

**E10**

# **ECONOMETRICS II**

**LEVEL III**

**SYLLABUS & EXAMS GUIDE**



# **LEVEL III**

## **E10 – ECONOMETRICS II**

SYLLABUS & EXAMS GUIDE



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# OVERVIEW



Econometrics is concerned with the tasks of developing and applying quantitative or statistical methods to the study and elucidation of economic principles.

Econometrics combines economic theory with statistics to analyze and test economic relationships.

Theoretical econometrics considers questions about the statistical properties of estimators and tests, while applied econometrics is concerned with the application of econometric methods to assess economic theories.

## More into it

Imagine that you are hired by your state government to evaluate the effectiveness of a publicly funded job training program. Suppose this program teaches workers various ways to use computers in the manufacturing process.

The 20-week program offers courses during nonworking hours. Any hourly manufacturing worker may participate, and enrolment in all or part of the program is voluntary. You are to determine what, if any, effect the training program has on each worker's subsequent hourly wage.

Now, suppose you work for an investment bank. You are to study the returns on different investment strategies involving short-term U.S. treasury bills to decide whether they comply with implied economic theories.

The task of answering such questions may seem daunting at first. At this point, you may only have a vague idea of the kind of data you would need to collect. By the end of this introductory econometrics course, you should know how to use econometric methods to



formally evaluate a job training program or to test a simple economic theory.

Econometrics is based upon the development of statistical methods for estimating economic relationships, testing economic theories, and evaluating and implementing government and business policy.

The most common application of econometrics is the forecasting of such important macroeconomic variables as interest rates, inflation rates, and gross domestic product (GDP).

Whereas forecasts of economic indicators are highly visible and often widely published, econometric methods can be used in economic areas that have nothing to do with macroeconomic forecasting.

For example, you will study the effects of political campaign expenditures on voting outcomes. We will consider the effect of school spending on student performance in the field of education. In addition, we will learn how to use econometric methods for forecasting economic time series.

Econometrics has evolved as a separate discipline from mathematical statistics because the former focuses on the problems inherent in collecting and analyzing nonexperimental economic data.

Nonexperimental data are not accumulated through controlled experiments on individuals, firms, or segments of the economy. (Nonexperimental data are sometimes called observational data, or retrospective data, to emphasize the fact that the researcher is a passive collector of the data.)

Experimental data are often collected in laboratory environments in the natural sciences, but they are much more difficult to obtain in the social sciences.



Although some social experiments can be devised, it is often impossible, prohibitively expensive, or morally repugnant to conduct the kinds of controlled experiments that would be needed to address economic issues.

Naturally, econometricians have borrowed from mathematical statisticians whenever possible. The method of multiple regression analysis is the mainstay in both fields, but its focus and interpretation can differ markedly.

In addition, economists have devised new techniques to deal with the complexities of economic data and to test the predictions of economic theories.

### **What is special in econometrics?**

- There are some special features of economic data that distinguish econometrics from other branches of statistics.
- Economic data are generally observational, rather than being derived from controlled experiments.
- Consequently, the field of econometrics has developed methods for identification and estimation that allow researchers to make causal inferences in the absence of controlled experiments.
- A large body of econometrics focuses on time-series data, but econometrics also fully covers cross-sectional and panel data.

### **Why study Econometrics?**

- Econometrics provides a set of analytical tools that are useful to economics learners as well as learners in other areas.
- Econometric methods are used to analyze practical business and planning problems, ranging from federal government taxation plans to small business sales campaigns.
- Studying econometrics fills a gap between being "a learner" and being "a practitioner".
- Quantitative analytical skills are highly valued in the workplace: knowledge of econometric or quantitative methods will improve job prospects.



# LEARNING OBJECTIVES





- Provide the tools needed to read about with understanding and to do empirical research in economics
- Understand the main principles of econometric modeling
- Common pitfalls and protocols
- Gain substantial hands-on practical experience
- Exercises with real-world data
- Emphasis on applied rather than theoretical econometrics
- Ambitious in theory and proofs, given the constraints



# RECOMMENDED TEXTS



—  **Introductory Econometrics; A modern approach, 6<sup>th</sup> Edition**, Jeffrey M. Wooldridge, Published by CENGAGE, 2016

—  **Introduction to Econometrics, 3rd Edition**, James H. Stock, Mark W. Watson, Published by Pearson, 2015

—  **An Introduction to Econometric Theory, 1<sup>st</sup> Edition**, James Davidson, Published by Wiley, 2018





# READING TOPICS



## Basic Regression Analysis with Time Series Data

- The Nature of Time Series Data
- Examples of Time Series Regression Models
- Finite Sample Properties of OLS under Classical Assumptions
- Functional Form, Dummy Variables, and Index Numbers
- Trends and Seasonality

## Further Issues in Using OLS with Time Series Data

- Stationary and Weakly Dependent Time Series
- Asymptotic Properties of OLS
- Using Highly Persistent Time Series in Regression Analysis
- Dynamically Complete Models and the Absence of Serial Correlation
- The Homoskedasticity Assumption for Time Series Models

## Serial Correlation and Heteroskedasticity in Time Series Regressions

- Properties of OLS with Serially Correlated Errors
- Testing for Serial Correlation
- Correcting for Serial Correlation with Strictly Exogenous Regressors
- Differencing and Serial Correlation
- Serial Correlation–Robust Inference after OLS
- Heteroskedasticity in Time Series Regressions

## Pooling Cross Sections across Time: Simple Panel Data Methods

- Pooling Independent Cross Sections across Time
- Policy Analysis with Pooled Cross Sections
- Two-Period Panel Data Analysis
- Policy Analysis with Two-Period Panel Data
- Differencing with More Than Two Time Periods



## Advanced Panel Data Methods

- Fixed Effects Estimation
- Random Effects Models
- The Correlated Random Effects Approach
- Applying Panel Data Methods to Other Data Structures

## Instrumental Variables Estimation and Two Stage Least Squares

- Motivation: Omitted Variables in a Simple Regression Model
- IV Estimation of the Multiple Regression Model
- Two Stage Least Squares
- IV Solutions to Errors-in-Variables Problems
- Testing for Endogeneity and Testing Over-identifying Restrictions
- 2SLS with Heteroskedasticity
- Applying 2SLS to Time Series Equations
- Applying 2SLS to Pooled Cross Sections and Panel Data

## Simultaneous Equations Models

- The Nature of Simultaneous Equations Models
- Simultaneity Bias in OLS
- Identifying and Estimating a Structural Equation
- Systems with More Than Two Equations
- Simultaneous Equations Models with Time Series
- Simultaneous Equations Models with Panel Data

## Limited Dependent Variable Models and Sample Selection Corrections

- Logit and Probit Models for Binary Response
- The Tobit Model for Corner Solution Responses
- The Poisson Regression Model
- Censored and Truncated Regression Models
- Sample Selection Corrections

## Advanced Time Series Topics

- Infinite Distributed Lag Models
- Testing for Unit Roots



- ☐ Spurious Regression
- ☐ Co-integration and Error Correction Models
- ☐ Forecasting

## **Carrying Out an Empirical Project**

- ☐ Posing a Question
- ☐ Literature Review
- ☐ Data Collection
- ☐ Econometric Analysis
- ☐ Writing an Empirical Paper





# **SAMPLE QUESTIONS**



1. Which of the following correctly identifies a difference between cross-sectional data and time series data?
  - A. Cross-sectional data is based on temporal ordering, whereas time series data is not.
  - B. Time series data is based on temporal ordering, whereas cross-sectional data is not.
  - C. Cross-sectional data consists of only qualitative variables, whereas time series data consists of only quantitative variables.
  - D. Time series data consists of only qualitative variables, whereas cross-sectional data does not include qualitative variables
  
2. A stochastic process refers to a:
  - A. sequence of random variables indexed by time.
  - B. sequence of variables that can take fixed qualitative values
  - C. sequence of random variables that can take binary values only
  - D. sequence of random variables estimated at the same point of time.
  
3. The model:  $Y_t = \beta_0 + \beta_1 c_t + u_t$ ,  $t = 1, 2, \dots, n$  is an example of a(n):
  - A. autoregressive conditional heteroskedasticity model
  - B. static model.
  - C. finite distributed lag model
  - D. infinite distributed lag model
  
4. A static model is postulated when:
  - A. a change in the independent variable at time 't' is believed to have an effect on the dependent variable at period 't + 1'
  - B. a change in the independent variable at time 't' is believed to have an effect on the dependent variable for all successive time periods.
  - C. a change in the independent variable at time 't' does not have any effect on the dependent variable.
  - D. a change in the independent variable at time 't' is believed to have an immediate effect on the dependent variable.
  
5. Refer to the following model  $y_t = \alpha_0 + \beta_0 s_t + \beta_1 s_{t-1} + \beta_2 s_{t-2} + \beta_3 s_{t-3} + u_t$ . This is an example of a(n):
  - A. infinite distributed lag model
  - B. finite distributed lag model of order 1
  - C. finite distributed lag model of order 2.
  - D. finite distributed lag model of order 3



6. If an explanatory variable is strictly exogenous it implies that:
- changes in the lag of the variable does not affect future values of the dependent variable.
  - the variable is correlated with the error term in all future time periods
  - the variable cannot react to what has happened to the dependent variable in the past
  - the conditional mean of the error term given the variable is zero
7. The model  $y_t = e_t + \alpha_1 e_{t-1} + \alpha_2 e_{t-2}$ ,  $t = 1, 2, \dots$ , where  $e_t$  is an i.i.d. sequence with zero mean and variance  $\sigma^2$  represents a(n):
- static model
  - moving average process of order one
  - moving average process of order two
  - autoregressive process of order two
8. Which of the following statements is true?
- A model with a lagged dependent variable cannot satisfy the strict exogeneity assumption
  - Stationarity is critical for OLS to have its standard asymptotic properties
  - Efficient static models can be estimated for nonstationary time series.
  - In an autoregressive model, the dependent variable in the current time period varies with the error term of previous time periods.
9. Which of the following is a strong assumption for static and finite distributed lag models?
- Sequential exogeneity
  - Strict exogeneity
  - Dynamic completeness
  - Homoskedasticity
10. When a series is stationary, weakly dependent, and has serial correlation:
- the adjusted  $R^2$  is inconsistent, while  $R^2$  is a consistent estimator of the population parameter.
  - the adjusted  $R^2$  is consistent, while  $R^2$  is an inconsistent estimator of the population parameter.
  - both the adjusted  $R^2$  and  $R^2$  are inconsistent estimators of the population parameter
  - both the adjusted  $R^2$  and  $R^2$  are consistent estimators of the population parameter



11. In a model based on a weakly dependent time series with serial correlation and strictly exogenous explanatory variables, \_\_\_\_\_.
- E. the feasible generalized least square estimates are unbiased
  - F. the feasible generalized least square estimates are BLUE
  - G. the feasible generalized least square estimates are asymptotically more efficient than OLS estimates
  - H. the feasible generalized least square estimates are asymptotically less efficient than OLS estimates
12. Which of the following is an example of FGLS estimation?
- A. Dickey-Fuller estimation
  - B. Vector error correction estimation
  - C. Prais-Winsten estimation
  - D. OLS estimation
13. Which of the following is the reason why standard errors measured by OLS differ from standard errors measured through Prais-Winsten transformation?
- A. OLS standard errors account for serial correlation, whereas Prais-Winsten estimations do not.
  - B. Prais-Winsten standard errors account for serial correlation, whereas OLS estimations do not.
  - C. Prais-Winsten standard errors account for heteroskedasticity, whereas OLS estimations do not.
  - D. OLS standard errors account for heteroskedasticity, whereas Prais-Winsten estimations do not.
14. Which of the following is a limitation of serial correlation-robust standard errors?
- A. The serial correlation-robust standard errors are smaller than OLS standard errors when there is serial correlation
  - B. The serial correlation-robust standard errors can be poorly behaved when there is substantial serial correlation and the sample size is small.
  - C. The serial correlation-robust standard errors cannot be calculated for autoregressive processes of an order greater than one
  - D. The serial correlation-robust standard errors cannot be calculated after relaxing the assumption of homoskedasticity
15. In the time series literature, the serial correlation-robust standard errors are sometimes called:
- A. homoskedasticity and autocorrelation inconsistent standard errors



- B. homoskedasticity and autocorrelation consistent standard errors
- C. heteroskedasticity and autocorrelation inconsistent standard errors
- D. heteroskedasticity and autocorrelation consistent standard errors

16. In the presence of heteroskedasticity, the usual OLS estimates of:

- A. standard errors are valid, whereas the t statistics and F statistics are invalid.
- B. t statistics are valid, but the standard errors and F statistics are invalid
- C. F statistics are valid, but the standard errors and t statistics are invalid
- D. standard errors, t statistics, and F statistics are invalid

17. The equation  $u^2_t = \alpha_0 + \alpha_1 u^2_{t-1} + v_t$  is an autoregressive model in \_\_\_\_\_.

- A.  $u_t$
- B.  $u^2_t$
- C.  $v_t$
- D.  $u_{t-1}$

18. Which of the following assumptions is required for obtaining unbiased fixed effect estimators?

- A. The errors are heteroskedastic
- B. The errors are serially correlated
- C. The explanatory variables are strictly exogenous
- D. The unobserved effect is correlated with the explanatory variables

19. Which of the following is a difference between a fixed effects estimator and a first-difference estimator?

- A. The fixed effects estimators are always larger than the first difference estimators in a two-period panel data analysis
- B. The fixed effects estimator is more efficient than the first-difference estimator when the idiosyncratic errors are serially uncorrelated
- C. The first difference estimator is more sensitive to nonnormality and heteroskedasticity
- D. The bias in the first difference estimator depends on the time period (T) of analysis while the bias in the fixed effect does not depend on T.





20. An economist wants to study the effect of income on savings. He collected data on 120 identical twins. Which of the following methods of estimation is the most suitable method, if income is correlated with the unobserved family effect?
- A. Random effects estimation
  - B. Fixed effects estimation
  - C. Ordinary least squares estimation
  - D. Weighted Least squares estimation

## ANSWERS

- |       |       |
|-------|-------|
| 1. B  | 11. C |
| 2. A  | 12. C |
| 3. B  | 13. B |
| 4. D  | 14. B |
| 5. D  | 15. D |
| 6. C  | 16. D |
| 7. C  | 17. B |
| 8. A  | 18. C |
| 9. C  | 19. B |
| 10. D | 20. B |



**E11**

# **ECONOMICS & BUSINESS ETHICS**

**LEVEL III**

**SYLLABUS & EXAMS GUIDE**



# LEVEL III

## **E11 – ECONOMICS & BUSINESS ETHICS**

SYLLABUS & EXAMS GUIDE



# OVERVIEW



Economics and ethical questions are intertwined in many ways. Economics is thought to rely on the hard-headed calculation of rational self-interest; ethics is often portrayed as mushy do-goodism. Is there any useful connection between these subjects?

In addition to concern for an efficient outcome, people are motivated by considerations of justice and principles of duty and virtue.

At a time when society's views on personal morality, social aims, and the environment often appear to conflict with business culture and goals, this course takes a closer look at how managers make decisions in results-driven enterprises.

Learners will explore common organizational situations involving apparent trade-offs between profit or productivity goals and more qualitative values such as loyalty, reciprocity, fairness, honesty, or altruism.

The organizational contexts explored in the course will include those involving marketing and commerce (price gouging in a crisis, for example), firm collaborations (transparency in partnerships), negotiations (trust), international development (standards and responsibility), lay-offs/downsizing (impacts), environmental crises (prevention and recuperation), and the management of corporate culture (values and leadership).

Learners will test themselves on value preferences and carry out several negotiation exercises in order to better understand their own particular behaviours in decision-making.

This will provide learners with the overview and in-depth insight of the ethical assumptions inherent in economic concepts and the potential and problems associated with their application to ethical problems and economic policy that are currently debated.



# LEARNING OBJECTIVES



- Outline the history of ethical foundation in economic thinking
- Engage critically with current theoretical and empirical literature in economics and moral philosophy as well as critically evaluate the potential of economic activities to deliver positive and negative social and environmental outcomes.

# RECOMMENDED TEXTS



- **Ethics and the Conduct of Business, 7<sup>th</sup> edition**, John R. Boatright, Pearson, 2009
- **Economics, Ethics and the Market: Introductions & Applications**, Johan J. Graafland, Published by Routledge, 2007
- **Ethics in Economics: An introduction to moral frameworks**, Jonathan B. Wight, Published by Stanford University Press, 2015
- **Beyond Market and Government: Influence of Ethical Factors on Economy**, Yining Li, Published by Springer, 2015



# READING TOPICS



## Ethics in the World of Business

- ☐ Business Decision Making
- ☐ Ethics, Economics and Law
- ☐ Ethics and Management
- ☐ Ethics in Organizations

## Ethical Decision Making

- ☐ Market Ethics
- ☐ Roles, Relationships and Firms
- ☐ Ethical Reasoning

## Ethical Theories

- ☐ Utilitarianism
- ☐ Kantian Ethics
- ☐ Virtue Ethics
- ☐ Rights and Justice

## Whistle-Blowing

- ☐ What is Whistle-Blowing
- ☐ The Justification for Whistle-Blowing
- ☐ Is there a Right to Blow the Whistle?
- ☐ Developing a Whistle-Blowing Policy

## Trade Secrets and Conflict of Interest

- ☐ Trade Secret Protection
- ☐ Competitor Intelligence Gathering
- ☐ Conflict of Interest

## Privacy

- ☐ Challenges to Privacy
- ☐ The Meaning of Value Privacy
- ☐ The Privacy of Employee Records
- ☐ Privacy on the Internet



## **Discrimination and Affirmative Action**

- ☐ What is Discrimination?
- ☐ Sexual Harassment
- ☐ Avoiding Discrimination and Harassment
- ☐ Affirmative Action

## **Employment Rights**

- ☐ Unjust Dismissal
- ☐ Expression and Participation
- ☐ Just Compensation

## **Occupational Health and Safety**

- ☐ The Scope of the Problem
- ☐ The Right to Know about and Refuse Hazardous Work
- ☐ The Problem of Reproductive Hazards

## **Marketing, Advertising, and Product Safety**

- ☐ Marketing
- ☐ Advertising
- ☐ Product Safety

## **Ethics in Finance**

- ☐ Financial Services
- ☐ Financial Markets
- ☐ Insider Trading
- ☐ Hostile Takeovers

## **Corporate Social Responsibility**

- ☐ The Debate over CSR
- ☐ The Business Case for CSR
- ☐ Implementing CSR

## **Corporate Governance and Accountability**

- ☐ Corporate Governance
- ☐ Corporate Ethics
- ☐ Corporate Accountability



## International Business Ethics

- ☐ Different Standards
- ☐ Guidelines for Multinationals
- ☐ Wages and Working Conditions
- ☐ Foreign Bribery
- ☐ Human Rights Abuse





**E12**

# **INTERNATIONAL TRADE**

**LEVEL III**

**SYLLABUS & EXAMS GUIDE**



# **LEVEL III**

## **E12 – INTERNATIONAL TRADE**

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# OVERVIEW



**In E12 - International Trade**, we explore a series of important trade issues, including but not confined to: What is the basis for trade? What are the effects of trade? Who will gain from trade? How is the value and volume of trade determined? What factors impede trade flows? And what is the impact of public policy that attempts to alter the patterns of trade? In addition to addressing the conventional trade topics, we will also discuss issues that are currently under debate and relate theories to real world applications.

This paper is being offered at a very interesting time of the global economy. Debates surrounding the process of “globalization” have aroused much interest both in academic circles and amongst global citizenry.

Learners will review and consider the theories underlying international trade to gain an understanding of the rationale for trade, the gains from trade, how trade effects economic welfare.

Learners will undertake a comprehensive examination of U.S. trade policies from the protectionism of the Great Depression to the WTO, NAFTA and the current debate on future international trade agreements.

Contemporary trade policy issues such trade with China, Airbus subsidies, trade and environment, labor standards, regional trade agreements and the future of Doha will be examined from a perspective of theory and public policy using case studies as appropriate.

This course will attempt to cover a broad array of relevant topics over the duration of an (all-too-short) semester. In doing so, it will emphasize both theoretical (mathematical/analytical) models as well as empirical studies of how well those models fit “real world” data.

Moreover, the paper will frequently compare and contrast alternative theories/conceptions of the nature of international trade and the gains or losses thereof.



Understanding the economic intuition behind the technically demanding models as well as thinking critically about the assumptions behind the theories and how well they fit actual trading economies will be a major focus.

With unique nature of this paper, we encourage our learners to source and read from different platforms before attempting the exams. While at the same time, taking a guide from the recommended books.

We therefore recommend our learners to use different books, papers, articles, commentaries, empirical sources, etc. to explore the relevance of various trade theories/models to the world that we live in, as well as their policy implications for growth, income distribution, and development.



# LEARNING OBJECTIVES



At the end of the paper, learners are expected to be able to:

- Comprehend and explain each trade policy theory and  
— illustrate each theory with the adopted tools
- Demonstrate their understanding of the concepts of  
— comparative advantage and the gains from trade, by  
applying the theories covered in the course to concrete  
cases.
- Demonstrate their understanding of the determinants of the  
— trade pattern between countries and assess its effects on  
the distribution of income between and within these  
countries.
- Understand the political economy of trade policy and the  
— economic effects of different trade policy instruments.
- Understand the role of international trade bodies such as  
— the WTO.
- Understand the effects of international trade on economic  
— development, international politics/conflicts and the  
environment.



# RECOMMENDED TEXTS



- **International Trade, Theory & Policy, 11th edition**, by Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz, © Pearson Education Limited 2018
- **International Trade, 4th edition**, by Robert C. Feenstra, Alan M. Taylor, Published by Worth Publishers, 2017
- **Advanced International Trade: Theory & Evidence**, by Robert C. Feenstra, Published by Princeton University Press, 2004



# READING TOPICS



## Introduction

- ☐ What Is International Economics About?
- ☐ International Economics: Trade and Money

## World Trade: An Overview

- ☐ Who Trades with Whom?
- ☐ The Changing Pattern of World Trade
- ☐ Do Old Rules Still Apply?

## Labor Productivity and Comparative Advantage: The Ricardian Model

- ☐ The Concept of Comparative Advantage
- ☐ A One-Factor Economy
- ☐ Trade in a One-Factor World
- ☐ Comparative Advantage with Many Goods

## Specific Factors and Income Distribution

- ☐ The Specific Factors Model
- ☐ International Trade in the Specific Factors Model
- ☐ Income Distribution and the Gains from Trade
- ☐ The Political Economy of Trade: A Preliminary View

## Resources and Trade: The Heckscher-Ohlin Model

- ☐ Model of a Two-Factor Economy
- ☐ Effects of International Trade between Two-Factor Economies
- ☐ Empirical Evidence on the Heckscher-Ohlin Model

## The Standard Trade Model

- ☐ A Standard Model of a Trading Economy
- ☐ Tariffs and Export Subsidies: Simultaneous Shifts in RS and RD
- ☐ International Borrowing and Lending



## **External Economies of Scale and the International Location of Production**

- Economies of Scale and International Trade: An Overview4
- Economies of Scale and Market Structure
- The Theory of External Economies
- Specialized Suppliers
- Labor Market Pooling
- Knowledge Spillovers
- Interregional Trade and Economic Geography

## **Firms in the Global Economy: Export Decisions, Outsourcing, and Multinational Enterprises**

- The Theory of Imperfect Competition
- Monopolistic Competition and Trade
- Firm Responses to Trade: Winners, Losers, and Industry Performance
- Trade Costs and Export Decisions
- Dumping

## **The Instruments of Trade Policy**

- Basic Tariff Analysis
- Costs and Benefits of a Tariff
- Other Instruments of Trade Policy
- The Effects of Trade Policy: A Summary

## **The Political Economy of Trade Policy**

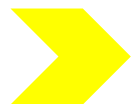
- The Case for Free Trade
- National Welfare Arguments against Free Trade
- Income Distribution and Trade Policy
- International Negotiations and Trade Policy







# **SAMPLE QUESTIONS**



1. An important insight of international trade theory is that when two countries engage in voluntary trade
  - A. one country always benefits at the expense of the other.
  - B. it is almost always beneficial to both countries.
  - C. it only benefits the high wage country.
  - D. it is almost never beneficial to both countries.
2. If there are large disparities in wage levels between countries, then
  - A. trade is likely to be harmful to both countries.
  - B. trade is likely to be harmful to the country with the high wages.
  - C. trade is likely to be harmful to the country with the low wages.
  - D. trade is likely to be harmful to neither country.
3. The benefits of international trade are derived from trade in
  - A. tangible goods only.
  - B. intangible goods only.
  - C. services but not goods.
  - D. anything of value.
4. Which of the following does NOT belong?
  - A. NAFTA
  - B. Uruguay Round
  - C. World Trade Organization
  - D. non-tariff barriers
5. International economics \_\_\_\_\_ use the same fundamental methods of analysis as other branches of economics, because \_\_\_\_\_.
  - A. does not, the level of complexity of international issues is unique
  - B. does not, the interactions associated with international economic relations is highly mathematical
  - C. does, the motives and behavior of individuals are the same in international trade as they are in domestic transactions
  - D. does not, international economic policy requires cooperation with other countries
6. Which of the following is NOT a major concern of international economic theory?
  - A. protectionism
  - B. the balance of payments
  - C. exchange rate determination
  - D. bilateral trade relations with China
7. Trade is generally harmful if there are large disparities between countries in wages.
  - A. This is generally true.
  - B. This is generally false.
  - C. Trade theory has nothing to say about this issue.
  - D. This is true if the trade partner ignores child labor laws.



8. Who sells what to whom
- A. has been a major preoccupation of international economics.
  - B. is not a valid concern of international economics.
  - C. is not considered important for government foreign trade policy since such decisions are made in the private competitive market.
  - D. is determined by political rather than economic factors.
9. The insight that patterns of trade are primarily determined by international differences in labor productivity was first proposed by
- A. Adam Smith.
  - B. David Hume.
  - C. David Ricardo.
  - D. Eli Heckscher.
10. The study of exchange rate determination is a relatively new part of international economics, since
- A. for much of the past century, exchange rates were fixed by government action.
  - B. the calculations required for this were not possible before modern computers became available.
  - C. economic theory developed by David Hume demonstrated that real exchange rates remain fixed over time.
  - D. dynamic overshooting asset pricing models are a recent theoretical development.
11. A fundamental problem in international economics is how to produce
- A. a perfect degree of monetary harmony.
  - B. an acceptable degree of harmony among the international trade policies of different countries.
  - C. a world government that can harmonize trade and monetary policies
  - D. a counter-cyclical monetary policy so that all countries will not be adversely affected by a financial crisis in one country.
12. In the 2-factor, 2 good Heckscher-Ohlin model, an influx of workers from across the border would
- A. move the point of production along the production possibility curve.
  - B. shift the production possibility curve outward, and increase the production of both goods.
  - C. shift the production possibility curve outward and decrease the production of the labor-intensive product.
  - D. shift the production possibility curve outward and decrease the production of the capital-intensive product.
13. If a country produces good Y (measured on the vertical axis) and good X (measured on the horizontal axis), then the absolute value of the slope of its production possibility frontier is equal to
- A. the opportunity cost of good X.
  - B. the price of good X divided by the price of good Y.
  - C. the price of good Y divided by the price of good X.
  - D. the opportunity cost of good Y.



14. The assumption of diminishing returns in the Heckscher-Ohlin model means that, unlike in the Ricardian model, it is likely that
- A. countries will not be fully specialized in one product.
  - B. countries will benefit from free international trade.
  - C. countries will consume outside their production possibility frontier.
  - D. comparative advantage will not determine the direction of trade.
15. If a good is labor intensive it means that the good is produced
- A. using labor as the only input.
  - B. using relatively more labor than goods that are not labor intensive.
  - C. using more labor per unit of output than goods that are not labor intensive.
  - D. using labor such that the total cost of labor is greater than the total cost of capital.
16. If a good is capital intensive it means that the good is produced
- A. using capital as the only input.
  - B. using more capital per unit of output than goods that are not capital intensive.
  - C. using relatively more capital than goods that are not labor intensive.
  - D. using capital such that the total cost of capital is greater than the total cost of labor.
17. If Australia has relatively more land per worker, and Belgium has relatively more capital per worker, then if trade began between these two countries
- A. the relative price of the capital-intensive product would increase in Australia.
  - B. the relative price of the land-intensive product would increase in Belgium.
  - C. the relative price of the land-intensive product would increase in Australia.
  - D. the relative price of the capital-intensive product would decrease in Belgium.
18. If Japan is relatively capital rich and the United States is relatively land rich, and if food is relatively land intensive then trade between these two, formerly autarkic countries will result in
- A. an increase in the relative price of food in the U.S.
  - B. an increase in the relative price of food in Japan.
  - C. a global increase in the relative price of food.
  - D. a decrease in the relative price of food in both countries.
19. Trade benefits a country by
- A. increasing available consumption choices.
  - B. reducing the need for specialization in production.
  - C. reducing the relative price of the exported good.
  - D. increasing the real income of all resource owners.
20. If the price of the capital-intensive product rises more than does the price of the land intensive product, then
- A. the relative price of the capital-intensive product will fall to some point between the pretrade relative prices.
  - B. demand will shift away from the capital-intensive product, and its production will decrease.



- C. demand will shift away from the capital-intensive product, and its production will decrease relative to that of the land intensive product.
- D. the production of the capital-intensive product will decrease, but by less than production of the land-intensive product.

## ANSWERS

- |       |       |
|-------|-------|
| 1. A  | 11. B |
| 2. D  | 12. D |
| 3. D  | 13. A |
| 4. D  | 14. A |
| 5. C  | 15. B |
| 6. D  | 16. C |
| 7. B  | 17. C |
| 8. A  | 18. A |
| 9. A  | 19. A |
| 10. A | 20. A |



**E13**

# **INTERNATIONAL FINANCE**

**LEVEL III**

**SYLLABUS & EXAMS GUIDE**



# **LEVEL III**

## **E13 – INTERNATIONAL FINANCE**

SYLLABUS & EXAMS GUIDE



# OVERVIEW



The economies of the world are increasingly interconnected. While 50 years ago, the primary economic links between countries were in the exchanges of goods, today financial flows are far consequential than trade.

Trade finance, investment, loans, and foreign exchange transactions constitute a multi-trillion-euro business annually. While these flows have helped fuel economic growth around the world, they also leave countries much more exposed to contagion from economic difficulties elsewhere.

This paper aims at providing a solid understanding of international economics and finance. Learners will explore balance of payments analysis, exchange rates and their determination, and financial globalization as well as look at the challenges and opportunities presented by single currency areas like the Euro area. Understanding the downsides of financial globalization and examine how financial crises are transmitted internationally. Finally, learners will explore how multinational firms use financial instruments to finance their operations and reduce risks.

This course analyzes a wide range of issues in international finance and their practical application. Topics illustrate how the international capital markets, foreign exchange markets, and the derivatives market can be used to manage transaction and operating risks facing the multinational firm. The relevance of country risk and international corporate governance in cross-border investments is also covered.

It emphasizes the managerial perspective of finance for a multinational corporation (MNC). Based on macroeconomic and institutional foundations, advanced techniques and instruments





for managing the foreign exchange exposure and risk of MNCs are developed. The course further addresses international banking and money markets. Learners will be prepared to, and provided with the skills required for, international investment management, cross-border acquisitions, international capital budgeting, and multinational cash management and trade financing.



# LEARNING OBJECTIVES



At the end of the paper, learners are expected to be able to:

- Identify and contrast the major markets that facilitate international business.
- Describe relationships between exchange rates and economic variables, and explain the forces that influence these relationships.
- Identify the best practices for measuring and managing exchange rate risk and explore currency forecasting theories.
- Synthesize and evaluate options for the management of long-term assets and liabilities, including motives for direct foreign investment, multinational capital budgeting, country risk, analysis, and capital structure decisions.
- Prescribe multi-national corporations' (MNCs') management of short-term financing and international cash management in a variety of real-world examples.
- Provide an in-depth understanding of the process and techniques used to make international investment decisions.



- To explain why multinational corporations are the key players in international economic competition today
- To understand the motivations for foreign direct investment and the evolution of the multinational corporation (MNC)
- To identify the stages of corporate expansion overseas by which companies gradually become MNCs.



# RECOMMENDED TEXTS



- **International Finance, Theory & Policy, 11th edition,**  
— by Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz,  
© Pearson Education Limited 2018
- **Multinational Financial Management, tenth edition** by  
— Alan C. Shapiro; Published by Wiley, ©2014
- **International Trade and International Finance:**  
— **Explorations of Contemporary Issues** by Malabika  
Roy, Saikat Sinha Roy, © Springer India 2016
- **Money, Banking, and International Finance,** by  
— Kenneth R. Szulczyk, © 2010 by Kenneth R. Szulczyk



# READING TOPICS



## National Income Accounting and the Balance of Payments

- ☐ The National Income Accounts
- ☐ National Income Accounting for an Open Economy
- ☐ The Mystery of the Missing Deficit
- ☐ The Balance of Payments Accounts

## Exchange Rates and the Foreign Exchange Market:

- ☐ An Asset Approach
- ☐ Exchange Rates and International Transactions
- ☐ The Foreign Exchange Market
- ☐ Exchange Rates, Auto Prices, and Currency Wars
- ☐ The Demand for Foreign Currency Assets
- ☐ Offshore Currency Markets: The Case of the Chinese Yuan
- ☐ Equilibrium in the Foreign Exchange Market

## Money, Interest Rates, and Exchange Rates

- ☐ Money Defined: A Brief Review
- ☐ The Demand for Money by Individuals
- ☐ Aggregate Money Demand
- ☐ The Equilibrium Interest Rate: The Interaction of Money Supply and Demand
- ☐ The Money Supply and the Exchange Rate in the Short Run
- ☐ Money, the Price Level, and the Exchange Rate in the Long Run
- ☐ Inflation and Exchange Rate Dynamics
- ☐ Money Supply Growth and Hyperinflation in Zimbabwe

## Fixed Exchange Rates and Foreign Exchange Intervention

- ☐ Why Study Fixed Exchange Rates?
- ☐ Central Bank Intervention and the Money Supply
- ☐ How the Central Bank Fixes the Exchange Rate
- ☐ Stabilization Policies with a Fixed Exchange Rate
- ☐ Balance of Payments Crises and Capital Flight



- Managed Floating and Sterilized Intervention
- Reserve Currencies in the World Monetary System
- The Gold Standard

## **International Monetary Systems: An Historical Overview**

- Macroeconomic Policy Goals in an Open Economy 262
- Classifying Monetary Systems: The Open-Economy Monetary Trilemma
- International Macroeconomic Policy under the Gold Standard, 1870–1914
- The Interwar Years, 1918–1939
- The Bretton Woods System and the International Monetary Fund
- Analyzing Policy Options for Reaching Internal and External Balance
- The External Balance Problem of the United States under Bretton Woods
- The End of Bretton Woods, Worldwide Inflation, and the Transition to Floating Rates
- The Case for Floating Exchange Rates

## **Financial Globalization: Opportunity and Crisis**

- The International Capital Market and the Gains from Trade
- International Banking and the International Capital Market
- Banking and Financial Fragility
- Does the IMF Cause Moral Hazard?
- The Challenge of Regulating International Banking
- Foreign Exchange Instability and Central Bank Swap Lines
- How Well Have International Financial Markets Allocated Capital and Risk?

## **Optimum Currency Areas and the Euro**

- How the European Single Currency Evolved
- Brexit
- The Euro and Economic Policy in the Euro Zone
- The Theory of Optimum Currency Areas
- The Euro Crisis and the Future of EMU

## **Developing Countries: Growth, Crisis, and Reform**



- Income, Wealth, and Growth in the World Economy
- Structural Features of Developing Countries
- The Commodity Supercycle
- Developing-Country Borrowing and Debt
- East Asia: Success and Crisis
- The East Asian Economic Miracle
- Why Have Developing Countries Accumulated Such High Levels of International Reserves?
- What Did East Asia Do Right?
- Lessons of Developing-Country Crises
- Reforming the World's Financial "Architecture"
- Understanding Global Capital Flows and the Global Distribution of Income:
- Is Geography Destiny?
- Capital Paradoxes

## **International Portfolio Investment**

- The Risks and Benefits of International Equity Investing
- International Diversification
- Investing in Emerging Markets
- Barriers to International Diversification
- International Bond Investing
- Optimal International Asset Allocation
- Measuring the Total Return from Foreign Portfolio Investing
- Hedging Currency Risk

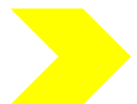
## **The cost of Capital for Foreign Investment**

- The Cost of Equity Capital
- Discount Rates for Foreign Investments
- The Cost of Debt Capital
- Annual Exchange Rate Change
- Establishing a Worldwide Capital Structure
- Foreign Subsidiary Capital Structure
- Joint Ventures
- Valuing Low-Cost Financing Opportunities





# **SAMPLE QUESTIONS**





1. Imagine that the economy is at a point that is above both AA and DD, where both the output and asset markets are out of equilibrium. Which first action is TRUE?
  - E. The economy will stay at this level in the short run.
  - F. The exchange rate will first drop to a point on the AA schedule.
  - G. The exchange rate will first move to a point on the DD schedule.
  - H. The AA-DD equilibrium will shift to the position of the economy.
2. The exchange rate between currencies depends on
  - A. the interest rate that can be earned on deposits of those currencies.
  - B. the interest rate that can be earned on deposits of those currencies and the expected future exchange rate.
  - C. the expected future exchange rate.
  - D. national output.
3. Money serves as all of the following EXCEPT
  - A. a medium of exchange.
  - B. a unit of account.
  - C. a store of value.
  - D. a symbol that is made of or can be redeemed for a fixed amount of precious metal.
4. Individuals base their demand for an asset on
  - A. the expected return the asset offers compared with the returns offered by other assets.
  - B. the riskiness of the asset's expected return.
  - C. the asset's liquidity.
  - D. the expected return, how risky that expected return is, and the asset's liquidity.
5. A family's summer house on Cape Cod pays a return in the form of
  - A. interest rate.
  - B. capital gains.
  - C. the pleasure of vacations at the beach.
  - D. capital gains and pleasure.
6. In a world with money and bonds only
  - A. it is not risky to hold money.
  - B. it is risky to hold money.
  - C. risk is an important factor in the demand for money.
  - D. there is no relationship between risk and holding money.
7. Which one of the following statements is the MOST accurate?
  - A. A rise in the average value of transactions carried out by a household or a firm causes its demand for money to fall.
  - B. A reduction in the average value of transactions carried out by a household or a firm causes its demand for money to rise.
  - C. A rise in the average value of transactions carried out by a household or a firm causes its demand for money to rise.
  - D. A rise in the average value of transactions carried out by a household or a firm causes its demand for real money to rise.



8. An individual's need for liquidity would increase if
- A. the average value of transactions carried out by the individual fell.
  - B. the average value of transactions carried out by the individual rose.
  - C. the individual got a raise.
  - D. the individual received a new ATM card.
9. The aggregate money demand depends on
- A. the interest rate.
  - B. the price level.
  - C. real national income.
  - D. the interest rate, price level, and real national income.
10. Which one of the following statements is the MOST accurate?
- A. A decrease in the money supply lowers the interest rate while an increase in the money supply raises the interest rate, given the price level and output.
  - B. An increase in the money supply lowers the interest rate while a fall in the money supply raises the interest rate, given the price level.
  - C. An increase in the money supply lowers the interest rate while a fall in the money supply raises the interest rate, given the output level.
  - D. An increase in the money supply lowers the interest rate while a fall in the money supply raises the interest rate, given the price level and output.
11. The aggregate demand for money can be expressed by
- A.  $M_d = P \times L(R, Y)$ .
  - B.  $M_d = L \times P(R, Y)$ .
  - C.  $M_d = P \times Y(R, L)$ .
  - D.  $M_d = R \times L(P, Y)$ .
  - E.  $M_d = R \times L(R, P)$ .
12. The aggregate real money demand schedule  $L(R, Y)$
- A. slopes upward because a fall in the interest rate raises the desired real money holdings of each household and firm in the economy.
  - B. slopes downward because a fall in the interest rate reduces the desired real money holdings of each household and firm in the economy.
  - C. has a zero slope because a fall in the interest rate keeps constant the desired real money holdings of each household and firm in the economy.
  - D. slopes downward because a fall in the interest rate raises the desired real money holdings of each household and firm in the economy.
13. For a given level of
- A. nominal GNP, changes in interest rates cause movements along the  $L(R, Y)$  schedule.
  - B. real GNP, changes in interest rates cause a decrease of the  $L(R, Y)$  schedule.
  - C. real GNP, changes in interest rates cause an increase of the  $L(R, Y)$  schedule.
  - D. real GNP, changes in interest rates cause movements along the  $L(R, Y)$  schedule.
14. How does a rise in real income affect aggregate demand?
- A.  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $l_m \uparrow$  implies  $CA \downarrow$  implies  $AD \downarrow$ , but  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $C \uparrow$  implies  $AD \uparrow$  by more.
  - B.  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $l_m \downarrow$  implies  $CA \downarrow$  implies  $AD \downarrow$ , but  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $C \uparrow$  implies  $AD \uparrow$  by more.



- C.  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $Im \uparrow$  implies  $CA \uparrow$  implies  $AD \uparrow$ , and  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $C \uparrow$  implies  $AD \uparrow$ .
- D.  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $Im \uparrow$  implies  $CA \downarrow$  implies  $AD \downarrow$ , but  $Y \uparrow$  implies  $Y_d \uparrow$  implies  $C \uparrow$  implies  $AD \uparrow$  by less.
15. In the short-run, any rise in the real exchange rate,  $EP^*/P$ , will cause
- an upward shift in the aggregate demand function and a reduction in output.
  - an upward shift in the aggregate demand function and an expansion of output.
  - a downward shift in the aggregate demand function and an expansion of output.
  - a downward shift in the aggregate demand function and a reduction in output.
16. When the real exchange rate rises
- imports measured in terms of domestic output will rise.
  - imports measured in terms of domestic output will fall.
  - imports measured in terms of domestic output will never be affected.
  - imports measured in terms of domestic output may rise or fall.
17. Disposable income is defined as
- $Y - C$ .
  - $Y - T$ .
  - $C - T$ .
  - $I - C$ .
18. Which of the following compete to determine whether the current account improves or worsens following a rise in the real exchange rate?
- appreciation and depreciation
  - crowding Out effect and producers effect
  - volume effect and value effect
  - volume effect and inflation
19. Assuming that the value effect dominates, the current account will increase if
- the real exchange rate decreases.
  - the real exchange rate increases.
  - disposable income increases.
  - exports fall.
20. Which of the following would cause the current account to decrease?
- an increase in the nominal exchange rate,  $E$
  - an appreciation of the home currency
  - an increase in disposable income
  - an increase in foreign prices,  $P^*$



# ANSWERS

- |       |       |
|-------|-------|
| 1. B  | 11. A |
| 2. B  | 12. D |
| 3. D  | 13. D |
| 4. D  | 14. A |
| 5. D  | 15. B |
| 6. B  | 16. D |
| 7. D  | 17. B |
| 8. B  | 18. C |
| 9. D  | 19. B |
| 10. D | 20. C |





# **EXAMINATION GUIDE**



# EXAMS GUIDE



## Advanced Verification System using AI

- All ICCE exams are monitored and proctored using modern technology, advanced verification, and artificial intelligence.
- This is to ensure that we are able to secure and protect the integrity of the exams and keep all learners in check when taking ICCE exams.
- Violation of any of our exams rules will lead to cancellation of results and further dismissal of such a learner from the ICCE.

## Verification Steps

Before taking an ICCE exam, each test taker will be taken through the following verification steps:

- Audio settings & verifications
- Webcam settings & verifications
- Identity verification
- Desktop verification
- Exams environment verification
- Signature verification



## MISCONDUCT IN AN EXAMINATION

- A registered learner found guilty of contravening an examination regulation may be disqualified from any examinations for which the results have not yet been issued, barred from sitting examinations for a specified period, removed from the candidate register, and/or be liable to such other penalty as the Disciplinary Committee may determine.
- The examination review committee is empowered to discontinue the examination of a registered learner suspected of misconduct.

## EXAM STRUCTURE

- The **Level III exams** consists of **140 multiple choice questions** which are all compulsory
- The duration for the exam is **3 hours & 15 minutes**

## EXAM RESULTS

- Learners receive instant results after each exam.
- However, final results are available and accessible via MyICCE after a review of the exams report by the Examinations Board.



# ADDITIONAL READING PLATFORMS



## NEWS PORTALS

- The Economy360
- FI Sense
- The Economist
- Bloomberg Business week
- Harvard Business Review
- Sloan Management Review

## JOURNALS

- The Economic Journal
- Quarterly Journal of Economics
- Journal of Financial Economics
- Journal of International Economics
- American Economic Review
- The Review of Economic Studies
- The Journal of Finance
- Journal of Political Economy
- Journal of Accounting and Economics
- The Review of Economics and Statistics
- The Review of Financial Studies
- Quantitative Economics
- Journal of Management Studies
- Journal of Econometrics
- Journal of Banking and Finance

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