# *Discussion of*

# *Alesina and Ardagna*
# *Erceg and Lindé*

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# Overview

- Some specific discussion of Alesina and Ardagna
- Some specific discussion of Erceg and Lindé
- Relation of results between the two papers

# Discussion of Alesina and Ardagna

- Part of string of related work studying consolidations, e.g. Giavazzi & Pagano (1990), Alesina and Perotti (1995), Ardagna (2004), Alesina and Ardagna (2010).
- Characterisation of consolidations:
  - Size
  - Composition
    - revenues versus spending
    - different spending categories

# Most common findings

- Consolidations may be expansionary

- spending-based consolidation tends to be more effective in bringing debt down and less harmful for economic activity

# Theory (see Ardagna, 2004, EER)

- Expansionary consolidations:
  - “Expectations view”: reduced need future tax increases
  - Reduced likelihood (public) debt default $\rightarrow$ interest rates $\downarrow$
  - Resolution uncertainty
- Composition:
  - “Labour-market channel: public employment/benefits/ transfers $\downarrow$ $\rightarrow$ reservation utility (union members) $\downarrow$ $\rightarrow$ downward pressure on real wages
  - Spending reduction is sign of government’s resolve

# Results have been challenged (e.g., WEO 2010)

- IMF uses “action-based” dataset: planned consolidations unlinked to business cycle
- Expansiveness hypothesis itself
- Composition effect mostly driven by reaction of monetary authorities and nominal exchange rate

# This paper

- Uses both IMF classification and classification based on actual outcome (cycl.-adjusted primary deficit ratio)
- Clarifies methodological and empirical differences between these approaches.
- Claims that message is same regarding composition of adjustments

# Data

- 21 OECD countries from 1970-2010.
- Complications defining adjustment episodes:
  - Endogeneity:
    - need to correct for effect business cycle
    - problem: imperfect and arbitrary, e.g. government may react in systematic discretionary way to business cycle.
  - Identification of precise timing – fiscal adjustments often multi-year events

# Measures of performance:

- Reduction in debt: success if debt two years after adjustment lower than in last year of adjustment

- GDP growth:
  - Adjustment is expansionary if real GDP growth during adjustment period higher than average growth in two years before (def. 3)
  - Growth in deviation of G7-growth during adjustment higher than average in two years before (def.4)

# Comments on success measures:

- Def. 4 may be misleading if consolidating country itself is a G7 member: downward (upward) bias in case of expansion (contraction)
- Effects of consolidation may take time – why focus on GDP growth “during” adjustment and not “after”?

# Comments descriptive analysis:

- Difficult to identify the true effect of spending versus tax-based when combined with other measures (structural reform, monetaruy policy)
- Role of labour market regulation only measured through employment protection – broader measures?
- Increase in confidence during successful and expansionary episodes. What is driving what?
- Same for improvement in private investment

# Comment on data:

- Which episodes are both successful and expansionary?
- What is overlap with authors’ and IMF’s consolidation episodes? Little overlap casts doubt on selection
- Provide more information on data
- How large is consolidation as share of all observations?

# Comments on econometric analysis

- More information on econometric methodology, in particular when controlling for monetary policy and unit labour costs – is account taken of potential endogeneity (IV)?
- Report coefficient $\Delta$CAPB during non-consolidations – any different from that during consolidations?
- Report coefficients of control variables in econometric analysis

# Comment: provide more interpretation

- Substantial differences econometric analysis outcomes versus IMF data:
  - Outcomes based: higher $\Delta$CAPB and lower primary spending are expansionary, while higher revenues has no effect
  - IMF data: higher $\Delta$CAPB or revenues are contractionary, while change in spending has no effect
- Similarly for components GDP: outcomes (IMF) based: private consumption reacts positively (negatively) to spending cut
- Interpretation? Suggests mechanisms may be different.

# Discussion of Erceg and Lindé

- Explores how effects of tax-based vs. expenditure-based consolidation depend on degree of monetary accommodation
  - Independent monetary policy as benchmark
  - Currency-union, possibly constrained by zero lower bound
- Explores mixed strategies under CU+ZLB

# Rich framework

- Two-country monetary union (South and Notrth)
- Bundles of differentiated intermediates
- Monopolistically competitive households, two types: forward-looking and rule of thumb (no optimization at all)
- Staggered wage and price setting Calvo pricing
- Transformation cost changing proportion domestic / foreign goods in aggregate consumption bundle
- Financial accelerator channel
- Monetary policy is Taylor rule, possibly subject to ZLB
- Exogenous, gradually–moving debt target

# Main results

- IMP: tax-based consolidation more contractionary:
  - smaller cut policy interest rate
  - exchange rate appreciation through lower supply
  - spending based: deprecation through lower absorption and interest cut
- CU: spending-based depresses output more than tax-based in short run, but less in long run.
- ZLB (in CU): even worsens relative performance of spending based – prolongs duration of liquidity trap; debt ratio starts worsening before declining

# Main results

- Output contraction spending-based under liquidity trap larger for several reasons:
  - Endogenous spending decline larger because of slow progress in reducing debt ratio (lower labor/capital tax revenues, larger inflation fall leading to higher debt-servicing costs, actual GDP falls)
  - Spending cuts stretch length liquidity trap
  - Spill-over effects to North become substantially negative, which hurts South's exports.

# Main results

- Presence ZLB makes effects of contraction non-linear (convex) in the size of the contraction, because the ZLB can start to bind and its length increases in size of contraction.
- Mixed strategy: upfront temporary tax increase followed by gradual and persistent spending cut may be best: combines better short-run performance of tax hike with better long-run performance of spending cut.

# Main results – mixed strategy

- “Tax hike, spending adjust”: front-loaded temporary tax hike combined with original spending rule: faster reduction debt ratio and smaller negative output effect.
- “Spending cut, Taxes adjust”: tax-based consolidation combined with nearly permanent exogenous spending cut: longer run adverse output effect is mitigated as tax rise can be phased out quicker.

# Comments

- Model is very rich: could provide more insight into role of different model features, in particular role of Taylor rule parameters, cost changing proportion of domestic / foreign goods, financial frictions, capital adjustment cost.
- Desirability reduction debt target assumed rather than motivated from within model – in reality reduction motivated by worries about fiscal sustainability and financial markets reaction
- Welfare evaluation of alternative policies?
  - Share HM household probably important (no smoothing)
  - Optimal parameter setting in rules

# Comments

- Mixed strategy has some real world counterpart
  - Dutch Stability Program for 2013 envisaged consolidation with short-run value-added tax hike to be followed by spending reduction and reduced labour tax reduction
  - Mix motivated out of practical considerations: spending reduction takes more time than raising VAT revenues
  - Mixed package has substantial time-consistency problems: labour-tax reduction seems to be off the table
  - Uncertainty about commitment may be harmful in itself

# Comments

- Other interesting experiments, like:
  - Format of tax/spending rule: more realistically expressed in shares of GDP?
  - Liquidity trap under IMP
  - Shifts in composition of taxes – generally we think of VAT as less distortionary than labour taxes due to size of tax base

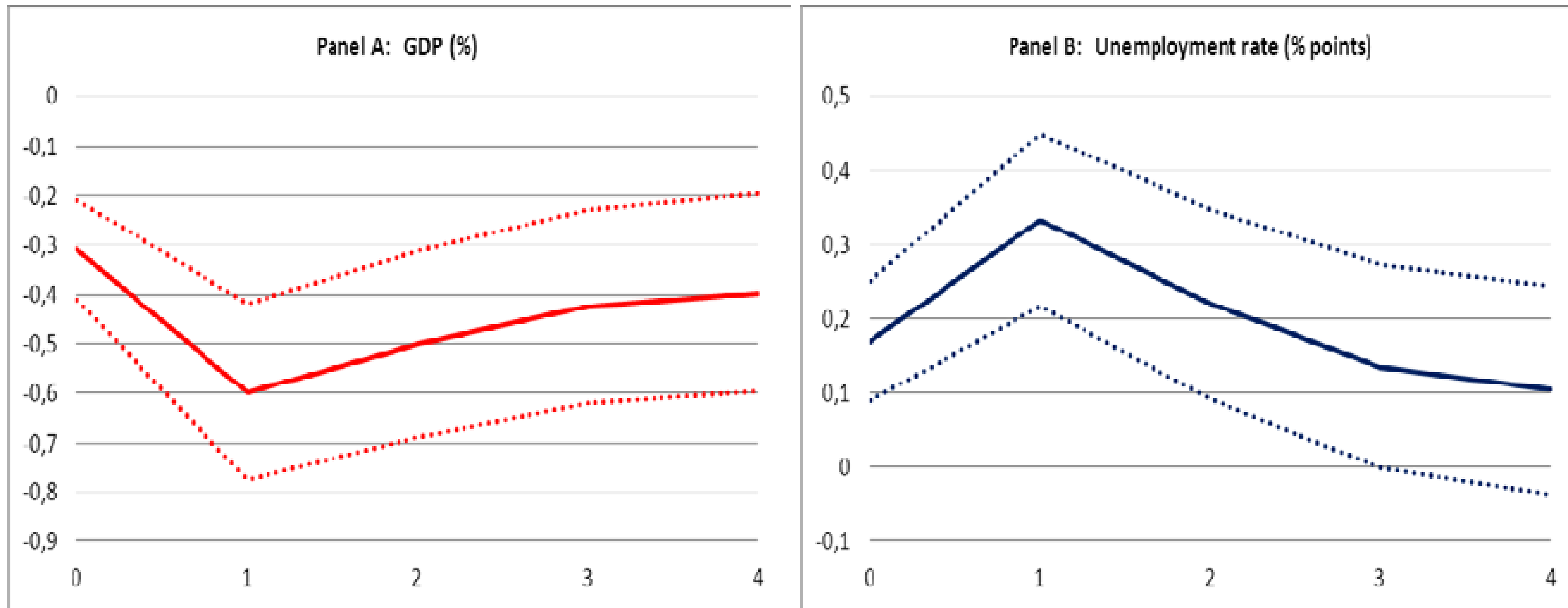
# Comparison with AA and EL

- AA find that spending-based consolidation performs generally better, while EL find that it performs better only under IMP
- AA claim monetary policy regime plays only minor role for comparison, while in EL  monetary regime crucial
- AA do not have liquidity trap observations (?)
- No explicit role for labour market channel, structural reform or confidence in EL

# Some evidence role exchange rate regime using action-based data (Beetsma et al. in EL, 2012)

$$x_{it} = \lambda_i + \mu_t + \sum_{j=1}^{n} \alpha_j EURO_{i,t-j} * x_{i,t-j} + \sum_{j=1}^{n} \beta_j \left(1 - EURO_{i,t-j}\right) * x_{i,t-j} +$$
$$\sum_{j=0}^{n} \gamma_j EURO_{i,t-j} * b_{i,t-j} + \sum_{j=0}^{n} \delta_j \left(1 - EURO_{i,t-j}\right) * b_{i,t-j} + \varepsilon_{it}.$$

**Figure 1: Responses to fiscal consolidation**




*Note*: $t$=0 denotes the year of a 1 percent of GDP budgetary consolidation. Dotted lines delineate one standard error confidence bands.

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