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**Bicol University**  
**College of Business, Economics and Management**  
**Daraga, Albay**

**ELECTIVE 1**  
**GLOBAL FINANCE**  
**WITH**  
**ELECTRONIC BANKING**  
**A Modularized Instruction**

by

**Janet G. Poja**  
**Evangeline D. Honrado**





## **Vision**

A world-class university producing leaders and change agents for social transformation and development

## **Mission**

Give professional and technical training, and provide advanced and specialized instruction in literature, philosophy, the sciences, and arts besides providing for the promotion of scientific and technological researches (RA5521, Section 3.0)

## **BU Quality Policy**

Bicol University commits to continually strive for excellence in instruction, research and extension by meeting the highest level of clientele satisfaction and adhering to quality standards and applicable statutory and regulatory requirements

## **BU Core Values**

Scholarship, Leadership,  
Character, Service



## **Institutional Learning Outcomes:**

Every BU graduate should:

1. Demonstrate critical thinking and integrative skills to solve problems and to support lifelong learning;
2. Communicate effectively and appropriately orally and in writing for various purposes with the responsible use of ICT tools;
3. Collaborate with diverse people ethically and with mastery of knowledge and skills in given disciplines; and
4. Create knowledge and innovation to promote inclusive development as well as globalization.

## **Program Learning Outcomes:**

A graduate of a Business Administration degree should be able to:

1. Analyze the business environment for strategic direction;
2. Prepare operational plans;
3. Innovate business ideas based on emerging industry;
4. Manage a strategic business unit for economic sustainability;
5. Conduct business research.



## **Welcome to Elective 1 Global Finance With Electronic Banking course!**

Congratulations for successfully finishing your basic business management courses last semester. This course is part of understanding the role of finance in the global context of business.

This material is your guide in successfully navigating and finishing this course. Read this material before starting any lesson in this course because it outlines all information and requirements that you need to complete the course.

### **You as learner ☺**

The students are expected to have gone through the basic business management subject to appreciate and relate the role of finance in global trade and economy as a whole.

For this semester, the university identified three (3) types of learners, namely: students with

- A. good internet access (able to participate in synchronous activity);
- B. poor to fair internet access (able to participate in asynchronous activities only); and
- C. no internet connection.

Type of Learner	Mode of Access to Learning Materials	Submission of Activities and Outputs
A	<ul style="list-style-type: none"> <li>• All resources will be accessed through the course site (BU-LMS).</li> <li>• May avail consultation online and synchronous during scheduled consultation time.</li> <li>• Participate in the discussion forum</li> </ul>	Output will be submitted on the course site (BU-LMS)
B	<ul style="list-style-type: none"> <li>• All resources will be accessed through the course site (BU-LMS).</li> <li>• May avail consultation online (asynchronous).</li> <li>• Participate in the discussion forum (asynchronous)</li> </ul>	Output will be submitted on the course site (BU-LMS) during their most convenient time within the allotted time.
C	<ul style="list-style-type: none"> <li>• All resources will in PRINTED form. Maybe accessed in uploaded and download the materials in specific app for messaging or via official email which is more accessible for students with no internet connection.</li> </ul>	

Note: You should inform me on the first week of classes your preferred mode of delivery.

**Course Structure & Schedule**  
**The course has 6 modules. Each of**  
**the module is consist**

Week	Topic	Activities
Week 1 Jan. 18 – 22	Course Overview  Basic Corporate Finance	<ol style="list-style-type: none"> <li>1. Read the course guide</li> <li>2. Orientation and Familiarization of the course site (BU-LMS)</li> <li>3. Introduce yourself in the forum for “Self Introduction”</li> <li>4. Participate in the forum “BU VMGO”</li> <li>5. Read Material and accomplish activity for Module 1</li> </ol>
Week 2 Jan. 25 – 29	Basic Corporate Finance	<ol style="list-style-type: none"> <li>1. Participate in Forum for Module 1</li> <li>2. Review materials for Module 1</li> </ol>
Week 3 Feb. 1 – 5	Basic Corporate Finance	<ol style="list-style-type: none"> <li>1. Accomplish task in Module 1</li> <li>2. Submit end activity for Module 1</li> </ol>

## COURSE GUIDE

Week 4 Feb. 8 – 12	Basics of International Finance	<ol style="list-style-type: none"> <li>1. Read materials for Module 2</li> <li>2. Review discussions and accomplish activity for Module 2</li> </ol>
Week 5 Feb. 15 – 19	Basics of International Finance	<ol style="list-style-type: none"> <li>1. Review and accomplished outputs of Module 2</li> <li>2. Submit/Upload output.</li> </ol>
Week 6 and 7 Feb. 22 – Mar. 6	International Trade and Multinational Corporations	<ol style="list-style-type: none"> <li>1. Read materials for Module 3</li> <li>2. Participate in Discussion Forum for Module 3</li> <li>3. Review discussions and accomplish activity for Module 3</li> </ol>
Week 8 Mar. 8 – 12	International Trade and Multinational Corporations	<ol style="list-style-type: none"> <li>1. Submit output for Module 3</li> </ol>
Week 9 Mar. 15 – 19		MIDTERM

## COURSE GUIDE

Week 10 & 11 Mar. 22 – Apr. 2	Theories of International Finance	<ol style="list-style-type: none"><li>1. Read materials for Module 4</li><li>2. Participate in Discussion Forum for Module 4</li><li>3. Review discussions and accomplish activity for Module 4</li></ol>
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## COURSE GUIDE

Week 12 & 13 Apr. 5 – 16	Sources of International Finance	<ol style="list-style-type: none"> <li>1. Read Materials for Module 5</li> <li>2. Accomplish activity and submit output for Module 5</li> </ol>
Week 14 Apr. 19 – 23	Sources of International Finance	<ol style="list-style-type: none"> <li>1. Submit/Upload Module 5 Activity</li> <li>2. Read materials and accomplish activities for Module 6</li> </ol>
Week 15 Apr. 26 - 30	Transfer Pricing and Asset Management	
Week 16 & 17 May 3 – 14	Transfer Pricing and Asset Management	<ol style="list-style-type: none"> <li>1. Review accomplished outputs of Module 6</li> <li>2. Submit/Upload outputs from previous Module 6</li> </ol>
Week 18 May 17 - 21		FINALS

## COURSE GUIDE

### **Information:**

For students with no connectivity they will be asked to submit their activities for the module twice: first half of the coverage of the subject which is from Module 1 to Module 4. If the student can submit earlier the said activities by uploading it will be benefit for both of the parties.

The students who belongs to Category A and B are advised to follow the schedule given in the course guide. The students are also encouraged to submit the activities earlier than prescribed period of submission .

## Course Requirements / Assessment Activities

The assessment that will be used is categorized into two: formative and summative. For the formative assessment, you will encounter pre-discussion activities in every module that are intended to aid you in learning and validate your gained knowledge in each lesson; this will not be recorded or graded.

Summative assessment will all be graded; it will be:

- Module activities at the end of each module, which will be graded on weekly basis. This will serve as an immediate feedback mechanism for you to know if you need to go back to the previous module.
- Major Exams per term (Midterm and Final Examination). The major exams scheduled online examinations (See Course Schedule). Details will be given during classes and will be available in the course site.

Rubrics will be used for the evaluation of your outputs whenever applicable and can be accessed on the course site.

## Grading System

As indicated in the course syllabus, your course performance will be evaluated based on the following criteria:

Midterm/Tentative Final Grade:

Module Submitted Activities      60%

Term Examinations/Output      40 %

Final Grade Computation:

$1/2$  (Midterm Grade) +  $1/2$  (Tentative Grade)

## Learning Resources

To aid your learning, resources will be provided along the duration of the course it will be available on the course site. However, for those with poor internet connection may schedule time to connect to university Wi-Fi and download all term materials. The learning resources are:

### 1. Modules

Modules will be prepared per lesson and is uploaded in the course site. Each module in the manual has its own set of Self-Assessment Tests. You are required to read all the modules and take the self-assessment tests. You will also find the activities at the end of each module which you need to accomplish and submit on the indicated date.

### 2. Video Lectures/Resources

Video lectures/resources are additional resources to help you better understand the topic. They are YouTube videos and the links are provided in the module and course site sorted per topic. You are not required to watch the videos; however, it will be a great resource should you access it.

### 3. Additional Reading Materials

Reading assignments are indicated in some of the modules, you are encouraged to read it and engage in it to ensure understanding. Concepts or lessons from the reading materials are included in the Self-Assessment Test of their respective modules.

*\*The learning resource will be depending on the type of learner the student is.*

## Other Guidelines

As we start, I just would like to share some guidelines that we have to observe here as we learn together:

- First, we abide in Honor Code. Meaning you are expected NOT to plagiarize and cheat in any of the class activities;
- Second, any form of bullying is not acceptable. In participating in Discussion Forums, you are expected to be respectful and polite with one another; and
- Lastly, you are expected to engage with the material, with me, and with your classmates whenever possible. For the complete list of Class Policies and Guidelines, please refer to our course syllabus.

During online forum or consultation, the student shall inform the faculty-in charge if they will record the proceedings.

Any concern about the class the student can approach the faculty-in charge observing appropriate manner.

I will be happy to assist you in the best of my ability and resources with regards to your class concerns.

**Caveat:** *The faculty in-charge reserve the right to make adjustments or changes throughout the semester. Remind students that they are responsible to learn about these changes if they miss any class time.*

## About your Faculty-In Charge



I will be your faculty-in charge for the subject Elective 1 Global Finance With Electronic Banking.

If you have any question please feel free to ask me via my contact details. You can message me on your concern about the subject.

Email address: [jgpoja@bicol-u.edu.ph](mailto:jgpoja@bicol-u.edu.ph)

Facebook Messenger: Janet Poja

Consultation Schedule: Wed 8:00 to 10:00

## COURSE DESCRIPTION

### **Course Description:**

Review of basic corporate finance terms; issues in international trade and multinationals; macro determinants of exchange rates; foreign exchange markets; futures and options; parity conditions and more on hedging; measuring accounting exposure; managing accounting exposure; international financing; capital budgeting and the cost of capital; transfer pricing and asset management.

**An Important Reminder: ☺**

The modules are exclusive for your class. Do not share in any form this module to anyone who is not included or not participating in the class. This is customized for you and exclusive for our class this academic year. The modules are for class discussion and not intended for any other matter. Keep your focus in finishing the course. I am hoping that you will keep this reminder as we pursue learning about the subject for this semester. Thank you ☺

The modules in Financial Management covers topics along the foundations of the subject.

The following are the modules of the course material:

**Module I**

Basic Corporate Finance

**Module II**

Basics of International Finance

**Module III**

International Trade and  
Multinational Corporations

**Module IV**

Theories of International Finance

**Module V**

Sources of International Finance

**Module VI**

Transfer Pricing and Asset Management

## COURSE LEARNING OUTCOME

### **Course Learning Outcome**

The learners should be able to:

- Discuss the basic concepts of corporate finance
- Discuss the basics of international finance
- Understand the relationship of international trade and multinational corporations
- Discuss theories of international finance
- Discuss the sources of international finance and the relevance of electronic banking
- Understand and discuss transfer pricing and asset management

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# MODULE I

## Basic Corporate Finance

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## Introduction

Welcome to the first module of our course for Global Finance With Electronic Banking. Let us understand more about the corporate finance here in the module.

This module covers the following topics: Defining Corporate Finance; Three Important Activities that Govern Corporate Finance; Importance of a Company's Capital Structure in Corporate Finance.

### **Specific Learning Outcomes**

At the end of the module you are expected to:

- Know and understand corporate finance
- Determine the three important activities that govern corporate finance
- Understand the role of capital structure in corporate finance

# MODULE I

## Discussion

### *Defining corporate finance*

Corporate finance deals with the capital structure of a corporation, including its funding and the actions that management takes to increase the value of the company. Corporate finance also includes the tools and analysis utilized to prioritize and distribute financial resources.

The ultimate purpose of corporate finance is to maximize the value of a business through planning and implementation of resources, while balancing risk and profitability.

Corporate Finance Activities		
Capital Investments	Capital Financing	Dividends & Return of Capital
Decide what projects / acquisitions to invest in  Earn the highest possible risk-adjusted return	Determine how to fund capital investments  Optimize the firm's capital structure	Decide how and when to return capital to investors

# MODULE I

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## ***The Three Important Activities that Govern Corporate Finance***

### *#1 Investments & Capital Budgeting*

Investing and capital budgeting includes planning where to place the company's long-term capital assets in order to generate the highest risk-adjusted returns. This mainly consists of deciding whether or not to pursue an investment opportunity, and is accomplished through extensive financial analysis.

By using financial accounting tools, a company identifies capital expenditures, estimates cash flows from proposed capital projects, compares planned investments with projected income, and decides which projects to include in the capital budget.

Financial modeling is used to estimate the economic impact of an investment opportunity and compare alternative projects. An analyst will often use the Internal Rate of Return (IRR) in conjunction with Net Present Value (NPV) to compare projects and pick the optimal one.

# MODULE I

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## ***The Three Important Activities that Govern Corporate Finance***

### *#2 Capital Financing*

This core activity includes decisions on how to optimally finance the capital investments (discussed above) through the business' equity, debt, or a mix of both. Long-term funding for major capital expenditures or investments may be obtained from selling company stocks or issuing debt securities in the market through investment banks.

Balancing the two sources of funding (equity and debt) should be closely managed because having too much debt may increase the risk of default in repayment, while depending too heavily on equity may dilute earnings and value for original investors.

Ultimately, it's the job of corporate finance professionals to optimize the company's capital structure by lowering its Weighted Average Cost of Capital (WACC) as much as possible.

# MODULE I

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## ***The Three Important Activities that Govern Corporate Finance***

### *#3 Dividends and Return of Capital*

This activity requires corporate managers to decide whether to retain a business's excess earnings for future investments and operational requirements or to distribute the earnings to shareholders in the form of dividends or share buybacks.

Retained earnings that are not distributed back to shareholders may be used to fund a business' expansion. This can often be the best source of funds, as it does not incur additional debts nor dilute the value of equity by issuing more shares.

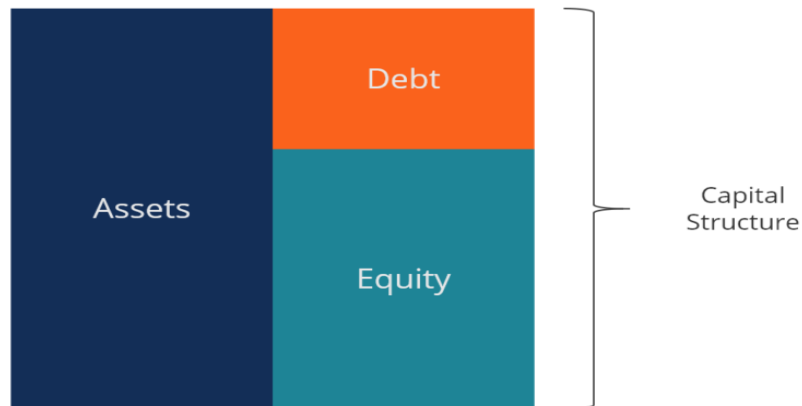
At the end of the day, if corporate managers believe they can earn a rate of return on a capital investment that's greater than the company's cost of capital, they should pursue it. Otherwise, they should return excess capital to shareholders via dividends or share buybacks.

# MODULE I

## ***How Important is a Company's Capital Structure in Corporate Finance?***

A company's capital structure is crucial to maximizing the value of the business. Its structure can be a combination of long-term and short-term debt and/or common and preferred equity. The ratio between a firm's liability and its equity is often the basis for determining how well balanced or risky the company's capital financing is.

A company that is heavily funded by debt is considered to have a more aggressive capital structure and, therefore, potentially holds more risk for stakeholders. However, taking this risk is often the primary reason for a company's growth and success.





# MODULE I

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## Synthesis



The ultimate purpose of corporate finance is to maximize the value of a business through planning and implementation of resources, while balancing risk and profitability.

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## MODULE II

### *Basics of International Finance*

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## **Introduction**

This module will provide basic information about international finance. It includes the topic on the fundamentals of exchange rate, parity conditions in international finance and long term investment decisions.

## **Specific Learning Outcomes**

At the end of the module you are expected to:

- Identify the fundamentals of exchange rate
- Understand the conditions in international finance
- Discuss the issues in international finance particularly on exchange rate and investments

## MODULE II

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### **Discussion**

#### ***Determinants of Exchange Rates***

##### ***Differentials in Inflation***

As a general rule, a country with a consistently lower inflation rate exhibits a rising currency value, as its purchasing power increases relative to other currencies. During the last half of the twentieth century, the countries with low inflation included Japan, Germany and Switzerland, while the U.S. and Canada achieved low inflation only later. Those countries with higher inflation typically see depreciation in their currency in relation to the currencies of their trading partners. This is also usually accompanied by higher interest rates.

##### ***Differentials in Interest Rates***

Interest rates, inflation and exchange rates are all highly correlated. By manipulating interest rates, central banks exert influence over both inflation and exchange rates, and changing interest rates impact inflation and currency values. Higher interest rates offer lenders in an economy a higher return relative to other countries. Therefore, higher interest rates attract foreign capital and cause the exchange rate to rise. The impact of higher interest rates is mitigated, however, if inflation in the country is much higher than in others, or if additional factors serve to drive the currency down. The opposite relationship exists for decreasing interest rates - that is, lower interest rates tend to decrease exchange rates.

## MODULE II

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### ***Current-Account Deficits***

The current account is the balance of trade between a country and its trading partners, reflecting all payments between countries for goods, services, interest and dividends. A deficit in the current account shows the country is spending more on foreign trade than it is earning, and that it is borrowing capital from foreign sources to make up the deficit. In other words, the country requires more foreign currency than it receives through sales of exports, and it supplies more of its own currency than foreigners demand for its products. The excess demand for foreign currency lowers the country's exchange rate until domestic goods and services are cheap enough for foreigners, and foreign assets are too expensive to generate sales for domestic interests.

### ***Public Debt***

Countries will engage in large-scale deficit financing to pay for public sector projects and governmental funding. While such activity stimulates the domestic economy, nations with large public deficits and debts are less attractive to foreign investors. The reason? A large debt encourages inflation, and if inflation is high, the debt will be serviced and ultimately paid off with cheaper real dollars in the future

## MODULE II

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In the worst case scenario, a government may print money to pay part of a large debt, but increasing the money supply inevitably causes inflation. Moreover, if a government is not able to service its deficit through domestic means (selling domestic bonds, increasing the money supply), then it must increase the supply of securities for sale to foreigners, thereby lowering their prices. Finally, a large debt may prove worrisome to foreigners if they believe the country risks defaulting on its obligations. Foreigners will be less willing to own securities denominated in that currency if the risk of default is great. For this reason, the country's debt rating (as determined by Moody's or Standard & Poor's, for example) is a crucial determinant of its exchange rate.

### ***Terms of Trade***

A ratio comparing export prices to import prices, the terms of trade is related to current accounts and the balance of payments. If the price of a country's exports rises by a greater rate than that of its imports, its terms of trade have favorably improved. Increasing terms of trade shows greater demand for the country's exports. This, in turn, results in rising revenues from exports, which provides increased demand for the country's currency (and an increase in the currency's value). If the price of exports rises by a smaller rate than that of its imports, the currency's value will decrease in relation to its trading partners.

## MODULE II

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### ***Political Stability and Economic Performance***

Foreign investors inevitably seek out stable countries with strong economic performance in which to invest their capital. A country with such positive attributes will draw investment funds away from other countries perceived to have more political and economic risk. Political turmoil, for example, can cause a loss of confidence in a currency and a movement of capital to the currencies of more stable countries.

### ***Exchange Rate***

Refers to the value of one country's currency versus the another country's currency

The exchange rates are mostly free-floating. It will rise or fall depending on the supply and demand of the currency in the market. However, some currencies have restrictions and not free-floating.

## MODULE II

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### **Types of Exchange Rates**

#### **Free Floating**

These rate usually rises and falls due to the variation in the foreign exchange market.

#### **Restricted Currencies**

Some currencies have restrictions which limits the exchange between countries. The restriction of the currencies have also set value by the government.

#### **Currency Peg**

The are instances that when a country will peg their currency with another country.

#### **Onshore Vs. Offshore**

In some cases, the exchange rate can be different for the same country. There is what you call on shore and offshore rate. The most favorable rate will be the one accepted for trade versus those outside the country's borders.

## MODULE II

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### **Spot vs. Forward**

The spot rate refers to the current market value of the exchange rate. However the forward rate refers to the expected value of the exchange rates in one country versus the other.

### **Quotation**

The exchange rate is usually quoted by using an acronym. The exchange rate is expressed between the two currencies which will participating in the exchange for example the USD for the United States Dollar and PhP for Philippine Peso. We will have USD/PhP meaning the exchange will be between the dollar and the peso.

## MODULE II

### **Capital Budgeting for Foreign Direct Investment**

#### ***Direct Foreign Investment***

- occurs when a company from one country makes a physical investment into building a factory in another country.
- A multinational corporation (MNC) is one that has control over this investment.
- The method used to evaluate foreign investments is very similar to the method used to evaluate capital budgeting decisions in a domestic context.

#### ***Foreign Investment Risks***

1. Business risk related to the specific product or service and the uncertainty associated with that market. (also present in domestic capital budgeting)

2. Financial risk is the risk imposed on the investment as a result of how the project is financed. (also present in domestic capital budgeting)

3. Political risk - political instability leading to changes in policies such as:

- a. Expropriation of plants and equipment
- b. Non-convertibility of the subsidiary's foreign earnings
- c. Substantial changes in tax rates.
- d. Requirements regarding the local ownership of business.

4. Exchange rate risk - risk that the value of the firm's operations and investments will be adversely affected by changes in exchange rates.

For example, if the Japanese Yen depreciates, it will translate to fewer dollars when it is sent back to the U.S.



## MODULE II

### Synthesis



The gain of one currency maybe a loss in another currency. The consideration of the international investing and financing factors are important before, during and after financial transactions. Nonetheless, as a financial manager you must always weigh your decisions based from the perspective of the firm and its objectives in its international activities.

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# MODULE III

## *International Trade and Multinational Corporations*

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## MODULE III

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### **Discussion**

#### ***Definition of Multinational corporations***

Multinational corporations are corporations that move resources, goods, services, and skills across national boundaries without regard to the country in which their headquarters are located.

Some are so rich and have so many employees that they resemble small countries. For example, the sales of both Exxon and Walmart are larger than the GDP of all but a few nations in the world. Multinational companies are heavily engaged in international trade. The successful ones take political and cultural differences into account.

Many global brands sell much more outside the United States than at home. Coca-Cola, Philip Morris's Marlboro brand, Pepsi, Kellogg, Pampers, Nescafe, and Gillette, are examples.

## MODULE III

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### ***Advantages of Multinational corporations***

- ✓ First, they can sidestep restrictive trade and licensing restrictions because they frequently have headquarters in more than one country.
- ✓ Multinationals can also move their operations from one country to the next depending on which location offers more favorable economic conditions.
- ✓ In addition, multinationals can tap into a vast source of technological expertise by drawing upon the knowledge of a global workforce.

### ***Benefits of MNCs***

- ✓ In addition to providing revenue, MNCs generate jobs, stimulate local economies, as well as create and share culture.
- ✓ They also introduce previously unavailable goods and services, advanced technologies, and management techniques. Local MNCs can then take advantage of these benefits, becoming more competitive and creating their own opportunities to do business across national borders.

## MODULE III

### Top 10 of the Fortune Global 500\*

Rank	Company	Country	Revenues (\$ Mil.)	Revenues (% Change)	Profits (\$ Mil.)	Profits (% Change)
1	Walmart	U.S.	523,960	1.9	14,880	123.1
2	Sinopec Group	China	407,010	-1.8	6,793	16.2
3	State Grid	China	383,910	-0.8	7,970	-2.5
4	China National Petroleum	China	379,130	-3.5	4,443	95.7
5	Royal Dutch Shell	Netherlands	352,110	-11.2	15,840	-32.2
6	Saudi Aramco	Saudi Arabia	329,780	-7.3	88,211	-20.5
7	Volkswagen	Germany	282,760	1.6	15,540	8.5
8	BP	United Kingdom	282,620	-7.0	4,030	-57.1
9	Amazon	U.S.	280,520	20.5	11,590	15.0
10	Toyota Motor	Japan	275,290	1.0	19,096	12.4

\*Fiscal year ended on or before March 31, 2020.

## MODULE III

### Top 10 of the Fortune Global 2000\*

Rank	Company	Country	Revenues (\$ Bil.)	Profits (\$ Bil.)	Assets (\$ Bil.)	Market Value (\$ Bil.)
1	ICBC	China	177	45	4,323	242
2	China Construction Bank	China	162	39	3,822	203
3	JPMorgan Chase	U.S.	143	30	3,139	292
4	Berkshire Hathaway	U.S.	255	81	818	455
5	Agricultural Bank of China	China	149	31	3,698	147
6	Saudi Aramco	Saudi Arabia	330	88	398	1,685
7	Ping An Insurance Group	China	155	19	1,219	187
8	Bank of America	U.S.	112	24	2,620	209
9	Apple	U.S.	268	57	320	1,286
10	Bank of China	China	135	27	3,387	113

\*Data as of early April 30, 2020.

## MODULE III

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### ***What Countries Are Most Multinational Corporations Based In?***

The United States, Japan, and the major economic forces of Western Europe are developed countries whose infrastructures and well-established financial markets are conducive to the operation and potential success of multinational corporations (MNCs). Many MNCs are based in the U.S. Many of these companies are among the Fortune Global 500.

China, which has one of the world's fastest-growing economies, is a country where many MNCs have established operations. Additionally, China itself is the headquarters of many growing multinational corporations. Examples of large Chinese MNC's include Hauwei Technologies, Lenovo, and Haier..

### ***MNCs require both soft and hard infrastructure to sustain their businesses and facilitate trade.***

Soft infrastructure includes access to a well-trained labor force, advanced technology, and a stable government.

Hard infrastructure refers to the physical infrastructure of roads, bridges, ports, railways, and airports that enable MNCs to move goods from place to place.



## MODULE III

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### Synthesis



International trade is fueled by the multinational corporations. Without the presence of the MNCs there is limited economic activity in various parts of the world to sustain international trade.

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# MODULE IV

## *Theories of International Finance*

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## **Introduction**

This is already the start of the next half of the module. This session will deal about theories of international finance.

The contents of the module includes Five Sub-Theories: Interest Rate Parity; Purchasing Power Parity; Fisher Effect; International Fisher Effect and Expectation Theory.

## **Specific Learning Outcomes**

At the end of the module you are expected to:

- Determine and discuss the theories of international finance

# MODULE IV

## Discussion

### *International Finance Theory*

Broadly this theory may be discussed under 5 sub theories, they are:

- 1) Interest Rate Parity
- 2) Purchasing Power Parity
- 3) Fisher Effect
- 4) International Fisher Effect
- 5) Expectation Theory

#### **1) Interest Rate Parity**

This theory states that the interest rate differential between two countries (say \$ interest and Rs. interest should be same for exchange risk.) should be equal to the percentage difference between forward exchange rate and spot exchange rate. This theory holds till there is no restriction on moving money from one economy/country/currency to another. Practically, dealers set the forward prices by comparing the differences between \$ interest and Rs. interest.

To be precise, when money market and currency are in equilibrium then any interest rates differential should be equal to the % difference in forward exchange rates and spot exchange rate, i.e., there won't be any question of earning riskless profit otherwise arbitrageurs will earn riskless profit.

IRP Theory relates to a condition of equality of returns on comparable money market instruments.

IRP relates Spot Rate and Forward Rate using two countries' risk free rates.

## MODULE IV

For clarity we may take an example:

Suppose an investor has \$100,000 at the beginning of the year to be invested for a period of 1 year.

Let us say \$ interest rates on deposits equals 2% p.a. on the other hand Indian deposits offer attractive interest rate of 10% and exchange rate is Rs.50 per \$. Now it is to be decided where the amount should be invested.

Solution:

Case I: If the investor invests in US: Amount at the end of the period will be as  $100,000 \times 102\% = \$102,000$  (100,000 as principal plus 2,000 as interest)

Case II: If he wishes to invest in India:

-First he has to convert the \$ amount into Rupee amount, i.e. he has to buy corresponding rupees, hence he can buy  $100,000 \times 50 = \text{Rs.}50,00,000$ .

-Now he will invest the amount @ 10%, finally at the year end he will have  $\text{Rs.}50,00,000 \times 110\% = 55,00,000$  (50,00,000-principal + 5,00,000-interest) in his hand.

Hence at last the investor has to convert the Rs. amount generated into \$, and we do not know what will be the exchange rate at the year end.

## MODULE IV

Now see how this theory helps us. As per this theory we can fix today the price at which the Rs. amount to be sold. Such rate(price) fixed today is the forward rate. The one year forward rate is 53.9216\*. Therefore by selling Rupees generated at the year end, the investor will be sure to earn  $5,500,000/53.9216=\$101,999$ .

Talking about the conclusion we can say that these two investments are offering almost exactly same rate of return.

Now see how 53.9216 is computed as forward rate between \$ and Rs.

For every \$ invested you will get  $(1 + R\$)$  and investing in India you will get  $SR*(1+ RRS)/FR$  and these have to be equal so as to prevent arbitrage.

Some Formulae:

(i)  $(FR-SR)/SR= (Rq- Rb)$  [here, q means quote currency means and b stands for base currency]

[Satisfying the first line of the theory]

(ii)  $FR=SR*[1+ (Rq- Rb)]$  [solve first formula]

(iii)  $(1+Rb) = SR* (1+ Rq)/FR$  [This formula will give exact result while the above formula gives approximate result]

## MODULE IV

(iv)  $FR/SR = (1 + R_q) / (1 + R_b)$  [solve iii]

(v)  $(FR - SR) / SR = (R_q - R_b) / (1 + R_b)$  [converting formula at point (i) from approximate to exactness]

(vi)  $FR = SR * [1 + (R_q - R_b)]^t$  [In case we have t periods and IRP approximation]

Note: There are not 5 formulae, only two – giving approximate and accurate results.

<i>Difference in interest rates</i>	--- equals ---	<i>Difference between forward and spot rates</i>
$\frac{(1 + R_q)}{(1 + R_b)}$		$\frac{FR_{R\$/\$}}{SR_{R\$/\$}}$

### Meanings:

<p><b>forward exchange rate:</b> the agreed upon exchange rate to be used in a forward trade</p>	<p><b>forward trade:</b> an agreement to exchange currency at some time in future</p>
<p><b>spot exchange rate:</b> the exchange rate on a spot trade</p>	<p><b>Spot trade:</b> an agreement to trade currencies based on today's exchange rate for settlement within two business days</p>

## MODULE IV

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### **2) Purchasing Power Parity:**

Basically, we have seen that IRP theory is used in obtaining Forward Rate. But we have not discussed how spot rate is determined. Thus, this theory helps in this issue.

There are two forms of PPP-(i) Absolute Form of PPP & (ii) Relative Form of PPP

Absolute Form of PPP:

The basic idea behind this theory is that a commodity costs the same regardless of what currency is used to purchase it or where it is selling. This is a straight forward concept. Loosely, speaking as per this theory 1\$ will buy same number of say, burger anywhere in the world.

Assumptions required to hold absolute PPP true

The transaction cost of trading – shipping, insurance, spoilage & so on must be zero.

There must be no barrier on trading-no tariffs, taxes or other political barriers.

The goods traded (burgers) in one place (economy) must be identical to the burger traded in another economy.

## MODULE IV

Let's be clear with some cases:

If the burger in India costs Rs. 100 in India and exchange rate is Rs.50 per \$, then the same burger should cost  $\text{Rs.}100/50=\$2$  in America.

Formally discussing:

Let  $S_0$  be the spot exchange rate between Rs. & \$ [exchange rate is quoted as Rs./\$]

$P_{\$}$  be the current price in US

$P_{\text{Rs}}$  be the current price in India

Then absolute PPP says that  $P_{\text{Rs}}=S_0 * P_{\$}$

If in case the actual exchange rate is Rs.40/\$ then with \$2 a trader in America would buy a burger in America and ship it to India and sell the same in India @ Rs.100 per burger and convert the Rs.100 into \$, as a result of which he will get  $100/40 =\$2.5$ , hence he is gaining \$0.5 in this transaction.

Since, the trader is making riskless profit and the burgers start moving from US Market to India as a result of which there will be reduced supply of burgers in US and the prices will start rising in US economy at the same time India will lower the price of burger due to increased supply, this will continue till equilibrium is maintained in these two economies. At last the exchange rate quoted will be expected to rise from Rs.40.

## MODULE IV

Practically, Absolute PPP will not hold true (ignoring some exceptions) because the assumptions of this theory are rarely met.

### Relative Form of PPP

This theory does not tell us about what determines the absolute level of exchange rate, moreover, it tells what determines the change in the exchange rate over the given period.

Strictly speaking, this theory implies that the differential inflation rate is always identical to the change in spot rate.

Hence change in exchange rates is determined by the difference in the inflation rates of two countries, i.e. any difference in the rates of inflation will be offset by a change in exchange rate.

If so then let,  $S_0$  be the current spot exchange rate at  $t_0$  [Rs./\$]

$E(S_t)$  be the expected exchange rate in  $t$  periods

$i_q$  be the inflation in quote currency [iRs]

$i_b$  be the inflation rate in base currency [i\$]

## MODULE IV

Now by definition,

$$[E(S_t) - S_0] / S_0 = [i_q - i_b]$$

Solving this we get,

$$E(S_t) = S_0 * [1 + \{i_q - i_b\}]$$

$$E(S_t) = S_0 * (1 + i_q) / (1 + i_b)$$

Note: For validity of Relative PPP, validity of Absolute PPP is not mandatory. It is already discussed that Absolute PPP will hold true for rare goods, we shall be focusing more on relative PPP.

For example, if prices are rising by 1.0% in the United States and by 6.0% in Mexico, the number of pesos that you can buy for \$1 must rise by  $1.06/1.01 - 1$ , or about 5.0%. Therefore purchasing power parity says that to estimate changes in the spot rate of exchange, you need to estimate differences in inflation rates.

Note: If inflation and interest differential are equal then PPP and IRP would give same result.

## MODULE IV

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### **3) Fisher Effect:**

“A change in the expected inflation rate causes the same proportionate change in the nominal interest rate; it has no effect on the required real interest rate.”

This theory tells us the relationship between nominal rates, real rates and inflation. Thus with the help of this theory we can review more carefully the relation between inflation and interests. It is obvious that the investors are ultimately concerned with what they can buy with their money, they need compensation for inflation.

**Nominal Return (Money Return):** It indicates the rate which money is growing. Nominal rates are called nominal because they have not been adjusted for inflation. It includes inflation. Transactions can be done in the market taking the basis of this return.

**Real Return:** This return is without inflation. It indicates the rate at which the purchasing power is growing. These are the rates which have been adjusted for inflation.

**Example:** You have Rs. 1000 today and if you invest the same amount you will be with Rs. 1155 at the year end. And with the same Rs. 1000 you can buy 20 hamburgers at the beginning of the year. Assume the inflation rate to be 5%. (i.e. the price is expected to go up by 5% during the year.)

## MODULE IV

Now the question arises here about the impact of inflation.

See the calculation here:

Investment at  $t_0 = 1000$

At year end you will get 1155

Then we can say that nominal interest rate (money return) is  $(1155-1000)/1000=15.5\%$

At the beginning you can buy 20 hamburgers [cost per hamburgers is  $1000/20=50$ ]

Due to rise in price you have to pay  $50*1.05=52.50$  for 1 hamburgers at year end.

If you want to buy the hamburgers at the end with your invested amount then you can buy  $1155/52.50=22$  hamburgers only.

What I would like to concentrate is that despite of 15.50% increase in my investment my purchasing power have gone up by 10% only because of inflation. Frankly speaking I am really 10% rich only.

It can also be stated that with 5% inflation, each of the Rs. 1155 nominal dollars we get is worth 5% less in real terms.

Hence the real Rs. Value of our investment is  $1155/1.05=1100$  only.

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The nominal rate on an investment is the % change in number of rupees you have.

The real rate of the investment is the % change in how much you can buy with your rupees- ie, the % change in your buying power.

Now I would like to make relationship using these 3 terms (real rate, nominal rate & inflation) and the credit for this goes to the great economist Irving Fisher.

Fisher effect tells,

$(1+R)=(1+r)*(1+i)$  [This is the domestic Fisher effect]

Where,

R=Nominal Risk Free Rate

r= Real Risk Free Rate [Fisher assumed this rate to be constant across the countries]

i=Inflation Rate

Finally solving above equation we will get,

$$r=(R-i)/(1+i)$$

{(1+i) is the discounting factor, r is constant, if we ignore (1+i) in the denominator because the denominator will be slightly more than one, if done as said, then result of  $(R-1)/(1+i)$  will be approximately equal to

## MODULE IV

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( $R-1$ ), then we will get  $R \sim r+i$ , means 'R' is directly proportional to 'i' since 'r' is constant}

Fisher on arriving to the conclusion says that investors are not foolish. They do care about the impact of inflation & know that inflation reduces purchasing power and, therefore, they will demand an increase in the nominal rate before lending money.

A rise in the rate of inflation causes the nominal rate to rise just enough so that the real rate of interest is unaffected. In other words, the real rate is invariant to the rate of inflation.

Fisher is of the view that 'r' will remain constant irrespective of inflation but not all economists would agree with Fisher that the real rate of interest is unaffected by the inflation rate. Practically 'r' differs as per economic conditions of the country.

## MODULE IV

### **4) International Fisher Effect [also called common real interest rates]**

This theory is based on the idea that a country with a higher interest rate will have a higher rate of inflation ultimately it causes its currency to depreciate. In theoretical terms, this relationship is expressed as an equality between the expected % change in exchange rate and the difference between the two countries' interest rates, divided by one plus the second country's interest rate.

This tells us that the difference in returns between the home country and a foreign country is just equal to the difference in inflation rates.

Mathematically,

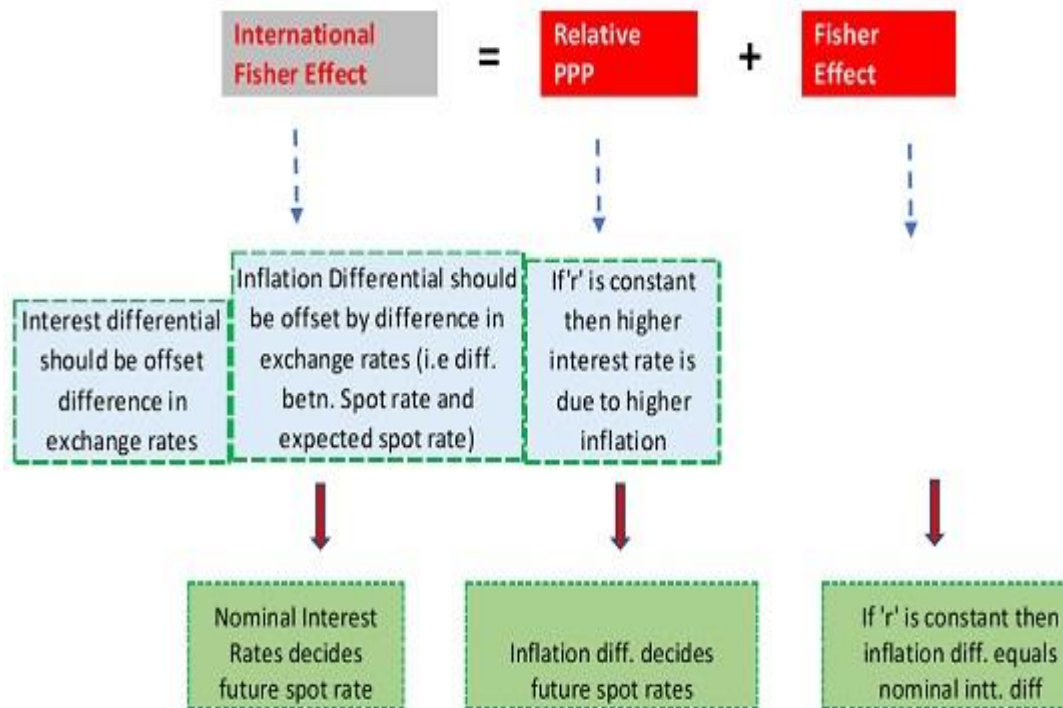
$$(1+R_{fc})/(1+R_{hc})=(1+i_{fc})/(1+i_{hc})$$

Because the divisor approximates 1, the expected percent exchange rate change roughly equals the interest rate differential.

$$i_{fc}-i_{hc}=R_{fc}-R_{hc}$$

# MODULE IV

$$\frac{(1 + R_{fc})}{(1 + R_{hc})} \text{ --- equals --- } \frac{(1 + i_{fc})}{(1 + i_{hc})}$$



## MODULE IV

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### **5) Expectation Theory**

This theory tells that 'today's forward rate' is going to be the 'future spot rate'.

If this theory, holds then  $FR=E(S)$

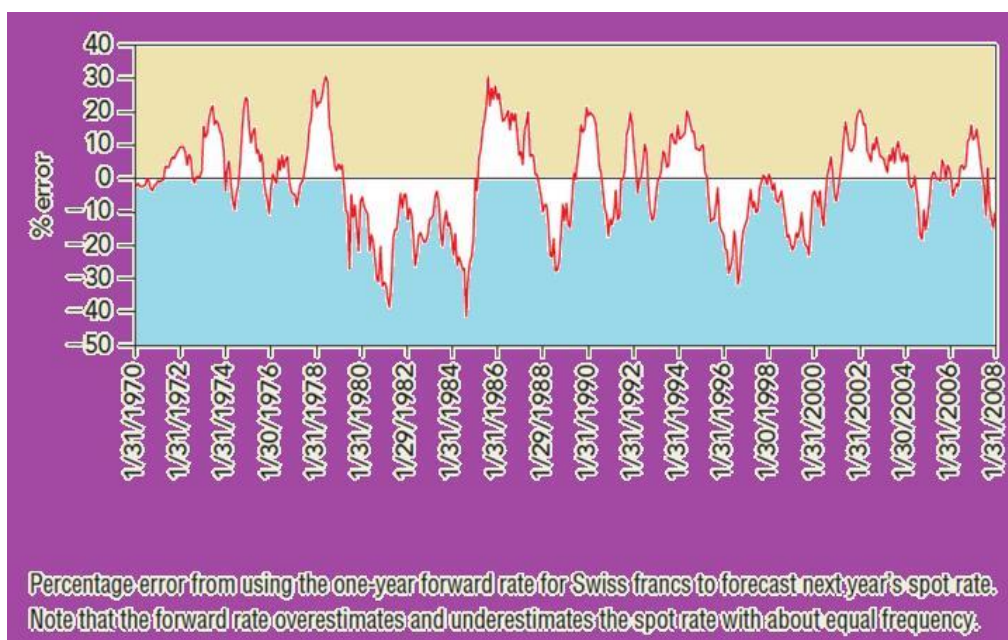
Economists and scholars based on their experience and research over the period have seen that forward rates moreover exaggerate the likely change in the spot rate. When FR predicts that the SR will rise in future, then the FR is over estimating the Future SR and vice versa then SR will change as per the prediction, however many researchers have found that , when the forward rate predicts a rise, the spot rate is more likely to fall, and vice versa. You may refer "K. A. Froot and R. H. Thaler, "Anomalies: Foreign Exchange," Journal of Economic Perspectives 4 (1990), pp. 179–192"

So, this finding is not consistent with the expectations theory.

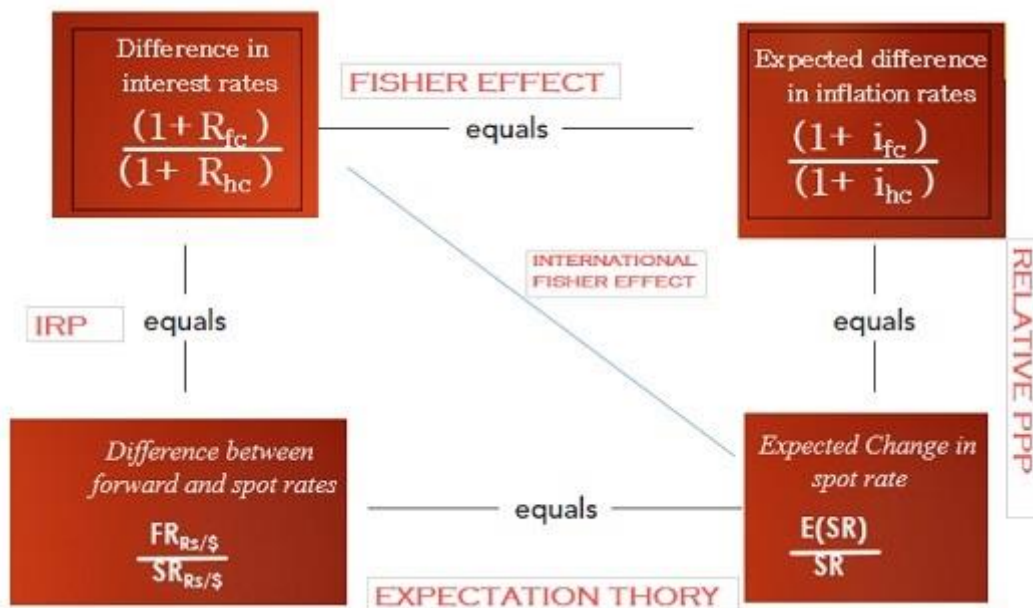
***Because of this we say "forward rate is an unbiased predictor of future spot rate".***

# MODULE IV

Because of this we say “forward rate is an unbiased predictor of future spot rate”.



At a glance:





# MODULE IV

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## Synthesis

Theories of International Finance will give us understanding how investments and transactions are analysed in relation to different aspects of finance.

Having knowledge on these theories will explain dealings in global finance as it explains different scenarios and terminologies.



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**MODULE V**  
***Sources of International Finance***

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## MODULE V

### **Introduction**

This module will talk about international financing, choice of the source of funds. It will also discuss on electronic banking as part of the global finance.

### **Specific Learning Outcomes**

At the end of the module you are expected to:

- Recognize the purpose of international financing
- Identify the choices of the capital/funds
- Understanding electronic banking in global finance

# MODULE V

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## **Discussion**

### ***International Financing and Choice of Sources of Fund***

Globalisation has opened doors and opportunities that were never explored before. Activities of companies are not limited to one region or a single country. And wherever there are activities of companies, there is money involved in them. Let's understand the world of international financing.

### ***International Financing***

International Financing is also known as International Macroeconomics as it deals with finance on a global level. There are various sources for organizations to raise funds. To raise funds internationally is one of them. With economies and the operations of the business organizations going global, Indian companies have an access to funds in the global capital market.

International finance helps organizations engage in cross-border transactions with foreign business partners, such as customers, investors, suppliers and lenders. Various international sources from where funds may be generated include the following.

#### **(i) Commercial Banks**

Global commercial banks all over provide loans in foreign currency to companies. They are crucial in financing non-trade international operations. The different types of loans and services provided by banks vary from country to country. One example of this is Standard Chartered emerged as a major source of foreign currency loans to the Indian industry. It is the most used source of international financing.

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### (ii) International Agencies and Development Banks

Many development banks and international agencies have come forth over the years for the purpose of international financing. These bodies are set up by the Governments of developed countries of the world at national, regional and international levels for funding various projects. The more industrious among them include International Finance Corporation (IFC), EXIM Bank and Asian Development Bank.

### (iii) International Capital Markets

Emerging organizations including multinational companies depend upon fairly large loans in rupees as well as in foreign currency. The financial instruments used for this purpose are:

#### (a) American Depository Receipts (ADR's)

This a tool often used for international financing. As the name suggests, depository receipts issued by a company in the USA are known as American Depository Receipts. ADRs can be bought and sold in American markets like regular stocks. It is similar to a GDR except that it can be issued only to American citizens and can be listed and traded on a stock exchange of the United States of America.

#### (b) Global Depository Receipts (GDR's)

In the Indian context, a GDR is an instrument issued abroad by an Indian company to raise funds in some foreign currency and is listed and traded on a foreign stock exchange. A holder of GDR can at any time convert it into the number of shares it represents.

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The holders of GDRs do not carry any voting rights but only dividends and capital appreciation. Many renowned Indian companies such as Infosys, Reliance, Wipro, and ICICI have raised money through issue of GDRs.

### (c) Foreign Currency Convertible Bonds (FCCB's)

Foreign currency convertible bonds are equity-linked debt securities that are to be converted into equity or depository receipts after a specific period. A holder of FCCB has the option of either converting them into equity shares at a predetermined price or exchange rate or retaining the bonds. The FCCB's are issued in a foreign currency and carry a fixed interest rate which is lower than the rate of any other similar nonconvertible debt instrument.

FCCB's resemble convertible debentures issued in India. It is true that businesses need funds but the funds required in business are of different types — long term, short term, fixed and fluctuating. That is the reason why business firms resort to different types of sources for raising funds.

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## **Choice Of The Source Of Funds**

Short-term borrowings offer the benefit of reduced cost due to the reduction of idle capital, but long-term borrowings are considered a necessity on many grounds. Equally, equity capital has a role to play in the scheme for raising funds in the corporate sector.

It is recommended to use combinations of sources as no source of funds is devoid of limitations, instead of relying only on a single source. The factors that affect the choice of source of finance are discussed below:

### (i) Cost

There are two types of cost, the cost of obtaining of funds and cost of utilizing the funds. Both these costs should be considered while deciding about the source of funds that will be used by an organization.

### (ii) Financial Strength

In the choice of source of funds, business should be in a good financial position to be able to repay the amount and interest on the borrowed amount. When the earnings of the organization are not stable, fixed charged funds like preference shares and debentures should be carefully selected as these add to the financial strain on the organization.

### (iii) A form of Organization and Reputation

Type of business organization and reputation in the market influences the choice of a source for raising money. A partnership firm, for example, cannot raise money by issue of equity shares as these can be issued only by a joint stock company.

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### (iv) Purpose and Duration

Business needs to plan according to the time period for which the funds are required. A short-term need can be met through borrowing funds at a low rate of interest through trade credit, commercial paper, etc. For long-term finance, sources such as the issue of shares and debentures required. Also, the purpose for which funds have required the need to be considered so that the source is matched with the user.

### (v) Risk Involved

Business evaluates each of the source of finance in terms of the risk involved while issuing them. For example, there is the least risk in equity as the share capital has to be repaid only at the time of winding up and dividends need not be paid if no profits are available. Whereas, a loan has a repayment schedule for both the principal and the interest. The interest is required to be paid irrespective of the firm earning a profit or going through loss.

### (vi) Control over Management

A particular source of the fund may affect the control and power of the owners on the management of a firm. The issue of equity shares may mean a dilution of the control. For example, as equity shareholders enjoy voting rights, financial institutions may take control of the assets or impose conditions as part of the loan agreement.

### (vii) Creditworthiness

The reliability of business on particular sources may affect its creditworthiness in the market. For example, issue of secured debentures may affect the interest of unsecured creditors of the company and may adversely affect their willingness to extend further loans to the company.

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### (viii) Flexibility

Another important aspect affecting the choice of finance is the flexibility and ease of obtaining funds. Restrictive provisions, detailed investigation, and documentation in case of borrowings from banks and financial institutions, for example, may be the reason that business organizations may not prefer it if other options are readily available.

### (ix) Tax benefits

Various sources may also be weighed in terms of their tax benefits. For example, while the dividend on preference shares is not tax-deductible, interest paid on debentures and loan is tax deductible and may, therefore, be preferred by organizations seeking tax advantage.

# MODULE V

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## ***Electronic Banking***

### ***What It Means***

Electronic banking is a form of banking in which funds are transferred through an exchange of electronic signals rather than through an exchange of cash, checks, or other types of paper documents. Transfers of funds occur between financial institutions such as banks and credit unions. They also occur between financial institutions and commercial institutions such as stores. Whenever someone withdraws cash from an automated teller machine (ATM) or pays for groceries using a debit card (which draws the amount owed to the store from a savings or checking account), the funds are transferred via electronic banking.

Electronic banking relies on intricate computer systems that communicate using telephone lines. These computer systems record transfers and ownership of funds, and they control the methods customers and commercial institutions use to access funds. A common method of access (or identification) is by access code, such as a personal identification number (PIN) that one might use to withdraw cash from an ATM machine.

There are various electronic banking systems, and they range in size. An example of a small system is an ATM network, a set of interconnected automated teller machines that are linked to a centralized financial institution and its computer system. An example of a large electronic banking system is the Federal Reserve Wire Network, called Fedwire. This system allows participants to handle large, time-sensitive payments, such as those required to settle real estate transactions.

# MODULE V

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## ***When Did It Begin***

For decades financial institutions have used powerful computer networks to automate millions of daily transactions. In the 1950s the Bank of America was one of the first institutions to develop the idea that electronic computers could take over the banking tasks of handling checks and balancing accounts, which was, at that time, extremely labor-intensive. Other institutions gradually joined the effort and progressed away from using paper checks and toward all-electronic banking. Data-processing machines, robotic document sorting, and the invention of optical character recognition (a computer application that translates handwritten or typewritten words into text that can be machine-edited) were a few of the developments which allowed this evolution.

The first electronic banking machines were able to keep records of deposits and withdrawals from each client, make account balance information available instantaneously, monitor overdrafts, stop payments, and hold funds. The machines responsible for this work today are as exact and reliable as the banking industry requires them to be.

# MODULE V

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## ***More Detailed Information***

Electronic banking laid the groundwork for speed and convenience in individual and commercial (business) banking. The spread of personal computer use has added another layer of convenience and speed to the process. Electronic banking allows customers of most banks to do their banking at any hour of the day, regardless of the bank's operating hours. If customers choose to do such things as transfer funds or pay bills, they can usually do so from anywhere Internet access is available.

Online banking typically offers bank statements, electronic bill payment, funds transfers between a customer's checking and savings accounts (or to another customer's account), loan applications and transactions, and purchasing or sales of investments, all of which allow customers to maintain their accounts without making a trip to the bank itself.

When funds are transferred between accounts by electronic means, it is called an electronic funds transfer (EFT). The Electronic Fund Transfer Act, passed by the federal government in 1978, established that an electronic funds transfer is any financial transaction that originates from a telephone, electronic terminal, computer, or magnetic tape (storage tape of the sort used in video or audio cassettes).

## MODULE V

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A wire transfer is the electronic transfer of funds across a network controlled and maintained by hundreds of banks around the world. Usually wire transfers are reserved for moving large sums of money. Wire transfers allow people in different geographic locations to transfer money easily. The wire transfer payment system called Fedwire (Federal Reserve Wire Network) links the offices of the Federal Reserve (the central bank of the U.S. government), the U.S. Treasury (the department of the federal government that manages the country's revenue), and other government agencies and institutions.

One of the largest companies that provide electronic money services is Western Union. The company started out in 1851 as a transmitter of telegraphs, messages sent through wires as coded electronic pulses. As the telegraph became an obsolete form of communicating information in the mid-twentieth century, Western Union redefined itself as a provider of electronic financial transactions. Now named Western Union Financial Services, Inc., the company specializes in electronic money transfers and business communications services.

Another prominent provider of electronic financial transactions is PayPal, a service founded in 1999. It is used to process payments when people buy or sell things on the Internet. The service first gained popularity among people who used the auction website eBay. Most of the sellers on the site were not professional merchants and so were not equipped to accept credit cards; PayPal enabled them to receive electronic payments while also giving buyers an alternative to mailing paper checks or money orders. In 2002 eBay acquired PayPal.

# MODULE V

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## ***Recent Trends***

As online banking has become more sophisticated, banks have been formed that operate exclusively as electronic banks and have no physical storefront for customers to use. Without the costs of purchasing and maintaining physical “bricks-and-mortar” structures like traditional banks do, online banks are able to offer higher interest rates on savings accounts (interest payments are fees that customers collect for keeping their money in the bank). Customers at online banks can use the Internet to conduct all the standard banking transactions (including paying bills online, viewing images of cancelled checks, and transferring money to accounts at other banks and brokerages).



# MODULE V

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## Synthesis



International Financing provides the necessary capital to operate in the global market.

International finance helps organizations engage in cross-border transactions with foreign business partners, such as customers, investors, suppliers and lenders.

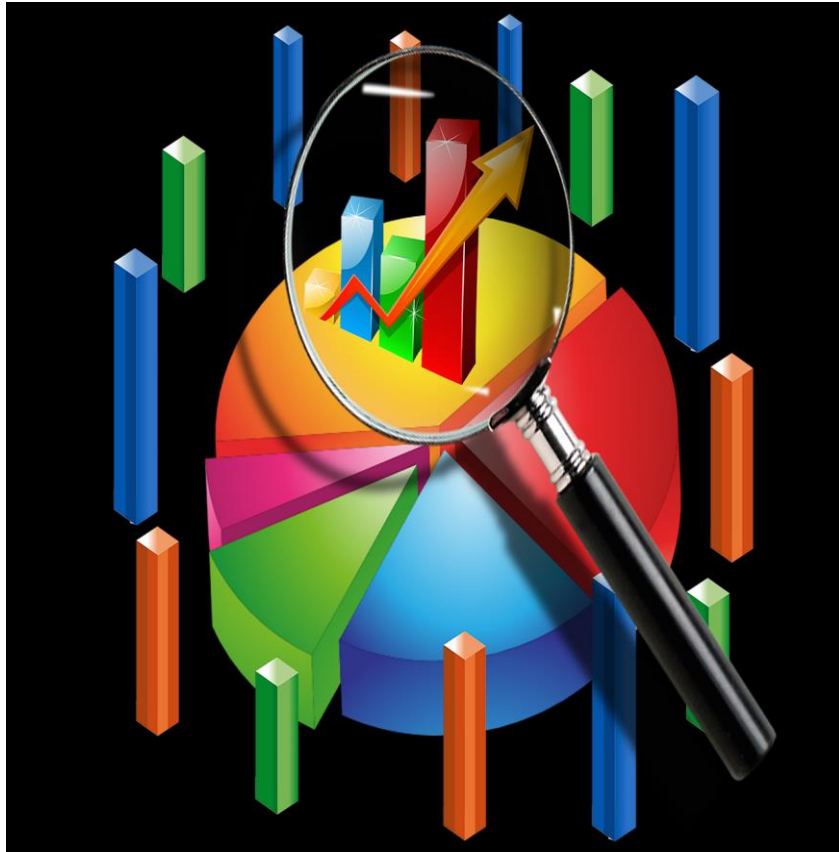
Alongside, electronic banking facilitates payment and transfer of funds without its physical presence.

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# MODULE VI

## *Transfer Pricing and Asset Management*

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## MODULE VI

### **Introduction**

This is the last module that will discuss on transfer pricing and taxes, It also includes asset management component.

### **Specific Learning Outcomes**

At the end of the module you are expected to:

- Acquaint with the operation of transfer pricing in international finance
- Understanding the concept of asset management

# MODULE VI

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## **Discussion**

### ***What Is Transfer Pricing?***

Transfer pricing is an accounting practice that represents the price that one division in a company charges another division for goods and services provided. Transfer pricing allows for the establishment of prices for the goods and services exchanged between a subsidiary, an affiliate, or commonly controlled companies that are part of the same larger enterprise. Transfer pricing can lead to tax savings for corporations, though tax authorities may contest their claims.

### ***How Transfer Pricing Works***

Transfer pricing is an accounting and taxation practice that allows for pricing transactions internally within businesses and between subsidiaries that operate under common control or ownership. The transfer pricing practice extends to cross-border transactions as well as domestic ones.

A transfer price is used to determine the cost to charge another division, subsidiary, or holding company for services rendered. Typically, transfer prices are priced based on the going market price for that good or service. Transfer pricing can also be applied to intellectual property such as research, patents, and royalties.

Multinational companies (MNC) are legally allowed to use the transfer pricing method for allocating earnings among their various subsidiary and affiliate companies that are part of the parent organization. However, companies at times can also use (or misuse) this practice by altering their taxable income, thus reducing their overall taxes. The transfer pricing mechanism is a way that companies can shift tax liabilities to low-cost tax jurisdictions.

## MODULE VI

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### ***Transfer Pricing and Taxes***

To better understand how transfer pricing impacts a company's tax bill, let's consider the following scenario. Let's say that an automobile manufacturer has two divisions: Division A, which manufactures software while Division B manufactures cars.

Division A sells the software to other carmakers as well as its parent company. Division B pays Division A for the software typically at the prevailing market price that Division A charges other carmakers.

Let's say that Division A decides to charge a lower price to Division B instead of using the market price. As a result, Division A's sales or revenues are lower because of the lower pricing. On the other hand, Division B's costs of goods sold (COGS) are lower, increasing the division's profits. In short Division A's revenues are lower by the same amount as Division B's cost savings—so there's no financial impact on the overall corporation.

However, let's say that Division A is in a higher tax country than Division B. The overall company can save on taxes by making Division A less profitable and Division B more profitable. By making Division A charge lower prices and pass those savings onto Division B, boosting its profits through a lower COGS, Division B will be taxed at a lower rate. In other words, Division A's decision not to charge market pricing to Division B allows the overall company to evade taxes.

In short, by charging above or below the market price, companies can use transfer pricing to transfer profits and costs to other divisions internally to reduce their tax burden. Tax authorities have strict rules regarding transfer pricing to attempt to prevent companies from using it to avoid taxes.

## MODULE VI

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### ***Transfer Pricing and The IRS***

The IRS states that transfer pricing should be the same between intercompany transactions that would have otherwise occurred, had the company done the transaction with a party or customer outside the company. According to the IRS website, transfer pricing is defined as follows:

The regulations under section 482 generally provide that prices charged by one affiliate to another, in an intercompany transaction involving the transfer of goods, services, or intangibles, yield results that are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances.<sup>1</sup>

As a result, the financial reporting of transfer pricing has strict guidelines and is closely watched by tax authorities. Extensive documentation is often required by auditors and regulators. If the transfer value is done incorrectly or inappropriately, the financial statements may need to be restated, and fees or penalties could be applied.

However, there is much debate and ambiguity surrounding how transfer pricing between divisions should be accounted for and which division should take the brunt of the tax burden.

# MODULE VI

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## **Real World Examples**

A few prominent cases continue to be a matter of contention between tax authorities and the companies involved.

### **Coca-Cola**

Due to the production, marketing, and sale of Coca-Cola Co.'s (KO) concentrates in various overseas markets, the company continues to defend its \$3.3 billion transfer pricing of a royalty agreement. The company transferred IP value to subsidiaries in Africa, Europe, and South America between 2007 and 2009. The IRS and Coca Cola continue to battle through litigation and the case has yet to be resolved.

### **Facebook Inc.**

In another high-stakes case, the IRS alleges that Facebook Inc. (FB) transferred \$6.5 billion of intangible assets to Ireland in 2010, thereby cutting its tax bill significantly. If the IRS wins the case, Facebook may be required to pay up to \$5 billion in addition to interest and penalties. The trial, which was set for August 2019 at the U.S. Tax Court, has been delayed allowing Facebook to possibly work out a settlement with the IRS.

### **Medtronic**

As of 2019, Ireland-based medical device maker Medtronic and the IRS are due in court in 2020 to settle a dispute worth \$1.4 billion. Medtronic is accused of transferring intellectual property to low-tax havens globally. The transfer involves the value of intangible assets between Medtronic and its Puerto Rican manufacturing affiliate for the tax years 2005 and 2006. The court had originally sided with Medtronic, but the IRS has filed an appeal.

# MODULE VI

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## ***What is Asset Management?***

Asset management is the direction of all or part of a client's portfolio by a financial services institution, usually an investment bank, or an individual. Institutions offer investment services along with a wide range of traditional and alternative product offerings that might not be available to the average investor.

## ***Understanding Asset Management***

Asset management refers to the management of investments on behalf of others. The process essentially has a dual mandate - appreciation of a client's assets over time while mitigating risk. There are investment minimums, which means that this service is generally available to high net-worth individuals, government entities, corporations and financial intermediaries.

The role of an asset manager consists of determining what investments to make, or avoid, that will grow a client's portfolio. Rigorous research is conducted utilizing both macro and micro analytical tools. This includes statistical analysis of the prevailing market trends, interviews with company officials, and anything else that would aid in achieving the stated goal of client asset appreciation. Most commonly, the advisor will invest in products such as equity, fixed income, real estate, commodities, alternative investments and mutual funds.

Accounts held by financial institutions often include check writing privileges, credit cards, debit cards, margin loans, the automatic sweep of cash balances into a money market fund and brokerage services.

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When individuals deposit money into the account, it is typically placed into a money market fund that offers a greater return that can be found in regular savings and checking accounts. Account holders can choose between Federal Deposit Insurance Company-backed (FDIC) funds and non-FDIC funds. The added benefit to account holders is all of their banking and investing needs can be serviced by the same institution rather than having separate brokerage account and banking options.

These types of accounts resulted from the passing of the Gramm-Leach-Bliley Act in 1999, which replaced the Glass-Steagall Act. The Glass-Steagall Act of 1933 was created during the Great Depression and did not allow financial institutions to offer both banking and security services.

### ***Example of an Asset Management Institution***

Merrill Lynch offers a Cash Management Account (CMA) to fulfill the needs of clients who wish to pursue banking and investment options with one vehicle, under one roof. The account gives investors access to a personal financial advisor. This advisor offers advice and a range of investment options that include initial public offerings (IPO) in which Merrill Lynch may participate, as well as foreign currency transactions.

Interest rates for cash deposits are tiered. Deposit accounts can be linked together so that all eligible funds aggregate to receive the appropriate rate. Securities held in the account fall under the protective umbrella of the Securities Investor Protection Corporation (SIPC). SIPC does not shield investor assets from inherent risk but rather protects those assets from financial failure of the brokerage firm itself.

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Along with typical check writing services, the account offers worldwide access to Bank of America automated teller machines (ATM) without transaction fees. Bill payment services, fund transfers and wire transfers are available. The MyMerrill app allows users to access the account and perform a number of basic functions via a mobile device. Accounts with more than \$250,000 in eligible assets sidestep both the annual \$125 fee and the \$25 assessment applied to each sub-account held.



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## Synthesis



Transfer pricing is an accounting practice that represents the price that one division in a company charges another division for goods or services provided.

Companies charge a higher price to divisions in high-tax countries (reducing profit) while charging a lower price (increasing profits) for divisions in low-tax countries.

Asset management refers to the management of investments on behalf of others.

The goal is to grow a client's portfolio over time while mitigating risk.

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