Public Finance, Fiscal Policy and Monetary Policy

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What Is Public Finance?

- **Public Finance**, field of economics concerned with how governments raise money, how that money is spent, and the effects of these activities on the economy and on society
- **Public finance** studies how governments at all levels—national, state, and local—provide the public with desired services and how they secure the financial resources to pay for these services.

What Is Public Finance? Con..

- In many industrialized countries, spending and taxation by the government form a large portion of the nation's total economic activity.
  - For example, total government spending in the Japan equals about 38 percent of the nation's gross domestic product

Economics of the Public Sector

- Mercantilist view – govt. promotion of trade and industry (colonies)
- Adam Smith –invisible hand guides markets to provide goods and services, competition weeds out inefficiency
- Subsequent recognition of **market failures-** barriers to entry/exit, public goods, externalities, incomplete markets, information and coordination problems, macro-disequilibrium (Stiglitz)

Adam Smith on the Role of the State

- The three duties of the sovereign –
  - protecting society from the violence and invasion of other societies – by maintaining a standing armed force
  - protecting every member of society from injustice or oppression by others – by establishing an exact administration of justice
  - erecting and maintaining those public institutions and public works which*, though they may be in the highest degree advantageous to a great society ..the profit could never repay the expense of any individual or small number of individuals .. to erect or maintain.*
    - *chiefly for facilitating commerce (roads, bridges, canals, harbors, etc.) and for promoting education*

Adam Smith on the Role of the State

- So Smith anticipated public goods but not other forms of market failure (externalities, incomplete markets, etc.)
- No mention of social protection or transfers

Role of Modern Government

- To use regulation, taxation and public provision/financing to correct for market failures, improving the **efficiency** of the economy and overall **growth**
- To use public policy instruments to improve **equity** and protect the vulnerable
- Need to take into account the scope for government failure
- Political and economic ideology determines size and scope for government (welfare state, urbanization, health pandemics, regional conflicts, ODA)

The Theory of Public Finance

- Government functions: allocation, distribution and stabilization (Musgrave)
- Revenue is needed to finance public goods and services, to redistribute income, and to regulate macroeconomic balances
- Raising revenue is not costless – disincentive effects of taxation and administrative costs of collection
- Efficiency requires taxing goods that are inelastic, tax consumption rather than labor or capital, use broad based taxes
- Debt is a form of deferred revenue raising (Ricardian equivalence)

Public spending

- Theory offers some general principles for expenditure policy
  - Public expenditure is inefficient if it crowds out private expenditure
  - Some kinds of goods and services would be welfare and growth enhancing – those that markets fail to produce
  - Equity can be enhanced by public provision of good&services to the poor or other target groups

Why Public Finance Is Needed?

- Governments provide *public goods*—government-financed items and services such as roads, military forces, lighthouses, and street lights.
- Private citizens would not voluntarily pay for these services, and therefore businesses have no incentive to produce them.

Why Public Finance Is Needed?

- Public finance also enables governments to correct or offset undesirable side effects of a market economy.
- These side effects are called *spillovers* or *externalities.*
  - Example: households and industries may generate pollution and release it into the environment without considering the adverse effect pollution has on others.

Why Public Finance Is Needed?

- Pollution is a spillover because it affects people who are not responsible for it.
- To correct a spillover, governments can encourage or restrict certain activities.
  - For example, governments can sponsor recycling programs to encourage less pollution, pass laws that restrict pollution, or impose charges or taxes on activities that cause pollution.

Why Public Finance Is Needed?

- Public finance provides government programs that moderate the incomes of the wealthy and the poor.
- These programs include social security, welfare, and other social programs.
  - For example, some elderly people or people with disabilities require financial assistance because they cannot work.

Why Public Finance Is Needed?

- Governments redistribute income by collecting taxes from their wealthier citizens to provide resources for their needy ones.
- The taxes fund programs that help support people with low incomes.

Public Spending

- Each year national, Provincial, and local governments create a budget to determine how much money they will spend during the upcoming year.
- The budget determines which public goods to produce, which spillovers to correct, and how much assistance to provide to financially disadvantaged people.

Public Spending

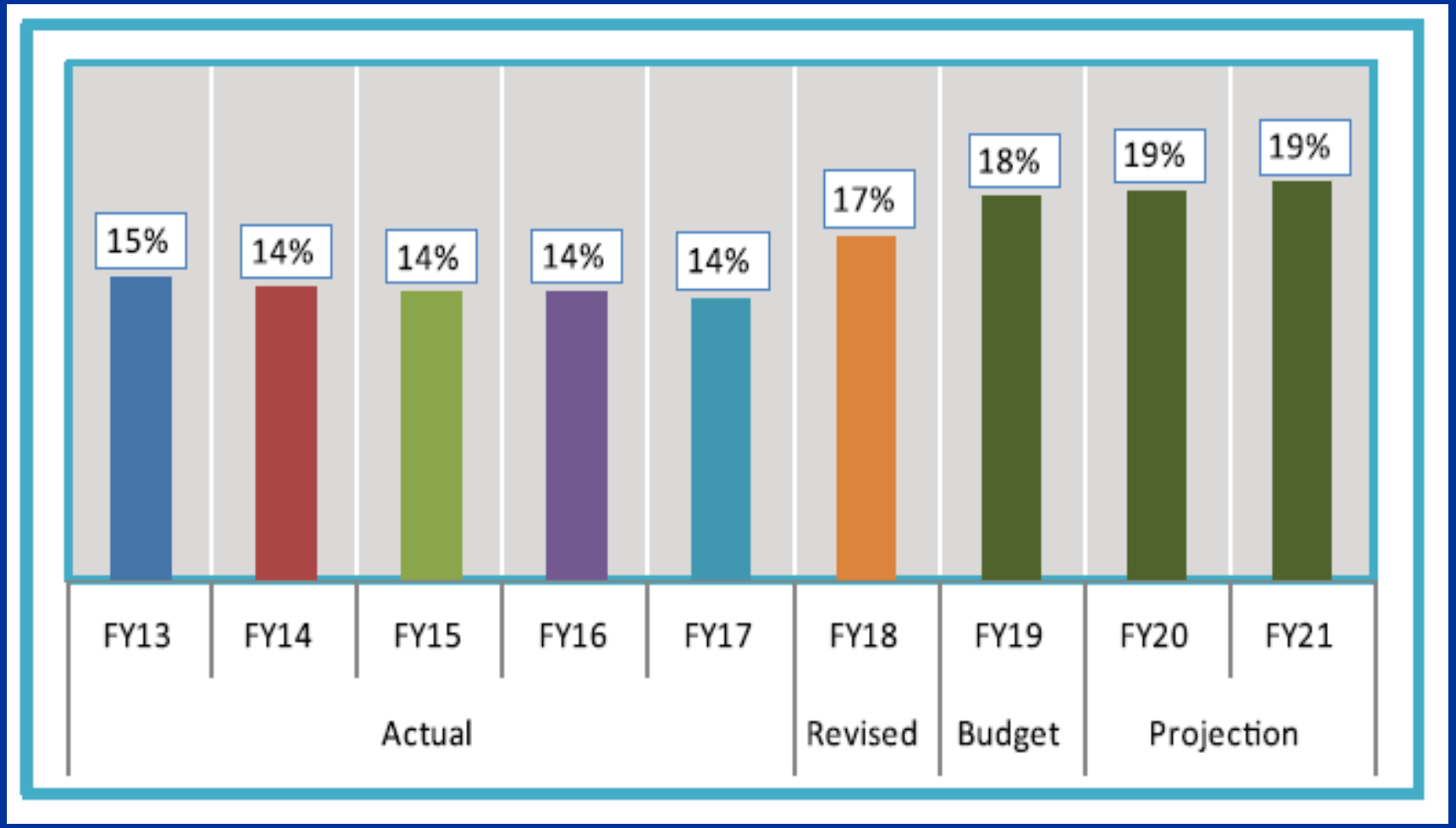
- The Executive Head of the government—such as the prime minister, governor, or mayor—proposes the budget.
- The legislature—such as the parliament, Provincial council, or Municipality council—ultimately must pass the budget.
- The legislature often changes the size and composition of the budget, but it must not make changes that the chief administrator will reject and veto.

Public Sector Spending Across the World

Country	Government expenditure/GDP
France	56.5
Denmark	52.2
Belgium	52.2
Australia	37.1
USA	35.7
Vietnam	28.2
India	27.8
Nepal	27.7
Malaysia	22.5
Bangladesh	13.6

Source: WEO, April 2018, IMF

Government Spending in Bangladesh (% 0f GDP)

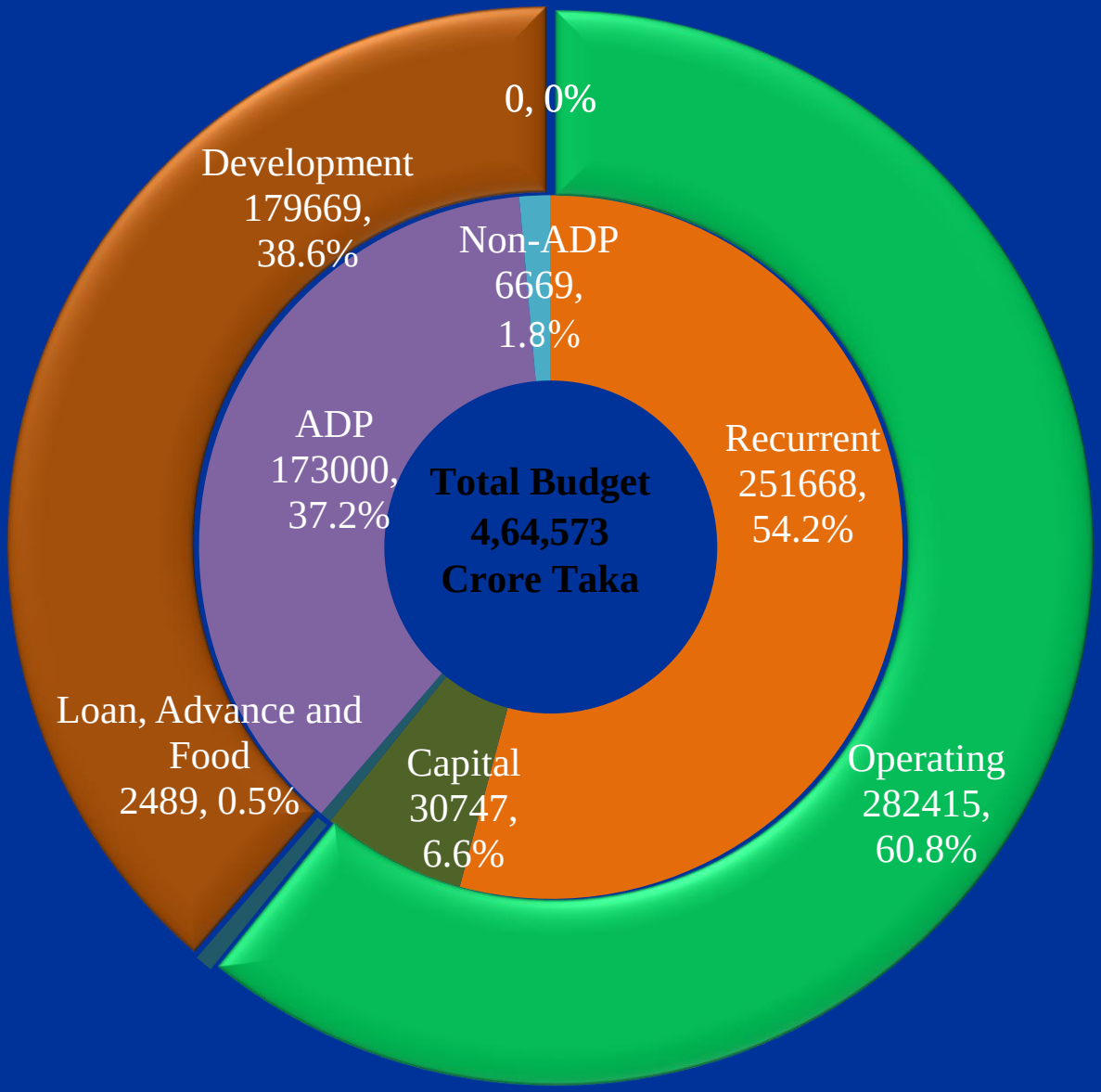


Composition of Expenditure in Bangladesh

Items	FY 12	FY 13	FY14	FY15	FY16	FY 17	FY18
	Actual						Revised
Total Expenditure	14.4	14.6	14.1	13.8	13.9	13.6	16.6
Current Expenditure	8.5	8.4	8.2	7.9	8.3	8.2	8.7
Pay and Allowance	2.0	1.8	2.0	1.9	2.3	2.5	2.4
Goods and Services	1.1	1.1	1.1	1.1	1.1	1.0	1.2
Interest Payment	1.9	2.0	2.1	2.0	1.9	1.8	1.7
Domestic	1.8	1.9	2.0	1.9	1.8	1.7	1.6
Foreign	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Subsidies and Transfer	3.5	3.4	3.1	2.8	3.1	2.9	3.4
Block Allocation & SAP	0.0	0.0	0.3	0.2	0.1	0.2	0.0
Food Account Balance	0.1	0.0	0.0	0.1	0.0	0.1	0.2
Non-ADP Capital and Net Lending	2.3	2.1	1.4	1.3	0.8	0.8	1.1
Annual Development Programme	3.6	4.1	4.1	4.3	4.7	4.3	6.6

Source: Finance Division, Ministry of Finance

Spending in Bangladesh in FY19



Expenditure by Sector

Name of the Sector	Expenditure and Allocation (Billion Taka)					
	Actual		Revised	Budget	Projection	
	FY16	FY17	FY18	FY19	FY20	FY21
Public Services	136.6	313.0	417.3	835.1	867.8	931.9
Local Government and Rural Development	199.1	179.1	299.8	326.7	356.3	391.6
Defense Services	208.2	236.2	264.2	290.8	305.4	320.7
Public Order and Safety	163.7	196.9	239.8	265.9	280.8	302.3
Education and Technology	284.8	486.4	599.3	679.4	731.6	804.7
Health	125.2	66.2	200.2	233.8	257.2	282.9
Social Security and Welfare	153.2	162.1	219.0	271.6	289.4	311.2
Housing	38.6	50.1	37.8	49.6	54.5	60.0
Recreation, Culture and Religious Affairs	23.4	32.4	34.1	43.4	46.7	50.7
Fuel and Energy	169.8	146.2	242.6	249.2	274.1	301.5
Agriculture	178.6	168.9	210.3	262.6	264.7	272.0
Industrial and Economic Services	19.6	22.0	29.6	34.7	36.9	39.5
Transport and Communication	235.2	229.0	469.5	564.6	620.1	682.7
Total Programme Expenditure	**1935.9**	**2288.5**	**3263.5**	**4107.4**	**4385.5**	**4751.5**

Source: Finance Division, Ministry of Finance

Public Revenue

- Governments must have funds, or revenue, to pay for their activities.
- Governments generate some revenue by charging fees for the services they provide, such as entrance fees at national parks or tolls for using a highway.
- However, most government revenue comes from taxes, such as income taxes, *capital taxes,* and *sales* and *excise taxes.*

Public Revenue

- An important source of tax revenue in most industrialized countries is the income or payroll tax, also known as the *personal income tax.*
- Income taxes are imposed on labor or activities that generate income, such as wages or salaries.
- In the United States, income taxes account for about half of the total revenue of local, state, and federal governments combined.

Public Revenue

- Another important source of government revenue is the capital tax.
- Capital includes items or facilities that generate profits, such as factories, business machinery, and real estate.
- Some types of capital taxes are known as “profits” taxes.
- One kind of capital tax used by the federal government in the United States is the *corporate income tax.*
- A *property tax* is a capital tax used by state and local governments. Property taxes are levied on items such as houses or boats.

Public Revenue

- Sales and excise taxes are also a major source of government tax revenue.
- Many state and local governments levy a sales tax on the purchase of certain items.
- Consumers usually pay a percentage of the sales price as the tax.
- Excise taxes are used by all levels of government.
- An excise tax is levied on a specific product, such as alcohol, cigarettes, or gasoline.
- In Canada and many European, South American, and Asian countries, a *value-added tax (VAT)* provides significant revenue.

Public Revenue (Cont.)

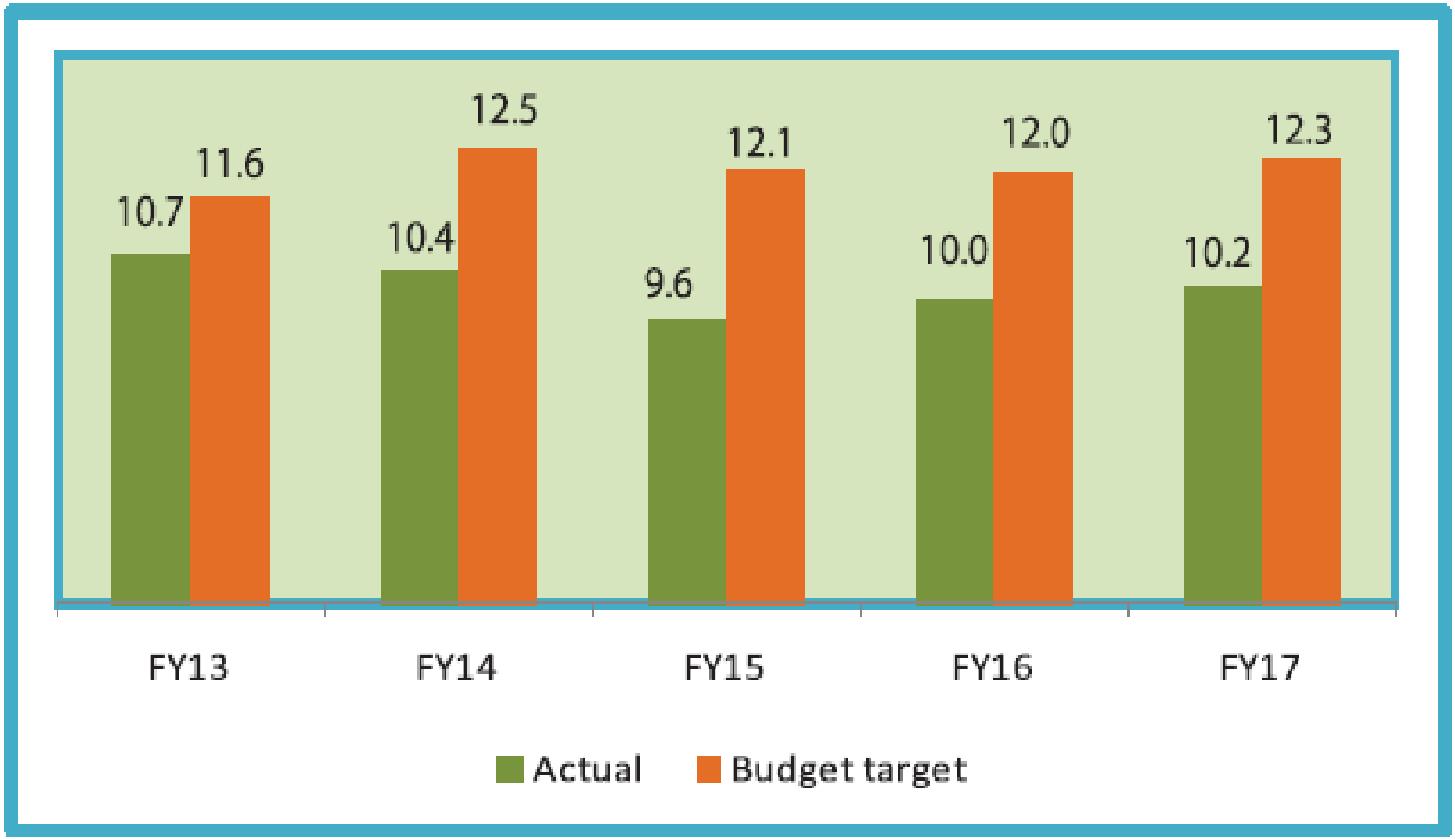
- The VAT is levied on the value added to a product during production as its components are assembled into final goods.
- For example, a clothing manufacturer might spend $500 on fabric, thread, zippers, and other goods required to make dresses. The manufacturer then adds $1000 to cover the costs of labor and the use of machines and equipment and sells the dresses for a total of $1500. The value-added tax is paid on this $1000.

Revenue Mobilization Across the World

Country/Regions	Total General Government Revenue (% of GDP)					
	2013	2014	2015	2016	2017	Avg.
Bangladesh	11.2	10.9	9.8	10.1	10.2	10.4
India	19.6	19.2	20.3	20.9	20.9	20.1
Nepal	19.6	20.4	20.8	23.4	26.3	22.1
Pakistan	13.5	15.2	14.5	15.5	15.7	14.9
Sri Lanka	12.0	11.6	13.3	14.2	13.8	13.0
Advanced Economies	36.7	36.6	36.2	36.1	36.0	36.3
Emerging and Developing Asia	25.2	25.3	25.8	25.5	24.9	25.3
ASEAN-5	19.8	19.4	18.9	18.2	17.8	18.8
Sub-Saharan Africa	20.6	19.8	18.0	16.9	17.6	18.6

Source: World Economic Outlook, IMF April 2018

Revenue Mobilization in Bangladesh (% of GDP)



Sources of Revenue in Bangladesh

(Billion Taka)

Revenue Sources	Fiscal Year				
	FY13	FY14	FY15	FY16	FY17
(a) Tax Revenue (a1+a2)	1074.5 (83.8)	1160.3 (82.7)	1287.9 (88.2)	1518.8 (87.8)	1778.2 (88.5)
(a1) NBR Tax Revenue	1033.3 (80.6)	1114.2 (79.4)	1239.7 (84.9)	1462.4 (84.6)	1715.2 (85.4)
(a2) Non-NBR Taxes	41.2 (3.2)	46.1 (3.3)	48.2 (3.3)	56.4 (3.3)	63.0 (3.1)
(b) Non-Tax Revenue (NTR)	208.1 (16.2)	243.4 (17.3)	171.7 (11.8)	210.7 (12.2)	230.0 (11.5)
Total Revenue (a+b)	1282.6	1403.7	1459.7	1729.5	2008.2

Source: Finance Division; Figures in ( ) indicate % of total revenue

Government Deficits

- When the government spends more than it receives, it runs a *deficit*.
- Governments finance deficits by borrowing money.
- Deficit spending—that is, spending funds obtained by borrowing instead of taxation—can be helpful for the economy.

Example

- When unemployment is high, the government can undertake projects that use workers who would otherwise be idle.
- The economy will then expand because more money is being pumped into it.
- However, deficit spending also can harm the economy.
- When unemployment is low, a deficit may result in rising prices, or inflation. The additional government spending creates more competition for scarce workers and resources and this inflates wages and prices

Budget Deficit and Financing in Bangladesh

(Billion Taka)

Source of Financing	FY13	FY14	FY15	FY16	FY17
Total Financing required	467.7	478.4	584.2	654.9	675.0
	(3.9)	(3.6)	(3.9)	(3.8)	(3.4)
External (Net)	129.6	97.1	72.3	147.7	128.8
	(1.1)	(0.7)	(0.5)	(0.9)	(0.7)
Loans	138.9	119.4	119.9	195.5	188.5
Grants	72.7	63.6	23.2	19.1	12.3
Amortization	82.0	85.9	70.8	66.9	72.0
Domestic	338.09	381.4	511.7	506.0	558.7
	(2.8)	(2.8)	(3.4)	(2.9)	(2.8)
Bank	252.3	181.7	5.1	106.1	-83.8
Non-Bank	85.8	199.7	506.6	399.9	642.5
NSC	7.7	117.1	287.1	341.5	518.0
Others	78.1	82.6	219.5	58.4	124.5

Source: Finance Division; Figures in ( ) indicate % of GDP

Debt Profile in Bangladesh

(Billion Taka)

Indicators	Actual	Budget	Budget(R)	Projection		
	FY17	FY18	FY18	FY19	FY20	FY21
Total Debt	6083.2	6676.0	6676.0	7930.3	9333.7	10920.5
	(30.8)	(30.0)	(29.8)	(31.2)	(32.3)	(33.2)
Domestic	3736.5	3973.0	3973.0	4712.2	5672.3	6820.1
	(18.9)	(17.9)	(17.7)	(18.6)	(19.7)	(20.7)
	{61.4}	{59.5}	{59.5}	{59.4}	{60.8}	{62.5}
External	2346.7	2703.1	2703.1	3218.1	3661.4	4100.4
	(11.9)	(12.2)	(12.1)	(12.7)	(12.7)	(12.5)
	{38.6}	{40.5}	{40.5}	{40.6}	{39.2}	{37.5}

Source: Finance Division; Figures in ( ) indicate % of GDP and in { } indicates % of total debt stock

How Public Finance Affects the Economy?

- Government spending and taxation directly affect the overall performance of the economy.
- For example, if the government increases spending to build a new highway, construction of the highway will create jobs. Jobs create income that people spend on purchases, and the economy tends to grow.
- The opposite happens when the government increases taxes. Households and businesses have less of their income to spend, they purchase fewer goods, and the economy tends to shrink.

What is Fiscal Policy?

- Fiscal policy refers to the government choices regarding the overall level of government purchases and taxes;
- Fiscal Policies are reflected in the Government Budget ;
- A budget shows, for a given fiscal year, the planned expenditures for government programs and the expected revenue from tax and non-tax sources.

What is Fiscal Policy?

- A government budget typically contains a list of specific programs (education, health, defense, etc.) as well as tax sources

Objectives of Fiscal Policy

- Stability
- Growth
- Poverty Alleviation and Equitable Distribution
- Market correction
- Complement monetary policy and exchange rate policy to achieve national goals

FP Components: Revenue/Tax

- Revenue/Tax policy
  - Core to fiscal policy
  - A specific policy, declared at the beginning of the FY (subject to change time to time)
- Components (tax- direct and indirect)
- Revenue sources (Tax: NBR & Non-NBR, and Non-Tax)
- Types of Taxes (progressive, proportional and regressive)
- Role of Tax Policy
  - Taxes free up resources for public expenditures
  - Reduce the purchasing power of taxpayers
  - Resources are freed from production of the goods of services that they would otherwise use

FP Components: Expenditure

- Role of Expenditure Policy
  - A tool the government uses to reach its objectives
  - Public expenditure increase aggregate demand as well as aggregate supply
- Public Expenditure includes (recurrent and capital expenditure)
  - Non-development expenditure
  - Development expenditure: ADP, Non-ADP projects, FFW
  - Others
- Budget Deficit: Gap between revenue and expenditure

FP Components:Revenue/Tax

- Revenue/Tax policy
  - Core to fiscal policy
  - A specific policy, declared at the beginning of the FY (subject to change time to time)
- Revenue sources (Tax and Non-Tax)
- Types of Taxes
  - direct and indirect

FP Components:Revenue/Tax

- Role of Tax Policy
  - Taxes free up resources for public expenditures
  - Reduces the purchasing power of taxpayers
  - Resources are freed from production of the goods of services that they would otherwise use
  - Create fiscal space for providing public goods/utilities
  - Redistributes the income in favor of the poor

FP Components: Expenditure

- Role of Expenditure Policy
  - A tool the government uses to reach its objectives
  - Public expenditure increase aggregate demand as well as aggregate supply
- Public Expenditure includes (recurrent and capital expenditure)
- Budget Deficit: Gap between revenue and expenditure

FP Components: Expenditure (Cont.)

- Different sources of deficit financing have different macroeconomic consequence
- Total Expenditure (TE) – Total Revenue (TR)

  = -Deficit

  = Financing

  = Foreign source (grant + loan)+ Domestic source (Bank+Non-bank)

Types of Fiscal Policy

- Discretionary Fiscal Policy
- Non-Discretionary Fiscal Policy
- Expansionary
- Contractionary

Types of Fiscal Policy (Cont.)

- Discretionary Fiscal Policy is deliberate changes of government expenditures and/or taxes to achieve particular economic goals
- Non-discretionary Fiscal Policy refers to the changes in government expenditures and/or taxes that occur automatically without (additional) Parliamentary action

Expansionary Fiscal Policy

- Expansionary fiscal policy refers to increases in government expenditures and/or decreases in taxes to achieve macroeconomic goals.
- When actual output is less than potential output, expansionary fiscal policy is applied
- Expansionary fiscal policy influences output, employment and price level by changing aggregate demand

Expansionary Fiscal Policy (cont.)

- Changes in aggregate demand depends on two factors:
  - Multiplier effect
  - Crowding out effect

Multiplier

- The multiplier is the amount by which equilibrium output changes when autonomous spending increases by 1 unit
- Government purchases are said to have a multiplier effect on aggregate demand.
- Each unit of money spent by the government can raise the aggregate demand for goods and services by more than a unit of money.

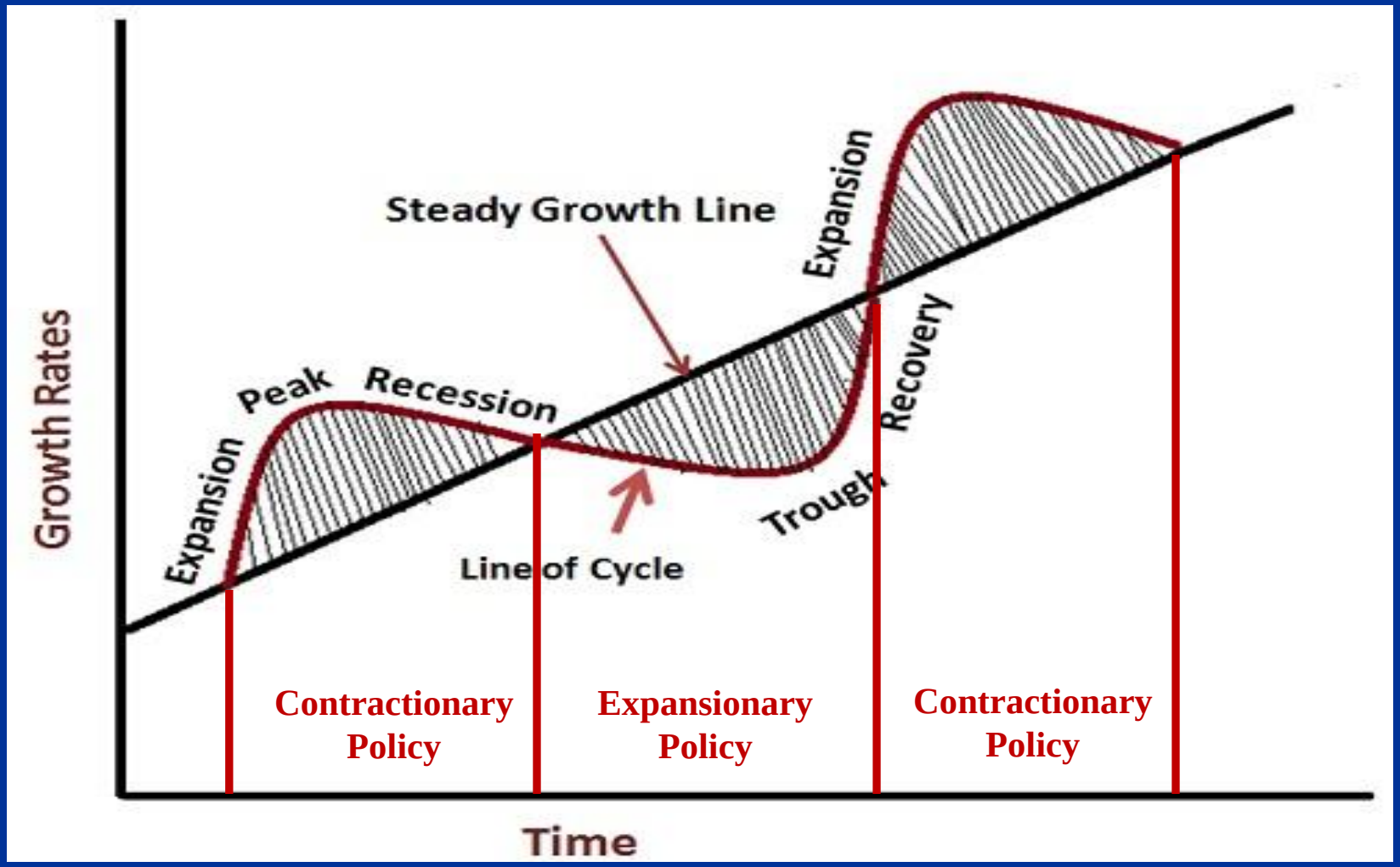
Crowding out

- Crowding out occurs when expansionary fiscal policy causes interest rate to rise, thereby reducing private spending, particularly investment
- Crowing out may happen because of the direct substitution of public services for consumer spending or private investment may be reduced because of higher interest rates

Contractionary fiscal policy

- Contractionary fiscal policy attempts to decrease government expenditures and/or increases in taxes to achieve macroeconomic goals.
- Contractionary fiscal policy is appropriate when actual output is above potential output
- It is mainly applied for inflation control

Policy timing



Changes in Taxes

- When the government cuts personal income taxes, it increases households' take-home pay.
  - Households save some of this additional income.
  - Households also spend some of it on consumer goods.
  - Increased household spending shifts the aggregate-demand curve to the right.

Fiscal policy and aggregate supply

- Short run macroeconomic effects of fiscal policy work primarily through aggregate demand
- But in the long run fiscal policy action can influence aggregate supply as well.
  - A tax cut can cause to shift AS to the right by providing incentives to work
  - Government spending on capital formation can also increase AS at each price level and hence can cause to shift AS to the right

Monetary Policy

- Monetary policy refers to the policies of central bank or monetary authority of a country by which output and employment are influenced by changing money supply;
- Changes in money supply is associated with interest rate.
  - When money supply increases interest rate goes down which stimulates investment and thereby output;

Monetary policy instrument

- **Direct Instrument:**
  - ✓ Interest rate controls,
  - ✓ Credit ceilings,
  - ✓ Directed lending policy
- **Indirect Instrument:**
  - ✓ Legal reserve requirement,
  - ✓ Open market operations,
  - ✓ Repurchase operations,
    - ➢ Repo and reverse repo
  - ✓ Discount window

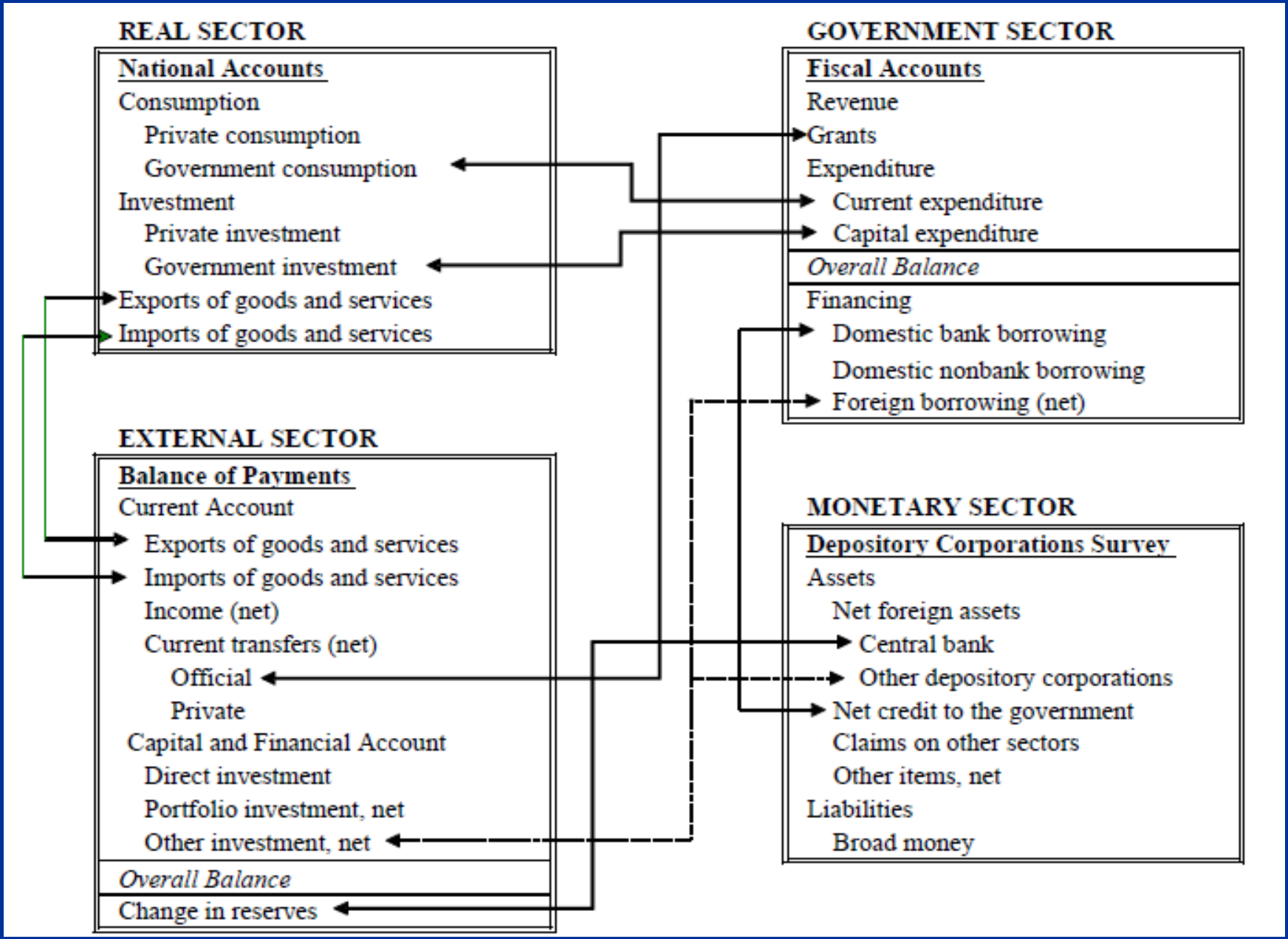
Monetary vs fiscal policy: Relative effectiveness

- Relative effectiveness of monetary and fiscal policies depend on the exchange rate regime and degree of capital mobility

	Exchange rate regime	
Fiscal policy	**Fixed**	**Floating**
High capital mobility	Very effective	Less effective
Low capital mobility	Less effective	Very effective
Monetary policy		
High capital mobility	Not effective	Very effective
Low capital mobility	Not effective*	Effective
* Unless forex intervention is sterilized		

Interaction between Monetary and Fiscal Policies

- Fiscal policy can affect monetary policy both in direct and indirect channel
- Direct effect relates to composition of deficit financing and government revenue
- Many indirect channels such as perceptions and expectations of large budget deficits and resulting large borrowing requirements may cause a lack of confidence in the economic prospects. This may become a risk to the stability in financial markets.


REAL SECTOR
National Accounts
Consumption
Private consumption
Government consumption
Investment
Private investment
Government investment
Exports of goods and services
Imports of goods and services
GOVERNMENT SECTOR
Fiscal Accounts
Revenue
Grants
Expenditure
Current expenditure
Capital expenditure
Overall Balance
Financing
Domestic bank borrowing
Domestic nonbank borrowing
Foreign borrowing (net)
EXTERNAL SECTOR
Balance of Payments
Current Account
Exports of goods and services
Imports of goods and services
Income (net)
Current transfers (net)
Official
Private
Capital and Financial Account
Direct investment
Portfolio investment, net
Other investment, net
Overall Balance
Change in reserves
MONETARY SECTOR
Depository Corporations Survey
Assets
Net foreign assets
Central bank
Other depository corporations
Net credit to the government
Claims on other sectors
Other items, net
Liabilities
Broad money

Impacts of Fiscal Policy action on Monetary Policy (Deficit Finance)

Total Expenditure (TE) – Total Revenue (TR)

= -Deficit

= Financing

= Central Bank+ Commercial Bank + Non- Bank + Foreign

- Central Bank ⟶ Printing Money ⟶ Inflation and real appreciation
- Commercial Bank and Non-Bank ⟶ Availability of loanable fund ⟶ Interest rate
- Foreign source ⟶ Net foreign asset ⟶ ER and Sterilization cost

Impacts of Fiscal Policy action on Monetary Policy (Composition of Revenue)

Total Revenue (TR)= Direct Tax Revenue (DTR)+ Indirect Tax Revenue (IDTR)+ Grant (Gr)

- Increase in IDTR will have a direct impact on prices
- Wage-price spiral may be created and permanent inflationary expectations may be formed
- Increase in Grant may lead to ER appreciation and increase sterilization cost

Thank you