"Business Cycles and the Political Economy of Decentralised Finance: Lessons for Fiscal Federalism in the EU"

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The Questions

- Is subnational fiscal policy pro-cyclical?

- How pro-cyclical is it?

- What factors impact the sensitivity of subnational finances to the business cycle?

Why Does it Matter?

- The potential for conflicting fiscal responses from national and subnational governments
- The potential for subnational deficits to complicate aggregate fiscal balances
- EU's fiscal rules establish a difficult set of incentives for national governments
  - define requirements in terms of the general government's budget balance
  - Subnational challenge to traditional Keynesian fiscal policy of national governments

- In the big picture, what are the fiscal implications of ongoing processes of decentralization? And what can be done to mediate its downsides?

The Argument

- Subnational fiscal policy is pro-cyclical by design

- Narrow, pro-cyclical revenue streams
- The political economy of intergovernmental transfers
  - The distinction between national tax-transfer systems and grants
  - The importance of symmetric income shocks
- Limited capacity to borrow
  - Rules limiting access to credit markets

Table 1: Determinants and Expectations of Subnational Fiscal Cyclicality

	Volatility of Tax Base	Discretionary Grants	Access to Credit	Severity of Business Cycle	Expected Degree of Pro-cyclicality
Canada	Medium	Low	High	Medium	Low
U.S.	Medium	Medium	Medium	Low	Medium
Germany	Low	Low	Medium	Low	Medium
Australia	Medium	Low	Medium	Low	Medium
Spain	Medium	Medium	Medium	Medium	Medium
India	High	Medium	Low	High	High
Brazil	High	Medium	Low-High	High	High
Argentina	High	Medium	Low-High	High	High

Data & Methods:

- Real per capita fiscal and income data by region across 8 federations for at least 12 years
- Dependent and independent variables measured as deviation from trend
- All models include region dummies; some include year dummies
- Three approaches:
  - Simple elasticities
  - Disaggregating positive and negative shocks
  - Dynamic approach

Table 1: Income elasticities for provincial budget items

		Revenue	Own-source revenue	Grants	Revenue-sharing receipts	Discretionary grants	Expenditures	Surplus
U.S. states	without year dummies	0.68 ***	0.84 ***	0.42	na	na	0.37 ***	0.05 ***
	including year dummies			-0.25 **				
Canadian provinces	without year dummies	0.89 ***	1.05 ***	0.41	na	na	0.39 **	0.15 ***
	including year dummies			-0.68 **				
German Länder	without year dummies	0.93 ***		1.09 ***	na	na	0.57 ***	x
	including year dummies							
Australian states	without year dummies	0.78 ***	1.60 **	x	na	na	x	0.44 **
	including year dummies			0.84 **				
Spanish Regions	without year dummies	0.93 **	1.39	x	na	na	x	x
	including year dummies			x				
Indian states	without year dummies	0.42 *	x	x	x	x	0.67 ***	x
	including year dummies			x				
Brazilian states	without year dummies	1.62 ***	2.06 ***	1.56 ***	x	7.58 ***	1.67 ***	x
	including year dummies			0.52 ***	-1.48 ***	4.6		
Argentine provinces	without year dummies	0.36 **	1.15 ***	0.3 *	0.38 *	x	0.3 ***	x
	including year dummies			0.09 *	0.15	1.07 *		

Percent deviation from trend in budget item was regressed on percent deviation from trend in provincial income, including fixed provincial effects, assuming ar1 correlation of residu
Only coefficients where p<.25 are reported. Where p>.25, the cell contains an x. Empty cells imply that appropriate data were unavailable.
* p<.1
** p <.05
*** p <.01

Table 2: Responses of provincial budget items to positive and negative shocks

	Revenue		Own-source revenue		Grants		Revenue-sharing receipts		Discretionary grants	
	Pos. shock	Neg. shock	Pos. shock	Neg. shock	Pos. shock	Neg. shock	Pos. shock	Neg. shock	Pos. shock	Neg. shock
U.S. states	0.52 ***	0.85 ***	0.87 ***	0.81 ***	x	1.08 **	na		na	
Canadian provs	0.43 **	1.6 ***	0.45 **	1.99 ***	x	x	na		na	
German Länder	0.66 ***	1.18 ***	na		1.77 *	x	na		na	
Australian states	x	1.56 ***	x	2.43 ***	x	x	na		na	
Spanish ACs	0.64 ***	x	0.74 ***	x	0.9 ***	x	na		na	
Indian states	x	0.67 *	x	x	-1.5	1.5	x	x	x	2.16 *
Brazilian states	1.62 ***	1.85 ***	2.3 ***	2.05 ***	1.52 ***	1.59 ***	x	x	x	14 ***
Argentine provs	0.52 ***	x	0.94 ***	x	0.4 *	x	x	0.66 **	4.28 **	x

	Expenditures		Surplus	
	Pos. shock	Neg. shock	Pos. shock	Neg. shock
U.S. states	x	0.59 ***	0.06 ***	0.03
Canadian provinces	x	1.02 ***	0.13 **	0.19 **
German Länder	0.83 ***	x	x	x
Australian states	x	x	x	0.51 *
Spanish regions	0.72 ***	x	0.16	0.63
Indian states	x	1.13 ***	x	x
Brazilian states	1.62 ***	1.72 ***	x	x
Argentine provs	0.41 ***	x	x	x

Only coefficients where p<.25 are reported. Where p>.25, the cell contains an x. "NA" indicates that appropriate data were unavailable.
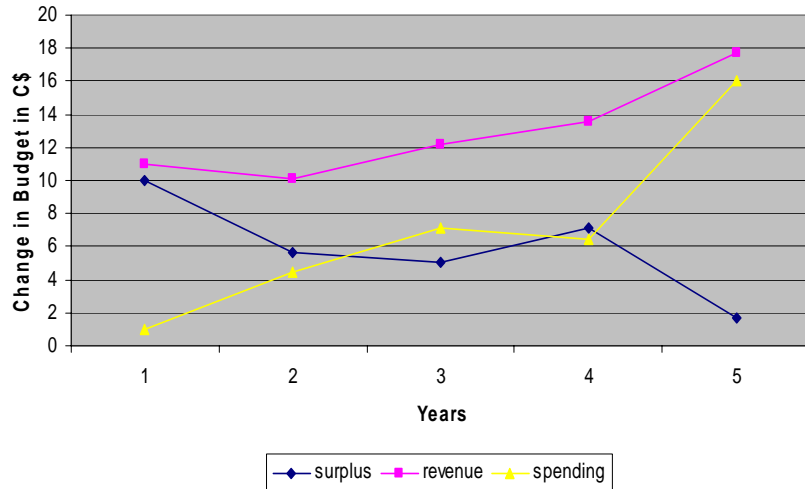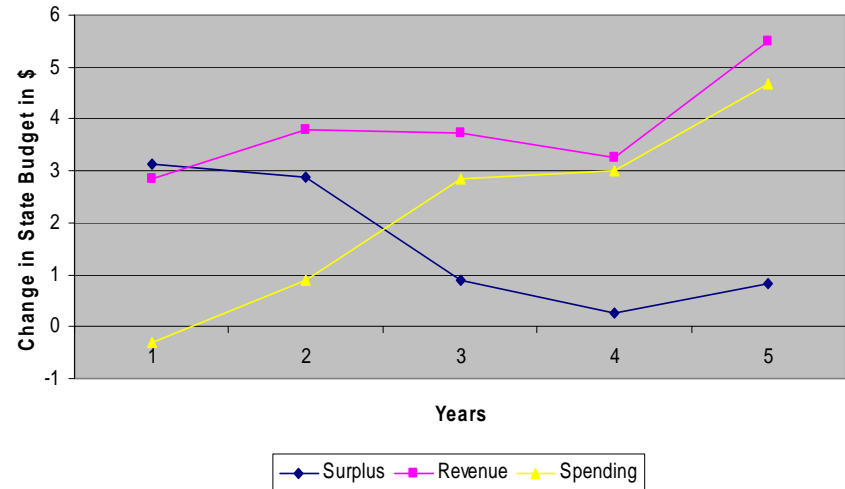* p<.1
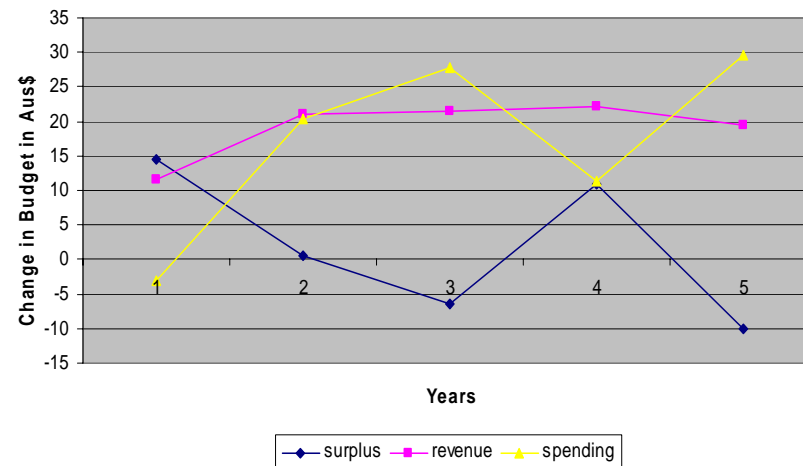** p <.05
*** p <.01

A Dynamic Approach: Group 1

Canada: Effect on Provincial Budget of a 70 C$ Permanent Increase in GSP

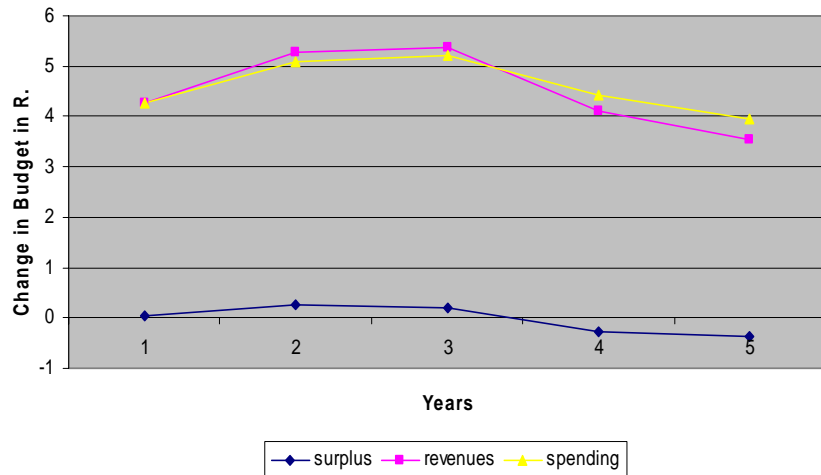US: Effect on State Budget of a $100 Permanent Increase in GSP

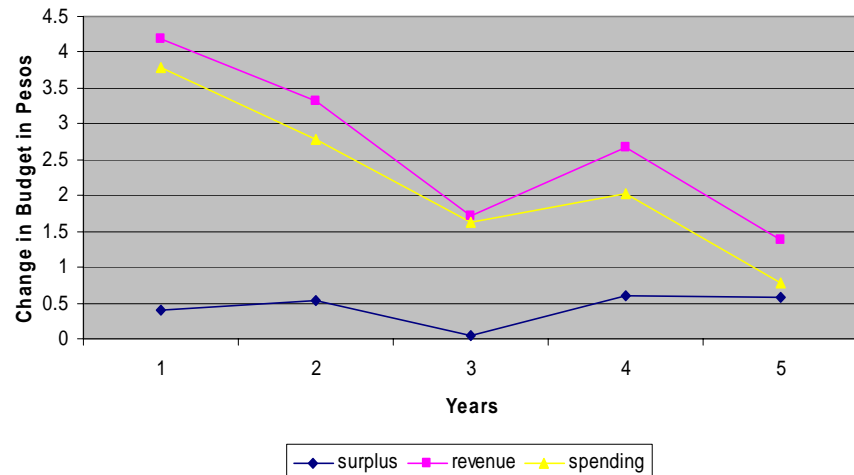Australia: Effect on State Budget of a 100 A$ Permanent Increase in GSP
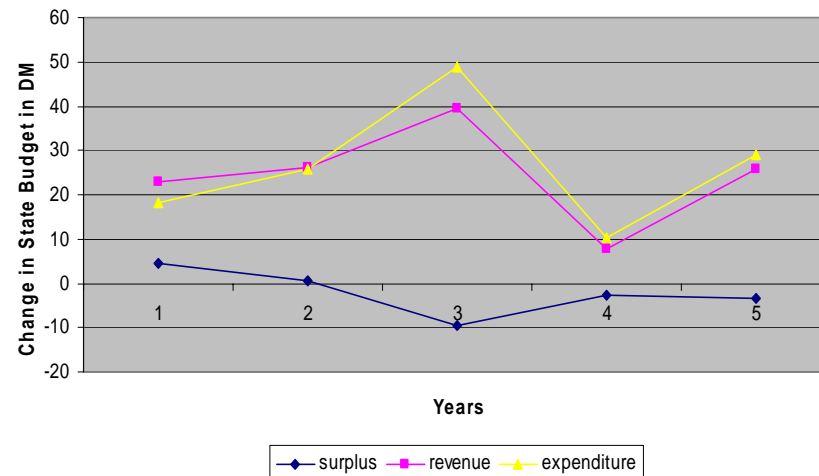
A Dynamic Approach: Group 2

Brazil: Effect on State Budget of a 14 R. Permanent Increase in GSP

Argentina: Effect on State Budget of a 31 Peso Permanent Increase in GSP

Germany: Effect on State Budget of a 158 DM Permanent Increase in GSP

Conclusions and Questions

- Subnational fiscal policy is pro-cyclical by design
- Policy lessons:
  - The need for recession-proof revenue sources
  - Grants do not smooth subnational budgets
    - Independent grant commissions are better than otherwise
  - Restrictions on borrowing are likely to be counter-productive
- Questions:
  - To what degree is subnational pro-cyclicality erasing national counter-cyclical efforts?
  - Do subnational and intergovernmental politics matter?
  - What are the implications of decentralized welfare prevision given these findings?