

## **DESCRIPTION & LEARNING OBJECTIVES**

The “MacroEconomica” game simulates the macro-economic variables of your country in a global world.

Each participant manages an independent country. The participant would have to manage key parameters such as GDP Growth, Unemployment, Inflation and Fiscal Deficit using decision variables at their disposal – Money Supply, Tax, Govt Spending, Trade Policy and Foreign Exchange Policy.

The country would be exposed to global shocks and policy decisions must be used to counter the effects of such shocks. The macro-economic theoretical concepts such as IS-LM Curves, AS-AD Curves, Mundell-Fleming model would come in handy while maneuvering through the game.

Each round is equivalent to 6 months in the game. The participants are evaluated on the basis of their performance in key parameters with relative to others.

The general process is to enter your country's decisions for a given period. Then, in the tournament game, you will advance to the next time period in accordance to the specified schedule that will be given to you. You must make sure that the decisions are submitted before the specified times otherwise input of previous round would be repeated for current round. (Note: in other games, you will be competing against computer managed firms and will be able to advance the game by yourself). After end of each period, your decisions are evaluated relative to the competition and a set of reports are generated for your introspection.

## DESCRIPTION OF GAME DECISIONS

Each country has 5 policy decisions at their disposal to tackle the issues of GDP Growth, Unemployment, Inflation and Fiscal Deficit.

The screenshot displays the 'MacroEconomic' game interface. The top navigation bar includes 'Home', 'My Account', and 'Log Out [Aakash]'. The main header features the 'MacroEconomic' logo and a graph showing IS-LM curves (IS<sub>1</sub>, IS<sub>2</sub>, LM<sub>1</sub>, LM<sub>2</sub>) and AD curves (AD<sub>1</sub>, AD<sub>2</sub>). The interface is divided into a left sidebar with navigation options and a main content area. The 'Decision' section includes a 'News' box with a message about economic forecasts, followed by an 'Enter Inputs for Round 2' section with three sliders for 'Money Supply Growth Rate' (5), 'Tax Rate' (25), and 'Govt Spending Rate' (25). At the bottom, there are radio buttons for 'Open Economy' and 'Closed Economy'.

### Money Supply Growth Rate

The term 'Money Supply' means currency notes and bills issued by the central bank of your country. There are various measures of Money Supply, namely M1, M2, M3 and M4. But, here in the game we are concerned about Growth Rate of Money Supply. It is an important parameter as increase in supply of money lowers interest rates which in turn spur investment into the country, in turn generating employment for the locals. In general the Growth Rate of Money Supply can even be negative or greater than 100, but in the game its minimum and maximum value are -25 and +25 respectively.

### Tax Rate

The term 'Tax' would be known to you in many forms – direct, indirect, income, sales, wealth etc. But, here in the game we are concerned about Tax Collection as a percentage of GDP Output. It is an important parameter as on one hand higher taxes gives the country necessary means to spend on development but on the other hand higher taxes affects investment. In general the Tax Rate can be any value from 0 to 100, but in the game its minimum and maximum value are +4 and +40 respectively.

### **Govt Spending Rate**

Government Spending is required in various ways such as salaries of civil employees, social schemes, infrastructure spending to promote welfare and development across different societies of the country. Here in the game we are concerned about Govt Spending as a percentage of GDP Output. It is an important parameter as on one hand higher spending generates employment but on the other hand spending over and above taxes balloons fiscal deficit. In general the Govt Spending Rate can be any value from 0 to 100, but in the game its minimum and maximum value are +25 and +45 respectively.

### **Trade Policy**

Trade Policy is a very wide subject, ranging from Import-Export Taxes to Trade Agreements to Most Favored Nation Treaty and so on. Here in the game we are concerned about the Country's policy of being 'Closed' or 'Open'. An 'Open' economy has great benefits but also leaves open the country susceptible to shocks completely foreign in nature. In the game, the decision variable can be changed only after third round.

### **Foreign Exchange Policy**

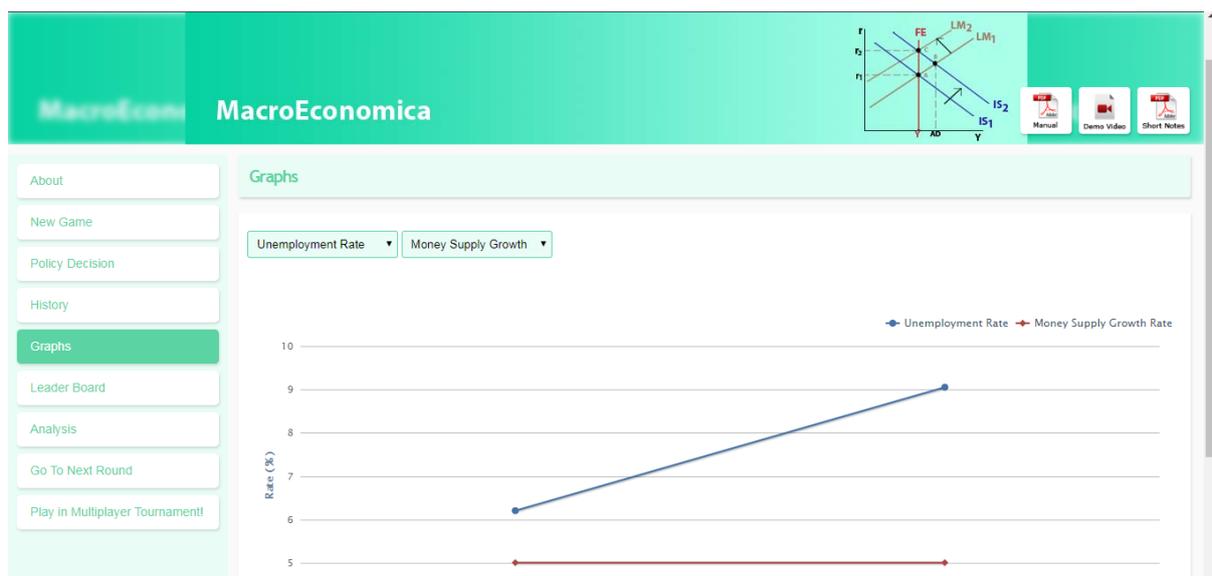
Foreign Exchange Policy is a very wide subject, ranging from Fixed-Floating to Market Intervention to Currency Reserves and so on. Here in the game we are concerned about the Country's Exchange Rate policy of being 'Fixed' or 'Floating'. A country with an 'Open' economy and 'Fixed' rate Exchange Policy, renders its monetary policy ineffective. In the game, the decision variable would be 'Fixed' if the country's Trade Policy is equal to 'Closed' economy.

## DESCRIPTION OF GAME SCREENS

The screen description is intended to give you a preview of what's in store for you in the game. It is critical to clearly understand the screens here although there is no replacement of in-game practice.

### Graphs

A dynamic page wherein a participant can study relation between two variables over a period of time.



## Leader Board

In Leader Board, players are ranked on 5 parameters – GDP Growth Rate, Inflation Rate, Fiscal Surplus Rate, Unemployment Rate and Overall Rank. The highest GDP Growth Rate and Fiscal Surplus Rate would get the best rank whereas the lowest Inflation Rate and Unemployment Rate would get the best rank. The overall rank is computed as sum of all the ranks.

The screenshot shows the LEARNBIZ MacroEconomic interface. The top navigation bar includes 'Home', 'My Account', and 'Log Out [Aakash]'. The main header features the 'MacroEconomic' logo and a graph showing the IS-LM model with curves for  $FE$ ,  $LM_1$ ,  $LM_2$ ,  $IS_1$ , and  $IS_2$ . Below the header is a sidebar with navigation options: About, New Game, Policy Decision, History, Graphs, Leader Board (highlighted), Analysis, Go To Next Round, and Play in Multiplayer Tournament. The main content area is titled 'Leader Board' and displays a table with columns for 'Overall Rank', 'GDP Growth Rate', 'Inflation Rate', 'Fiscal Surplus Rate', and 'Unemployment Rate'. The table is filtered to show 'Overall' rankings.

Rank	User Name
1	aakash
1	computer

This screenshot shows the same LEARNBIZ MacroEconomic interface, but the 'Leader Board' section is filtered to show 'Long Term GDP Growth Rate' rankings. The table includes an additional column for 'GDP Growth Rate'.

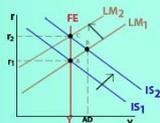
Rank	User Name	GDP Growth Rate
1	aakash	2.1%
1	computer	2.1%

## History

In History, the decisions and various output variables of last 5 rounds (2.5 years) would be displayed.

LEARNBIZ
Home My Account Log Out [Aakash]

MacroEcon
MacroEconica



Manual

Demo Video

Short Notes

About

New Game

History

Graphs

Leader Board

Analysis

Play in Multiplayer Tournament!

History

Round	0	1	2	3	4
Money Growth Rate	5.0%	5.0%	5.0%	5.0%	5.0%
Govt. Spending Rate	25.0%	25.0%	25.0%	25.0%	25.0%
Tax Rate	25.0%	25.0%	25.0%	25.0%	25.0%
Trade Policy	Closed	Closed	Closed	Closed	Closed
Foreign Exchange Policy	Fixed	Fixed	Fixed	Fixed	Fixed
GDP Growth Rate	3.4%	2.1%	1.8%	2.9%	2.8%