# Discussion of "Income-Induced Expenditure Switching" Rudolfs Bems & Julian di Giovanni

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Conference on heterogeneity in currency areas and macroeconomic policies ECB 2013



#### $1. \ {\sf Macroeconomic\ context}$

- 2. The puzzle
- 3. Income driven expenditure switching
- 4. Epirical analysis
- 5. In a nutshell
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  - $\times$  An increase in GDP of almost 90% from 2000Q1 to 2007Q4,
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  - $\times$  A recovery, as of 2013Q1, of 18%.

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Since 2005, the Bank of Latvia is following a strict policy of pegging the lats to a basket composed of the US dollar, the euro, the pound sterling and the Japanese yen.



 $\rm FIGURE$  2: Euro-Lats exchange rate

- The recovery has been made possible by
  - $\times$   $\,$  internal devaluation
  - $\times$  fiscal austerity

FIGURE 3: Internal devaluation - Total economy (cumulative change)



FIGURE 4: Internal devaluation - Manufacturing (cumulative change)



 $\operatorname{FIGURE}$  5: Fiscal austerity



After years of large trade deficit, the recession has been accompanied by a sharp trade balance recovery

 $\rm Figure$  6: Trade balance



In open macroeconomics, an improvement of the trade balance in recessions is typically a consequence of

- $\times\,$  a decrease in imports caused but the decrease of absorption during the recession
- $\times\,$  an expenditure switching (demand shifts from foreign goods to domestic ones) that is caused by a depreciation of the exchange rate.
- The expenditure switching channel should not be seen in the Latvian context as
  - × There was no external devaluation
  - The internal devaluation was only partly transmitted to prices, leading more to an increase in margins for firms. (quoting Blanchard et al.)
- Why was the current account improvement then so large?

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 Assume that consumption of domestic and foreign products are given by

$$C^{d} = Y^{\varepsilon_{y}^{d}} \left(\frac{eP^{\star}}{P}\right)^{\varepsilon_{e}^{d}}$$
$$C^{f} = Y^{\varepsilon_{y}^{f}} \left(\frac{eP^{\star}}{P}\right)^{-\varepsilon_{e}^{f}}$$

#### with all elasticities being positive.

Hometheticity of preferences implies

$$\varepsilon_y^d = \varepsilon_y^f$$

► so that

$$\frac{C^d}{C^f} = \left(\frac{eP^*}{P}\right)^{\varepsilon_e^d + \varepsilon_e^d}$$

 With homothetic preferences, there is no expenditure switching absent of variations in the real exchange rate

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#### Rudolfs and Julian find a substantial amount of expenditure switching.

- This is possible with non nomothetic preferences
- Assume that domestic goods are "inferior compared to the foreign ones"

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With non nomothetic preferences − i.e. ε<sub>y</sub><sup>d</sup> < ε<sub>y</sub><sup>f</sup>, there is expenditure switching when income goes down.

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## 4. Empirical analysis

Rudolfs and Julian do an amazing analysis of scanner-level data for food and beverages and find :

- $\times\,$  imports contraction is by 1/3 accounted for by expenditure switching accounting, while the relative price of foreign goods increased by 4.4% only.
- $\times~$  switching took place within narrowly defined product groups, while the relative price adjustment was across product groups.
- $\times$  Within a category, unit values of domestic goods were on average lower than those of comparable foreign ones.
- They estimate a demand system with possible non homotheticity and found that there is indeed an "relative inferiority" of domestic goods.

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#### The model success in one graph

 $\operatorname{FIGURE}$  7: Actual and estimated growth on the share of foreign goods in expenditures



- It is inter temporal wealth more than income that matters fro demand :
  - $\times$   $\,$  asset prices went down
  - $\times$   $\,$  future income growth was revised downwards
- Permanent income might have fallen more than current income, which would reinforce the expenditure switch.
- ▶ The credit crunch in from 2008 to 2011 has also increased the shadow value of one spent lats or decreased income deflated by the full value of a lats.
- Commentators also mention an increases in perceived uncertainty (???). If so, this also reduces the share of income devoted to consumption.
- Those different effects call for a permanent income model in which credit constraints and expectations would have an important quantitative role.

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