

# MACAU

## A Model of Mini-Economy



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University of Macau

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# *Forward*

The *MACAU — A MODEL OF MINI-ECONOMY* is a new academic result completed by two scholars of the University of Macau - Dr. Jeong Wan Chong and Mr. Ricardo Chi Sen Siu. Dr. Jeong is an experienced scholar who has obtained his Ph.D. degree of Economics and his Ph.D. degree of Law. In addition, he has published 8 monographs in the areas of Economics and Law, and more than one hundred academic papers. Mr. Siu is currently a Ph.D. candidate of Economics who possesses the aptitude to be a successful member of the academic staff.

The result of a qualified research is a symbol of maturity in any university. Accordingly, I am glad to hear that one more research result is presented by the University of Macau since I have been nominated as the Rector. The academic contributions of this book concentrated on a specific monograph, that is, a model of mini-economy. Firstly, the authors have created a new concept about the mini-economy. Secondly, they have raised overall analysis of the economic structure, the pattern of economic growth and the route of development for the Macau economy. Thirdly, this book can be adopted by university students in Macau as a good reference to repair the insufficiency of economic literature regarding the domestic economy. Finally, as English is not their mother-language, the authors have performed a good job in writing this book.

Today, Macau is experiencing the transformation of its social and economic structures. To ensure that the domestic economy can

enter into a new phase of economic growth, there is a need to encourage more qualified economic researches and investigations. Therefore, I would like to suggest that all of our academic staff members do their best so that more contributions can be provided not only to our library, but also to the Macau society.

Mário Nascimento Ferreira  
Rector of University of Macau  
January 1997

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# *Table of Contents*

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	Page
<b>Preface</b>	1
<b>Chapter 1 Introduction</b>	5
<b>Chapter 2 The Concept of Mini-Economy</b>	10
2.1 Awareness of the subject matter	10
2.2 Methodology of the study	11
2.3 Defining the concept of mini-economy	12
2.4 Macau as a mini-economy	19
<b>Chapter 3 Historical Progress of the Macau Economy</b>	24
3.1 Opening of the port - Macau	24
3.2 Formation of the largest re-export center in the Far East	26
3.3 An area of exchanging cultures and technologies	31
3.4 The rise and fall of the earliest manufacturing industry	33
3.5 Divergence in the economic changes	36
3.6 The rise of Chinese capital	39
3.7 The failure to sustain prosperity and its implications	42
<b>Chapter 4 The Structure of Production in Macau</b>	46
4.1 Primary production - Fishing	46
4.2 Secondary production	47
4.2.1 Processing and manufacturing industries	48
4.2.2 Construction industry	53
4.2.3 Infrastructure	55

4.3	Tertiary production	62
4.3.1	Tourism	63
4.3.2	Banking and finance	69
4.3.3	Import and export services	72
4.3.4	Transportation and communication	74
4.4	The location of industry	77
4.5	Some properties of the industrial structure in Macau	80
4.6	The structure of domestic employment	85
<b>Chapter 5</b>	<b>Structural Changes, Growth and Development</b>	<b>88</b>
5.1	Industrial restructuring	89
5.2	Changing composition of labor and workforce	97
5.3	Development of capital stocks	103
5.4	Institutional changes and economic efficiency	107
5.5	A comparison between Macau's economic growth and development	115
5.6	A comparison between Macau and the NIEs in their development paths	117
<b>Chapter 6</b>	<b>Opportunities, Challenges and Prospects</b>	<b>124</b>
6.1	Assessing the feasibility of entering economic alliances with Hong Kong and the Pearl River Delta	125
6.2	Macau as a Special Administrative Region	135
6.3	The crossroads of industrial restructuring	138
6.4	An outlook in the twenty-first century	146
<b>Chapter 7</b>	<b>Conclusion</b>	<b>148</b>
<b>Appendix</b>	<b>Revised Estimates of Macau's GDP, 1982-1995</b>	<b>151</b>
<b>Bibliography</b>		<b>157</b>
<b>Acknowledgement</b>		<b>160</b>

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## *Preface*

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In recent years, many books discussing the economy of Macau are published (including *MACAU AND THE MODERN ECONOMIC GROWTH*, by Dr. Jeong Wan Chong in 1992). However, most of these publications are written in Chinese, and thus may not be able to meet the increasing demand from foreign readers (e.g. students in English schools, foreign businessmen and scholars) who also share strong interests in the changing economic environment in Macau, and its position between China and Europe. For this reason, *MACAU — A MODEL OF MINI-ECONOMY* is written in English with an aim to foster the study of Macau. In this book, especially in Chapter 3 and 4, a large portion of data is updated and expanded from Dr. Jeong's findings as published in 1992.

To promote the quality and readability of this book, a new concept termed as mini-economy is introduced. This concept is constructed as a way to systematically illustrate the economic structure in Macau, and hopefully, this concept can also be applied to some other *small-sized* and *mini-sized* economic systems. In addition, the most current issues and empirical evidence regarding the economic changes in Macau in the 1990s are included. This latter concern is aimed to provide a base to make some logical predictions for the economy's future.



Another mission of this book is to provide readers with an understanding of the institutions, institutional change and economic progress in the case of Macau. This book would first analyze the 'rules of the game' regulating an economy's activities, accordingly disclosing the strengths and weaknesses of its operation; and finally make constructive suggestions for future development. Hence, this book should be a good reference for students in economic studies as well as businessmen who would like to explore economic opportunities in this region. The economic professions may also find this book a useful guide in working on research with Macau as the subject-matter.

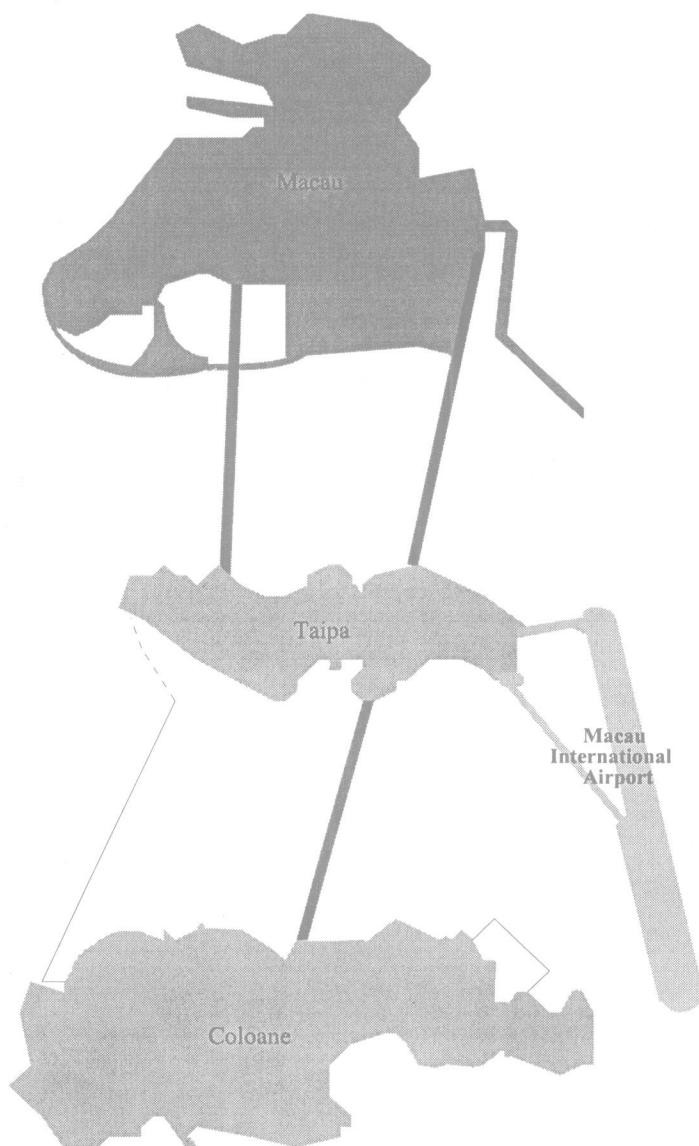
Finally, it is hoped that this book can serve to enrich the literature about the fundamental economic research in Macau. By clarifying the structure of the economic foundation to the general public, it would be beneficial to the economy in this transitional period, and even after December 20, 1999, when Chinese government resumes sovereignty over Macau.

Jeong Wan Chong  
Ricardo Chi Sen Siu  
January 1997

## Geographical Location of Macau



## Geographical Area of Macau



# Chapter 1

## Introduction

“If the nineteenth century was Europe’s and the twentieth century America’s, will the twenty-first become the Far East’s century?”<sup>1</sup> In the 60s of the eighteenth century, the Industrial Revolution in Great Britain changed the order of people’s living. For example, the discovery and application of steam power and later electricity power, modernized the methods of production. This change formed a strong foundation for the success of Europe in the nineteenth century. In the beginning of the twentieth century, however, the Great Depression and the two World Wars shifted the world power from Europe to North America. Subsequent to World War II, social, political and economic structures in almost all countries were changing drastically. The adoption and development of nuclear power, electronic technology and *space-age* technology affected the nature and efficiency of economic activities. In addition, all these changes led to the age of automation and computerization. Coming to the end of this century, most well developed countries had entered into a phase of *post industrialization*, or developed as an *information-based economy*. At the same time, many developing countries or regions had approached to the stage of industrialization and modernization while less-developed countries were making remarkable progress.

The world order has been changing rapidly, and this change is even accelerated at the end of the twentieth century. The permanent budget deficit and trade deficit problems in the United States have gradually weakened this country’s economic power. The dissolution of the former Soviet Union in the beginning of 1990s has totally

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1 Smith, McLoughlin, Large, Chapman, Asia’s New Industrial World, Methuen, 1985, p. 1.

changed the social, political and economic structures in Eastern Europe. However, many economists believe that there is still a long road ahead for those Eastern European countries to re-organize and to re-develop their economies.<sup>2</sup> Even though the western part of Europe has captured much of the world's attention for its formation of the former European Community (currently called the European Union), the prospect of this economic union is still under a cloud.<sup>3</sup> Owing to the current trends in North America and Europe, most economists envisage that Asia may become the world's leader in the twenty-first century. China, with great success in its economic reform since 1979, becomes the focus of the world's attention.

Among all these changes at the end of the twentieth century, the social, political and economic structures in Macau have also experienced fundamental innovation since the 1960s. Empirically, one of the major factors which has accelerated the recent economic progress in Macau is the open economic policy adopted by the Chinese government. In addition, the cooperation between Chinese and Portuguese governments in Macau's affairs also forms an important ingredient of Macau's economic success in recent years. For this reason, an understanding of the economic performance in Macau has been widely regarded as a cornerstone to those who are interested in China, as well as in Western Europe.

Macau, a Portuguese enclave since the middle of the sixteenth century, is located at the west coast of the Pearl River, 61 kilometers from Hong Kong. Like Hong Kong and Singapore, Macau is classified as a mini-region within which there is a scarcity of natural resources. Even so, what makes Macau unique in the world market is its particularity in historical development, industrial structure, operational mechanism, as well as geographical features. As a *mini-sized* economy, the economic progress in Macau is subject to certain

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2 see Oleh Havrylyshyn and John Williamson, From Soviet disUnion to Eastern Economic Community?, Policy Analyses in International Economics 35, Institute for International Economics, 1991.

3 see Ricardo C.S. Siu, "An Evaluation of the Success of the European Currency Unit and as Assessment of the Feasibility of Formulating an Asian Currency Unit", M.A. Thesis, University of Maine, USA, 1992.

constraints, e.g. the stock of capital and the quality of human resource. In addition, due to the divergent paths in its social, political and economic progress in the past centuries, Macau is still at the crossroads, searching for its future direction. Owing to these facts, it is necessary to keep in mind that the factors contributing to the success of the four newly industrializing economies (Hong Kong, Singapore, South Korea, and Taiwan) may not be applicable to the case of Macau. In other words, to attain success, Macau must work on its own path, and search for its own pattern of economic development. And that is exactly where the field of interest of this book lies.

*MACAU : A MODEL OF MINI-ECONOMY* can be classified by contemporary economists as “literary economics,” as opposed to mathematical economics or econometrics. In order to strengthen and clarify the economic arguments underlying this book, however, empirical evidence and basic descriptive statistics will be employed. In addition, by examining the structural and institutional changes in Macau in the past four and a half centuries, this book will identify a number of new economic ideas regarding the fundamental economic performance in Macau. Moreover, it is anticipated that this book can serve to provide a practical case as an illustration of the argument raised by Douglass North (1990),

“Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic. Institutional change shapes the way societies evolve through time and hence is the key to understanding historical change.”<sup>4</sup>

This book comprises five main chapters. In Chapter 2, the concept of mini-economy will be introduced. Even though this may not be a generalized concept which may be applied effectively to any one *small-sized* or *mini-sized* economy, it is a good alternative

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4 Douglass C. North, Institutions, Institutional Changes and Economic Performance, Cambridge University Press, 1990, p. 1.

economic discussion for comparing and contrasting the economic performance of Macau in the light of orthodox economic theory.

Chapter 3 will provide the background information regarding the structural changes (social, political and economic) in Macau in its first four centuries of development (i.e. from the middle of the sixteenth century to the middle of the twentieth century). It is vital to identify the properties of this society in terms of its particularity of historical progress. Accordingly, the uniqueness of Macau's industrial structure, location of industries, government policies towards industrial development, trade pattern, international status and some other current issues will be traced and fully explained. Qualitatively, this chapter will provide a set of assumptions and constraints on modeling the economy of Macau.

In chapter 4, focus will be shifted to the period of the recent five decades (i.e. since World War II). The decline of Macau's primary sector, the structural changes of its secondary and tertiary sectors will be discussed. In addition to an overview of the structure and structural change in the domestic production, this chapter will also attempt to analyze the factors affecting the location of industries in Macau.

In chapter 5, recent economic changes in aspects of population, industrial structure and the stock of social capital will be examined. The visible economic changes over time will be further investigated by relating them to the institutional changes. It has been argued that the rapid economic growth since the 1980s may not be consistent with a reasonable economic development on a long-term base.

Finally, the evidences as illustrated in chapters 3 and 4 and the arguments as explained in chapter 5, will be incorporated into an industrial survey.<sup>5</sup> The results show that the patterns followed by the four newly industrializing economies can not be directly followed by Macau under certain circumstances. As a result, it

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<sup>5</sup> An industrial survey was done by sending questionnaires to firms in Macau. The fundamental purpose of this survey is to collect some primary data to clarify the operation of this economy; and to support certain arguments in this book.

becomes necessary for Macau to search for an effective development strategy no later than the end of this century. Accordingly, Chapter 6 will attempt to foresee the opportunities and challenges associated with Macau's economic future. Several suggestions will be provided; and hopefully, there are some useful advice to the policy-makers, especially to managers of domestic firms, foreign investors and even officers of the Macau Special Administrative Region after 1999, who are responsible for Macau's developmental strategies in the coming century.

Ideally, this book can introduce some new ideas in the area of economic research with reference to Macau, such as the concept of mini-economy. Some of the topics presented in this book will also be subjects to be further elaborated and extended.



## *Chapter 2*

# *The Concept of Mini-Economy*

In the past decades, remarkable characteristics have been observed from the growth of the global economy. First, the degree of internationalization between countries has been accelerated. Second, the progress of regional economic integration has been carried forward. Third, the global economic power is moving from America to Asia. Fourth, the progress of *small-sized* and *mini-sized* economies has caught the world's attention. The concern of the *mini-sized* economy is a focus in this book. And in this chapter, the concept of mini-economy will be defined by making reference to the case in Macau.

### **2.1 Awareness of the subject matter**

In the world market, it is recognized that many economies (either sovereign states or economic regions) are small in size. This “small in size” does not necessarily refer to the absolute value of an economy's gross national (or domestic) product. These economies may be endowed with scarce natural resources or human resource, or both. In addition, the stock of man-made capital may be limited in size. Accordingly, part or all of the above factors impose various constraints on the economic progress of these economies. Empirically, basic economic features, as well as the stages of development, of such economic systems are usually by themselves unique, or at least somehow different from one another. For example, some of these economies are highly industrialized, while others are specialized in certain specific forms of tertiary production, e.g. tourism. Besides, while some of them are quite modernized,