity to real and monetary shocks, which should help us to better understand the role of exch. rate as a shock absorber or source of economic volatility.
- Monetary policy shocks have theoretically been considered as accounting for most of RER movements [(following seminal work by Dornbusch (1976) and Rogoff (1996))]
- But, many studies inspired by Lastrapes (1992) and Clarida & Gali (1994) works have generally provided little empirical evidence on the importance of nominal shocks:
  - Using a three-variable model (with relative  $Y$ , relative  $P$ , and RER) to identify supply, demand and nominal shocks, Clarida & Gali find monetary contribution of less than 3% for UK and Canada;
  - Eichenbaum & Evans (1995) find MP shocks explain less than 25%;
  - Similar findings are evidenced in developing countries in Eastern Europe, Asia and Africa.
- To distinguish btw real and monetary impact on RER in Albania we use SVAR approach as in empirical literature.
- Due to technical limitations w.r.t. SVAR identification, we firstly estimate a small model as in Clarida-Gali (1994), and then augment it with other variables such as consumption, interest rates, and trade balance – following a standard DSGE open-economy macro model framework developed by Ferrero, Gertler and Svensson (2007).

# Theoretical background: Clarida-Gali

- Clarida and Gali (1994) use SVAR with three-variables (relative output, real exch rate, and relative price) to detect three different shocks in economy: supply, real demand, and nominal... (this is a version of Obstfeld (1985) open economy model where GDP is determined in long run solely by supply shocks; and Mundell-Fleming-Dornbusch model that assumes  $P$  and  $Y$  adjustments are sticky, while foreign and domestic goods are imperfect substitutes in consumption).
- Commonly it is expected that:
  - ❖  $\uparrow$  in supply shock (generally consisting of changes in relative productivity at home and abroad) lead to  $\uparrow$  in supply of goods and return on capital, and  $\uparrow$  capital inflow, thus putting pressure on real appreciation ( $\uparrow$ ) of domestic currency. In long run: output  $\uparrow$ , prices  $\downarrow$ , and real ER depreciates ( $\downarrow$ ) to pay down accumulated net foreign liabilities.
  - ❖  $\uparrow$  in real demand or absorption shock (such as changes in government spending) cause  $\uparrow$  in demand and production of goods,  $\uparrow$  prices, thus appreciating ( $\uparrow$ ) real ER in short run. In long run, output returns to its trend, but prices remain higher so RER appreciation is permanent at new equilibrium.
  - ❖  $\uparrow$  in nominal shock (such as monetary policy, money demand velocity shifts, and financial liberalization) cause a  $\downarrow$  in home interest rates. In short run, nominal and real ER depreciate ( $\downarrow$ ), relative price  $\uparrow$ , and domestic output  $\uparrow$ . In long run, output and real ER return to their long-run trends.

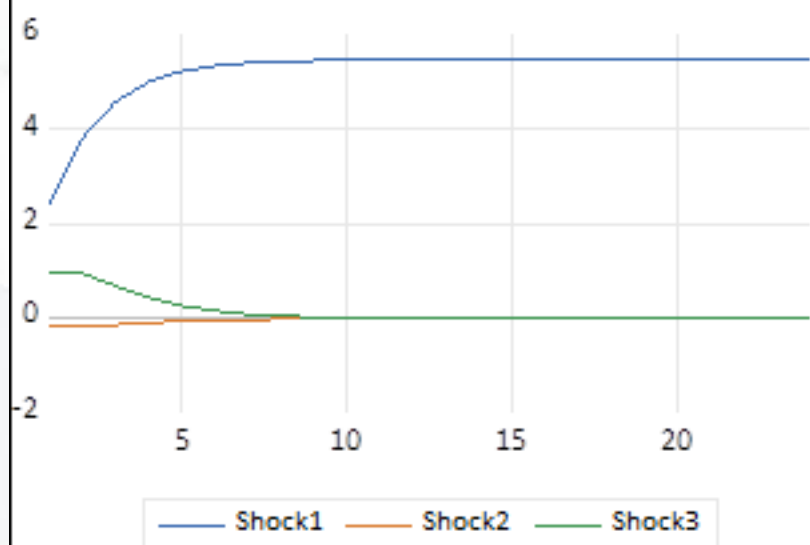
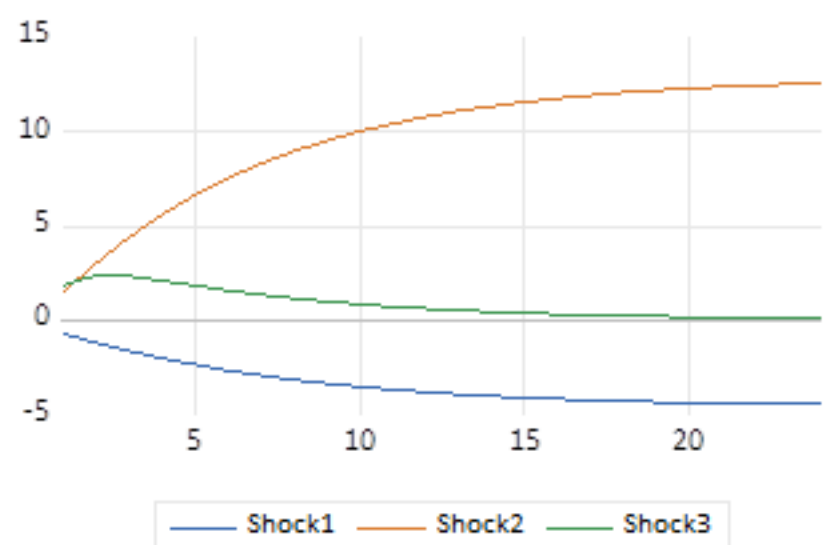
Recent LEK/EUR Movements and Relative Performance of Selected  
Fundamentals (annual changes, in percent)



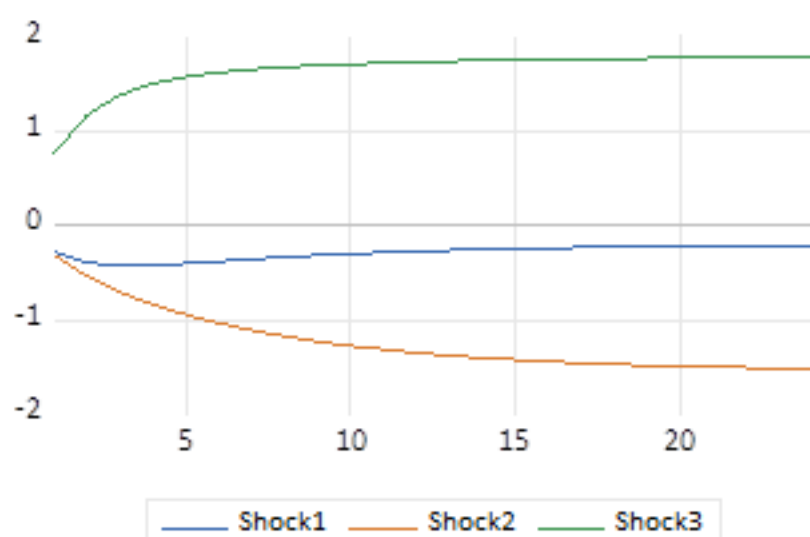
## Accumulated Long-Run Response to Structural VAR Innovations (Clarida-Gali,1994)

SS Shock1=GDP; DD Shock2= $(-1)*RER$ ; Nominal Shock3=CPI

Accumulated Response of REL\_GDP\_PCY to Innovations

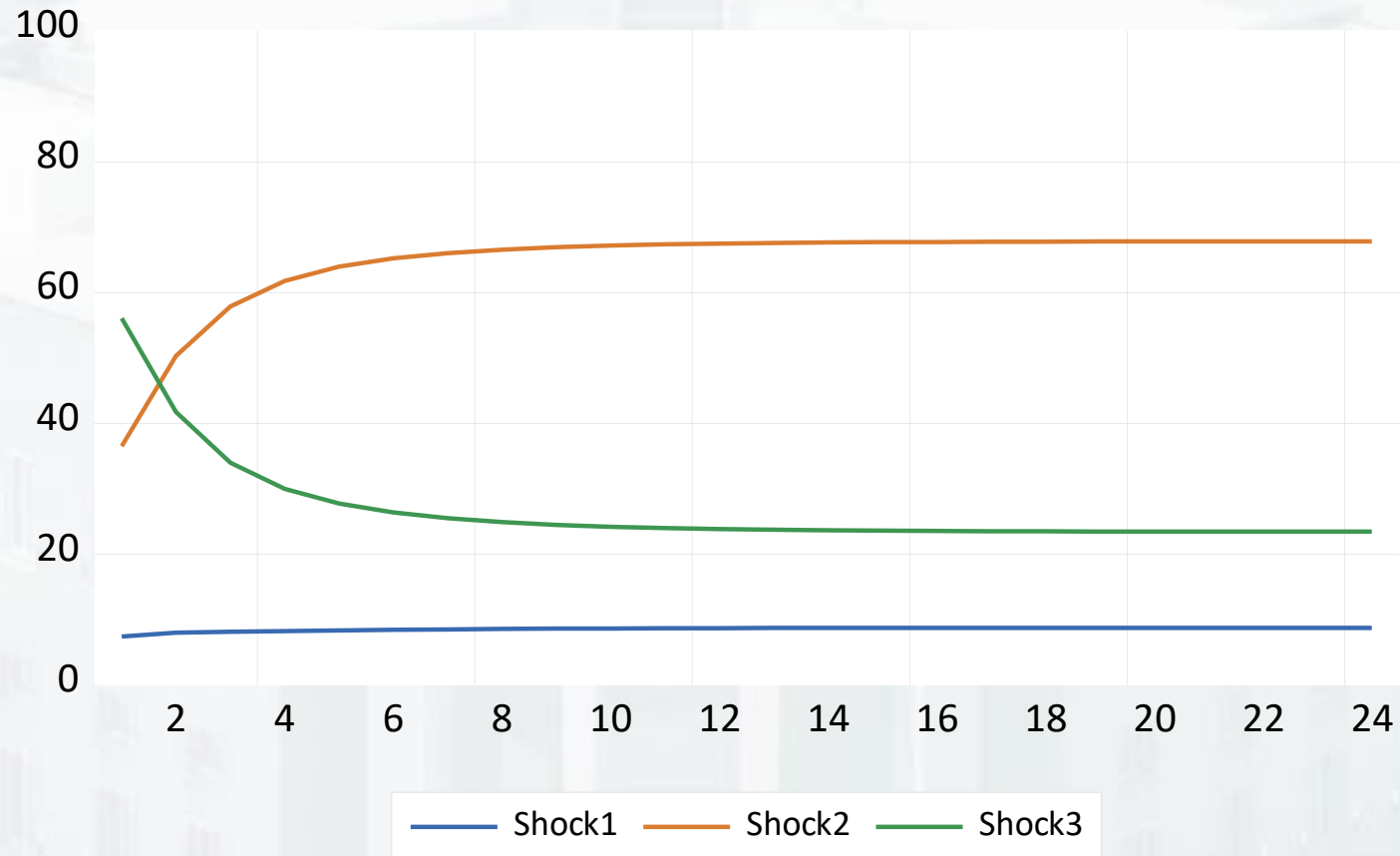
Accumulated Response of  $(-1)*REX\_C\_PCY$  to Innovations

Accumulated Response of REL\_CPI\_PCY to Innovations



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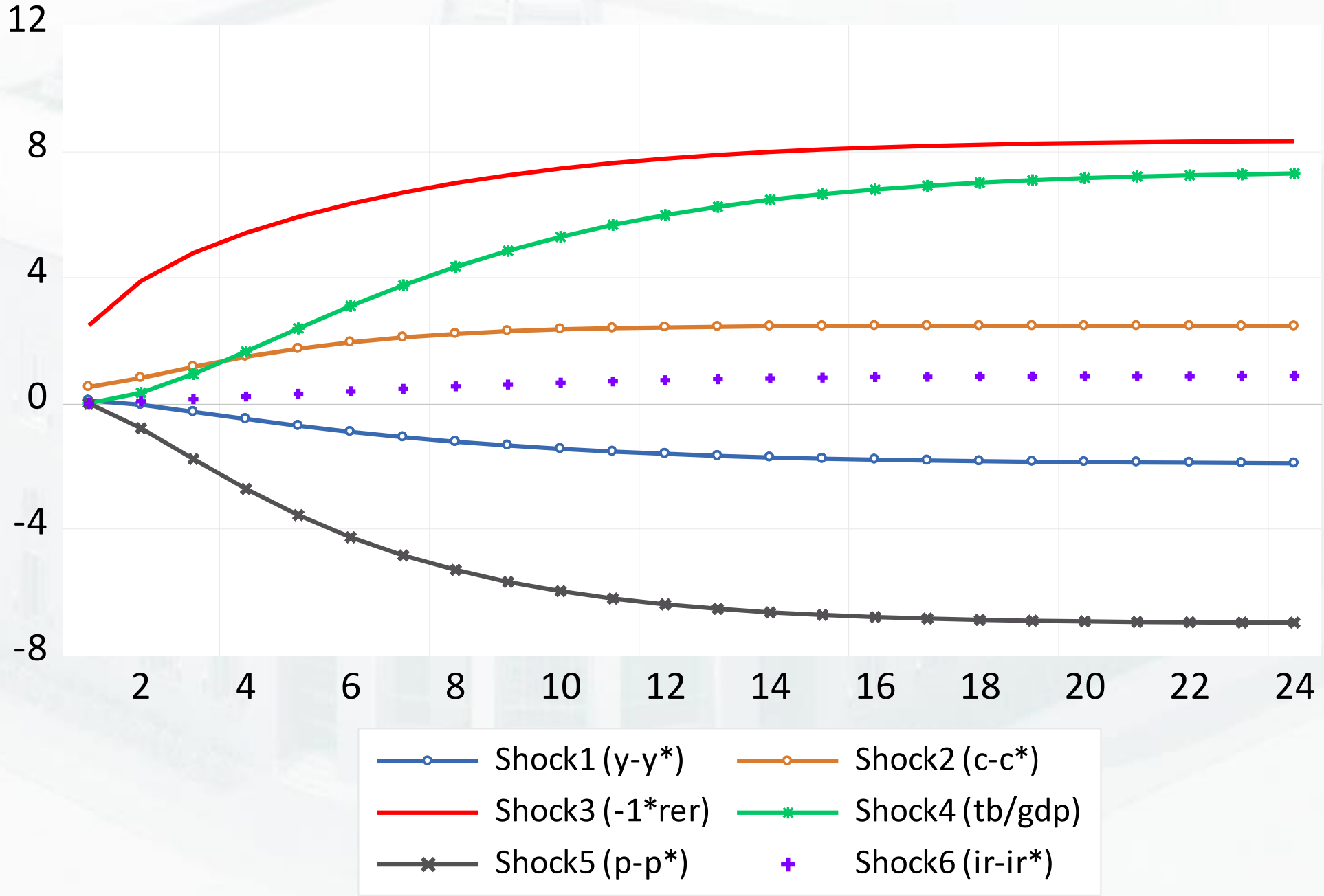
Variance Decomposition of Real Lek Exchange Rate  
using Structural VAR Factors (Clarida-Gali,1994)  
SS Shock1=GDP; DD Shock2=(-1)\*RER; Nominal Shock3=CPI



	Supply	Demand	Nominal
RER	9%	67%	24%

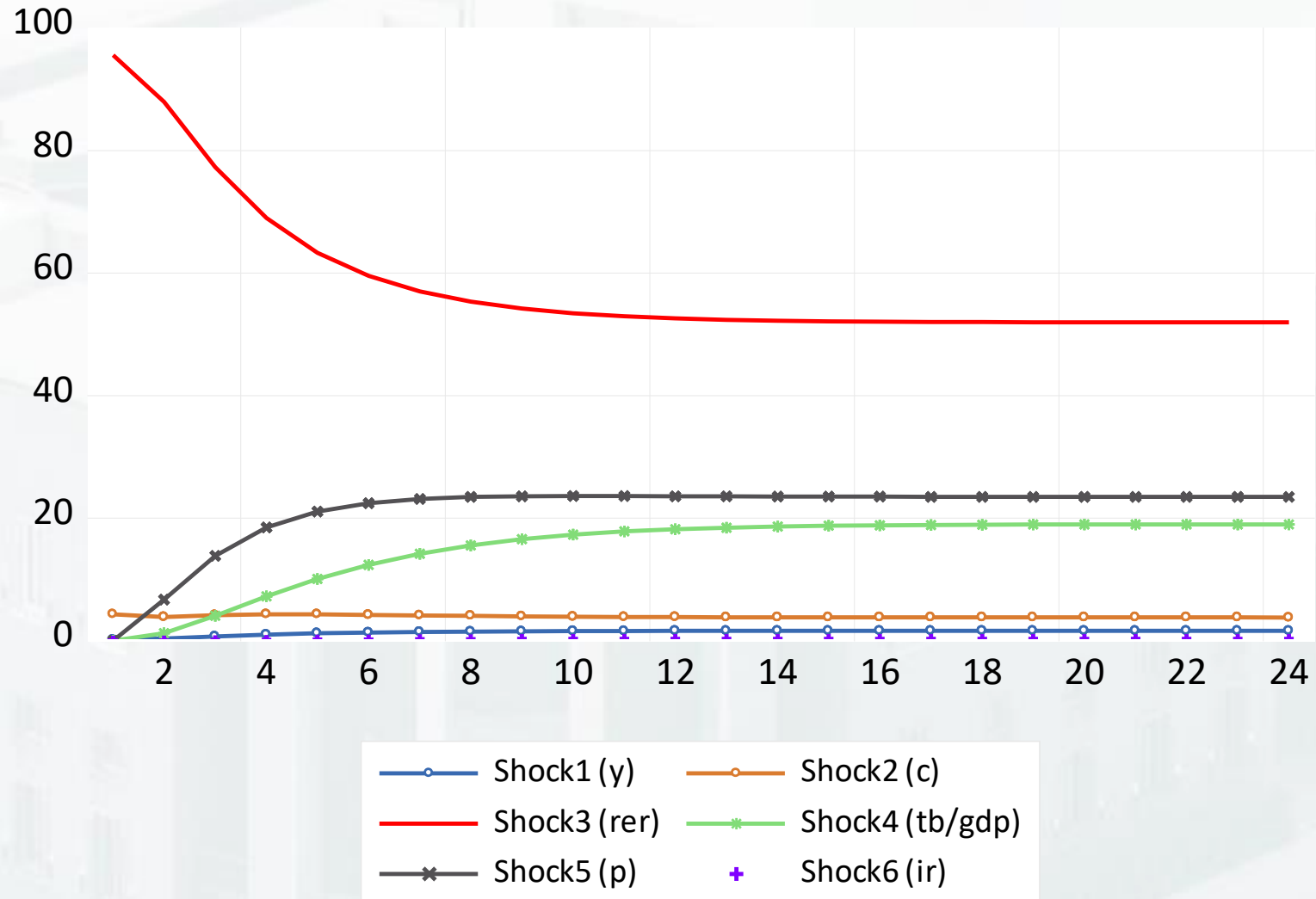
Rich model: Accumulated Response of RER to Innovations using SVAR Factors

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# Variance Decomposition of RER using SVAR Factors (Ferrero et al. model)

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	Real Economic, Non-financial Sectors	Nominal / Monetary Shocks
RER	50%	50%

