

# FROM ADAM SMITH TO MICHAEL PORTER

**Evolution of Competitiveness Theory** 



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# **FOREWORD**

Some people view academic theories as impractical and useless, and make strategic decisions based on their personal ideas. In fact these personal ideas are their personal theories. These decisions may lead to disastrous consequences if they are based on personal theories that are not fully discussed. In contrast, good academic theories have been discussed and tested by scholars. Strategies should be formulated based on the good academic theories, rather than on unproven personal theories. A good theory is a shortcut to understanding the complex real world.

This book deals with important theories of international competitiveness and their strategic implications. The theories range from classical theories such as Adam Smith's absolute advantage to new theories such as Michael Porter's diamond model. This book also incorporates the latest theoretical advances such as the generalized double diamond, the nine-factor model, and new stage models of economic development.

A theory is often complex and controversial. In addition, a theory can be misused and overused. A theory, like a medicine, is most effective when it is appropriately used. Applying a theory without considering its weaknesses is like taking a medicine without knowing its side-effects. To develop a critical perspective, readers first need to fully understand each theory. They should then study its strengths and weaknesses; and previous research and the need for further study; and its strategic implications.

This book is suitable for Business Strategy and International Business courses on both the graduate and upper-division undergraduate levels. This book is also suitable for policy makers and corporate managers. We hope that educators, students, and practitioners will find useful implications from this book's systematic integration of important competitiveness models.

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We would also like to thank the following publishers for allowing us to reproduce their articles.

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# Introduction

The effect of *The Wealth of Nations* was revolutionary. Adam Smith's thoughts on trade gave businessmen a significant place in history. Their pursuit of profit was justified. Their social respectability as an important class was identified. Most importantly, a new concept of a nation's wealth was introduced.

Some economists argue that very little of what Smith said on the subject of trade was new, but the scope of Smith's work, the completeness of his analysis and the timeliness of its appearance all conspired to make his book a landmark in economic thought. Since Smith published his book in 1776, many economists have made important contributions to this theory. However, many of the new trade theories are based on two important concepts—specialization and free exchange—which were introduced by Smith more than two hundred years ago. This is why we respect Adam Smith as the grandfather of economics.

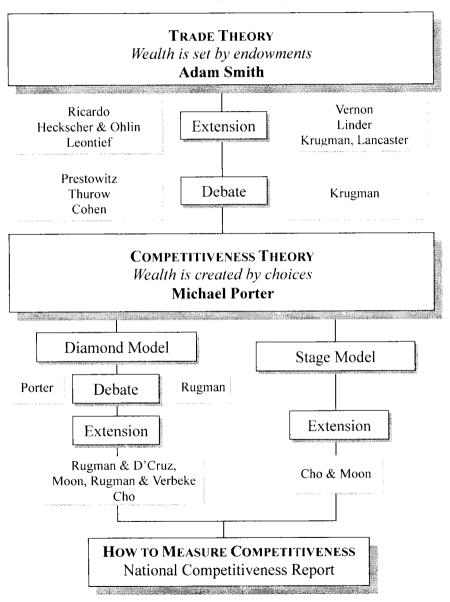
Although Smith and his followers provided some important bases for economic thoughts, today's global economy is too complicated to be understood with this rather simple version of trade theory. There was a breakthrough in 1990. Michael Porter introduced a new competitiveness theory, the diamond model. According to Porter, nations are most likely to succeed in industries or industry segments where the national "diamond" is the most favourable. The diamond has four interrelated components—(1) factor conditions, (2) demand conditions, (3) related and supporting industries, and (4) firm strategy, structure, and rivalry. In addition, there are two exogenous factors—chance and government.

The principle of the diamond is excellent, but its geographical constituency has to be established on different criteria. In particular, Porter's single diamond is not very relevant in small economies because their domestic variables are limited. They have to actively utilize international variables to enhance their competitiveness. In fact, Porter recognized the importance of international or global variables for a nation's competitiveness, but his diamond model did not explicitly include these variables. The debate

on the diamond model in Chapter 4 has thus centered on the treatement of international variables.

Notwithstanding, the extended models by other scholars are based on the principle of the diamond model that was originally introduced by Porter. Likewise, the debate in Chapter 2 is based on the principle of Adam Smith and his followers. The debates are sometimes very harsh and acute, but we can understand the theories better through these debates. In addition to the diamond model, Porter also introduced a stage model of economic development. This is an important model but has not been much discussed. In Chapter 7 and 8, we discuss the stage model. In Chapter 9, we discuss how to measure the concept of competitiveness. The overall structure of this book is illustrated in the next page. To sum up, Adam Smith is the pioneer of trade theory and Michael Porter is the pioneer of competitiveness theory. Yet, no theory is perfect in a changing environment. We need to go further.

# **Evolution from Trade Theory to Competitiveness Theory**



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# 1. TRADITIONAL MODEL: THEORY

Mercantilism

Absolute Advantage Smith, 1937(1776) Comparative Advantage Ricardo, 1971(1817)

Factor Endowments Heckscher, 1949(1919); Ohlin, 1933

Leontief Paradox Leontief, 1953
Product Cycle Vernon, 1966
Country Similarity Linder, 1961

Economies of Scale Krugman, 1979; Lancaster, 1979

# Summary and Key Points

Mercantilism viewed trade as a zero-sum game in which a trade surplus of one country is offset by a trade deficit of another country. In contrast, Adam Smith viewed trade as a positive-sum game in which all trading partners can benefit if countries specialize in the production of goods in which they have absolute advantages. Ricardo extended absolute advantage theory to comparative advantage theory. According to Ricardo, even if a country does not have an absolute advantage in any good, this country and other countries would still benefit from international trade. However, Ricardo did not satisfactorily explain why comparative advantages are different between countries. Heckscher and Ohlin explained that comparative advantage arises from differences in factor endowments. This theory appears to be virtually self-evident. However, Leontief found a paradoxical result. Some economists have developed alternative theories because the Heckscher-Ohlin model did not work well in the real world. These theories include product cycle, country similarity, and trade based on economies of scale. All of the theories discussed in this chapter are useful in understanding many of today's industrial and trade policies. They are also helpful in understanding and evaluating the debate over competitiveness in Chapter 2.

Sources:

- Smith, Adam. 1937 (1776). An inquiry into the nature and causes of the wealth of nations. In Charles W. Eliot, editor, The Harvard Classics. New York: P. F. Collier & Son Corporation.
- Ricardo, David. 1971 (1817). The principles of political economy and taxation. Baltimore: Penguin.
- Heckscher, Eli F. 1949 (1919). The effect of foreign trade on the distribution of income. In Howard, S. Ellis & Lloyd A. Metzler, editors, Readings in the theory of international trade. Homewood: Irwin.
- Leontief, Wassily. 1953. Domestic production and foreign trade: The American capital position re-examined. Proceedings of the American Philosophical Society, 97: 331-349. Reprinted in Richard Caves and Harry Johnson, editors, Readings in International Economics (Homewood, Illinois: Richard D. Irwin, Inc., 1968).
- Vernon, Raymond. 1966. International investments and international trade in the product cycle. Ouarterly Journal of Economics, May: 190-207.
- Linder, Staffan B. 1961. An essay on trade and transformation. New York: John Wilev.
- Krugman, Paul R. 1979. Increasing returns, monopolistic competition and international trade. Journal of International Economics, 9: 469-479.
- Lancaster, Kelvin J. 1979. Variety, equity and efficiency. New York: Columbia University Press.

#### MERCANTILISM

In 1492 Columbus reached the New World; in 1501 Amerigo Vespucci discovered the mainland of the continent; and in 1519 Magellan reached the Philippines around the southern tip of South America and opened the Western route to India. These discoveries were possible because of scientific development in the areas such as astronomy and shipbuilding. Merchants and traders wanted to expand their business to the East because trading Eastern and Western products was profitable. International business became important in the age of discovery and exploration during the 15th century.

An economic theory at this time was called mercantilism. It continued to be the dominant economic thought until the 18th century. The mercantilists thought of wealth as gold and silver, or treasure, a term common at that time. The policy of accumulating precious metals was called bullionism. In the earliest period, bullionist philosophy translated into encouraging imports and forbidding exports of bullion. This policy soon shifted toward regulating international trade to achieve a favorable balance of trade. Mercantilism emphasized the necessity of a country to acquire an abundance of precious metals. To do this, the country had to export the maximum of its own manufactures and to import the minimum from other countries. The excess of exports over imports would be paid for in gold and silver.

The policy then shifted toward encouraging domestic production. The rationale was that the country, producing more goods for export, could achieve a favorable balance of trade and thus a bullion inflow. This policy was well explained by Thomas Mun (1571-1641), a director of the East India Company and a principal mercantile theorist. His main contention was that to increase the wealth of the nation, England must sell to other countries more than she bought from them. He advised his people to cultivate unused lands; reduce the consumption of foreign wares; be frugal in the use of natural resources, saving them as much as possible for export; develop industries at home to supply necessities. These are the tenets of the thrifty businessman. However, these are not only the responsibility of individual merchants. The government should also have an obligation. It could thus be advised for the government to prohibit imports and subsidize exports.

At this time a tax policy was important. The country could achieve mercantilist goals by lowering taxes for exports and imposing high tariffs on