

Comments on “Stabilization Effects of Fiscal Policy in Croatia”

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Basic features of the paper

- Theory-based attempt to measure the impact of fiscal policy on the Croatian economy
- Uses widely-accepted methodology developed first in Blanchard and Perotti (1999, 2002)
- Quarterly data 1996 Q1-2011 Q4
- Analyzes impact of expenditure and revenues, and breaks each down
 - current vs capital expenditure
 - Direct vs indirect taxes

Contribution

- Adds to a fairly extensive empirical literature
- Covers only one country
 - Could suffer from narrow focus
 - But could be justified due to better attention to institutional details and data specifics
 - Relatively easy to compare results with other studies
- Uses quarterly data rather than monthly in Ravnik and Zilic (2011)
- Testing of subcategories of expenditure and revenue new for Croatia

Findings

- Positive effects of government expenditure,
- Negative effects of government revenue
- Both effects in line with Blanchard-Perotti
- Effects of Government spending shock on private consumption long-lasting (typical of international experience)
- Effects of government spending on private investment also long-lasting and positive, somewhat untypical but not unprecedented (crowding-in, not crowding-out)

Findings (cont'd)

- Significant and long-lasting negative effects of indirect taxes, smaller and eventually positive effects for direct taxes
- Greater impact of tax shocks than expenditure shocks
- Public sector wages respond significantly to both kinds of shocks

Why fiscal impacts are hard to measure

- Identification of impacts created by intentional policy changes requires distinguishing policy-driven changes from endogenous changes (“automatic stabilizers”)
- This requires some identifying assumptions on the matrix α that connects the observed disturbances u and the structural disturbances e .

Alternative methods

- One approach, called the “recursive approach” by Caldara and Kamps (2008), requires an ordering of effects such that contemporaneous tax changes do not affect contemporaneous GDP etc.
- Blanchard-Perotti partially adopt this, but allow contemporaneous effects of taxes on output and inflation. They achieve the necessary number of restrictions by using estimated but exogenous elasticities
- Mountford-Uhlig use seemingly less restrictive sign restrictions

Why it matters

- Caldara and Kamps (2008) show that these methods give different estimates of endogenous changes (automatic stabilizers) explaining their diverging findings (most of all about the impacts of tax shocks) on US data
- The recursive methods and the Blanchard-Perotti methods give essentially the same impacts of both expenditure and revenue on US data, while the sign restriction method gives much more powerful impacts of tax shocks
- I do not see a consensus emerging in the literature, and Caldara and Kamps bemoan the “uncertainty” created by these divergent results
- For the purposes of this paper, it suffices to explain the controversy, and then adopt a methodology

Beware the data police!

- Academic researchers often are not highly involved in the production of data
- But often, detailed knowledge of limitations of the data are crucial to obtaining accurate results
- I recall hearing a professor recount his dismay at a discussion of his paper by a Fed researcher who revealed numerous very important “little known facts” about his data that affected his results
- The professor described feeling that he had been arrested by the data police....

Don't let it happen to you!!!



Data issues: GDP

- The State Statistical Agency only began publishing quarterly GDP figures in 2000.
- A series has been published by researchers starting in 1996, but graphical inspection shows that this series does not have the normal level of noise seen in the later data
- Using the series from 1996 may affect the results
- As a check, it would be worth running everything starting with the start of the official series

Data issues: CPI vs GDP deflator

- Prices here refer to all goods and services (they deflate output)
- Literature seems to use GDP deflator (even Gali et al 2004 who are interested in consumption)
- Would be worth at least trying GDP deflator

Data issues—accrual accounting

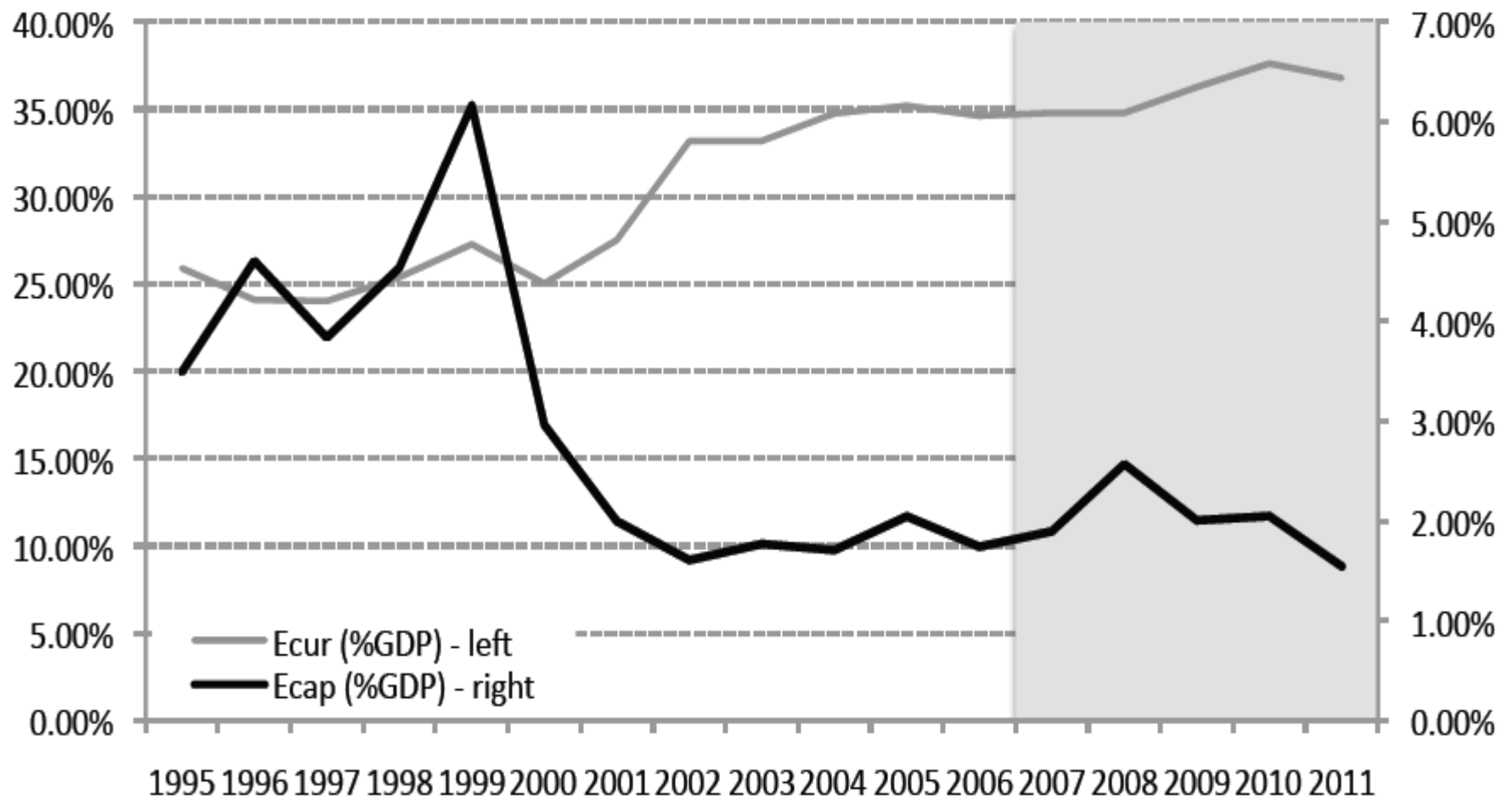
- Croatian government accounting underwent important changes in the 1990s and 2000s
- Accrual accounting was only introduced with the introduction of the State Treasury in 2000.
- Data from the 1990s may have misleading temporal dynamics (overall figures may be right, but timing may be wrong)

Data issues—capital expenditures

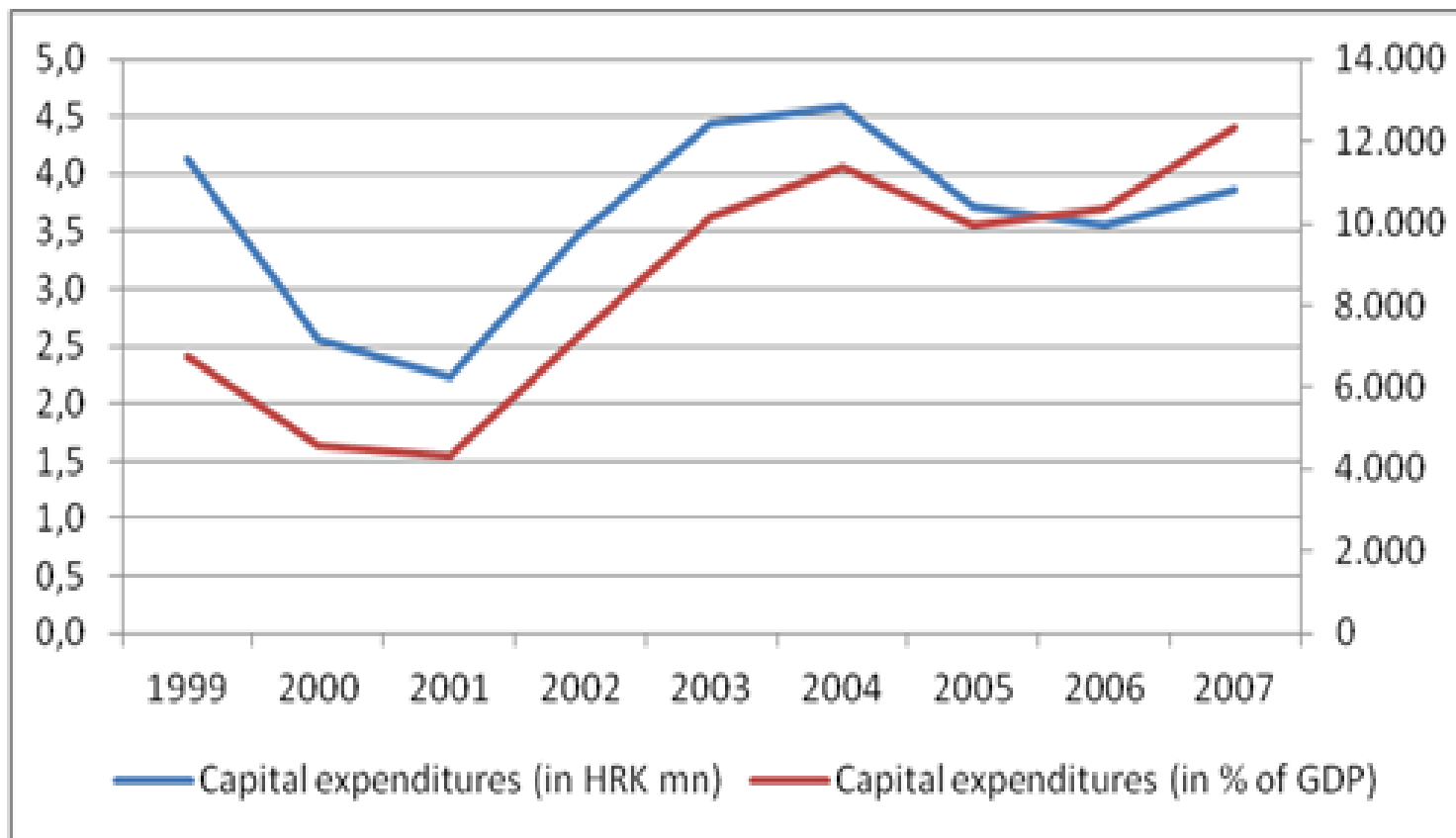
- During the 1990s, state transfers to the Pension Fund and state transfers to the State Agency for Deposit Insurance and Bank Rehabilitation are treated as capital expenditures
- After 2000, the Government created two extrabudgetary “Institutes” mainly to allow the Government to borrow for highway construction
- The trick was
 - To allow dedicated collateral to be pledged
 - To get around ceilings on foreign borrowing and overall expenditures agreed on with the IMF
- These institutes must be included to get a correct picture

Capital expenditure in the paper

Figure 3. Current (E_{cur} , left scale) and capital (E_{cap} , right scale) expenditure at the central government level in Croatia in the period 1995-2011, % GDP



Profile of capital spending from Statistical Almanac 2002



Which one is more plausible?

- Croatia underwent a major wave of highway construction in 2002-4, resulting in the (near) completion of the Zagreb-Split highway
- So I am more inclined to believe that capital expenditure goes up as a percentage of GDP in those years than that it is flat

Robustness

- Knowing that there is considerable controversy about the methodology, one has to do careful robustness tests
- The paper does consider a very slightly different value for the elasticity of taxes wrt output and prices
- I would also use arbitrarily chosen values that deviate more from the estimated ones, as in Caladara and Kamps (2008) who allow the elasticity of taxes to output to vary from 0 to 4.

Teasing out clearer messages: some questions

- Find that Croatia is a rather Keynesian economy, more so than many others
- Why would this be so?
- Gali et al's explanation of the impact of spending shocks on consumption relies on "rule of thumb" consumers. Are these especially prevalent in Croatia?
- Why is private investment crowded in so strongly?

Ending on a positive note

- This is a thorough paper, carefully following a widely-accepted (but not uncontroversial) methodology on an important topic
- Well-done!