Monetary Policy Transmission in Sri Lanka

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⟨ More written comments here ⟩

What do the authors do?

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Authors raise the following questions:

1. Effect of monetary policy (**MP**) on Sri Lanka's real economy?
   - Importance of **Cr**edit and **Ex**change-rate channels in **MP** tranmission?

2. What are the changes in **MP** Transmission Mechanism post civil war?

3. How do credit shocks affect the economy?

What do the authors do?

1. VAR(p), $p = 2$, linear trend, constant, peace dummy (mid 2009–).

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2. Data: 1996-Q1 to 2019-Q4.
3. Study **MP** transmission:
   - Identify "structural" shocks assuming Cholesky factorization—variables ordered above.
   - Estimated impulse response function (IRF) and variance decomposition (VD) statistics.

Contribution and Claimed Insights

Interesting question!

Pre-/post-war nature of MP transmission.

Has MP become "better" or "more effective"?

1. (**MP**) has "expected" dynamic multiplier effects on real economy. Importance of **Cr**edit and **Ex**change-rate channels in **MP** tranmission.

2. Post civil war effect of (**MP**) has stronger and more persistent effect on the economy. (Implies "better" MP effects?)

3. Increased bank lending raises output and inflation.

Specific Comments/Suggestions

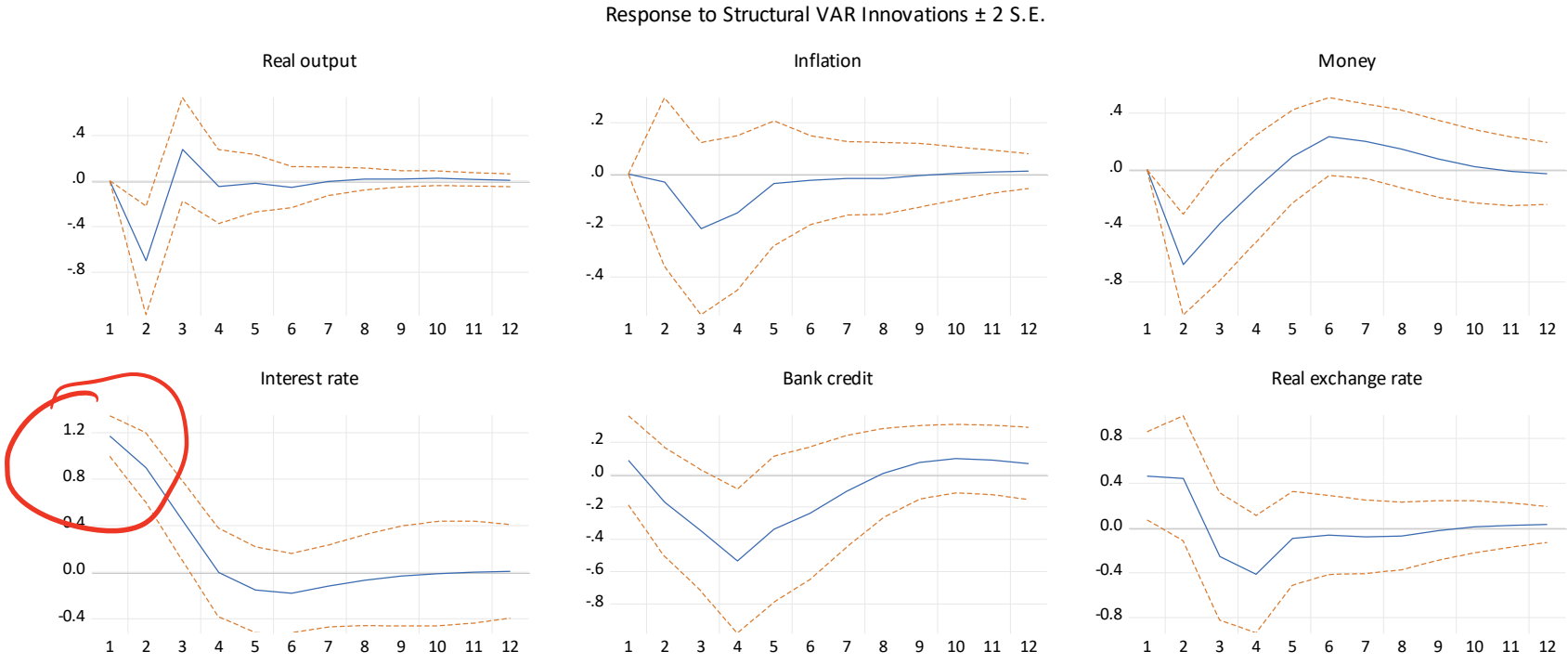
Comment 1: MP shock and transmission

1. What is the *independent component* of monetary policy said to be identified in the VAR?
   - Turns out to be **INT** $:= i^{mm,lka}$ (money-market interest rate). Inferred from Figure 1.
   - **Suggestion**: Please spell out precisely from outset. Also, explain more how monetary policy shift can be disentangled from "demand-side" shifts—both underlie observed movements in **INT**.

2. Figure 1: Most impulse responses are no different from zero (statistically). Exception: output, M1, RER.
   - **Suggestion**: Are these IRF bands asymptotic bands? Try boostrapping these given small-sample size.

3. Claimed: More persistent **CR** (ΔCR) and **RER** (ΔRER) responses to MP shock imply that the "credit" and "exchange-rate" channels are important to MP.
   - Why? (Contradictory evidence in Figure 1.)
   - **Suggestion**: If domestic variables do not respond to MP shifts, then isn't MP not effective in stimulating the domestic economy? Need to explain this.

MP shock and transmission



Comment 2: Pre-/post-war MP transmission

Post war (mid-2009): IRFs (given MP shock) decay slower and have larger magnitudes.

- Relative pre-/post-war comparison limited to Table 2 (point estimates).
- **Suggestion**: Plot these. Also show IRF error bands.

Stronger post-war effect of MP shock:

- Is this related to CBSL's declining ability to defend its currency? See figures next ...
- **Suggestion**: Would be interesting if authors can pursue this and tell us more: how and why.

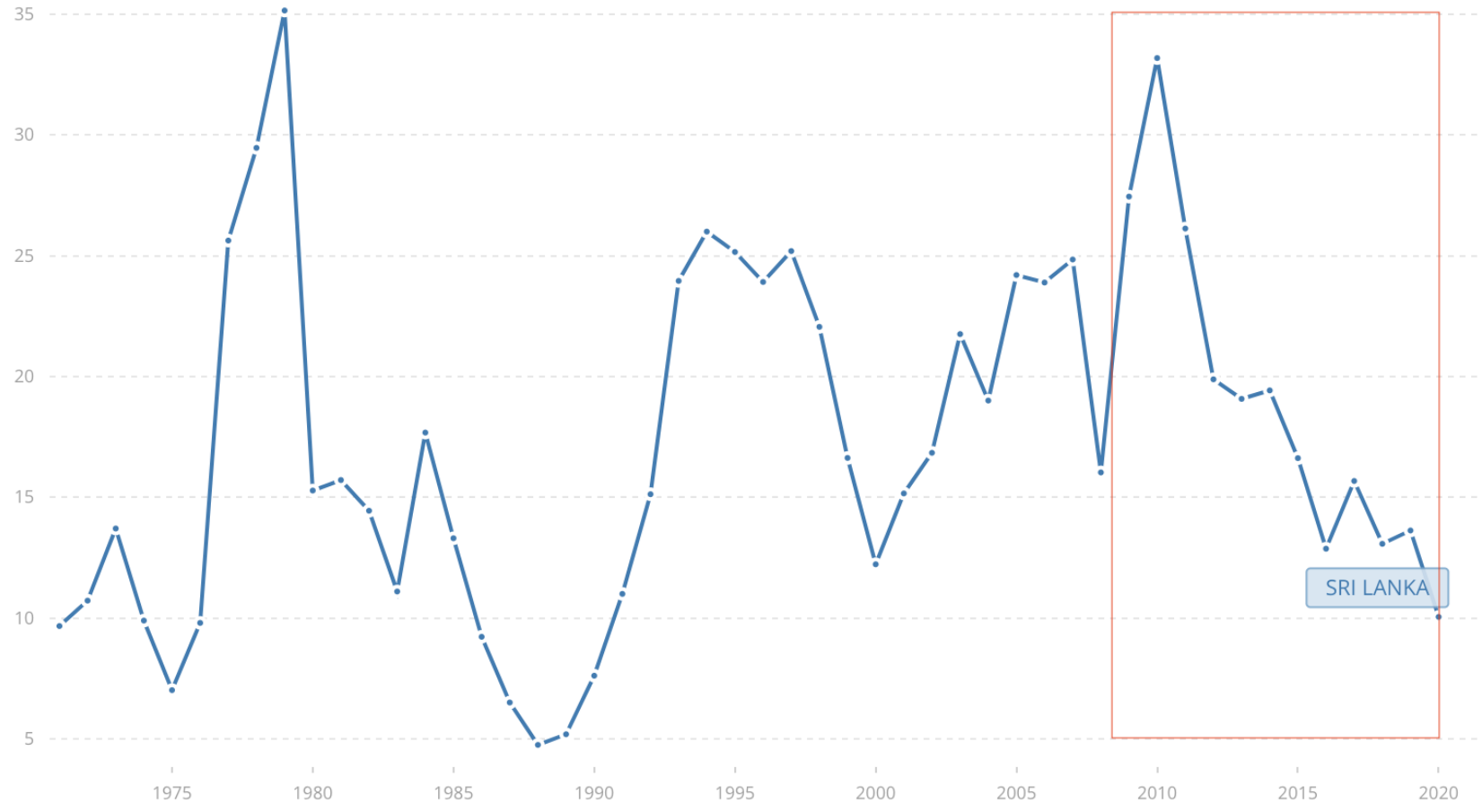
An FER story? How?

Drastic jumps and volatility circa/post 2009

Total Reserves (minus gold)

An FER story? How?

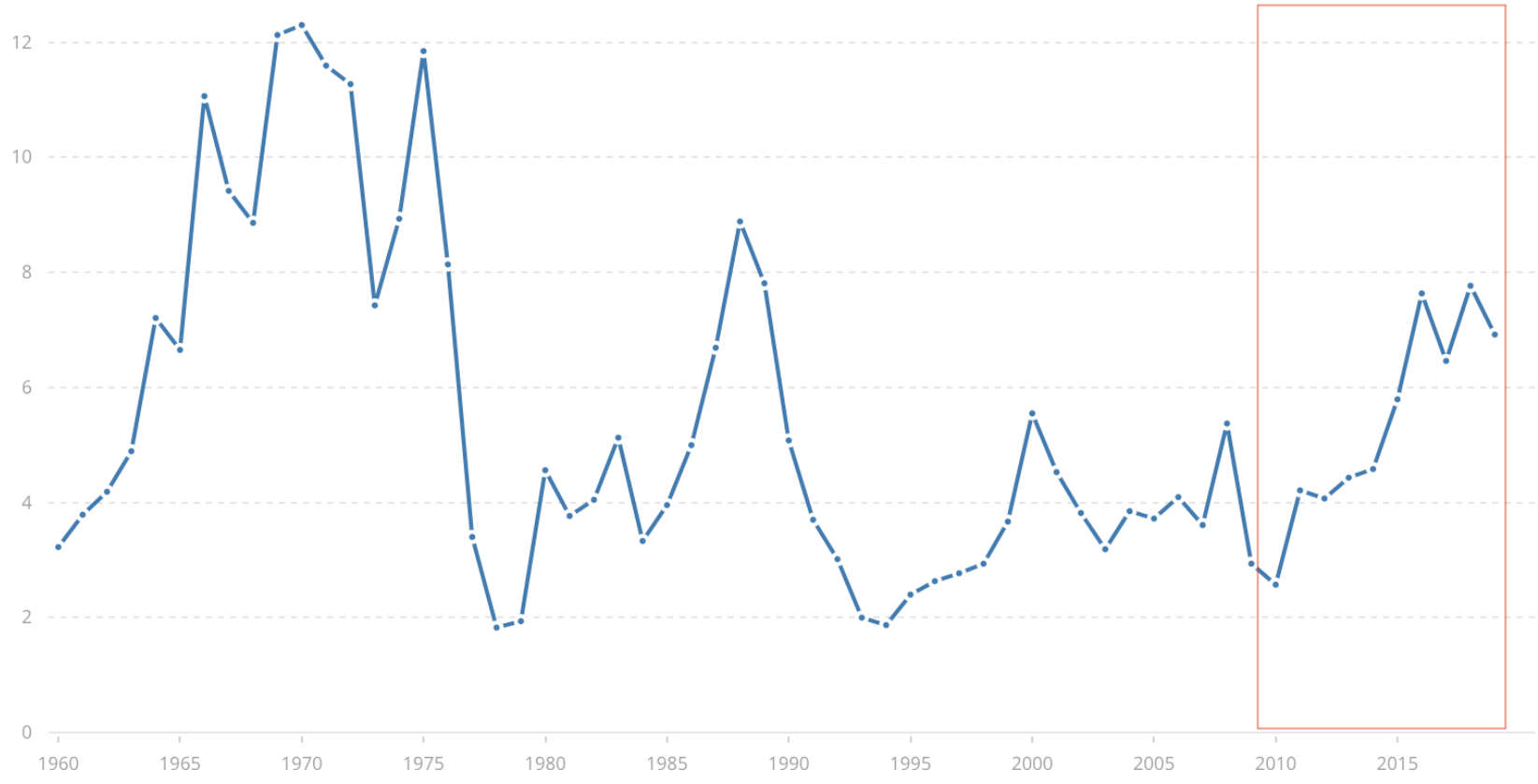
Declining ability to defend currency and/or rising debt burden?



Total Reserves / External Debt ratio

An FER story? How?

Post 2009: CBSL's rising liability against FER asset ...



M0 / Total Reserves

Comment 2: An FER story? How?

From CBSL's operations and news commentaries, CBSL official interest-rate corridor policy seems to be tempered by **FER** (forex reserves management).

Suggestion: Focus on this aspect of policy?

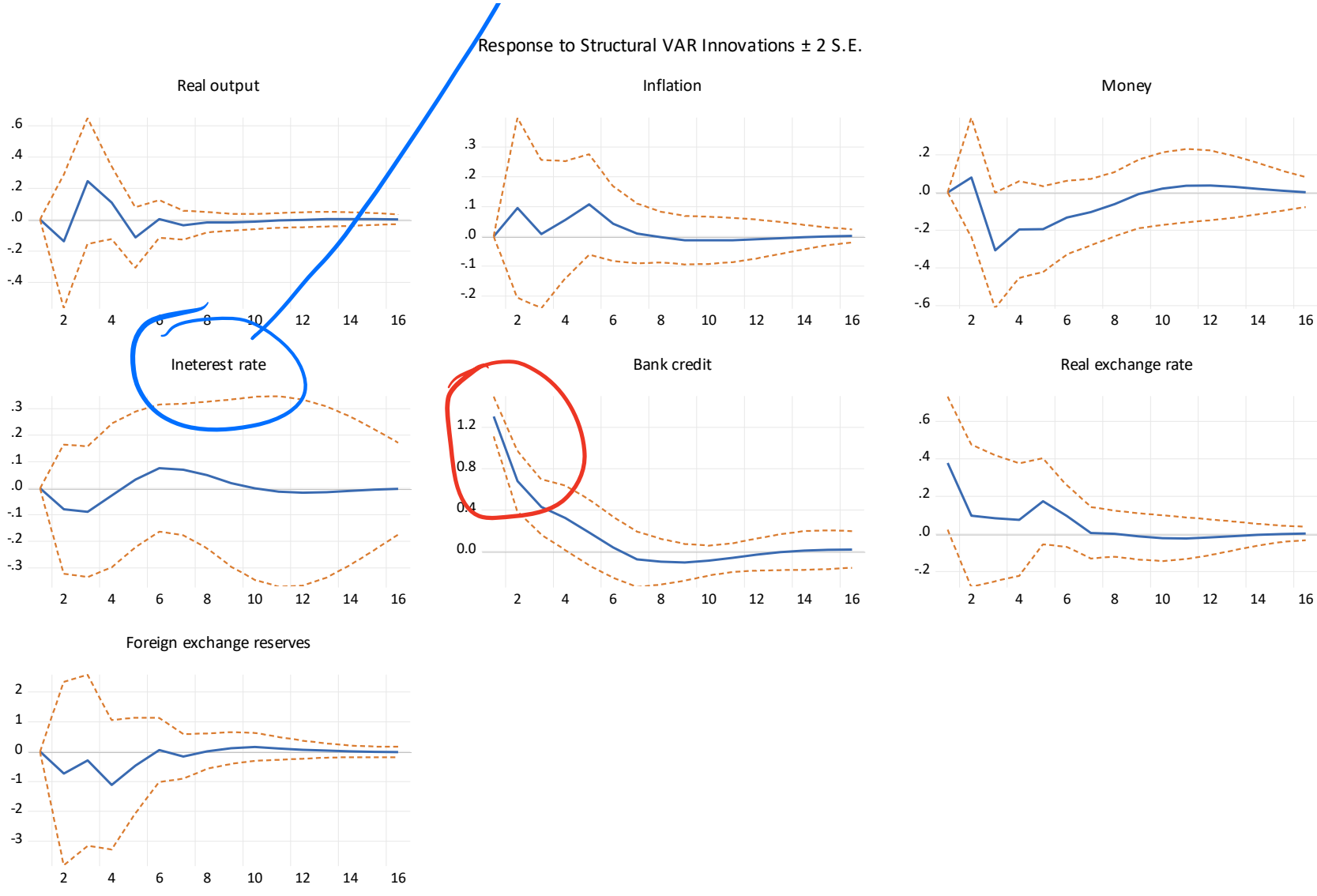
- How to separately identify structural **INT** variations in the presence of potential **FER** management?
- Is merely "chucking" in **FER** sufficient for identifying policy variations hidden in observed **INT** outcomes?
- Order **FER** then **INT** lowest in the "triangle"?

Comment 3: "Credit channel"

Positive shock to lending (**CR**)

1. Claimed: raises output and inflation
2. Comment: But all these IRFs are statistically no different from zero.
   - What really is "credit channel"?
   - Is a shock to **CR** a supply-side (lender) or a demand-side shock?
   - Seems to be both since **CR** only measures observed lending and borrowing.
   - Do they have different MP implications? If so, do we need to separately identify a lending-side shock in line with authors' intention?

"Credit channel"



Comment 4: Real trade sector and FDI?

Sri Lanka has been heavily dependant on tourism, trade and FDI.

Suggestion: Include

- FDI
- Current/capital account elements

Comment 5: VECM or Use More Theory!

Is modelling the economy in a growth-rates VAR appropriate?

Suggestion:

- Have authors tried a VECM with mixture of I(0) and I(1) variables?
  - Phillips (1995)
  - Chang and Phillips (1995)
- Be wary of claims of "structural shock identification" in VARs:
  - Uhlig (2017)
  - Yao, Kam, and Vahid (2017)

Comment 6: Miscellany

Please check:

- Spelling
- Punctuation
- Long sentences
- Footnoting convention
- Make growth-rate variables notation more obvious?
- Report lag-length selection criteria?
- Report estimation method: OLS, software. Replicable science!
- Consistency of citation style

Detailed notes/comments here.

References

- Chang, Yoosoon and Peter C. B. Phillips (1995). "Time Series Regression with Mixtures of Integrated Processes". In: *Econometric Theory* 11.5, pp. 1033–1094. ISSN: 02664666, 14694360. URL: http://www.jstor.org/stable/3532601.
- Phillips, Peter C. B. (1995). "Fully Modified Least Squares and Vector Autoregression". In: *Econometrica* 63.5, pp. 1023–1078. ISSN: 00129682, 14680262. URL: http://www.jstor.org/stable/2171721.
- Uhlig, Harald (2017). "Shocks, Sign Restrictions, and Identification". In: *Advances in Economics and Econometrics: Eleventh World Congress*. Ed. by Bo Honoré et al. Vol. 2. Econometric Society Monographs. Cambridge University Press, pp. 95–127. DOI: 10.1017/9781108227223.004.
- Yao, Wenying, Timothy Kam, and Farshid Vahid (2017). "On weak identification in structural VARMA models". In: *Economics Letters* 156.C, pp. 1–6. URL: https://EconPapers.repec.org/RePEc:eee:ecolet:v:156:y:2017:i:c:p:1-6.