

Applied analysis on Budget Theories

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What is government?

- The government consists of public authorities and their instruments.

General government consists of

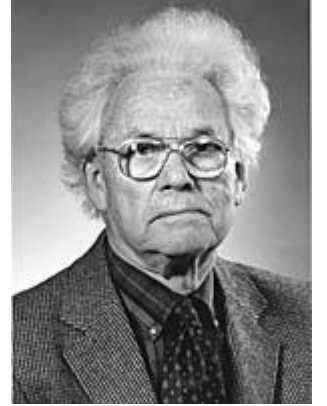
- ***Central government*** includes all governmental departments offices, establishments, and other bodies of the central authority of a country.
- ***Local government*** consists of governmental units exercising independent competence in the various urban and/or rural jurisdictions of a country's territory, such as counties, cities, towns.
- ***State governments*** are an intermediate subnational entity in federal countries such as the US, Canada, India, Australia.
- ***Social security and social assistance funds***

Roles of the government

- Increase Efficiency (Social Welfare)
- Enhance Equity (allocation of resources)
- Make Laws (collect taxes, ensures property rights)
- Applies policies under institutions (such as courts, police, government agencies)

Richard A. Musgrave

(founder of modern public finance)



- “I admit to more than only a scientific motivation ; intelligent and civilized conduct of government and the delineation of its responsibilities are at the heart of democracy. (...)
- [It] requires an understanding of the economic relations involved ; and the economist, by aiding in this understanding, may hope to contribute to a better society.”

Public Finance and Public Economics

- Public finance studies the taxing and spending activities of the government.
- Public economics concentrates on how government policies affect the economy and the distribution of resources in the economy.
 - In other words, public economics is about good governance and affects millions.

Remember public good

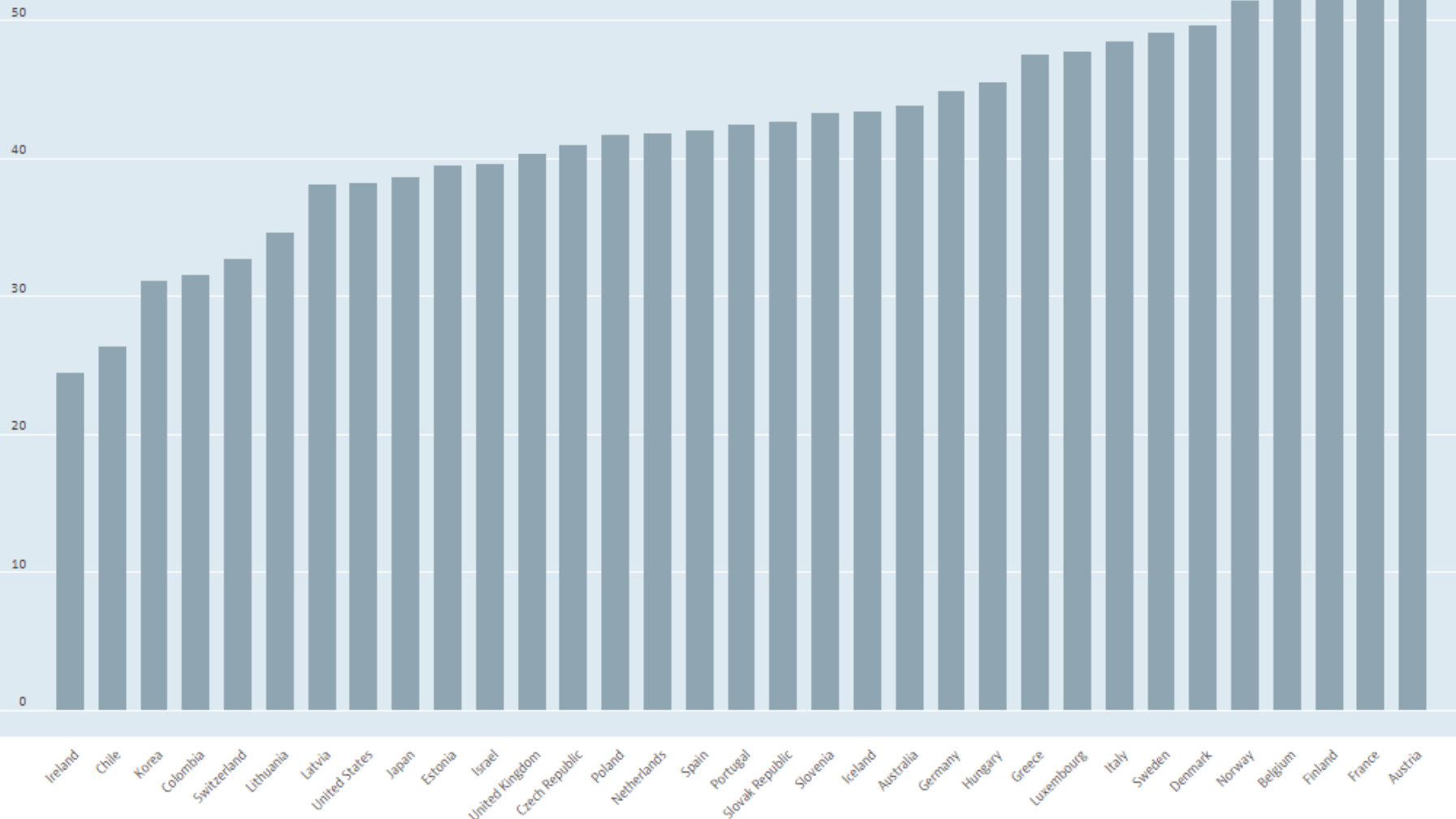
- Public goods are non-rival and non-excludable
 - e.g., street lights, national defense, public park

General government

- General government accounts presents data on fiscal balance, debt, revenues, expenditure, costs and reserves of governments.
- Central government consists of the institutional units making up the central government plus those non-profit institutions that are controlled and mainly financed by central government.
- The political authority of central government extends over the entire economy. Central government can impose taxes on all residents and non-resident units engaged in economic activities within the country.

General government spending

General government spending (Total, % of GDP, 2020 or latest available)



- General government spending provides an indication of the size of government across countries.
- The large variation in this indicator highlights the variety of countries' approaches to delivering public goods and services and providing social protection, not necessarily differences in resources spent.

Budget

- A budget is a law that shows the revenue and expenditure estimates of a state for a certain period, allowing the collection of revenues and expenditures. Budget law has three main features:
 - Budget law is a temporary law covering one year
(The budget period is, under normal circumstances, twelve months, i.e., fiscal year. For many countries, the fiscal year is coinciding with the calendar year)
 - It is a power law that gives power to the government.
 - Unlike other laws, it contains predictions
(The realizations may surpass or fall below the predictions)

Types of Budget

- **General Budget** These organizations produce public goods/services and are financed from the general taxes.
 - Parliament, Ministries, etc. (TBMM, Bakanlıklar, Jandarma Genel Komutanlığı, EGM, Diyanet, İşleri Bakanlığı, etc.)
- **Special Budget** Each has a separate legal entity.
 - University budgets, Higher Education Council etc. (YÖK, üniversiteler, Özelleştirme İdaresi, TÜBİTAK, TDK, TOKİ, etc.)
- **Regularity & Supervisory Institutions**
 - Banking Regulation and Supervision of Agency , Turkish Competition Authority, etc. (RTÜK, SPK, BDDK, EPDK, Kamu İhale Kurumu, Rekabet Kurumu, etc.)

CENTRAL GOVERNMENT BUDGET REVENUES – 2020

2020	Million TL	% GDP	2020
Gelirler	1,028,446	20.4	Revenues
Genel Bütçe Gelirleri	999,147	19.8	General Budget Revenues
Vergi Gelirleri	833,251	16.5	Tax Revenues
Gelir ve Kazanç Üzerinden Alınan Vergiler	263,898	5.2	Taxes on Income
Gelir Vergisi	158,842	3.1	Income Tax
Kurumlar Vergisi	105,057	2.1	Corporation Tax
Mülkiyet Üzerinden Alınan Vergiler	17,281	0.3	Taxes on Property
Veraset ve İntikal Vergisi	1,298	0.0	Land, Inheritance and Gift Tax
Motorlu Taşıtlar Vergisi	15,983	0.3	Motor Vehicle Tax
Dahilde Alınan Mal ve Hizmet Vergileri	314,910	6.2	Domestic Taxes on Goods and Services
Dahilde Alınan KDV	71,555	1.4	Domestic VAT
Özel Tüketim Vergisi	207,283	4.1	Special Consumption Tax
Banka ve Sig. Muameleleri V.	27,069	0.5	Banking and Insurance Transaction Tax
Şans Oyunları Vergisi	3,464	0.1	Gambling Tax
Özel İletişim Vergisi	4,488	0.1	Special Communication Tax
Dijital Hizmet Vergisi	1,061	0.0	
Uluslararası Ticaret ve Muamelelerden Alınan V.	185,452	3.7	Taxes on Foreign Trade
İthalde Alınan KDV	159,206	3.2	VAT on Import
Gümrük Vergileri ve Diğer Dış Ticaret Gelirleri	26,246	0.5	Customs Tax and Other Taxes on Foreign Trade
Damga Vergisi	20,964	0.4	Stamp Duties
Harçlar	30,741	0.6	Fees
Diğer Vergiler	4	0.0	Other Tax Revenues
Diğer Genel Bütçe Gelirleri	165,896	3.3	Non-Tax Revenues
Özel Bütçeli İdarelerin Gelirleri	21,536	0.4	Revenues From Special Budget Institutions
Düzenleyici, Denetleyici Kurulların Gelirleri	7,762	0.2	Revenues From Regularity & Supervisory Institutions

Source: Ministry of Treasury and Finance

CENTRAL GOVERNMENT BUDGET EXPENDITURES - 2020

2020	Million TL	% GDP	2020
Harcamalar	1,203,737	23.9	Expenditures
Faiz Hariç Harcamalar	1,069,775	21.2	Primary Expenditures
Personel	287,785	5.7	Personnel
Sosyal Güvenlik Kurum. Devlet Primi	48,294	1.0	Government Premiums to Social Security Agencies
Mal ve Hizmet Alımları	96,971	1.9	Good and Services Procurement
Cari Transferler	498,063	9.9	Current Transfers
Sermaye Giderleri	93,742	1.9	Capital Expenditures
Sermaye Transferleri	15,171	0.3	Capital Transfers
Borç Verme	29,750	0.6	Liability
Yedek Ödenekler	0	0.0	Reserve Appropriations
Faiz Harcamaları	133,962	2.7	Interest Payments
İç Borç Faizi	90,847	1.8	Interest Payments of Domestic Debt
Dış Borç Faizi	31,347	0.6	Interest Payments of Foreign Debt
İskonto ve Kısa Vadeli İşlemlere Ait Faiz	2,113	0.0	Interest of Discount and Short Term Cash Operations
Kira Sertifikası Giderleri	6,786	0.1	

Source: Ministry of Treasury and Finance

Central Government Budget - Turkey

Budget balance The balance between total public expenditure and revenue in a specific year, with a positive balance indicating a surplus and a negative balance indicating a deficit.

Primary budget balance The budget balance net of interest payments on general government debt.

Public debt Consolidated gross debt for the general government sector

Central Government Budget

(billion TRY)

	July		%	January-July		%	2021 Budget	2021	Real./2021
	2020	2021	Change	2020	2021	Change	Target	Target*	Target* (%)
Expenditures	116.2	141.1	21.4	681.1	804.4	18.1	1,346.1	1,454.5	55.3
Interest Expenditures	8.5	23.6	179.5	79.7	114.5	43.7	179.5	179.6	63.8
Non-Interest Expenditures	107.8	117.4	9.0	601.4	689.9	14.7	1,166.6	1,274.9	54.1
Revenues	86.5	95.3	10.1	541.9	726.1	34.0	1,101.1	1,254.6	57.9
Tax Revenues	76.0	84.7	11.5	412.0	581.7	41.2	922.7	1,051.1	55.3
Other Revenues	10.5	10.5	0.1	130.0	144.4	11.1	178.4	203.6	70.9
Budget Balance	-29.7	-45.8	54.2	-139.1	-78.3	-43.7	-245.0	-199.9	39.2
Primary Balance	-21.2	-22.2	4.4	-59.4	36.2	-	-65.5	-20.3	-

Numbers may not add up to total value due to rounding.

(*) The estimates included in the Public Finance Report published by the Ministry of Treasury and Finance in May.

Related Websites about Turkish Budget and Fiscal Policy

Ministry of Treasury and Finance

<https://en.hmb.gov.tr/>

CBRT Statistics

<http://evds.tcmb.gov.tr/>

What is a Good Tax System?

Revenue Adequacy

- The tax collection should be sufficient to meet with expenditure requirements.
- Tax revenues should increase in line with the growth of GNP.
- The entire tax system should adapt itself to the transitions in the economic conditions.

Stability

- The stability of tax revenues is important for good government.
- Revenue instability will cause new programs to be poorly implemented.
- Stability in the tax rules and rates over time allows the private sector to make long term plans more efficiently.

Simplicity

- A Tax system should be simple so that it is easy to comply with by taxpayers.
- Simplicity must apply to the administration of the law as well as its legal structure.
- A complex tax system imposes high level of compliance costs on tax payers and a high cost of administration on the government.

Tax neutrality

- For an ideal tax system, there must be neutrality so that decisions are made on their economic merits and not for tax reasons.
- It should not create major distortions in consumption and production behavior and not by favor any parties.

Economic Efficiency

- A tax is efficient if the deadweight loss or efficiency cost is small.

Problems resulting from Bad Tax System

- Insufficient revenues will force the government to borrow using government bonds/bills or sometimes even to seignorage.
- Deficit financing by domestic borrowing leads to the crowding out effect (to the private sector)
- Deficit financing by foreign borrowing can be risky.
- Deficit financing by Central Bank borrowing leads to inflation which may lead to financial crises.
- Can create a disincentive to work
- Lower competition in the market
- May create distortions in the market and regarding the behaviour of the economic units.

Main categories of taxes

a) Direct Taxes

- personal income tax
- business or corporate tax

b) Indirect Taxes

- sales taxes (Value Added Tax)
- trade taxes

c) Property Taxes

- wealth tax
- estate and gift tax
- asset tax

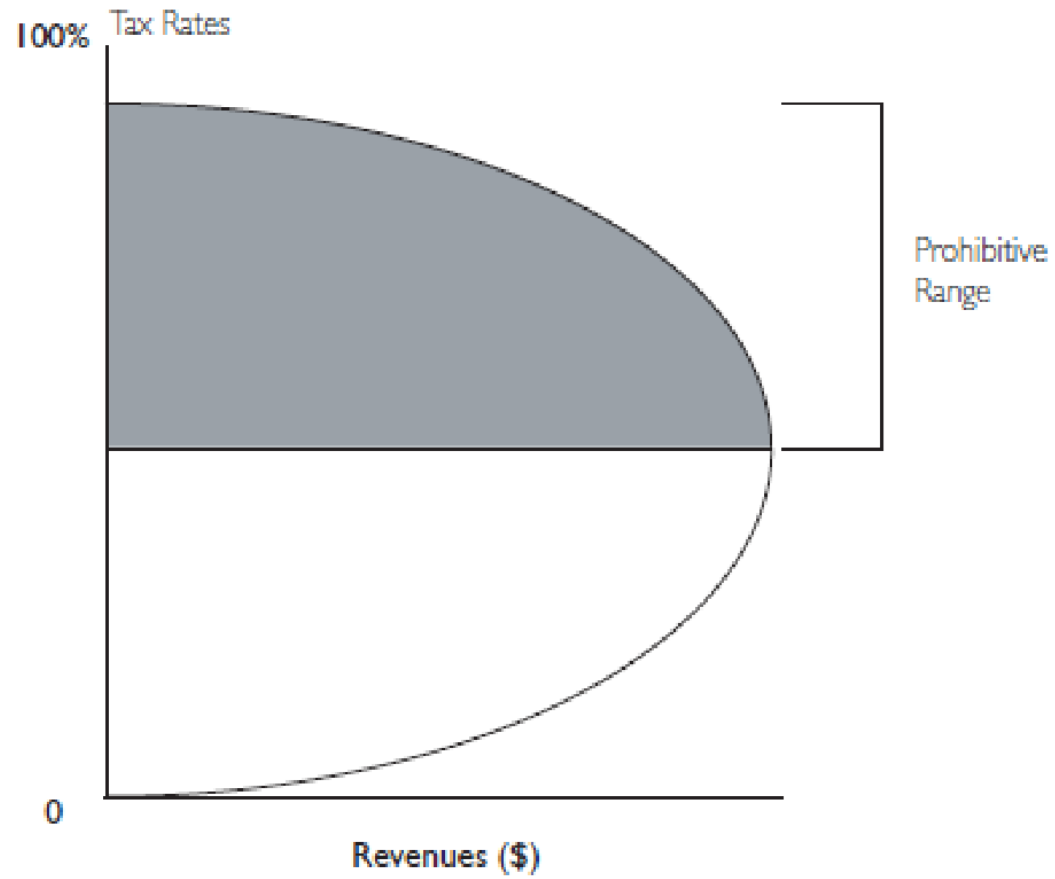
d) User Charges

- users charges
- environmental taxes

Laffer Curves

- Arthur B. Laffer stated that “there are always two tax rates that yield the same revenues” during a business dinner in 1974 (Wanniski, 1978). An increase in a tax rate would have two opposing effects.
- One is to increase tax revenue directly. The other is to reduce tax revenue because a high tax rate decreases the incentive to supply labor and to investment. As a result, tax revenue is possibly a hump-shaped function of tax rate; this is the so called “Laffer curve.”

The Laffer Curve



Source: Arthur B. Laffer

Additional Importance?

- EU perspective (Maastricht criteria)
 - Annual general government deficit relative to GDP must not exceed 3%
 - The ratio of gross government debt relative to GDP must not exceed 60%
- **Twin deficit hypothesis**
 - Its importance for an emerging country

CENTRAL GOVERNMENT BUDGET FINANCING - 2020

2020	Million TL	% GDP	2020
Nakit Dengesi	-172,798	-3.4	Cash Balance
Finansman	172,798	3.4	Financing
Dış Borçlanma, Net	24,932	0.5	Foreign Borrowing, Net
Kullanım	67,895	1.3	Receipts from Loans
Ödenen	-42,963	-0.9	Payments on Loans
İç Borçlanma, Net	224,131	4.4	Domestic Borrowing, Net
TL Cinsinden Hazine Bonosu	-18,261	-0.4	YTL Denominated T-Bills
Satış	23,937	0.5	Receipts
Ödenen	-42,197	-0.8	Payments
Döviz Cinsinden Hazine Bonosu	0	0.0	FX Denominated T-Bills
Satış	0	0.0	Receipts
Ödeme	0	0.0	Payments
TL Cinsinden Devlet Tahvili	112,207	2.2	YTL Denominated G-Bonds
Satış	255,109	5.1	Receipts
Ödenen	-142,902	-2.8	Payments
Döviz Cinsinden Devlet Tahvili	130,184	2.6	FX Denominated G-Bonds
Satış	163,244	3.2	Receipts
Ödenen	-33,060	-0.7	Payments
Net Borç Verme (-)	-1,094	0.0	Net Lending (-)
Borç Verme	48	0.0	Lending
Geri Ödeme (-)	1,142	0.0	Repayment (-)
Özelleştirme Geliri	0	0.0	Privatization Revenue
TMSF Gelir Fazlaları	0	0.0	
Kasa/Banka ve Diğer İşlemler	-77,358	-1.5	Currency/Deposit and Other Transactions

Source: Ministry of Treasury and Finance

CENTRAL GOVERNMENT DEBT STOCK - 2020

Merkezi Yönetim Borç Stokunun Enstrüman Yapısına Göre Dağılımı	Million TL	% GDP	Central Government Debt Stock - By Instrument Type
Toplam	1,812.8	35.9	Total Stock
İç Borç Stoku	1060.4	21.0	<u>Domestic Debt Stock</u>
Hazine Bonosu	0.0	0.0	Treasury Bill
Devlet Tahvili	1060.4	21.0	Government Bond
Dış Borç Stoku	752.5	14.9	<u>External Debt Stock</u>
Uluslararası Tahvil	593.0	11.7	International Bond
Kredi	159.5	3.2	Loan

Merkezi Yönetim İç Borç Stokunun Elinde Bulunduranlara Göre Dağılımı ⁽¹⁾	Million TL	% GDP	Composition of <u>Domestic Debt</u> Stock By Holders ⁽¹⁾
Toplam	1213.2	24.0	Total
Yurt İçi Yerleşikler	1164.9	23.1	Residents
Bankacılık Kesimi	823.0	16.3	Banking Sector
Kamu Bankaları	423.8	8.4	Public Banks
Özel Bankalar	222.9	4.4	Private Banks
Yabancı Bankalar	92.6	1.8	Foreign Banks
Kalkınma ve Yatırım Bankaları	18.9	0.4	Development and Investment Banks
Banka Dışı Kesim ⁽²⁾	64.9	1.3	Non-Banking Sector ⁽²⁾
Gerçek Kişiler	252.6	5.0	Retail Investors
Tüzel Kişiler	11.6	0.2	Corporate Investors
Menkul Kıymet Yatırım Fonları	161.4	3.2	Securities Mutual Funds
TCMB ⁽³⁾	79.7	1.6	CBRT ³
Yurtdışı Yerleşikler	89.3	1.8	Non Residents

Ricardian Equivalence

- *"People will tend to save rather than consume the extra income arising from such spending. This is because people understand that whatever amount a government overspends today has to be repaid in the future in the form of higher taxes, thus unraveling a government's efforts to stimulate the economy. "*

Sum, V., 2008. "Jargon Alert", Ricardian Equivalence, Richmond Fed publication, p.6.

Twin Deficit

- Why budget balance is important?
- $BB \rightarrow CAB$ (reduced form)
- $BB \downarrow \rightarrow i \uparrow \rightarrow XR \downarrow \rightarrow X \downarrow, M \uparrow \rightarrow CAB \downarrow$ (open form for the transmission mechanism)

CAB - BB

- Dataset from Turkey
- Using Excel
- Graph & scatter diagram
- Drawing regression line
- Calculating correlation

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