



EUROPEAN CENTRAL BANK

EUROSYSTEM

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# **Comments on “*The Macroeconomic Effects of Trade Tariffs: Revisiting the Lerner Symmetry Result*” by J. Lindé and A. Pescatori**

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# Overview

- 1 Non-technical summary
- 2 Long-term and short-term deviations from Lerner symmetry result
- 3 Tariffs in practice
- 4 Conclusion

### 1. Summary

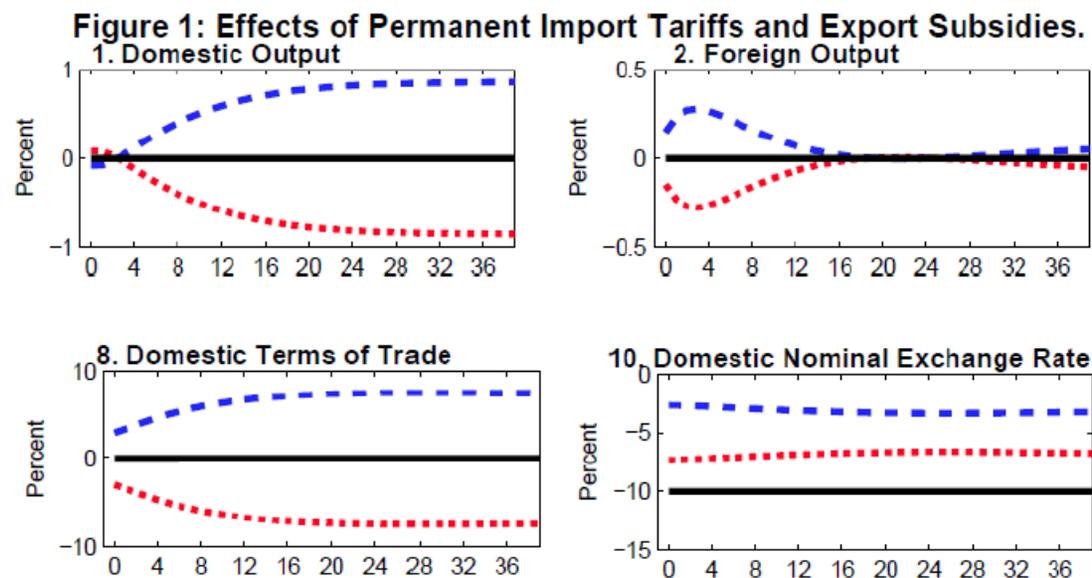
Border adjustment tax part of the corporate tax reform proposal under the Trump administration.

Export sales deductible from profits but not import costs.

Observationally equivalent to a combination of an import tariff and an export subsidy.

Lerner symmetry result: this policy combination should be neutral under flexible exchange rate.

## Lerner symmetry result



Permanent and unanticipated 10p.p. import tariff and export subsidy shock  
LCP both countries (ERPT=TPT)

■ ■ ■ ■ Import Tariff  
■ ■ ■ ■ Export Subsidy  
■ ■ ■ ■ Combined Effect

## 1. Summary

Examine a number of mechanisms that break the Lerner symmetry result.

Provide a quantitative assessment of these deviations.

One result is that the symmetry result breaks down when international asset markets are complete.

10 percent BAT shock leads to a one percent increase in home output and two percent decline in home consumption.

Fully symmetric retaliation that implies same BAT in the foreign country is completely neutral.

Quantify the cost of a trade war in the case of asymmetric retaliation.

## 1. Long-term deviations from Lerner symmetry result

### Lerner symmetry result under complete markets

Complete market assumption leads to long-run deviations.

Assume the possibility to insure against trade policy uncertainty by buying and selling financial assets that are contingent to tariffs.

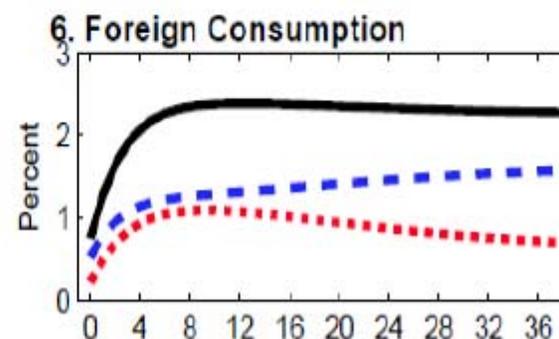
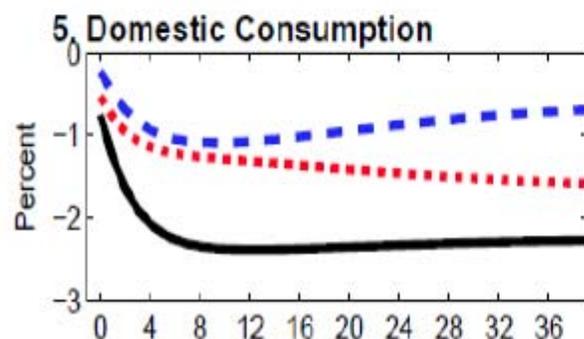
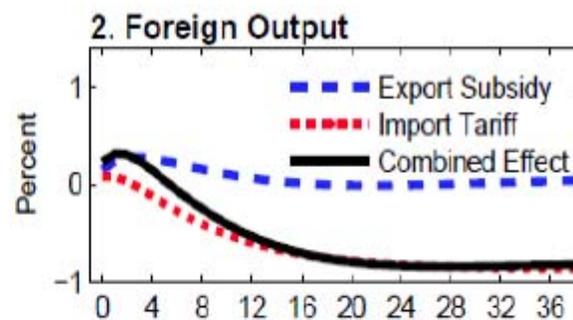
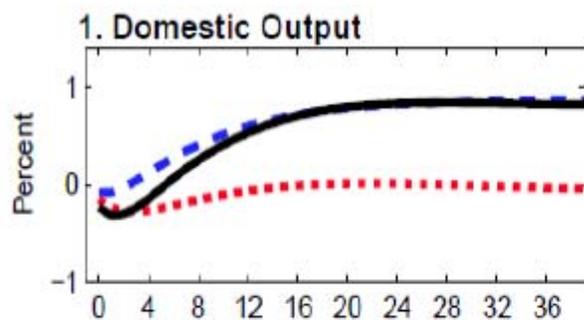
Intuition for this result is that the dollar value of home and foreign consumption expenditures are equated.

Effect of exchange rate movement similar to a balance sheet valuation effect.

Second best world, complete markets lead to a wealth effect.

# 1. Long-term deviations from Lerner symmetry result

## Deviations are quantitatively significant



## 1. Long-term deviations from Lerner symmetry result

Channel is quantitatively significant and leads to long-run deviations from Lerner symmetry.

Most surprising result.

Within this model, this theoretical result is difficult to prove (but see simplified version in the appendix).

Assets whose payoffs are contingent to tariffs? Equivalent mechanism that can be supported by some empirical facts?

Can we show that some implications of the CM finds stronger empirical support than IM counterpart (e.g., Barbiero et al. 2017)?

Domestic consumption declines, what happens to corporate profits?

Welfare analysis, redistributive implications, winners and losers?

## 1. Short-term deviations from Lerner symmetry result

### Lerner symmetry result under gradual exchange rate adjustment

Under fixed exchange rate and with nominal rigidities, tariff policies are no longer neutral.

Fiscal devaluation (e.g., Fahri et al. 2014).

As shown in section 4, introducing gradual exchange rate adjustment breaks the Lerner symmetry result.

Modify the UIP condition by introducing the following specification:

$$i_t - i_t^* = (1 - \phi_S)E_t s_{t+1} - \phi_S s_{t-1} - \phi_b b_{f,t}$$

Difficult to interpret  $\phi_S$ . Can we relate this term to the main structural parameters of the model?

Fixed exchange rate assumption is maybe easier to justify but subsection is very short.

## 1. Short-term deviations from Lerner symmetry result

### Lerner symmetry result under asymmetric pass-through

Introducing asymmetric pass-through breaks Lerner symmetry.

Foreign export firms fully pass only import tariffs to import prices. Home export firms do not.

Lower exchange rate pass-through on import prices.

Plausible mechanism but not clear whether this is consistent with the facts.

Quantitative analysis but reason why this particular friction is considered is not very well documented or justified (compare with literature).

### Alternative explanations for non-neutrality

#### **Erceg et al. (2017)**

Lerner symmetry if policy is unanticipated, and understood as permanent.

Deviation from Lerner as a result of political cycles.

Agents understand that future government may unwind the trade policy.

#### **Barbiero et al. (2017)**

US holds large gross foreign asset positions, majority in dollars, leads to valuation effects.

US dollar is a dominant currency, imports and exports are priced in dollars.

### WTO rules

Equivalence between tariffs and BAT.

BAT/tariffs likely to be challenged in the WTO whereas VAT-based approach is not inconsistent.

Auerbach et al. (2017) argue that a border adjustment of corporate taxation would be equivalent to a uniform VAT and a reduction on payroll taxes by the same proportion.

Under fixed exchange rate, import tariff-export subsidy equivalent to VAT-based approach (e.g., Fahri et al. 2014).

VAT-based not inconsistent with WTO rules (e.g., Germany 2006).

### 3. Tariffs in practice

In Erceg et al. (2017) BAT is equivalent to import tariff-export subsidy but very different from VAT-based approach.

In the context of this model, is there an equivalence between an import tariff-export subsidy and an increase in VAT combined with reduction in payroll taxes?

If policy is inconsistent with WTO rules, will not be understood as permanent, which is already sufficient to break the neutrality result.

Fully symmetric retaliation is neutral but what if agents anticipate that the policy will have to be reversed?

### Conclusion

Very timely and highly policy relevant paper.

Relative to the existing literature, takes a global perspective and the analysis is performed using a state of the art NK model that contains many realistic frictions (HM, financial frictions).

Discuss many reasons/mechanisms that create deviations from Lerner symmetry and show that the costs of a trade war can be substantial.

Result on the effects of symmetric retaliation.

## 4. Conclusion

Important contribution to the debate on the effects of tariffs (see also Erceg et al. 2017).

Quantitative analysis but not always very clear whether the deviations from Lerner symmetry considered in this paper are consistent with the empirical evidence (asymmetric pass-through, complete markets,...).

Redistributive implications of the envisaged trade policy (corporate profits vs. households consumption).