

LECTURE I: INTRODUCTION

- Understand the proper role of the government in the economy

- The four questions of public finance:
 - a) When should the government intervene
 - b) How might the government intervene?
 - c) What is the effect of those interventions on economic outcomes?
 - d) Why do governments choose to intervene in the way they do?

- When should the government intervene?
 - i. Market failure (f.e., negative externalities)
 - ii. Redistribution (equity – efficiency tradeoff)

- How might the government intervene?
 - i. Tax or subsidize private sale or purchase (use price mechanism)
 - ii. Restrict or mandate private sale or purchase
 - iii. Public provision
 - iv. Public financing or private provision

- What is the effect of those interventions on economic outcomes?
(empirical public finance)
 - i. Direct effects
 - ii. Indirect effects

- Why do governments choose to intervene in the way they do?
(political economy)

- Stylized facts of government intervention in the economy:
 - A) The size and growth of government:
 - i. GDP share of government spending has grown throughout the developed world
 - ii. The pace of growth differs considerably across countries
 - B) Decentralization
 - C) Spending, Taxes, Deficits, and Debt
 - D) Distribution of Spending
 - E) Distribution of Revenues
 - F) Regulatory Role of Government

- The government budget constraint:

$$B_t - B_{t-1} = D_t \quad (1)$$

where B_t stands for gross public debt at the end of period t and D_t stands for the government budget total deficit in period t . This total deficit is measured here by OECD's General Government Net Lending series. Both, B_t and D_t variables are nominal (i.e., measured in current prices).

Total deficit is broken down in two components:

$$D_t \equiv D_t^P + i_t B_{t-1} \quad (2)$$

where D_t^P and $i_t B_{t-1}$ stand for the primary budget deficit and the interest payments on outstanding public debt, in period t , respectively. We shall refer to the interest rate, i_t , defined by (2), as the "effective interest rate" of public debt in period t . Clearly, this interest rate measure varies with the definition and measurement of public debt. Combining (1) and (2) gives the following law of motion of public debt:

$$B_t = (1 + i_t) B_{t-1} + D_t^P \quad (3)$$

Let G_t and T_t denote government spending on goods and services and government revenues, respectively, in period t . By definition,

$$D_t^p = G_t - T_t \quad (4)$$

Then, we can rewrite the government budget constraint as:

$$B_t = (1+i_t)B_{t-1} + G_t - T_t \quad (5)$$

We typically analyze government spending, government revenues, deficits and debt as shares of nominal GDP. Let Y_t and y_t stand for nominal and real GDP, respectively, so that, $Y_t \equiv P_t y_t$, where P_t stands for the GDP price deflator.

Then, the law of motion of the Debt-to-GDP ratio, $b_t = \frac{B_t}{Y_t}$, can be expressed as follows:

$$b_t \equiv \frac{(1+i_t)}{(1+\pi_t)(1+\lambda_t)} b_{t-1} + d_t^p \quad (6)$$

or

$$b_t \equiv \frac{(1+i_t)}{(1+\pi_t)(1+\lambda_t)} b_{t-1} + g_t - \tau_t \quad (7)$$

where: λ_t stands for the real growth rate, $\lambda_t = \left[\frac{(y_t - y_{t-1})}{y_{t-1}} \right]$ and π_t , stands for the inflation rate, $\pi_t = \left[\frac{(P_t - P_{t-1})}{P_{t-1}} \right]$, $d_t^p = \left(\frac{D_t^p}{Y_t} \right)$ is the primary deficit share of GDP, $g_t = \left(\frac{G_t}{Y_t} \right)$ is the government spending share of GDP and $\tau_t = \left(\frac{T_t}{Y_t} \right)$ is the

government revenues share of GDP. Thus, Debt-to-GDP ratio increases with the GDP share of primary deficit and the effective interest rate on existing government debt. And, it decreases with the real growth and inflation rates.

Table 2: Average and Cumulative Debt-to-GDP Changes: 2000-2007 and 2008-2015

Country	Average Debt-to-GDP Changes (SNA08)		Average Debt-to-GDP Changes (Maastricht)		Cumulative Debt-to-GDP Changes (SNA08)		Cumulative Debt-to-GDP Changes (Maastricht)	
	2000-7	2008-15	2000-7	2008-15	2000-7	2008-15	2000-7	2008-15
Canada	-0.0274	0.0348	-	-	-0.2188	0.2783	-	-
France	0.0028	0.0565	0.0052	0.0397	0.0221	0.4518	0.0418	0.3173
Germany	0.0051	0.0150	0.0042	0.0089	0.0409	0.1452	0.0335	0.0776
Greece	0.0231	0.0848	0.0053	0.0928	0.1850	0.6786	0.0425	0.7426
Ireland	-0.0272	0.1098	-0.0284	0.0874	-0.2175	0.8780	-0.2274	0.6988
Italy	-0.0152	0.0606	-0.0125	0.0412	-0.1215	0.4848	-0.0998	0.3299
Japan	0.0431	0.0844	-	-	0.3450	0.6755	-	-
Portugal	0.0195	0.0903	0.0217	0.0757	0.1563	0.7222	0.1739	0.6053
Spain	-0.0328	0.0932	-0.0318	0.0796	-0.2622	0.7457	-0.2544	0.6366
UK	0.0007	0.0715	0.0022	0.0571	0.0052	0.5720	0.0179	0.4565
USA	0.0157	0.0609	-	-	0.1257	0.4872	-	-

Source: OECD, Economic Outlook '99, June 2016

ERASMUS PUBLIC FINANCE I: LECTURE NOTES

Table 3: Means of Variables Affecting Debt-to-GDP Changes: 2000-2007 and 2008-2015

Country	Real growth		Inflation Rate		Primary Deficit		Effective Interest Rate (SNA08)		Effective Interest Rate (Maastricht)		Cash/Accrual Accounting Discrepancy (SNA08)		Cash/Accrual Accounting Discrepancy (Maastricht)	
	2000-7	2008-15	2000-7	2008-15	2000-7	2008-15	20007	2008-15	2000-7	2008-15	2000-7	2008-15	2000-7	2008-15
Canada	0,0284	0,0149	0,0286	0,0148	-0,0282	0,0158	0,0217	0,0086	-	-	0,0284	0,0366	-	-
France	0,0211	0,0050	0,0197	0,0095	0,0016	0,0255	0,0343	0,0241	0,0419	0,0289	0,0064	0,0226	0,0034	0,0034
Germany	0,0165	0,0087	0,0089	0,0148	-0,0010	-0,0085	0,0401	0,0246	0,0412	0,0258	-0,0027	0,0269	-0,0041	0,0174
Greece	0,0405	-0,0365	0,0300	0,0029	0,0130	0,0532	0,0497	0,0331	0,0525	0,0323	0,0331	-0,0653	0,0109	-0,0648
Ireland	0,0607	0,0122	0,0364	-0,0003	-0,0250	0,0817	0,0309	0,0282	0,0344	0,0310	0,0209	0,0301	0,0167	0,0048
Italy	0,0150	-0,0106	0,0253	0,0130	-0,0156	-0,0083	0,0432	0,0348	0,0493	0,0387	0,0009	0,0300	-0,0021	0,0100
Japan	0,0152	0,0016	-0,0130	-0,0045	0,0491	0,0645	0,0034	0,0031	-	-	-0,0073	0,0110	-	-
Portugal	0,0152	-0,0069	0,0334	0,0100	0,0200	0,0316	0,0369	0,0325	0,0444	0,0359	0,0077	0,0278	0,0045	0,0115
Spain	0,0377	-0,0040	0,0385	0,0043	-0,0230	0,0572	0,0356	0,0278	0,0407	0,0317	0,0121	0,0166	0,0080	0,0025
UK	0,0289	0,0092	0,0253	0,0198	0,0030	0,0488	0,0354	0,0261	0,0489	0,0333	0,0076	0,0277	0,0015	0,0074
USA	0,0265	0,0120	0,0247	0,0152	0,0083	0,0557	0,0487	0,0302	-	-	0,0100	0,0051	-	-

Source: OECD, Economic Outlook '99, June 2016

- Distribution of Spending
 - i. public goods
 - ii. merit goods (health, education)
 - iii. transfers (unemployment, disability, social security)

Government spending by function in the EU:

[Expenditure on 'general public services'](#)

[Expenditure on 'defence'](#)

[Expenditure on 'public order and safety'](#)

[Expenditure on 'economic affairs'](#)

[Expenditure on 'environmental protection'](#)

[Expenditure on 'housing and community amenities'](#)

[Expenditure on 'health'](#)

[Expenditure on 'recreation, culture and religion'](#)

[Expenditure on 'education'](#)

[Expenditure on 'social protection'](#)

- Distribution of Revenues
 - i. income tax
 - ii corporate tax
 - iii consumption taxes (VAT)
 - iv payroll taxes
 - v property taxes

- ii. Regulatory Role of the Government
(Industrial Organization)