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Recommended Citation

Sophal Ear, "CAMBODIA'S ECONOMIC DEVELOPMENT IN HISTORICAL PERSPECTIVE: A Contribution to the Study of Cambodia's Economy Aug. 1995", Aprenet, August 01, 1995, https://nautilus.org/aprenet/cambodias-economic-development-in-historical-perspec-ive-a-contribution-to-the-study-of-cambodias-economy-aug-1995/

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CAMBODIA'S ECONOMIC DEVELOPMENT IN HISTORICAL PERSPECTIVE:

A Contribution to the Study of Cambodia's Economy

Sophal Ear

Department of Economics

University of California, Berkeley

Ronald E. McNair Scholar

Academic Achievement Division

2515 Channing Way, Berkeley, CA 94720

Tel: (510) 642-7935, FAX: (510) 642-7129

E-mail: sophal@csua.berkeley.edu

URL: http://www.csua.berkeley.edu/~sophal

August 1995

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PREFACE

This study is the revised version of my original undergraduate economics thesis, "Cambodia's Economic Development and History" (March 22, 1995). To distinguish this version, I have retitled it "Cambodia's Economic Development in Historical Perspective".

As promised in the preface to my original thesis, I have integrated Remy Prud'homme's quintessential L'Economie du Cambodge (1969). I add to this August 1995 version three new models of economic growth: a demand-driven Keynesian model, the foreign-aid specific Two-Gap model, and the Endogenous Growth model of technology.

I have also added several anecdotes from personal correspondence, and an appendix containing portions of the 1993 Cambodian Constitution.

These additions, among many others, were implemented in the Summer of 1995, under a research grant provided by the McNair Scholars program at UC Berkeley. My faculty mentor for the Summer was Agricultural Resource Economics Professor Alain de Janvry.

I hope that if you conclude anything at all upon reading this thesis, it is this: more needs to be written on the Cambodian economy.

Sophal Ear

August 1995

DEDICATION

This thesis is dedicated to a nation still in mourning: to all of Cambodia.

ACKNOWLEDGMENTS

The genesis for research on this thesis was a vision in cyberspace. The idea of using the Internet to search the entire world's localized networks was one which I had wanted to try ever since subscribing to Elliott Parker's Southeast Asia list "Seasia-L." I am eternally grateful to the dozens of individuals, (among them Laura Summers, who suggested several sources, and Roger Niles, who compiled a most impressive bibliography on Cambodia's economy for me) on Seasia-L who made research for this paper so much more exciting and rewarding. By sending e-mails of both encouragement and help, I could not have asked for more. Their faces I have never seen and may never see, but it is to their illimitable minds I shall always feel obliged.

For help with archival research, I would like to thank Steve Denney of the Indochina Archive, Donald Donato of the World Bank's Indochina division for information gathered on my behalf at the Bank, Craig Etcheson of CORKR, and Virginia Shih at the South-Southeast Asia Library here at UC Berkeley. For information on to the Cambodian educational and banking system in the 1960s and 1970s, I am grateful to Mr. Peth Lim, Mr. Chanou Pasin, Mr. Sarom Ing, and an unnamed *Mathematique et Generale Physique* Phnom Penh University student. Special thanks go to my friends Bruce Sharp (from Chicago), Paul Tun, Hann So and everyone else from San Jose who supported me after I finished my original thesis and began distributing it. I am delighted to acknowledge Dr. David P. Chandler for his constructive criticism and many suggestions made with respect to the original thesis.

For the theories of economic growth chapter, I especially thank my current faculty mentor Agricultural Resource Economics Professor Alain de Janvry for our office hour discussions and his exceptional economic development class from which I learned so very much.

Saving the very best for last, I would like to thank my undergraduate honors thesis advisor Professor Martha Olney, the one person whose time and effort went into mentoring me first, proof-reading drafts, and making numerous suggestions for the original thesis. Without her invaluable help steering my work, I would not have so enjoyed researching and writing the following pages. I'm certain that the final product would have otherwise been nothing short of catastrophic. Of course, it goes without saying that no-one acknowledged here is responsible for the mistakes found in the following pages--I alone am responsible for them.

Sophal Ear

Oakland, CA

CHAPTER 1: INTRODUCTION

Le Cambodge ne veut pas mourir . . . Le Cambodge ne doit pas mourir. [trans. Cambodia does not want to die . . . Cambodia must not die.]

--Jean Delvert, 1983

Ever since the first Industrial Revolution in Britain, economists have endeavored to model how countries develop. With economic development comes a longer life-expectancy, better education, a higher standard of living, and generally speaking--progress. Beginning with Adam Smith, who believed that the division of labor would cut production costs and give workers dexterity, to Karl Marx who saw industrialization in a Hegelian synthesis and, therefore, as a necessary part of history, the study of economic development continues to chart new chapters in our understanding of how and why countries industrialize. While there are striking similarities among the successful few, namely land, socio-political, and institutional reforms, following an agricultural revolution in which surplus labor is released into industry, the varying factor endowments, political culture, timing, and strength of institutions all make each country's industrialization experience somewhat unique. Relative economic backwardness and timing in development, notions first introduced by Alexander Gerschenkron in his ground-breaking book of essays Economic Backwardness in Historical Perspective (1962), tell us that for France, Germany, and Russia in the 19th century, the process of development took different degrees of state intervention which depended upon such factors as the presence of financial institutions, and how late they were to industrialize. But what of the Kingdom of Cambodia in the 20th century?

Today, numerous former European colonies in Asia and Africa that were given independence in the aftermath of the Second World War seem to fill the ranks of the poorest countries in the world, deemed to be "underdeveloped" by some, and "less-developed" by others.[1] Srok Khmer, Cambodja, the Kingdom of Cambodia, the Khmer Republic, Democratic Kampuchea, the People's Republic of Kampuchea are only some of the past and present names a small former French colony better known as Cambodia has been called in the last two millennia. Cambodia is among the least developed and poorest countries in the world. Its economy is even more agrarian today than it was in 1968. With less than $200 in per capita gross national product (GNP), Cambodia ranks 115th out of 122 countries.[2] These countries are members of the United Nations Development Programme, and include more-developed countries (MDCs) like the United States, Japan, France, England, etc., and less-developed ones like Bhutan, Nepal, Sri Lanka, etc. In all categories, from life expectancy to real gross domestic product (which excludes overseas income, but includes foreign-owned enterprises within national borders), Cambodia nests next to sub-Saharan African countries like Ethiopia, Somalia, and Mozambique. Faring hardly better in the composite Human Development Index (HDI) which uses educational attainment and life expectancy, in addition to income, Cambodia ranks 96th out 122 with only 49.7 years in life-expectancy.[3]

This thesis attempts to answer the following questions: According to six standard theories of economic development, namely the Harrod-Domar, Keynesian, Two-Gap, Solow Growth, Endogenous Growth and Dual Sector Economy models, what factors led to Cambodia's failure to industrialize in the 1950s and 1960s? What could she have done? And what can she do today, given her economic history?

The factors that contributed to Cambodia's failure to industrialize range from the level of saving to the role of agriculture. Accordingly, the thesis attempts to demonstrate their presence or absence during one specific period in Cambodia's economic history: the Sihanouk years of 1953 to 1970. The reason for particular emphasis on these years is simple: there was neither armed conflict, nor revolution, nor occupation during that period. Since it would be futile to apply standard models of economic growth on Cambodia during the post-Sihanouk Cambodian economy (1970-1994), the focus in chapter 4 is to describe the economy in a positive, as opposed to a normative sense.[4]

In the center of Southeast Asia, bordering Thailand on the west and Vietnam on the east, Cambodia is a country slightly smaller than Oklahoma.[5] Unlike her two giant neighbors whose populations are many times larger (60 million in Thailand and 72 million in Vietnam), Cambodia's population is small, with only ten million people. Cambodia's economy is characterized by the myriad of small plots which cover the 16% of arable land she has. Rice, the staple food of most Asian diets, has long been Cambodia's primary agricultural output. In 1969, Remy Prud'homme, remarked that,

[Le] Cambodge n'est pas actuellement, comme tant de pays pauvres, confronte a un probleme d'alimentation ou d'emploi aigu: le chomage, et en tout cas la faim n'y sont pas pressants. La structure sociale n'y a pas non plus le caractere injuste jusqu'a en etre explosif qu'on trouve trop souvent. [trans. Cambodia is not actually like many other poor countries that face problems of subsistence or (acute) employment: unemployment, and at least hunger are not all that pressing. The social structure is neither unjust to the point of explosive as is often found elsewhere.][6]

Today's Cambodian economy, like that of many backward countries, is entrenched in agriculture, which controls 80% of its labor force. Any industrial progress made before 1975 was undone when the ultra-Socialist Khmer Rouge took power and agriculturally collectivized the Cambodian economy in a "super great leap forward."[7] From 1975 to 1979, money was officially banned,[8] banks were closed, private property was illegal, and the official year for 1975 was zero.

Although most of her contemporary history would suggest otherwise, Cambodia was not always an economic and political disaster area. Broadly speaking, the history of Cambodia's economy can be divided into three parts: (1) the pre-colonial period (prior to 1884), (2) the French Colonial experience (1884-1953),[9] and (3) the post-colonial aftermath (1953-present).

In the third period, Cambodia has undergone a number of upheavals including a Vietnamese occupation, a *coup d'etat*, and a bloody Maoist revolution that is estimated to have killed anywhere from 750,000 to 1.5 million Cambodians. During that time, and to this day, five different regimes have governed the country: (1) King Norodom Sihanouk's "Kingdom of Cambodia," from 1953 to 1970; (2) Lon Nol's "Khmer Republic," from 1970 to 1975; (3) Pol Pot's "Democratic Kampuchea," from 1975 to 1979; (4) the Vietnamese Occupation in which the country was re-named "The People's Republic of Kampuchea," from 1980 to 1989; and (5) the current period (following the State of Cambodia which lasted from 1989 to 1991) of Royal co-governance with two Prime Ministers and a democratically-elected parliament. However, political disorder, as even the authors of the American Constitution understood in 1789, has never been known to foster an environment in which property rights were secured or where economic growth might be sustained. Likewise, in Cambodia.

The chapters on Cambodia's economy divide her history into two major periods: (1) before 1970 in which Cambodia was at peace (*Chapter 3: A Brief History of Cambodia's Ante-bellum Economy*) and (2) after 1970 in which her economy was devastated by war, revolution, and occupation (*Chapter 4: The Post-Sihanouk Cambodian Economy*). The emphasis placed in these chapters is on giving the reader an idea of where Cambodia's economy stood in each period (using figures on education, microenterprises, and agricultural output) and to a lesser extent on strict macroeconomic data which, even when available, lacks validity. For instance, two primary sources used are propangadistic publications of the early 1970s, Cambodge and Khmer Republic.[10] They are offered in conjunction with secondary sources of more definite origins, for instance, Remy Prud'homme's indispensable L'Economie du Cambodge published in 1969.

Many books have been written about Cambodia, but few have dealt with her economy. In the late 1950s, a young Cambodian student at the University of Montpellier in France named Khieu Samphan wrote a dissertation in which he argued that Cambodia's problems of industrialization were the direct consequence of exploitation by the "imperialist" industrialized world.[11] This World Systems approach, forwarded by the Egyptian Marxist economist Amin Samir (1957), resolved that only autarky from the world system would result in the industrialization of the Third World. This theoretical framework combined with Maoism (especially in the aftermath of the Cultural Revolution) became the bedrock for a revolutionary movement called the "Khmer Rouge," or Red (communist) Khmer. Although everyone today agrees that what Samphan called for in his doctoral dissertation, namely autarky in the form of "self-conscious autonomous development," never became the actual master plan for the bloody and murderous reign of the Khmer Rouge (of which he had become second in command behind Pol Pot), his thesis still remains the only serious work on Cambodian economic development by any Khmer.[12]

To be sure, this thesis uses few "revolutionary" theories of economic development. It attempts to qualify them (such as the Keynesian model) when they do not "fit" Cambodia's economic circumstances. The theory chapter which follows this introduction indicates what factors are important to economic growth, especially for Cambodia, and how the models themselves function. Equally important is the examination of the literature in economic history chapters (3 and 4).

Studies on the post-settlement situation and the rebuilding of Cambodia have flourished in the aftermath of the Paris Agreements of 1991 in which Vietnam agreed to withdraw from Cambodia.

The World Bank published a country survey on Cambodia in 1992, almost twenty years since it last examined the country. In 1993, George Irvin published a working paper on "Rebuilding Cambodia's Economy: UNTAC and Beyond" which uses Keynesian analysis, as this thesis does, to examine the economy.[13] Most recently, the Royal Government of Cambodia issued a policy outline titled*National Program to Rehabilitate and Develop Cambodia* (1994). In addition, some non-governmental organizations (NGOs) have teamed-up under the umbrella group named Cooperation Committee for Cambodia to write sectoral position papers which were delivered at the second meeting of the International Committee on the Reconstruction of Cambodia in Tokyo in early March 1994.

It is within this context that my work begins. The prospects for Cambodian economic development cannot be achieved until more Cambodians take part in the process of studying their economy and its problems of industrialization just as Samphan's dissertation attempted to do in 1959. The Cambodian economy is still very marred by decades of war, revolution, and destruction, but since the departure of Vietnam's troops from Cambodia, and the subsequently successful democratic election sponsored the United Nations Transitional Authority on Cambodia (UNTAC) in 1993, Cambodia's economy has the potential to finally "take-off."

CHAPTER 2: THEORIES OF ECONOMIC GROWTH

The overriding objective of the Royal Government is to achieve a fair, just and peaceful society and, through accelerating the rate of economic growth, to raise the living standards of all Cambodians. In short, the Government is striving to achieve sustainable growth with equity and social justice.

National Programme to Rehabilitate and Develop Cambodia, February 1994

In the course of economic development, industrialized countries have taken many twists and turns. It is tempting to characterize development as merely path-dependent, "historical" or unique for all countries. But this isn't the whole story. To be sure, there are innumerable differences in how countries industrialize--just as there are similarities. For Cambodia, this is not different. With the exception of OPEC countries (Saudi Arabia, Kuwait, Brunei, etc.), the role of natural resources has paled in comparison to that of labor, capital and technology. Most countries have some natural resources, for instance coal and natural gas, but seldom in sufficient abundance to make extraction the source of sustainable income. Cambodia has forested regions which supply wood for construction, yet recently, concern has grown over their deforestation.[14]

The industrialized countries of the world have undergone transformations which have taken them from agricultural to industrial economies. And from there, it would seem, the move to services has already taken place for the more-developed countries. This is not to say, however, that a country like America is no longer agricultural (one need only look at Kansas and Nebraska).[15] Forward, backward, and final linkages are indubitably important since the agricultural, industrial, and services sectors all contribute to one another.[16] This chapter intends to draw a brief outline from the theoretical works of a number of development economists in order to set the foundation for the application of these theories to the case of Cambodia in both the past and the present context (in chapters 3 and 4).

The Agricultural Context

We begin our analysis with an evolutionary model of the path of agriculture's contribution to economic growth by presenting Peter C. Timmer's "The Agricultural Transformation" (1988). Timmer's conceptual framework integrates four economic "environments" from Mosher's to D.G. Johnson's. "The four phases in the agricultural transformation call for different policy approaches. In the earliest stage of development the concern must be for `getting agriculture moving', to use Arthur Mosher's vivid phrase [Mosher (1966)]."[17] In the Mosher environment, a country begins to develop by investing heavily into agriculture, a process colloquially called "priming the pump." This means investing into the agricultural sector cost-saving and efficiency-improving technologies and capital in order to increase the production output and/or decrease agricultural labor capacity (i.e., to free workers from the countryside) later. During this phase of development, agriculture experiences reduced resource extraction because resources are funneled into it instead. Although Timmer notes "A significant share of a country's investable resources may well be extracted from agriculture at this stage . . . this is because the rest of the economy is so small. Direct or indirect taxation of agriculture is the only significant source of government revenue."[18]

The agricultural build-up's purpose is to produce an agricultural or green revolution, following which the agricultural sector undergoes resource extraction. Like an industrial revolution, a green revolution does not happen overnight. But when it does happen, the productivity of resources in agriculture increases. There is no benchmark, to be sure, but the pattern is clear: upward and sustained. Once this has happened in this latter phase called the "Johnston-Mellor environment," agriculture becomes a "contributor" to industry and thus economic growth. Timmer cites agriculture's establishment of market linkages with industry.[19] We shall see the case of Cambodia to be a peculiar one, for that country may have regressed to a less developed economic state after 1970. For the 1950s and 1960s, the country experienced the beginnings of a "Johnston-Mellor environment," because public, private, and hybrid industrial enterprises (industries, *per se*) were forming in a sea of rice, rubber, and other agricultural products. As will be shown in chapter 3, the productivity of resources in agriculture increased, as rice output was exported in increasing quantities for most of 1955 to 1965. According to Remy Prud'homme, the use of fertilizers increased, which indicates the adoption of new agricultural technologies. Today, Cambodia may actually be back to the "Mosher" phase once more (when "priming the pump" of agriculture takes place). There are few precedents for this, and fewer instances still of successful development this late in the game. Therefore, the main analytic emphasis will be placed on the past. Were there to have been no starvation, war, or revolution in Cambodia during the 1970s, the bulk of this paper would have likely focused its attention on these years instead. The theories of economic growth examined next all relate to an economy past the Mosher environment (beyond the green revolution). The implications for which include the possibility for industrialization and rapid economic growth.

Six Growth Theories

Theories of economic growth abound.[20] Modern theories have divided themselves into three types, stressing: civil institutions, or the State, or the market. This thesis examines six cornerstone economic models that have wide-ranging implications for the market and the State, and to a lesser extent for civil institutions. They are the Harrod-Domar, the Keynesian, the Two-Gap, the Solow growth, the Endogenous Growth, and the Dual Sector Economy models (which includes classical and neoclassical components). Although the mechanics will be stressed, it is the economic and policy implications that will be central to our analysis of Cambodia's economy, past and present.

The Harrod-Domar Model

Developed by Roy F. Harrod and Evsey Domar in the late 1940s, the Harrod-Domar model follows a Keynesian framework that emphasizes factors believed responsible for economic growth (among them, the capital stock, investment, the marginal propensity to save and so forth).[21] The variables in the model are defined as follows:

Variable	Definition

Y	output
K	stock of capital
k	capital-output ratio, also called the incremental capital output ratio or ICOR
I	investment
S	level of savings, which equals investment
s	marginal propensity to save
g	rate of growth
[[Delta]]	"change in"

The structural form of the model consists of four equations:

Equation	Explanation
1) [[Delta]]Y=(1/k)[[Delta]]K	Change in income is proportional to the change in the stock in capital divided by the capital output ratio.
2) k=[[Delta]]K/[[Delta]]Y	Is the ICOR (incremental capital output ratio) and is constant if output is proportional to the stock of capital.
3) S=sY	The level of saving in the economy is equal to marginal propensity to save multiplied by income. Since there are assumed to be no taxes, all income is disposable.
4) S=I=[[Delta]]K	The level of saving in the economy is equal to the level of investment, therefore, all investment comes from saving, which is all used to increase the capital stock. The economy is at this point assumed "closed" to the rest of the world and without a government sector.

The reduced form of the model follows:

g = [[Delta]]Y/Y = 1/k ([[Delta]]K/Y) = 1/k (S/Y)= 1/k (s Y/Y) = s/k

The rate of growth in income is the ratio of the marginal propensity to save over the capital output ratio.

The Harrod-Domar model is very simple. Among its assumptions are the following: (1) the economy in question is closed to foreign capital flows and has no government sector and (2) the capital-output ratio, k, remains constant. The incremental capital output ratio or ICOR is the incremental capital needed to increase output by one unit. The ICOR contains the fundamental relationship between capital and output, and plays a central role in determining the rate of growth "g" (as defined by Harrod-Domar). The lower the ICOR, the higher the growth rate will be. The ICOR is therefore very important because it tells policy-makers that the intensity of labor in production should be high.

Economic And Policy Implications

The structural form of the Harrod-Domar model where growth equals "s/k" tells us that in order to accelerate the rate of growth, "g", either one of two things or both must happen: "s", the marginal propensity to save must increase, or "k", the capital-output ratio must decrease. In other words, the rate of saving must increase, thereby increasing the amount invested; and/or less capital should be used in production of output (i.e., capital is more productive). In order to increase the marginal propensity to save, saving must be incentive compatible (or made to be such). Real interest rates should be high enough to induce individuals to save, but not so high as to shift investment away from productive capital.[22] At the same time, if wealthier people are likely to save more than those who are less wealthy (either as a higher amount of savings or rate thereof)--since they can afford to do so--this means concentrating wealth in their hands.

In order for any investment to take place, financial institutions must be present. Farmers, for instance, hold most of their wealth in the form of livestock.[23] This prevents the wealth, which would potentially be saved in banks, from being invested into other sectors. Therefore, in developing countries, private or public financial institutions must be created. In Japan, the Postal Savings System was created for the purpose of increasing the level of saving. For Japanese investors, Postal Savings is the only tax-free investment available, making it the "world's biggest repository of private savings and a model for capital hungry industrialisers throughout the world."[24] Other incentives to promote savings should likewise include tax-free interest earnings (thus increasing the effective interest rate). In Cambodia, a persistent problem since the inception of the *Banque Nationale du Cambodge*, the BNC (Cambodia's central bank), in the early 1950s has been the low level of saving (as observed in shrinking BNC deposits) and conversely, the tendency for high levels of consumption (as observed in chronic trade deficits).[25]

Civil Institutions to the Rescue?

Because of high transaction costs, the market for credit can be very inefficient. The presence of traditional institutions such as alternative lending societies throughout Asia have proven effective in situations of credit scarcity. These associations are unregulated, but are well-known to exist in Taiwan, South Korea, and even the Chinatowns of American cities where small to medium enterprises have difficult access to credit.[26] These institutions serve the purpose of increasing the amount of credit available for lending and promote the economic activity that the Harrod-Domar model postulates will produce economic growth.[27] These institutions must be allowed to exist (if not encouraged to proliferate) in Cambodia despite their imperfections, since the establishment of credit banking takes time and investor confidence (especially outside the Capital, Phnom Penh).[28] Like banks, alternative lending associations offer gains from intertemporal borrowing to all whose net present value today from doing economic activity "x" (including consumption) is higher than it would be in the future at a prevailing interest rate "I". With these conditions, borrowing makes perfect sense. This is typically the same logic used to defend international borrowing and lending.[29]

Capital and Labor

In order to switch from capital-intensive to labor-intensive manufacturing, capital equipment must increase in price relative to wages (i.e., alternatively, a reduction in the wage level accomplishes the same outcome). Since "K" and "L" are assumed to be substitutes here, an increase in the price of capital would induce producers to utilize less capital (as opposed to labor). If the production function used is of a variable nature, where coefficients are in fact not fixed, the intensity of factor utilization will vary according to the price of the factors themselves. As in most developing countries, Cambodia suffers from some underemployment,[30] or surplus labor, at least in the agricultural sector. Underemployment in agriculture implies low productivity per worker which means lower agricultural wages. It is important to note, though, that the labor which one expects to fill these labor-intensive jobs with will be unskilled. Alexander Gerschenkron was first to shatter the myth that backward countries necessarily industrialized by taking advantage of abundant and cheap labor:

Sometimes...the cheapness of labor is said to aid greatly in the process of industrialization. The actual situation, however, is more complex than would appear on the basis of simple models. . . [The] overriding fact to remember is that industrial labor, in the sense of a stable, reliable, and disciplined group that has cut the umbilical chord connecting it with the land and has become suitable for utilization in factories, is not abundant but extremely scarce in a backward country. Creation of an industrial labor force that really deserves its name is a most difficult and protracted process.[31]

To further reduce the use of capital intensive manufacturing techniques in favor of labor intensive ones, employers should maximize the efficiency of the capital stock they do have, i.e., reduce excess capacity. This can be accomplished in several ways: for instance, moving production from a single shift to two or three shifts thereby employing as many workers as possible, or alternatively, simply substituting labor for capital.

Prices and Wages

Lastly, the reduction of price distortions is essential--where there is an overvaluation of the currency, importing cheap capital goods from abroad becomes incentive compatible. In addition, the problem of high wages due to the institution of minimum wage laws, unionism, and the efficiency theory of wages (ETW) distort the neo-classical labor market equilibrium wage, where real wage equals the marginal revenue product of labor. Minimum wage laws and unions are classic economic distortions in a supply/demand schematic (causing a wage floor and monopoly, respectively) but ETW is less well-known. The efficiency theory of wages argues that employers have an incentive to pay workers more than the equilibrium wage because it will motivate that worker to put into his/her work effort that which he/she might otherwise forsake.[32] The alternative to paying slightly above the market wage is supervision and coercion, both of which are costly and one of which is very morally questionable.

Harrod-Domar and Cambodia

In the last analysis, is the Harrod-Domar model realistic for Cambodia? As regards the interest rate and ICOR, Harrod-Domar prescribes internally consistent policies which will produce results that the model predicts. However, the facts that wage repression, the elimination of price distortions, and the creation of more savings are very difficult, if not impossible for Cambodia, makes the Harrod-Domar model a hard-to-swallow prescription. In areas where other models have flourished, Harrod-Domar fails completely because it does not address three major dilemmas for LDCs like Cambodia. These include: the availability of foreign exchange; the provision of public resources, i.e., public goods like schools, defense, infrastructure; and the creation of effective demand--not mere "want" without the wherewithal. Harrod-Domar's deficiencies are numerous from this perspective, but the policy implications offer valuable insights into how Cambodia should have leaned towards during the 1950s and 1960s and must lean today with respect to interest rates, prices and wages, and the use of capital-intensive manufacturing. It is with some of these deficiencies in mind that we turn to a simple Keynesian model of income growth.

A KEYNESIAN MODEL OF GROWTH

Although Harrod-Domar uses a Keynesian framework, it is not Keynesian *per se* in its conclusion regarding the relationship among growth, savings, and the ICOR. The Keynesian model which follows attempts to reconcile the role of government in creating effective demand. The notion of effective demand, reiterated, is not mere "want" without the wherewithal. We should keep in mind too that the lack of demand is generally not what developing countries like Cambodia have faced historically. The problem of excess capacity combined with low demand that countries like America and England faced in the depths of the Great World Depression is far removed from the reality of developing countries. In developing countries like Cambodia, the lack of supply or undercapacity is the problem. With massive foreign aid in particular, an incarnation of the "Dutch disease"[33] which promotes imports and lessens exports is the usual miscreant. With varying additions, our simple Keynesian model can account for net exports, savings rate, etc., and reconcile itself with the real assets market. For our purposes though, we remain committed to the KISS (Keep It Simple, Stupid) principle. Keynesianism, one should stress, has driven macroeconomics for much of the half century following the Second World War. Despite its limitations, especially toward developing nations, it remains a powerful tool for development economists. Here, we have the government or public sector introduced into an aggregate demand function as "G". This allows us to introduce taxes "T" into the equation, since, it is traditionally a major contributor to government revenue, and hence the source from which it spends. The variables in this Keynesian model are as follows:

Variable	Definition	Type
Y	Income	endogenous
C	Private consumption	endogenous
I	Investment	exogenous
G	Government expenditures	exogenous
T	Taxes	endogenous
a	Fixed level of consumption	exogenous
Yd	Disposal income	endogenous
b	Marginal propensity to consume	exogenous
To	Lump-sum tax	exogenous
t	Marginal tax rate	exogenous
AD	Aggregate demand	exogenous

The structural form of the model requires the following identity functions:

Equation	Explanation of Relationship
AD = Y= C + I + G	Aggregate demand must equal income which in turn equals private consumption plus investment, plus government expenditure.
C = a + bYd	Private consumption is equal to an exogenous level of consumption (say a fixed subsistence level) plus a marginal propensity to consume times disposable income.
Yd = Y - T	Disposal income is equal to income minus taxes.
T= To + tY	Taxes are equal to a lump sum tax level plus a marginal tax rate times income.

We begin by plugging into the income function the various other identity functions:

$$Y = C + I + G$$

$$Y = (a+bYd) + I + G$$

$$Y = [a+b(Y-T)] + I + G$$

$Y = [a+b(Y-(To + tY))] + I + G$

$Y = [a+b(Y-To-tY)]+ I + G$

$Y = [a+bY-bTo-btY] + I + G$

Separating the endogenous variable of income out, we gather the exogenous variables to one side:

$Y - bY + btY = a-bTo+ I + G$

Simplifying we get:

$Y (1-b+bt) = a-bTo+I+G$

$Y = (a-bTo+I+G)/(1-b+bt)$

Taking a look momentarily at changes in income between years, we see that a change in "G" results in a change of "Y" times (1-b+bt) in its reduced form becomes:

%[[Delta]]Y= %[[Delta]]I + %[[Delta]]G/(1-b+bt)

Economic and Policy Implications

This simple Keynesian model's implications for increasing income is straightforward enough, development economist Michael Todaro writes,

increase aggregate total demand through direct increases in government expenditures or by government policies that indirectly encourage more private investment (e.g., low interest rates on business loans, tax allowances, investment subsidies). As long as there is unemployment and excess capacity in the economy, the supply of goods and services will respond automatically to this higher demand. A new equilibrium will be established with more income and higher levels of employment.[34]

In this demand-driven framework, the role of government is essential. Spending by the government is multiplied by an effect of the same name--the multiplier effect--which simply means that when, for example, the government spends $1 to pay a teacher, that teacher spends that money, between consumption and saving, and in turn, someone under her in this link will spend a fraction of that money, in infinitely smaller and smaller fractions. Construction projects, education, defense, are all considered government expenditures, and hence can in principle help boost aggregate demand.

The Keynesian Model on Cambodia

There is no doubt but that the influence of Keynesianism was especially strong under head of state and prince Norodom Sihanouk from 1953 to 1969. There were unparalleled expenditures made during that time on schools and construction of port cities, railroads, and significant progress in medical-care as well, all financed more or less by the government through a combination of tax revenues, tariffs, and overwhelmingly foreign aid. The issue and impact of foreign aid itself is addressed in the following section on the Two-Gap model of growth. For now however, using the simple Keynesian model constructed here, we see that this method of creating effective demand, not mere "want" without wherewithal, is plausible under this framework. There are, to be sure, serious limitations too. We are not dealing with the same developed countries for which John Maynard Keynes concerned himself--much less are we even dealing with the same circumstances the world economy faced half a century ago. Keynes was worried that excess savings, not dis-saving, would be the downfall of the industrialized world during the Great Depression! In another ironic twist of history, it is now insufficient levels of savings that threaten American lifestyles.

For Cambodians, however, it is a deficient supply response, as we shall see, for the 1950s and 1960s. How to increase and protect domestic production, is the real dilemma as foreign exchange gushes out of the country. Todaro also brings to light two major impediments to applying the Keynesian model of growth to the Third World. First, it does not appear that the Third World possesses the institutions and structure found in the economies of the developed world. As observed in the previous discussion on civil institutions, there is a scarcity of financial institutions such as banks in LDCs. These impediments, combined with market distortions and imperfections, create fewer opportunities for the multiplier effect, hence the role of government expenditures in the economy. Second, the increased employment opportunities, according to Todaro, will be found in the cities. As a catch-22, however, these new jobs often cannot satisfy the shift of labor from the countryside to the city. In effect, too many peasants will come for too few jobs, creating instead additional unemployment and reduced income. For Cambodia, the first critique of the Keynesian framework is especially salient, the second however is less compelling. While the 1970s observed massive influx of Cambodians entering the capital, it was not due to employment opportunities, but war. Indications that government expenditures via several five year plans under Sihanouk led to disappointing economic growth rates, indicates the strength of market distortions and the lack of financial institutions in Cambodia. Though limited, the Keynesian model used here offers a rapid way to examine the determinants of income. Some of the things it does not account for, such as foreign exchange via foreign aid, and technology are reconciled in the next three models of growth.

THE TWO-GAP MODEL

One particularly critical element to the national budget of developing countries is the foreign exchange from foreign aid and exports. Neither Harrod-Domar nor the Keynesian model said anything of foreign aid. Yet we know that it can play an important role in helping countries acquire capital and intermediate considered crucial for development. For this reason, we turn to the Two-Gap model of growth so-named because of the savings gap and foreign-exchange gap which form its two binding constraints. UCLA development economist Pari Kasliwal writes that "The Two-Gap model basically is similar to the Harrod-Domar model, but makes the further assumption that the investment program requires a minimum import component in the form of machinery or intermediate goods."[35] We can think of that minimum import component as the capital called upon in the Harrod-Domar model used in the production function of goods. It may be essential, but unavailable domestically, hence the need to import. "Thus," writes Kasliwal, "the growth rate of output can be limited by two distinct constraints: the total amount of capital available for investment [i.e., savings] or the amount of foreign exchange available for needed imports."[36] In other words, growth is limited by the wherewithal necessary to purchase essential equipment. Why foreign exchange? Because it is the currency with which countries pay other countries for capital imports needed to increase domestic production and capacity.

Economic and Policy Implications

A developing country like Cambodia finds itself under one of two possible constraints: "a shortage of domestic savings to match investment opportunities or a shortage of foreign exchange to finance needed imports of capital and intermediate goods."[37] Depending on which of the constraints is stronger, a country falls in one category as opposed to the other. In order to fall into the savings gap, a country must find itself at full employment and have net foreign exchange reserves. That country would require relatively less foreign aid than one suffering from a foreign-exchange gap. If foreign aid were given to that country, that excess foreign aid would be fretted away on luxury imports. On the other hand, a country finding itself at less than full employment, hence with excess productive capacity in labor, would benefit relatively more from foreign aid.

Which Gap for Cambodia?

The Two-Gap model as applied to Cambodian economic history results in a mixed outcome of in-betweens. It appears that Cambodia lavished in luxury imports from the 1950s onward, yet it does not appear at the same time that Cambodia's work force was fully employed. At the same time, much of the foreign aid, or assistance provided Cambodia in the 1970s was expended on the war effort, corruption, and inflation. When trade is brought into this formerly closed economy, in the form of "X" for exports and "M" for imports, the national income identity function of the Keynesian model discussed earlier becomes: Y = C + I + G + (X-M). As such, the introduction of net exports implies capital inflow or outflow. "The balance of payments must balance" as the saying goes, meaning a country that imports must either pay (i.e., export) the equivalent in foreign exchange or have capital inflow to finance these imports.

From the 1950s onward, up and until 1975, foreign aid was a lifeline for Cambodia. As we will see in chapter 3, the first two year plan for Cambodia, which was equivalent to a two-year government-spending budget depended on 97% foreign aid from the USA, China, and France. Two percent was to come from the Khmer people. Whether that foreign aid exacerbated or ameliorated the economic condition of the country, as could conceivably happen were the country to suffer from a savings gap--is for analysis to tell. We have indications from the available data that the influx of foreign aid during the 1970s was a "Dutch disease" that accelerated inflation and the deterioration of domestic production. Of course, there was also the war in the same time-span. As for the 1950s and 1960s, the current account (trade) deficits indicate similar though milder symptoms.[38] Using Two-Gap analysis, one can determine the relative need for foreign aid, and thus describe what "is" or "was" in a positive sense.

THE SOLOW GROWTH MODEL

In 1956, economist Robert Solow of MIT developed a classic model of growth.[39] The model, which had implications for balanced growth and technology, can be presented in at least two ways: (1) using a Keynesian national income identity function along with the critical condition that net savings equal net investment[40] and (2) using a capital, labor, land, aggregate production function (in which case factor shares must be econometrically estimated).[41] For the purpose of this thesis, the second method will be used (albeit without the empirical backing necessary) since it incorporates elements which are directly relevant to observations and data on the Cambodian economy in the Sihanouk Era.

In that case, income is made to equal a Cobb-Douglas (C-D) aggregate production function. Output is a function composed of factor endowments which equals national income.

Where, Y = F (K, L, T, A) in which:

Y = national income

F is a function (of the Cobb-Douglas variety)

K = capital stock

L = labor stock

T = land stock (and natural resources)

A = increases in the productivity of factors

A generic C-D function is:

$Y = A\ K^{[[\text{alpha}]]}\ L^{[[\text{beta}]]}\ T^{(1- [[\text{alpha}]] - [[\text{beta}]])}$

Where "A" is a coefficient attached to the productive capacity of capital, labor, and land. "[[alpha]]" and "[[beta]]" are the factor shares for capital and labor, respectively. Land's factor share is the remainder (1- [[alpha]] - [[beta]]). Each factor share, represents in laymen's term, the importance of each factor to growth *per se*, relative to the other factor shares.[42]

Taking the natural log of this Cobb-Douglas function yields the following:

$\ln Y = \ln (A\ K^{[[\text{alpha}]]}\ L^{[[\text{beta}]]}\ T^{(1- [[\text{alpha}]] - [[\text{beta}]])})$

= ln A + [[alpha]] ln K + [[beta]] ln L + (1- [[alpha]] - [[beta]]) ln T

In which case one can implicitly differentiate with respect to income (Y) and arrive at a rate of change format for the equation. Income growth becomes a function of factor shares times the contribution of each factor, that is, its rate of change:

%[[Delta]]Y = %[[Delta]]A + [[alpha]]%[[Delta]]K + [[beta]]%[[Delta]]L + (1- [[alpha]] - [[beta]])%[[Delta]]T

From this equation, all factors in the original function are accounted for, but there is what Solow calls an "unexplained residual" in %[[Delta]]A known as total factor productivity. This is precisely where technological change comes into play. Solow's empirical analysis finally proved something most had known or suspected since the invention of the wheel: technology matters! Technology has improved the productivity of labor, capital, and land in unimaginable ways. Agriculture is made many times more productive when fertilizers are used. Computers have liberated white-collar workers (some would say imprisoned them) and so on. There is little that technology has not yet touched or revolutionized. Not only were land, capital and labor to be the ingredients to the broth of economic growth, but such had become the impact of technology.

Economic and Policy Implications

The Solow Growth model's application to third world countries like Cambodia is not lost in its original design as a model for developed nations. One need not think of technology as merely computers, but as tractors and fertilizers. To be sure, technology isn't everything, but policies meant to improve technological growth and productivity for Cambodia, in the form of technological transfers, education in basic science, etc. are all to be understood as contributors to growth. By plotting a longitudinal growth curve that has on one axis real GNP or GDP and the capital stock on the other axis, Solow was able to show that increases in the capital stock would produce growth that was larger than expected. Solow's explanation: a residual which he concluded was mostly due to technology. Changes in each factor should, therefore, explain changes in the growth of income.[43] Solow's growth model heightened the importance of technology for both advanced and less-developed countries. For Cambodia, where technology stood in the 1950s and 1960s is one aspect of its failure to grow in those decades. For instance, the school system was based on the French system. Education was geared towards the production of civil servants, not agronomists, scientists, and entrepreneurs.[44]

A MODEL OF ENDOGENOUS GROWTH

The introduction of technology into considerations of economic growth have themselves developed into the modern view of endogenous growth theory. In this framework, technology is seen not as an exogenous variable, that is to say unaffected by anything else, but as an endogenous one. How it comes about and contributes to economic growth now depends on other variables such as labor and capital. According to Kasliwal, there are three versions of how technology is made endogenous: (1) spillovers, (2) diffusion, and (3) human capital. For our purposes the first and third one are especially relevant. The use of certain technologies, it is argued, can have benefits which go beyond private accounting. For instance, the use of computers and their manufacture thereof, can significantly improve productivity and knowledge in areas which go well beyond the computer industry. Primary and secondary schools which, for example, use computers can benefit. Indeed, these benefits can spread throughout the economy. Hence the logic goes, "making $1 of computer chips is better than making $1 of potato chips".

Economic and Policy Implications

Endogenous growth theory considers technological growth as springing from investment in education, research and development, in and of themselves. The policy implications, according to Kasliwal, go beyond the neoclassical, Solow Growth-based prescription for increased physical capital, or human capital accumulated through schooling.[45] He writes, "LDCs may only need to promote one advanced firm into domestic markets, for the knowledge spillovers to spread to all other firms in that industry."[46] The process of picking winners is not easy, just as it is for governments to govern markets.[47] We see in the case of Japan, Korea, and Taiwan economic plans that call for investment in such industries as semiconductors (makers of computer memory, central processing units, etc.) and automobiles. We see too an increasing call for the U.S. government to do likewise to the American economy--hence the creation of SEMATEC, a federally-subsidized consortium of semiconductor manufacturers. A macroeconomic textbook states, "Compared with Solow's neoclassical growth theory... endogenous growth theory focuses more on explaining the three factors that underlie economic growth--technology, labor, and capital."[48]

Endogenous Growth and Cambodia

The notion of endogenous growth is relatively new compared to the other theories described in this thesis. It dates back to the 1960s, and the work of Kenneth Arrow of Stanford University and Hirofumi Uzawa of the University of Tokyo.[49] How applicable can endogenous growth theory be to a less developed country like Cambodia? More so than would appear. Endogenous growth research looks at the short-and long-run effects of investment in specific areas like education, research and development, even trade liberalization. In particular,

Other models of endogenous growth explicitly consider the implications of economic policy on the long-run rate of growth. In such models, trade liberalization may lead to greater R&D and human capital investment as firms and workers take advantage of the larger markets and the greater flow of ideas and knowledge across borders. The market return to productivity-increasing investments is increased, and this leads to an increase in the rate of growth. In this case, the long-run effect of trade liberalization is not only a higher level of output in the future [via comparative advantage], but a higher rate of growth of output. Trade liberalization may thus lead to a permanent increase in the rate of output and consumption.[50]

Hence, this conclusion favors opening borders to goods, which means reducing barriers and tariffs. For Cambodia, this was true for the 1950s, 1960s, and the first half of the 1970s. However, from 1975 to 1979, Cambodia closed its doors to the world. From 1980 to 1995, the remainder of the world, with the exception of the Soviet block countries, closed its doors to Cambodia. This year, the U.S. Congress approved MFN (most-favored nation) status for Cambodia, which means the country will now allow Cambodian exports to enter with the best tariff structure America has to offer. It will also mean that Cambodia can expect not just "a higher level of output in the future, but a higher rate of growth of output." Of course, our examination of Cambodian economic history will distinguish the presence of a government policy either aimed at picking winners, or losers. The same conclusions which apply towards the Solow Growth model, apply equally to Endogenous Growth Theory. For instance, the direction of the educational system--in creating what Prud'homme calls "*fonctionnaires*" (civil servants), failed to create the economic actors needed in developing countries: compradors and scientists. We turn next to the relationship among agriculture, industry, technological change, and labor in the sixth model of economic development employed in this thesis.

THE DUAL SECTOR ECONOMY MODEL

The dual sector economy model is actually two models in one. The first is the classical or Lewis dual sector economy model.[51] The second is the neo-classical dual sector economy model. Both models fall under the rubric of "dual sector economy" because they use the same variables and have to do with the same two sectors: agriculture and industry. Both models differ in only one respect: whether they assume the economy to be initially fully employed or underemployed. The Lewis turning point marks the instant at which an economy becomes fully employed, and separates the classical from the neo-classical model.

The basic assumptions of the dual sector classical economy model (a.k.a. Lewis model) are that (1) the agricultural sector exhibits surplus labor. This means that people are idle or working part-time only (in sum, "low productivity"). (2) That the marginal productivity of labor in agriculture is declining because the stock of land is fixed (alternatively, the production function exhibits diminishing returns).[52] And (3) that wages in agriculture are determined exogenously. Because there is surplus labor in agriculture, the price of agricultural goods is not expected to increase until the marginal product of the last worker employed cannot be replaced with another identical worker of equal cost. Thus food prices will remain constant so long as there is underemployment in agriculture.

The Growth Mechanism

In both the classical and neoclassical models, the growth mechanism is triggered by increased industrial output which in turn increases profit and therefore investment. This investment, both models assume, is sent back into the stock of capital in industry. The loop is completed when that capital creates more demand for workers from agriculture.[53]

In the neo-classical model, full-employment is assumed. The wages offered to induce more workers into industry must increase, and so too must the wages of the agriculture sector. Why? Because the neo-classical dual sector model begins where the classical model ends (that is, past the Lewis turning point), full employment is assumed, and any labor transfers from agriculture to industry will cause a shortage in agricultural labor. That is, the cost of replacing the worker who has left for work in industry is no longer replaceable at the same subsistence real wage which once prevailed in agriculture. Wages there and in industry must go up.

Contrasting Assumptions and Logic

In order to understand the differences between the two models, their logic must be contrasted. The classical model assumes surplus labor in agriculture, a declining marginal product of labor in agriculture, and exogenously determined agricultural wages. The neo-classical model assumes a fully-employed economy which is at or beyond the Lewis turning point (the point at which full employment has been reached).

As was stated earlier, wages in agriculture are no longer exogenous in the model since they can now increase with the transfer of workers from agriculture into industry. This has implications for both the price of food and other agricultural products since the labor costs are going to increase under the neo-classical framework. Whereas the classical model relies on repressed wages to create the profit necessary to invest in more capital, the neo-classical model turns instead to technological change in agriculture. By increasing the productivity of agriculture, food prices can continue to decrease, thus minimizing pressure for nominal wage increases and keeping real wages (W/P) constant.

Policy And Economic Implications: Economic Growth versus Equity

The implications for Cambodia according to the classical dual economy model is that any repression of the wage in agriculture will increase the level of employment in industry which will help it reach the Lewis turning point more rapidly. This is what some have referred to as the welfare paradox, namely the fact that things must get worse before they get better for a country to industrialize. Income inequality which is low in agrarian economies (hence the oft-used phrase "poverty of equality") gets worse during industrialization. The Kuznets inverted U shows that virtually all industrialized countries have gone from relatively low inequality to higher inequality (where the inverted U is maximized) and back down to less inequality in the neo-classical phase (past the Lewis turning point). This is true of the newly industrializing economies (NIEs) of East Asia: Korea, Taiwan, Hong Kong, and Singapore, which have reached the threshold of inequality and are turning the corner towards less inequality today. For Cambodia, according to Etcheson, land holdings were becoming more concentrated until 1975. Such increasing inequity would indicate, perhaps, that Cambodia was only following the Kuznets inverted U and had not yet reached the maximum. That maximum is, in fact, the Lewis turning point. Just as countries pass the turning point, inequality declines. This is apparent for the more-developed countries the aforementioned NIEs.

Dual Sector on Cambodia

The neo-classical model is problematic in its assumption of full-employment, especially since most Third World countries like Cambodia have surplus labor,[54] but does offer a less severe solution than repressed wages: technological change in agricultural production. Since technology alleviates both the increase in real wages in agriculture and the price of agricultural output (especially the price of food), thus allowing continued transfer of labor from agriculture into industry without the necessity to increase real wages in either sector.[55] Mellor (1981) has designed a compromise classical/neoclassical model that escapes this problem without forcing the full employment requirement to hold.

How realistic is each model for Cambodia? From a purely ideological standpoint, the classical dual economy model has been relatively successful in capturing trends in both capitalist and communist countries. Countries from England to America have all undergone periods of primitive capitalist accumulation for economic growth to take place. The Second World (composed of the former Soviet Union and other socialist countries) renamed primitive capitalist accumulation the Law of Primitive Socialist Accumulation.[56] Evgeny Preobrazhensky invented the scissors under which Soviet labor (resource) was extracted from agriculture and transferred to industry--resulting in rapid economic growth for a few years.[57] In Soviet Russia, agriculture was squeezed by the State in more than one way: high prices for capital equipment, low prices for agricultural output, combined with collectivization. In non-totalitarian countries like Taiwan and South Korea, land reforms were instrumental in shifting labor to the cities (and the enclosures movement in 18th century England were to play a similar role). For Cambodian economic history, there were no such sweeping land reforms until 1975, when private property was abolished.

The neo-classical model is less draconian in its approach especially with the advent of the green revolution in industrialized countries. As Timmer's agricultural development path shows, one singular event stands out: the fact that all countries which have industrialized have undergone a green revolution prior to an industrial one (with approximately 50 years in lag, but that has shrunk considerably with respect to the East Asian NIEs). The catalyst for an agricultural or green revolution comes when technology significantly increases the efficiency or extent of arable land as with the use, for instance, of fertilizers and modern implements (which make possible higher yields with fewer workers).

Whether the policy implications are realistic matters only if the assumptions made by the neo-classical model are realistic themselves. To be sure, full-employment is not realistic for Cambodia past or present, but then so too are repressive labor tactics.[58] 1962 unemployment was pegged at 7%, but one suspects these findings especially when a Cambodian population census took place once in this century. In the last analysis, these models outline "ideal types" in ideal theoretical worlds. But the value of the Dual Sector, Harrod-Domar, Keynesian, Two-Gap, Endogenous and Solow Growth models within Timmer's greater agricultural context is in their outline of what one can expect given a reduced multitude of factors: L, K, T, A, in addition to government spending, taxation, and foreign exchange. Although their simplicity betrays their actual usefulness, the importance of the factors and conditions they elucidate continues to grow still. As the next two chapters on Cambodia's economic development and history will show, critical factors such as the level of savings, investment in public goods and purchasing power (as it relates to the real wage) were inadequate during the short few years (1953-1970) in which Cambodia's chances to industrialize were highest. For Cambodia, as will become evident, these years have been few and far between.

CHAPTER 3:A BRIEF HISTORY OF CAMBODIA'S ANTE-BELLUM ECONOMY

There are no four-lane highways through the parks of industrial progress. The road may lead from backwardness to dictatorship and from dictatorship to war. In conditions of a "bipolar world" this sinister sequence is modified and aggrandized by deliberate imitation of Soviet policies by other backward countries and by their voluntary or involuntary incorporation into the Soviet orbit.

--Alexander Gerschenkron, 1962

The contemporary history of Cambodia's economy has been detailed in few major books or scholarly dissertations since the 1960s.[59] As an understudied subject of economic development and economic history, it is no wonder that most books on Cambodia are contained within the realm of political science and history proper. The pioneering works of such "Cambodianists" as Ben Kiernan and David Chandler have exposed the tragedy of recent Cambodian history by shedding much light on the Khmer Rouge movement which took control of Cambodia between 1975-1978.[60] Economists like Remy Prud'homme and Achille Dauphin-Meunier, who have focused on Cambodia's economy, are few and far between. Prud'homme's treatise on the Cambodian economy,L'Economie du Cambodge (1969), glitters with insight. Studies by Robert J. Muscat (1989), Fred Z. Brown (1993), George Irvin (1993), the *Economist Intelligence Unit's* highly regarded *Country Profiles* and others have marked the literature on Cambodia's current economic situation. It is within the context of this literature that my analysis of the history of Cambodia's economic development begins.

As was explained in the introduction, this thesis is concerned with the examination and application of standard theories of economic growth on Cambodia. This means, for the most part, examining Cambodia's past for clues on the presence or absence of factors contributing to economic growth. In so doing, the theories themselves can be tested against historical evidence (various statistics, trends, etc.).

Before delving into the history of Cambodia's economy, a word on Cambodian semantics. The use of the word "Khmer" describes more than ethnicity (though 90% of Cambodians are ethnic Khmer); it is also the Cambodian word for a Cambodian citizen and the language Cambodians speak. In the Cambodian tongue, Cambodia itself is called "srok Khmer" meaning "land of the Khmer." Therefore, Khmer and Cambodian will be used interchangeably.

The Angkorian-Khmer Empire (9th to 15th century)

Cambodia is the last trace of a once grand Khmer Empire which spanned parts of Thailand, Laos, Vietnam and Malaysia. The home of one of the largest man-made monuments in the world, the temple-complex of Angkor Wat built in the 12th century.

A Hydraulic Economy

Historians have called the Khmer Empire, which was based around the city of Angkor, a hydraulic economy because of its advanced irrigation system and the many canals leading into the water ways of the Mekong delta which runs throughout Cambodia and Vietnam.[61] All this until "The prodigious conquests and construction efforts of the Angkorian kings came to a somewhat mysterious end in the 15th century." According to some scholars, "The Kingdom's vast and intricate canal system silted up due to disuse and lack of repair, an indication of sudden labour losses in warfare or from epidemic disease."[62] In the half century before French entry into the region, the rustic economy of Cambodia never had more than a population of one million. Leading Cambodia scholar David Chandler has written of the period spanning 1794-1848,

Nearly all the people of [Cambodia] were ethnic Khmer, who occupied themselves with rice farming and with the monastic and official life. Commercial and industrial tasks were handled by minority groups. Marketing, garden farming, and foreign trade for example by Chinese or by people of Chinese descent. Cattle trading, weaving, and commercial fisheries were controlled by a Muslim minority composed partly of immigrants from Malay archipelago... The Kui people in the northern part of the country smelted Cambodia's small deposits of iron ore.[63]

To be sure, Cambodia's ethnic majority has always been overwhelmingly Khmer, but among its neighbors, Cambodia seems like an American melting pot of sorts. It has managed to integrate people from China to Malaysia over the centuries in relative peace. Until France made of Cambodia its protectorate in 1863, the Khmer Empire had all but waned into oblivion from the 17th century onward. Becoming the alternating suzerain of its neighbors Siam (Thailand) and Hue (Vietnam), Cambodia was on the verge of national extinction in the early 19th century.

The French Colonial Period (1863/83-1953)

French presence saved Cambodia from extinction.[64] Remy Prud'homme, the French economist who surveyed Cambodia's economy in 1969 writes,

En etandant son protectorat sur le Cambodge, en 1863, la France de Napoleon III sauvait sans doute le Royaume du Cambodge en tant que tel, mais luis otait du meme coup toute souverainete effective. Pendant pres d'un siecle, la France allait administrer le pays. [trans. By extending its protection to Cambodia, the France of Napoleon III no doubt saved the Cambodian Kingdom inasmuch as it simultaneously took away its sovereignty. For nearly a century, France would rule the country.][65]

French domination, despite its transformative impact, stabilized the region by creating clearly defined borders which protected Cambodia from further encroachment by Thailand or Vietnam.[66]Thailand returned the provinces of Battambang and Siem Reap to Cambodia. When

Cambodia became a full-fledged colony of France in 1883, it was from Hanoi, Vietnam that a French governor oversaw it in addition to Vietnam and Laos. The three countries together were called "French Indochina."

A Story of Retarded Development

The contemporary history of Cambodia's economy begins with her colonization in 1883; yet little happened for quite some time because France's development focus was on Southern Vietnam, where most tax revenues from Cambodia were sent.[67] "By 1945" writes the *Economist*, "[Cambodia] boasted only two *lycées* [secondary schools], a skeletal road network and no modern industry of importance other than one large rubber plantation. All external economic relations depended on [the Mekong] river transport to Vietnam."[68] Prud'homme's survey of the economic literature written on the colonial period indicates that raw materials were sent from Cambodia to other countries in Indochina, particularly the Saigon-Cholon markets, and in kind Cambodia imported finished goods.[69] He explains,

C'est pourquoi rien n'a ete fait pour developper une industrie au Cambodge, ni meme pour proteger les industries plus our moins artisanales qui existaient ou qui se creaient. Il ne s'ensuit evidemment pas que l'action de la France ait ete totalement negative dans le domaine economique. Le Protectorat a dote le Cambodge d'une infrastructure convenable (routes, chemin de fer, amenagement des villes, etc.), d'un cadastre, de services d'inspection et de statistique agricoles, et favorise l'implantation des grande compagnies d'heveaculture. Mais d'une facon generale les autorites coloniales, guidees par une ideologie resolument liberale, n'avaient pas de politique economique, et laissaient le marche faire la loi. [trans. This is why nothing was done to develop Cambodian industry, not even to protect existing or emerging industries that were more or less crafts. It does not follow, however, that France's actions were totally negative in the economic realm. France doted Cambodia with a suitable infrastructure (roads, railroads, development of cities, etc.), land survey, inspections and agricultural statistics, and favored the rise of large rubber plantations. More generally, the colonial authorities, guided by a liberal ideology, without public policy in mind, allowed the market to rule.][70]

These contributions seem, on reflection, to have been minor ones. Cambodia had no major ports, despite a coastline to the Gulf of Siam, by the end of France's *mission civilisatrice* (civilizing mission). Any substantive economic development would have to wait for another decade following Cambodia's subsequent independence in the postwar period.

An Agrarian Economy to Begin With

We see from Alain Forest's doctoral dissertation, <u>Le Cambodge et la colonisation Française</u> (1980), that Cambodia had begun efforts to modernize and develop under French guidance. He cites the evolution of property rights and the taxation of rice paddies, tobacco, cotton, sesame, sugar cane, indigo, and other foodstuffs.[71] During this same period, Forest boldly notes the end of patronage and the birth of representative institutions in its place. He is mistaken in that respect, because patron-clientelism has not subsided to this day. He writes, "*Depuis 1890, l'institution du patronat est en perte de vitesse. Elle va disparaitre dans les annees 1891-1905...* [trans. Since 1890, the institution of patronage is quickly fading. Disappearing in the years 1891-1905...]"[72] By the 1930s, little progress on developing Cambodia's economy had been made. According to Craig Etcheson,

After seventy years of struggle to establish their authority over the proud Khmer Monarchy and peasantry, the French colonial authorities began in the 1930s to plant the first of the great rubber plantations... Developed primarily by French and Belgian capital, rubber production was geared almost exclusively to the export market. The plantations quickly came to dominate the primary sector, and hence the bulk of pre-industrial Cambodian economy. Because of the low productivity of Khmer workers, the French preferred to import Vietnamese labor to tend the plantations.[73]

France's need to import labor from Vietnam, according to Etcheson, was due to the low productivity of Khmer workers. Such observation regarding low productivity relative to one's potential heightens chapter 2's notion of underemployment. It is a problem tackled in the dual sector classical economy model with ominous wage repression. Because labor was instead imported from Vietnam, intersectoral labor flows (from agriculture into industry) for Cambodians were hampered. Was this a setback for industrialization? Not a big one compared to what the general economic policy vis-à-vis Cambodia had been: ignore Cambodia for the most part, get raw materials out of it, and focus on developing Southern Vietnam. On April 25, 1941, French-chosen Norodom Sihanouk-Varman was crowned King of Cambodia at the age of 18. He was described recently by Michael Leifer of the London School of Economics as "the most remarkable political survivor of the post-colonial era."[74]

The Sihanoukist Period (1953-1970)

As the Second World War wrapped up, the United States urged its allies to decolonize and retire from imperialism. This was not an altruistic demand--freeing up colonies everywhere would offer America's unscathed and booming economy access into the domestic markets of previously closed and protected colonies. In the postwar years, Cambodia's economy remained strictly non-industrial: fishing, agronomy, spice cultivation, and (rubber) plantations.[75] The economy continued to export rice and rubber to France, while the latter sent high value added goods (i.e., luxury imports) to the upper echelons of Cambodian society.[76] In the aftermath of Japan's defeat, Sihanouk began to talk of Cambodian sovereignty (for the second time; he had earlier been unsuccessful).[77] The 1954 Geneva Conference and French defeat at Dien Bien Phu, Vietnam, marked the end of French presence in Indochina, but was not the final conflict for that region. A year earlier, however, Cambodia had been granted independence peacefully. Finally, after centuries of national decline, asymmetric interdependence and tutelage, Cambodia was allowed to govern itself. In the following years, Sihanouk made a number of critical choices which would become the backbone of economic development for Cambodia during the 1950s and 1960s.

Hard Choices Ahead

"To govern" John F. Kennedy once said, "is to choose." Sihanouk, as will become evident, made some good choices for Cambodia's economy, when he did make them. But for the most part, it seems, he failed to govern with forethought.[78] His legendary mercurial style only served to exacerbate conditions in the long-run. For instance, in the mid-1960s, he decided to break-off diplomatic relations with the U.S at a critical juncture during the Vietnam War. Under his management, schools proliferated, but they were seriously deficient in relevant curriculum. Graduates could expect few worthy opportunities for their hard work;[79] the number of available jobs were insufficient for the growing number of graduates.[80] The educational scheme was simple: study at the secondary or tertiary level to become a civil servant. General unemployment fared better. In 1962, 44% of Cambodia's population was in the labor force or 2.5 million workers according to Prud'homme. The working population between the age of 15 and 60, which numbered 2.8 million encompassed 51% of the total population. From this one could extrapolate an unemployment rate of about 7%. That indicates an undesirable, though not intolerable rate of unemployment. It may also indicate which of the two gaps, covered in the previous chapter, is more important. Recall that foreign aid helps countries that have excess labor or high rates of unemployment, but are relatively less useful to those countries at full employment (considered 3-4% unemployment rate). Accordingly, since Cambodia received aid from the United States, France, and China in the 1950s and from the Soviet Union in the 1960s (when diplomatic relations were severed with the US), this might indicate why, at the same time, well-to-do Cambodians imported luxury goods so rapaciously as to keep the trade balance in perpetual deficit. This, despite healthy rice exports in the 1960s. That level of aid was initially overwhelming relative to domestic tax and tariff revenue. American, Chinese, and French foreign aid paid for 57%, 23%, and 17% of the first two year plan implemented by Sihanouk, totaling 97%.[81]

Furthermore, the chronic current account deficits were emblematic of a spendthrift morality. Had Sihanouk foreseen the chaos that would envelop Cambodia after 1970, he might have recognized the need to educate more scientists, technologists, and engineers first and foremost. In addition, fiscal austerity, currency devaluation and extensive agricultural modernization would have helped spurt economic growth from the 1960s onward.

A Central Bank of One's Own

The Sihanoukist period was interrupted for five years on March 2, 1955, when Sihanouk announced to a shocked Cambodian public that he would step down as King in order to run for public office under the newly promulgated Cambodian constitution (based on France's own).[82] To replace him, Sihanouk's father, Norodom Suramarit, took the royal throne. Between 1955 and 1960, A. Dauphin-Meunier notes, Cambodia's first state-led push for economic expansion and modernization began.

There had been no Cambodian currency under French colonization. Until 1945, the three countries of Indochina: Vietnam, Cambodia, and Laos, had monetary policy placed in the hands of France. A monetary union later created in 1950 called *L'institut d'Emission des Etats associe d'Indochine* stood for the equivalent of a central bank of Indochina.[83] But under King Suramarit and Sihanouk, now duly elected chief of state while simultaneously prince, Cambodia began to issue currency of its own, called the "riel," under the *Banque Nationale du Cambodge* (BNC). The riel was pegged to gold at 23.3905 milligrams; additionally, the BNC was backed by 13 million non-tradable French francs and an additional 4 million in France's own treasury, the *Tresor*.[84] Initially, according to Dauphin-Meunier, the riel appreciated in value each year thereafter because of an expanding economy that had increased foreign exchange reserves. These days of plenty would be numbered, as BNC deposits slowly shrunk to lower and lower levels in following years.[85]

Cambodia Dabbles with Socialism

At about this time, Sihanouk became head of the government with an astonishing 99.8% of the votes for his political party *Sangkum Reastr Niyum* or Popular Socialist Community. He quickly embarked on a mission to free Cambodia from superpower spheres of influence (which he believed were the cause of Cambodia's debilitating national decline). Like Egypt and India, Cambodia took a socialist and Non-Aligned Movement (NAM) road to development that was marked by the use of agricultural cooperatives (e.g. public collectives),[86] state-owned enterprises, and numerous construction projects. The "socialism" in Cambodia was one that, according to Dauphin-Meunier, arose not from "scientific socialism" in the Marxist tradition, but from Buddhism. He writes,

Essentielement pragmatique, il [le Bouddhisme socialiste] s'inspire directement de principes religieux, preche l'entraide et l'action sociale dans un souci de depassment de l'homme en lutte contre le mal et les injustices sociales, implique un grand respect de la personne humaine. [trans. In actuality, the socialist Buddhism directly inspires the religious principle, preaches for people to help one another and the social action for the advancement of humankind in struggling against corruption and social injustices, stressing on the great respect for humankind.][87]

As became fashionable during the 1950s and 1960s, Cambodia issued numerous economic plans. The first two-year plan, promulgated in 1956 and renewed in 1958, emphasized the development of infrastructure and agricultural development (perhaps to prime the pump). Prud'homme's description of the planning approach to development is insightful:

Cette forme de planification est ambitieuse dans ses objectifs et imprecise dans ses moyens. Quant aux bruts, il s'agit, non seulement d'elever le niveau de vie du peuple, mais aussi de promouvoir une societe plus `juste'. Pour y parvenir, la planification souple compte sur le libre concours des investisseurs et des entrepreneurs prives aussi bien que sur l'action directe et indirecte des pouvoirs publics. Le plan est alors principalement un catalogue d'investissments publics et un cadre pour la politique economique. [trans. This planning is ambitious in its objectives and imprecise in its means. In sum, it not only aims to elevate living standards but promote `justice' as well. To achieve this, planning depends upon free competition between private investors and entrepreneurs, in addition to direct and indirect government intervention. The plan is thus principally a catalog of public investments in a public policy framework.][88]

The creation of a port at Kampong Som named "Sihanoukville" for maritime traffic eased the burden placed on the Mekong River (which had, until then, been the only pipeline for transport to and from Vietnam into Cambodia).[89] For the next decade, five-year plans were promulgated under Sihanouk's Planning Ministry for 1960-1964, 1964-1968, and 1968-1972. The first plan, which lasted two years (for 1956 and 1957), according to Prud'homme stressed the role of capital. Like the Harrod-Domar growth model, Cambodia's planners targeted a growth rate, and fashioned equivalent levels of capital through public investment. Private investment was not taken into consideration, according to Prud'homme, which left much to be desired. That initial plan thus became a two year federal budget of sorts. Public investment was called upon to be divided in the following manner: 38% to infrastructure, 38% to production (mainly agriculture), 19% social spending (schools, health, etc.), and 5% to everything else.[90] It is no wonder that with nearly two-fifths the budget, the transportation system, underdeveloped under the French, received much needed attention from the mid-1950s onward. The number of kilometer of roads more than tripled from 4,805 in 1955 to 16,697 in 1969.[91]

Practical Propaganda?

Much of the statistics on education, industry, and health-care, for the years in which Sihanouk reigned as head of state before the 1970 *coup d'etat* in which he was deposed, were gathered from a pictorial book titled Cambodge (1970). The book's purpose was to attack the Lon Nol regime which replaced Sihanouk in March 1970. It contains the most detailed breakdown of economic progress made from 1955 to 1968, but ought to be taken with at least some reservation. As a secondary source, Milton Osborne's recent unauthorized biography of Sihanouk, titled Sihanouk: Prince of Light, Prince of Darkness (1994) cites similar statistics on education facilities, though without references as to where they originated.[92] In addition, personal correspondence with Cambodians who were students during that time period and, of course, Prud'homme's L'Economie du Cambodge complement the findings with anecdotes and insights. Overflowing with images of a happy and modernizing Cambodia under "papa" Sihanouk, Cambodge is the unqualified mouth-piece of a defeated leader wanting a return to power.[93] On one page, a caption below a picture of President Richard M. Nixon giving a televised speech on the secret U.S. bombings of Cambodia reads: "*L'homme `civilisé' qui soutient le régime sauvage de Lon Nol.* [trans. The `civilized' man who sustains Lon Nol's savage regime.]" It is with this qualification that I offer the following statistics.

Cambodia on Education 1955-1968

The growth of Cambodia's educational system between 1955 and 1968 is indicative of a pattern of economic expansion and modernization. During the French colonial period, it is apparent little was done to educate Cambodians in schools. Prud'homme writes, *Le Protectorat, qui dans certains secteurs comme l'infrastructure a realise une oevre important, n'a malheureusement presque rien fait pour l'enseignement au Cambodge.* [trans. The Protector (France) that had otherwise significantly helped the infrastructure, unfortunately did next to nothing for schooling in Cambodia.][94]

There was, expectedly, much to do for the newly independent nation-state. The primary and secondary school system, which served the population of 5 to 18 year olds, increased significantly between 1955 and 1968. The number of primary schools were doubled, and their students tripled. Secondary schools increased fifteen fold, while their students went up 22 fold. Universities, the bedrock of research and development, central to endogenous growth for the rest of the economy, were finally established in Cambodia.

Table 3.1: The Cambodian Educational System Under Sihanouk

	1955	1968
Primary Schools	2,731	5,857
Number of Students	311,000	1,025,000
Secondary schools (Junior High and High Schools)	12	180
Number of Students	5,300	117,000
Technical and Professional Schools	5	99
Number of Students	334	7,400
Universities	0	9
Number of Faculty	2	48
Number of Students	347	10,800

Source: Cambodge (1970), pp. 23, 24, 26, 28.

Prud'homme confirms this by stating that the number of primary schools more than doubled from 1955 to 1965. The number of secondary schools numbered nearly 200 by 1969.[95] Technical and professional schools included the *Ecole Nationale de Commerce* (business school), *Ecole Nationale d'Agriculture* (agronomy school), and *Ecole Nationale des Arts et Metiers* (arts and crafts school). Illiteracy, a problem in many developing countries stood at 80% for women, 30% for men in 1962. There were, in that same year, only 16,100 high school graduates and 300 college graduates in a population hovering 5 million.[96]

Educational Quantity Versus Quality

Underneath this facade lurked the problem of quantity versus quality. Prud'homme foresaw the problem inasmuch as he could see the opportunities that a secondary or tertiary education could bring,

*Les etudes primaires secondaires et superieures ne preparent guere qu'a une carriere de fonctionnaire. Les agronomes, les techniciens, les comptables, les ingenieurs, les economistes et les `entrepreneurs' qui jouent un role important dans le developpement economique ne son guere nombreux au Cambodge.* [trans. Primary, secondary, and tertiary education do not prepare for much more than a career in civil service. The agronomists, technicians, accountants, engineers, economists, and `entrepreneurs' who play an important role in economic development are too few in Cambodia.][97]

He further observed that the level and subject matter at the secondary school level left much to be desired. Furthermore, professorships were not prestigious nor lucrative. He writes, "*il n'y a pratiquement personne qui aspire a devenir professeur d'Universite* [trans. almost no-one aspires to become University professor]."[98] Instead, what Sihanouk had achieved was an increase in the number of students at all levels of education, but at what cost and for what opportunities ahead? Milton Osborne writes:

In looking back at his years in power, both Sihanouk and his defenders have made much of his efforts to transform and expand the Cambodian educational system. The claim invites debate, because there is no doubt that educational opportunities expanded in Cambodia, particularly during the 1960s. But at the same time there was an ever-growing gap between the numbers of pupils and students processed through secondary and tertiary institutions and the availability of jobs for those who had completed their education.

The issue of education... is given further interest by the prince's own ambivalent attitude to formal learning... Publicly he could boast that he determined Cambodia's economic policies without caring `a rap about political economy, political science or other subjects', and without having read any books on these subjects. But hand in hand with these views went his determination to found schools, colleges and universities... [Yet] standards in most of these newly established faculties were deplorably low, not least because there were simply not enough trained university teachers.[99]

Somewhat disquieting, according to Osborne, was that science was not singled out as desirable field to enter, at least not when compared to the humanities and arts. Prud'homme writes,

[Il] n'est pas normal, par exemple qu'il y aie beaucoup d'etudiants a la Faculte des Lettres et peu a l'Universite Technique si le pays a besoin de beaucoup d'ingenieurs et de peu d'historien. [trans. It is not normal, for example, for there to be more students in the College of Letters than in a Technical University if that country needs more engineers than historians.][100]

One student in the *Mathematique et Generale Physique* (MGP) major, among the more challenging and analytic majors, recalls the cost of one textbook: a month's worth of salary for him (he ranked himself as indigent). In his program were two to three hundred students, "3 [*sic*] khmer professors and one [*sic*] french lady: all had doctor[`s] degree from France."[101] There were two major universities: *l'Universite Royale du Cambodge* and *l'Universite Technique Royale*. "After three months [in MGP 1968]," he continued, "half of them dropped[-out]. My pal and I dropped at the fourth month that year. We gave another shot the following year [1969], but the country was at war. I join[ed] the Navy and my pal join[ed] the Army because he did not know how to swim."[102] To be sure, there were faculties in all fields imaginable, but incentives to steer students into the more socially beneficial engineering and scientific fields were absent.

The most disquieting claim by Osborne regarding the job potential of graduates was affirmed by my own correspondence with other students of that period. The same student who joined the Khmer Navy (1970-1975), had passed the Baccalaureate II examination (necessary for University-level education) and attended the MGP program in the *Faculte des Science* (1968-1970), recalled that "The only clean profession was teaching. My goal was to get [a] *license* [equivalent to a Ph.D.] in MGP and become [a] teacher."[103] Mr. Pasin Chanou, who was well-to-do, and attended the*Faculte de Droit* (Law School) hoped to "[be] prepared to take over and expand my father's business."[104] There were curiously few opportunities in the private sector (other than family-owned businesses), where education was not highly regarded. The artificial creation of both demand and supply of students and faculty by the government might have worked initially. As thousands of students entered the newly built Universities, however, fewer than half could expect to be employed for the extent of their educational attainment. Worse still, corruption was endemic, even at the Universities. The 41 year-old Mr. Chanou writes, Corruption was everywhere. Everyone was involved, either receiving or giving [*sic*] bribery. You have to pay a bribe to get a birth certificate for your child. For your driver's license (I did that!). Money talked and you could get away with almost anything as long as you have it. I'm still bitter for not being accepted to the "Faculte de Commerce" (Business College) because I refused to pay [*sic*] bribery.[105]

Without question, corruption worsened from 1970 onward, when Cambodia entered the Vietnam War and Sihanouk was deposed. Though not emphasized in this thesis, corruption was observable at nearly all levels of government. Osborne noticed it at the highest echelons, which he recounts in Before Kampuchea (1979). Even low level civil servants and policemen, whose salaries hardly sufficed, padded their income with bribes. Prud'homme maintains that the low salary levels which had been frozen since 1955 contributed to this corruption.[106] Mr. Chanou, who attended the*Lycee de Battambang*, recalls the worst aspect of Cambodian schools:

Students had to memorize, sometimes without understanding whys. Lack of books, [*sic*] materiels, equipment. Teachers were not qualified (most high school teachers were just high school graduates). Curriculum did not prepare students for real life experience. Text books were obsolete (in 1970's we were still using French text books published in 1950's).[107]

The rote learning too was criticized by Prud'homme as a Confucian method. But still, how much quality could one expect from a country that in 1945 had but two high schools? The *Economist*sums it up: "In 1960 only 31% of those over 15 could read or write, a legacy of inadequate attention to education dating from colonial rule. Important advances were made during the 1960s, but instruction came to a halt during the war in the early 1970s."[108]

Endogenous and Solow Growth Models

Using a factor important to both the Endogenous and Solow Growth Models--technology as derived from research, education, etc.,--one can see firsthand the disturbing effects that poor quality in education would have upon technology. If education in the sciences is an endogenous growth variable, a determinant therefore of technological change, its importance is all the more increased. If education or schooling produces human capital, then its upkeep is critical to growth itself. As physical capital is accumulated, human capital is necessary too for its operation. In poorer countries, argue Romer, Mankiw and Weil (1992), the lack of human capital becomes an impediment. The explicit link with the Solow Growth Model is apparent in the unexplained residual which Robert Solow deduced was technology. Conversely, if investment in technology-producing education is inadequate, the rate of economic growth expected in the following years will be diminished. Revisiting the Sihanouk years, education missed the mark on at least two points: (1) there was no special emphasis on basic science, and (2) the employment opportunities, when available, were all government sponsored.

Dual Sector Economy

What of the dual sector neo-classical economy model? The dual sectors model has a technological component with respect to agriculture. Technology in agriculture works to lower the cost of food, thus eliminate the need for increases in the real wage for industry. One way in which this technology is implemented is via schooling in agricultural techniques. On that issue, Prud'homme criticized the curriculum of Cambodian schools as irrelevant to Cambodia's needs. Since these schools were based on the French system of education, for civil service, not agronomy. He writes,

Le contenue de l'enseignement (programmes et methodes) devrait etre eloigne de l'exemple francais... Dans un pays qui restera encore longtemps agricole, l'ecole devrait former des *agriculteurs et non comme le dit a propos de l'Afrique M. Dumont `representer d'abord le moyen d'acceder a la caste privilegiee de la fonction publique'.* [trans. The curriculum should distance itself from the French model... In a country that will remain agricultural, schools should create agronomists and not, as Mr. Dumont says of Africa `represent firstly a medium of acceding the privileged caste of civil service'.][109]

Later, when agricultural production is examined, a murkier picture of modernization will appear. In the last analysis, however, the absence of a sound educational system was a detriment to Cambodian economic growth then and for the following years. Prud'homme had prescribed as much when he wrote, "*Beaucoup reste donc encore a faire dans ce domaine [d'ensseignement] essentiel pour le developpement economique du pays.* [trans. Much rests still on this critical sector [education] for the economic development of the country.]"[110]

Health-Care Boom

In addition to education, a number of health-care facilities were added to serve the Cambodian population of over 6 million (in 1968). The number of hospitals tripled from 1955 to 1968, while clinics and pharmacies proliferated.[111] This no doubt resulted in longer life-expectancy and lower infant mortality, though hard-numbers are unavailable. The general mortality rate was estimated at 18%, high according to Prud'homme for people who were not undernourished.

Table 3.2: The Cambodian Health-Care System Under Sihanouk

	1955	1968
Hospitals	16	59
Clinics (Infirmaries, maternity wards, etc.)	103	553
Pharmacies and related establishments	24	358

Source: Cambodge (1970), p. 30.

Perhaps it was this relatively universal health-care system that contributed to Prud'homme's prescient remark concerning the lack of apparent class tensions in L'Economie du Cambodge. He writes, "*les divergences d'interet entre ces groupes [socio-economiques] ne sont pas encore devenues des antagonismes declares.* [trans. the diverging interests among these socio-economic groups have*yet* not become explicit antagonisms.]"[112] This changed diametrically within five years, but even in 1969, Prud'homme's prediction that these antagonisms were waiting to explode foreshadowed the Khmer Rouge's rise to power.

With Respect to Industry

In a considerate description of Cambodia's economic history, Prud'homme writes, "Cambodia has no industrial tradition."[113] He further explains that in 1942, the only factories to reside in Cambodia were rubber plantations. Prud'homme warns that statistics on industry are flawed and sparse, because serious studies have yet to be undertaken. Consequently, we are left with what he calls "*une idee des progres realises* [trans. an idea of the progress realized],"[114] which was he admits is vague and imperfect. Alain Gourdon, consultant to the Royal government agreed, writing in the late 1950s or early 1960s:

Le manque de statistique et de chiffres utilisables dans certains domaines ou a certaines epoques ont oblige les experts a n'effectuer que l'estimation d'un total partiel du produit interieur. [trans.

The lack of statistics and usable numbers in certain sectors or time periods have forced the experts to estimate parts of the gross national product.][115]

According to what data is available, industry, which until 1955 had been inconsequential, grew rapidly in these years. In 1957, Gourdon estimates the gross national product was divided as follows: 50% agriculture, 8.4% industry, 3.1% construction, 16.5% commerce, and 13% military. By 1968, there were more than five times the number of small to medium private enterprises in Cambodia than were present in 1955. The Cambodian State was indifferent to the private sector, Prud'homme writes, "*Sans etre reellement combattu, le secteur prive n'est pas non plus veritablement encourage: il est tolere.* [trans. Without being fought, the private sector is neither really encouraged: it is tolerated."[116]

Table 3.3: Cambodian Industry Under Sihanouk

	1955	1968
State-owned factories	0	28
Joint-venture factories (private and public ownership)	0	29
Small and medium private factories	650	3,700

Source: Cambodge (1970), p. 45.

Source: Chantrabot, La Republique Khmere (1993), p. 95.

By 1968, Cambodian industry had made considerable headway. Depending on where one lived, the degree of industrialization might be as different as light and day. A personal friend recalled never having seen a paved road until his adolescence (late 1960s). In 1960, 11% of Cambodia's population lived in cities.[117] Phnom Penh, for instance, was fairly concentrated, with at least one half million residents, a central market mall, Pochentong international airport, and bustling streets with cars from all over the world. By 1968, as the pie chart entitled "Economic Activity in 1968" shows, industry held less than 12% of all Cambodian economic activity. To be sure, Cambodia looked like a country steeped in agriculture, but coming of age with respect to industry and certainly commerce. Prud'homme's findings corroborate that last observation. His estimates of the 1962 labor force involved in transport and communications, commerce and banking, and other services were 1%, 6%, and 7%, respectively. This, in comparison to the average of 3%, 7%, and 16% found by Kuznets in the case of 15 developing countries (Portugal, India, Thailand, etc.). Only commerce and banking in Cambodia approached the norm. Using the elements in the dual sector economy model, what would have been the factors needed for industrialization? Recalling from chapter 2, they were: repressed wages and/or agricultural modernization.

Were Cambodia to "take-off," to use Walt Rostow's famous metaphor, she would have continued to extract resources from agriculture for the purpose of developing industry. Recalling for a moment Peter Timmer's development path for agriculture, Cambodia would have (by the 1970s) passed "priming the pump," or the Mosher environment and begun significant agricultural resource extraction as described in the Johnston-Mellor phase. By the time resource extraction begins, a green revolution or agricultural revolution has taken place. Before that, investment in agriculture must take place (modernization of farming) and self-sufficiency via exports of agricultural products is one indicator. Priming the pump first allows agriculture to be exploited for the sake of industry. The three types of sectors in the economy: primary, secondary, and tertiary, contained 81%, 4%, and

15%, of the workforce, respectively, according to Prud'homme.[118] These deviated quite substantially from Kuznets' average for 15 developing countries which saw 56, 18, and 26 percent of their workforce in each of the respective sectors. As the following statistics on rice production show, Cambodia seemed on the verge of a green revolution (if not beyond it) when the Second Indochina Conflict erupted in neighboring Vietnam (the first one had ended in 1954 at Dien Bien Phu).

The Keynesian Model on Cambodia

We know that attempts to use the Keynesian model on Cambodia were made as early as the 1950s, but were found problematic. Gourdon writes,

Les schemas keynesiens ont ete concus dans un cadre europeen pour des pays industrialises et des societes liberales vivant sous des regimes economiques qui se reclamaient du capitalisme. [trans. The Keynesian schemes were created in the European context for industrial countries and liberal societies that lived under capitalist regimes.][119]

The rejection of the Keynesian context does not preclude the prescriptions which such a model provides, namely government spending, defined as "G", creates demand and whether directly or indirectly through private investment. We see that spending in the first two-year plan was overwhelmingly financed by foreign aid and targeted towards infrastructure (which meant jobs) and agricultural production. Assuming these expenditures were multiplied throughout the economy, national income would expectedly rise by more than the amount spent.

The Two-Gap Model on Cambodia

From Prud'homme, we know that from 1959 to 1966, Cambodia ran a budget deficit which was financed by loans from the BNC, foreign aid, etc.[120] This becomes critical when one considers the savings and/or foreign-exchange gap of the two-gap growth model. It is clear that Cambodia depended on foreign aid during the 1950s and 1960s, and that it became crucial to its economic design--infrastructure, schools, etc. However, there are also indications that the aid was far too fungible (few controls or requirements on how it would be spent) and perhaps even excessive. Cambodia became dependent on this aid, Prud'homme writes, "*En matiere de finances publiques comme en matiere de balance des paiements, l'aide etranger comble souvent le trou qu'elle creuse.* [trans. In matters of public finance, as in matters of balance of payments, foreign aid overwhelms the deficit it creates.]"[121] Whichever constraint bound Cambodia, what is clear is that the government anticipated foreign aid before it had been committed. Such an arrangement, year after year, would have reduced the State's incentive to tax more efficiently whatever capacity it already had.

Rice: The National Product of Cambodia

Rice has always been at the center of Cambodian life. As in most Asian societies, one can be asked "how are you?" with "have you eaten rice today?" Rice gave Cambodians their daily diets, of course, and for many an occupation. According to statistics available on rice production and exports, Cambodia was self-sufficient in rice production from 1956 to 1966. "In the 1960s [Cambodian] national self-sufficiency in rice production was achieved as a result of the steady expansion of acreage worked by [*sic*] samllholders who sold surpluses alongside the state-supported development of a modernised, commercial sub-sector centred on Battambang province."[122] Since Cambodia exported rice, it can only be deduced from this that she did not need rice from abroad. Fertilizer use (see Table 3.4), which is a good indicator of technological improvements in agriculture, increased from 1961 to 1964, decreased by one-half in 1965, then went up again in 1966 and 1967.

Table 3.4: Fertilizer Use Increases (1961-1967)

Year	1961	1962	1963	1964	1965	1966	1967
Tonnage	950	1,400	6,600	8,500	4,600	11,700	13,300

Source: Prud'homme, L'Economie du Cambodge (1969), p. 73.

Prud'homme's further observation that "*La mecanisation n'en est qu'a ses debuts: on ne compte guerre plus de 600 tracteurs en 1963, dont presque que 400 dans la seule province de Battambang.*[trans. Mechanization has only begun: there are hardly more than 600 tractors in 1963, of which nearly 400 are in the province of Battambang.]"[123] Observed from the graph entitled "Rice Production and Rice Exports (1955-1966)," 1959, 1962, 1965 and 1966 appear to have been relatively low output years, but that on the whole, rice output was increasing nominally (that is, without considering per capita yield). Growth in the agricultural sector slowed down beginning 1964, a result of upstream industries tied to the sale of rice (transportation, alcohol, etc.) slowing down according to Prud'homme. This was correlated with a general downturn in construction, textiles, and other industries in 1965, 1966, and 1967.[124]

Source: Etcheson, The Rise and Demise of Democratic Kampuchea (1984), p. 22.

It was not until the early 1970s--a time of extreme turmoil for Southeast Asia--that Cambodia suddenly found herself in the unusual position of importing rice via American food aid.[125]Etcheson's data on rice production refer only to aggregate output, not per capita production. His density index calculations, with respect to rice production, indicate that land use was increasing. Cultivation was extensive as well intensive. To explain this, Prud'homme concludes that Cambodia soil was relatively poor and unsuited for agriculture.[126] Thus, as population increased from 1913 to 1965, the area of cultivated land increased from 2,508 square miles to 6,398.[127] Yet, one remarkable feature of Cambodian demographics is this: relative to other countries like China and India, where overpopulation is a given, Cambodia is underpopulated.

To be sure, Cambodia's population is unequally distributed among its regions, which makes some areas near bodies of water like the Tonle Sap and the Mekong river overpopulated.[128] Rural population density grew 41% in the same time span cultivated land increased, which may indicate that rice output increased not just from modernization techniques but from increasing the area of arable land used.[129] Urban population too saw an increase following World War II, from 5% in 1921, 10% in 1962, to 12% in 1967.[130] Longitudinal data found in Prud'homme's survey is exceptional, more generally, data has been sparse and untrustworthy, a point which Etcheson has personally conveyed to me.[131]

Current Account: A Spendthrift Economy?

The trade balance was almost always negative for Cambodia during the 1950s and 1960s. With the exception of 1964 and 1965, the balance of trade was in deficit each year. Trade deficits indicate macroeconomic adjustment to either (1) an overvalued exchange rate, and/or (2) the absence of domestic substitutes, and/or (3) deteriorating terms of trade. It appears that what trade policies there were in 1963 tariff legislation did not provide effective trade protection policies for exporters.[132] This indicates that the policy-makers were cognizant of a "Dutch disease" taking hold of Cambodia (which would explain the lack of domestic production in the secondary industrial sector). The loss of foreign exchange reserves each year should have forced the government to devalue in order to prevent its further loss. Yet it does not appear such devaluation, as an exchange rate policy either took place or worked to keep imports down and promote exports.[133] 1964 and 1965 are the obvious exception to years chronic trade deficits. The following graph entitled "Balance of Trade with Linear Trend Line (1955-1966)" shows the trade balance from 1955 to 1966. The trend line indicates a worsening deficit in the trade balance and terms of trade.

Source: Etcheson, The Rise and Demise of Democratic Kampuchea (1984), p. 22.

However, foreign aid came in handy each year. With multiple major donor countries like the USSR, France, and China, to count on, Cambodia always had at least one "sugar daddy" to turn to.

The Rate of Growth Itself

From 1954 to 1966, the rate of economic growth for Cambodia was uneven. Using national income figures from Etcheson, it was a crude matter of extrapolating the rate of real growth (with the 1965 riel as base currency). In 1955, according to the chart titled "Cambodian Economic Growth (1954-1956)" Cambodia lost 11% of its national income, but in 1957 real income grew by 13.3%. The average rate of real growth for Cambodia's economy was 6.68% from 1954 to 1966. From 1960 to 1966, growth hovered 6% to 10%. Although the trend line for 1954-1966 is sloped upward, signs of a general slowdown starting 1964 were apparent. This was earlier elaborated by Prud'homme. This was of course at about the time the Gulf of Tonkin Incident occurred, prompting the expedition of American troops into South Vietnam.

Note: Using the nominal national income figures, price index, and population statistics, I calculated per capita real income for each year as nominal national income divided by the price index, and divided by population.

Source: Etcheson, The Rise and Demise of Democratic Kampuchea (1984), p. 20.

The Application of Harrod-Domar

The 1960s were perhaps Cambodia's most promising years. For it was in this period that economic growth could have taken hold amidst "relative" political stability and military security. To be sure, growth could not have taken place in the middle of a war that would soon erupt both inside and outside Cambodia's borders, but the economic policy choices made under Sihanouk were uneven. Had the deterioration in the trade balance been halted--through austerity measures with a devaluation as its center piece--Cambodian industries could have benefited from some breathing room during the 1960s.[134] Expenditure switching and reducing measures would have eased internal and external debts by creating a healthy domestic manufacturing sector and tax base (a cure for "Dutch disease").

Taxes in Cambodia

The issue of taxation is one left glaringly untouched in this thesis. Taxes were low to non-existent in Cambodia because tax capacity itself was low. Mr. Pasin Chanou writes, "There was no income tax. Businesses must have [a] permit (they call it "patent" after the French), renewable yearly, to operate. My dad had a Gemstone mine and had to pay about 50,000 Riels each year ([about] $US 1=36 Riels). Value Added [*sic*] Taxes was applied to all consumer products. I don't know what the rate was."[135] Taxes were notoriously difficult to collect given the cash/barter style economy in the absence of banks. The MGP student remembers how his family dealt with taxes. He writes:

We had a open local market that was open only a few hours a day in my home town(srok). Private citizen[s] can bid once a year to collect sale[s] [*sic*] taxe in a small tow[n] such as mine. That business man that win[s] the bid give[s] the [*sic*] governement the money up front(I think) then he/she will have the authority to collect sale tax for anything that was sold on the street or the market. It was a poor way to [*sic*] cellect sale tax for this type of goods on the street. For businessman that sell goods or products inside of his store/or house, the local tax collect[or] is responsible for sale[s] [*sic*] taxe. This is where corruption is taking place. It is almost up [to] the local tax collector to estimate of how much a business had to pay taxes, because [*sic*] bookeeping was almost close to nil. My father owned some rice mills and he never wanted me to know how the [*sic*] taxe collector estimated his taxes. All I knew [was] that there [*sic*] were something fishy under the table and he wanted all his children to get education instead of owning any business like him.[136]

To the extent that Cambodia depended overwhelmingly on foreign aid, taxes were relatively insignificant. With the Keynesian model, however, taxation matters tremendously. Keynes' contemporaries argue for a graduated progressive income tax. That is to say, a redistributive tax, from the poor to the wealthy in which the rate of taxation increases as the level of income goes up. Aside from this progressive tax, the level of taxation itself plays an important role in macroeconomic policy that aims for austerity. One of the most obvious ways of preventing consumption is to tax (hence reduce disposable income). Or, vice-versa, if demand must be made to meet an infinitely elastic supply curve (one that is horizontal), then lowering taxes while increasing government spending (Keynesian deficit spending in recessions/depressions) may do the job of jump-starting the economy. Tax and spend policies act in concert to increase aggregate demand when capacity is high, but no one's buying. For Cambodia, however, the lack of consumption was not a problem.

Consumption Is Preferred

Most emblematic of the Cambodian economy was a total disregard for the future. It seems consumption as opposed to saving was favored by its citizens.[137] It would be more accurate to say that Cambodians did not usually save their money in banks. Such improvident decisions have serious implications for the rate of future economic growth according to the Harrod-Domar model. National Bank deposits which reflect the reserve holdings of public and private commercial banks declined from 1959 to 1964, never to reach 1963 levels again. One impediment discussed in chapter two was the lack of financial institutions. In November 1963, banks were nationalized. According to Prud'homme, more than ten private banks were replaced by two State banks, one for credit, the other for commerce. Banking was for the well-to-do, or those who needed access to money via transfers. According to Pasin Chanou, "paying by checks was almost unheard of."[138]This nationalization policy did not consolidate banking in that more individuals suddenly kept their money in banks. The move was perhaps politically motivated since nationalization is often the by-product of socialist largesse.

Source: Etcheson, The Rise and Demise of Democratic Kampuchea (1984), p. 22.

It was well recognized by Prud'homme that financial institutions promote economic development. "*Il n'y a pas de marcher financier. Il n'y a pas de Caisse d'Epargne. Il n'y a pas de banques d'affaires.* [trans. There is no financial market, no savings and loan, no business banks],"[139] bemoans Prud'homme. These are the instruments that make savings meet investment, he writes. He insists that we recognize the Cambodian financial system as "very imperfect". That is, to be sure, not unexpected. Most developing countries have severe problems in getting people to part with their money, even temporarily. There were other institutions too that filled the void, the Royal bureau of cooperatives, for one, extended loans to farmers. In fact, Prud'homme finds that the level private savings in Cambodia was 10%, a sufficient level, that would today beat America by a few folds (Americans save 2%). However, he notes that these savings were kept in the form of cash and valuables which were themselves not investable.[140]

In a Keynesian framework, the "saving equals investment" that is Harrod-Domar's third structural identity function can be very useful. Without saving there are fewer sources for capital and therefore fewer possibilities still for industrial expansion.[141] Since investment provides the wherewithal (both for capital equipment and capital *per se*) necessary for industry to expand, the lack of saving cuts into future economic growth.

This sad pattern of economic activity was perhaps due to or the result of the erosion of purchasing power from 1953 to 1966:

Food shortages and high prices, falling purchasing power, high interest and rents, rising taxes, declining productivity and land availability, increasing population density--all these problems plaguing peasants in the post-World War II period were but symptoms of a general economic malaise. Except for a few very narrowly defined fractions of the urban elite (e.g., bankers, landlords, and importer-exporters), Cambodians did very well between 1954 and 1967 if they simply maintained their standard of living at a stable level; however, most experienced significant declines. Thus in general, the urban elite suffered along with the rural masses.[142]

According to Etcheson, this decline was a "prelude to pandemonium" in the 1970s. He cites, for instance, the 350% rise in food prices between 1950 and 1970. Using UN and UNESCO statistical data replicated in Table 3.5, Etcheson has created the most detailed account of an economy in decline, during the Sihanouk years. Per capita national income increased, but most of that was withered away by an inflated CPI (Consumer Price Index). Purchasing power, or how much one could get for a riel was thus shrinking.

Table 3.5: Leading Economic Indicators Under Sihanouk

Year	National Income Millions of 1965 riels	Population (millions)	Per Capita Income (PCI)	Consumer Price Index (CPI)	Purchasing Power (PCI)/(CPI)* 100
1953	11.6	4.2	2.76	100	2.76
1954	13	4.3	3.02	108	2.79
1955	11.5	4.4	2.61	127	2.05
1956	12.8	4.5	2.84	127	2.23
1957	14.5	4.6	3.15	127	2.48
1958	14.3	4.7	3.04	135	2.25
1959	14.6	4.8	3.04	141	2.15
1960	16.1	5.4	2.98	151	1.97
1961	17.6	5.4	3.25	161	2.01
1962	19.1	5.7	3.35	164	2.04
1963	21.4	5.9	3.62	174	2.08
1964	23.2	6.1	3.8	177	2.14

1965	24.7	6.1	4.04	183	2.2
1966	26.2	6.2	4.22	181	2.33

Source: Etcheson, The Rise and Demise of Democratic Kampuchea (1984), p. 20.

Following are two graphs titled "Purchasing Power Erodes (1953-1966)" and "GNP, Population, PCI, CPI (1953-1966)" representing the Etcheson data from Table 3.5. The claim of eroding purchasing power is not debated here simply because additional or contrary longitudinal data was not found. Prud'homme hints it when he warns that money is threatened, though he never had the advantage of hindsight. There is somewhat contradictory evidence presented in L'Economie du Cambodge which indicates that the value of the riel, relative to the currency other poor countries, remained stable.[143] The 1970 *coup d'etat* on Sihanouk is interpreted by Osborne (1994) as having been "in response to growing dissatisfaction in the army officer corps and among the urban elite who had come to see Sihanouk's policies as politically and *economically* ruinous. [emphasis added]"[144] Etcheson, who foreshadows the claim, adds,

The Low demand generated within the tiny, depressed Cambodian economy provided little capital for investment, and structural problems grew unchallenged. And as radical Cambodians hastened to point out, imported goods supplied many urban needs, thus transferring the multiplier effect abroad.

Another complication within the Cambodian private sector was the rise in the late 1950s and early 1960s of a species of speculators. Dealing in currency, gold, land, rice, alcohol, opium, salt, beef, tobacco, or any other commodity that offered a chance to make a quick buck, speculators helped catalyze inflation, create supply crises, imbalance foreign accounts, and deprived the government of revenue.[145]

It is instructive to note that Prud'homme makes no mention of specie speculation as contributing factor to the erosion of purchasing power. He mentions the fact that Cambodia neither belonged to the French Franc zone nor to the World Bank nor to the International Monetary Fund. The riel was pegged with the dollar at $1 for 35 riels and 1 franc for 10 riel, and that was that in the age of Bretton Woods.

The Sihanouk Years in the Context of Cambodian Economic History

The Sihanoukist period possessed the elements needed for economic growth, but the 1950s and 1960s proved to be disappointing years for Cambodia. Although the agricultural sector produced sufficiently to export, there was an unrelenting flow of imports from abroad that resulted in chronic trade deficits with the rest of the world. This was exacerbated by the foreign aid which subsidized the economy. In addition, while an educational system was being built from the ground-up, quite literally, quantity not quality was the government's goal. Jobs for graduates of the educational system were scarce, and in any case artificially created by the government. The emphasis was never on basic science, but civil service, which has seldom been known to spurt economic go-getters. To top it off, much of the prosperity gained in those decades was in fact illusory according to Etcheson. The erosion of purchasing power from 1954 to 1955 and 1957 through 1960 pushed the standard of living well below that of 1953.[146]

It would be easy to characterize these years as "relatively good" given what Cambodia's economy underwent in the 1970s and 1980s, but they were actually lost opportunities. In retrospect, the failure to increase the level of saving and control consumption by the Cambodian government resulted in two decades of anemic growth. Aside from the everyday corruption which plagued all levels of government, the economy suffered from a spendthrift malady. Were there adequate incentives to save? With hindsight, clearly not. The nationalization of private banks did nothing to boost the view of banking in the eyes of Cambodians. It was still an oddity best left to its own devices.

During the 1950s and 1960s, Sihanouk and his cronies were more concerned with statistics that would impress the international community than with the substance of the educational system they were building. With his hands busy in geopolitics and political maneuvering, Sihanouk lost sight of the tell-tale signs of a troubled economy. Economic growth was compromised perhaps because he did not "give a rap" about economic policy and theory.[147] The factors relating to the six growth theories covered in chapter 2 which were found to be absent or scarce during these years include: (1) a high marginal propensity to save (Harrod-Domar), (2) an emphasis on technology via the creation of an educational system geared towards Cambodia's needs and employment opportunities (Solow and Endogenous Growth), (3) the creation of capacity (Keynesian), and (4) foreign exchange (Two-Gap). These factors, combined with others such as (1) ineffective trade policy resulting in chronic trade deficits and eliminating incentives to produce at home (Dutch disease), (2) pervasive corruption (creating transaction costs to be discussed in the conclusion chapter), and (3) minimal taxation resulted in the lackluster growth of the economy.[148]

CHAPTER 4: THE POST-SIHANOUK CAMBODIAN ECONOMY

Survive le peuple cambodgien!

Jean Lacouture, 1978

The Khmer Republic *(1970-1974)*

Year	Nominal GNP149
1971	69,454,000,000
1972	82,305,000,000
1973	172,034,000,000
1974	472,956,000,000

By 1969, Cambodia was mired in the Vietnam War, and Sihanouk's euphemism for Cambodia as an "Oasis of Peace" was meaningless. The economy, which had become war-driven, grew hyperinflationary.[150] On March 18th, 1970, a day that lives in infamy for Norodom Sihanouk, the chief of the army and prime minister, Marshall Lon Nol, performed a *coup d'etat* (while Sihanouk was in Moscow). This came as a deep shock to both Sihanouk and high elements of the American government because neither had anticipated the move (contrary to popular misconceptions).[151] Several months later, Lon Nol's pro-American regime renamed the Kingdom of Cambodia, the "Khmer Republic." The monarchy was officially dissolved; stripping Sihanouk of his kingly status and position as chief of state. A new constitution abolishing the monarchy was passed and Cambodia became a Republic. The central bank of Cambodia continued to publish the Bulletin Mensuel (monthly bulletin) on leading economic indicators throughout the Khmer Republic's four-year-old existence.

Discussion of the Sources

In late 1972, Lon Nol's regime published a pictorial book called Khmer Republic, not unlike Cambodge, which was published in 1970. In fact, these publications were responses to one another; volleys, if you will, in a match to proselytize. Limited statistical data from the World Bank's STARS database on the GNP and net factor income of Cambodia are shown in the nominal GNP table above. Cambodia was, for all intents and purposes, at war with Vietcong soldiers within her borders. Comparisons of this period with the subsequent one are impossible given the near hyperinflation of the economy and the total absence of macroeconomic data for Cambodia from 1975 to 1986. M. L. Burstein's 1976 economics essay "Economic Theory and Political Strategy--Cambodia" placed the "mv=pq"[152] accounting relationship used by monetarists on the Khmer inflationary process. Unfortunately, Burstein's conclusions and recommendations became inapplicable because 1976 Cambodia had no need for an internal currency.

The War Economy

Of note in Khmer Republic is the new regime's imposition of a 60% value-added tax on cigarettes, and the BNC's expansion of the money supply by twenty percent in order to finance a budget deficit in 1972 despite 24.8 million dollars reported in foreign reserves.[153] The war effort against both North Vietnam and the increasingly belligerent Khmer Rouge in the province of Siem Reap had paralyzed the economy. Ros Chantrobot described the economy as "bloodless." The first half of the 1970s in Cambodia saw the degeneration of an economy due to out of control to inflationary speculation and corruption. In Khmer Republic's chapter on the economy, the authors write:

A la veille de la chute de l'ancien Chef de l'Etat Norodom Sihanouk, L'Economie du Cambodge etait deja dans une situation tres difficile. Mais les consequence de la guerre ont cree d'autres difficultes majeures. La production a ete reduite substantielement creant des penuries de denree essentielles et effrondrement des recettes d'exportation. En fait, les troupe nord vietnamiennes et vietcong ont vise, des les premier jours de l'agression ouverte en 1970, la destruction de l'infrastructure economique du pays. Elles ont commence par paralyser nos principales plantation d'heveas, detruire nos route, ponts, chemins de fer et autre moyens de communication. [trans. From the eve of the fall of former chief of state Sihanouk, the Cambodian economy was already in a difficult situation. But the consequences of the war have created other major difficulties. Production was substantially reduced creating a shortage of basic goods and export revenue. In fact, north Vietnamese and Vietcong troops intended, from the first days of aggression, the destruction of the economy's infrastructure. They began by paralyzing our principal rubber plantations, destroying our roads, bridges, railways and other means of transportation.][154]

This description of the Cambodian economy is corroborated by Ros Chantrobot. He points to transportation problems as the main cause of economic strangulation for Cambodia.[155] Thus condemning the Cambodian provinces, according to him, to autarkic economies and further exacerbating food shortages in Phnom Penh and other cities.

Inflationary expectations fueled by species speculation, combined with massive shortages in basic commodities, engendered the first signs of high inflation in 1971. There was, in addition, a massive influx of refugees entering Phnom Penh from 1970 to 1975. The population of the capital city had been 600,000 in March 1970, but by the beginning of 1975, the number of residents had reached more than 2 million.[156] The reason was simple: The war between Lon Nol's forces and those of the rising Khmer Rouge guerrillas combined with the carpet bombing of northern Cambodia by the U.S. in 1973 displaced large numbers of rural citizens.

Agricultural Production Shrinks Precipitously

Rice production declined substantially from 3.8 million tons in 1970 to 2.7 and 2.1 million tons in 1971 and 1972, respectively. There were decreases in rubber, corn and palm sugar output, due to the war with the North Vietnamese who had made several incursions into Cambodia. Table 4.1 on agricultural production is reproduced from a Finnish inquiry's report titled, Kampuchea in the Seventies (1982), and depicts the ubiquitous decline.

Table 4.1: Agricultural Production (1968-1974)

	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74
Rice	2,503	3,814	2,732	2,138	953	762
Rubber (m tons)	51	52	13	1	15	12
Corn	117	137	121	80	73	n/a
Palm sugar	n/a	34	23	n/a	n/a	n/a

Note: In hundreds of thousands of metric tons.

Source: Kampuchea in the Seventies (1982), p. 12.

Three years of secret bombing by American B-52s brought international attention to Cambodia (not to mention took their toll in human lives and damaged property) and forced Nixon to televise a speech in which he explained to the American people why he had defied Congressional prohibition. As military incursions into Cambodia were halted by Congress and the Pentagon Papers made their way to the *New York Times*, the Nixon-Kissinger strategy became one of retreat with "honor," followed by dwindling economic and military aid. Even before the 1973 Paris Peace Accord which called upon the withdrawal of American troops from South Vietnam, causing the eventual collapse of that country, America's involvement in Laos, Cambodia, and Vietnam had already shrunk dramatically.

As Cambodia's economy began to further deteriorate, Sihanouk created an alliance with the revolutionary Cambodian communists known as the Khmer Rouge under the banner of "FUNK" (a French acronym for Khmer National United Front). Calling for an armed uprising against the Lon Nol government, Sihanouk's fireside chats reached millions of Cambodians by way of radio. By early 1974, the increasing attacks on the Lon Nol regime had all but caused pandemonium in Phnom Penh. In the final days of the Khmer Republic, Phnom Penh had become the final stand. Between 1970 and 1974, the price index for commodities ranging from food to clothes jumped by more than fifty percent.

Source: Bulletin Mensuel (April 1974), p. 40.

The food index with base 100 in 1949 for working individuals in Phnom Penh was 338 in March of 1970; by April of 1974 it had reached 8117.[157] For most of the Khmer Republic's life-span, prices were relatively stable until 1973, when food went into hyperinflation. From the end of 1972 to April of 1974, the general index on consumption prices for both working and middle class individuals increased 500% from a little over 1000 to well over 5000.[158] Individuals stocked up on durables in order to preserve their wealth.[159] Sarom Ing, recalls as a boy that "One of my most vivid recollection concerning financial affairs had been the hyper inflation prior to the KR taking power. During this period, many people try[ed] to convert their money to such items as gold, silver and food stuffs."[160] Indications point to an increase in the (nominal) money supply (for war financing), partially due to the 500 million dollars in USAID infusions into the economy between 1970-1975. This influx of aid resulted in what might be characterized as a specie-flow mechanism or an especially bad case of "Dutch disease".[161] As more and more aid entered the country, the money base grew, and prices shot up. As a case of "Dutch disease," the aid strangulated domestic production in favor of imports. Burstein notes that "[since] a major source of government revenue was based upon the sale of fungible aid-dollars, exchange depreciation could be viewed as an increase in the level of excise (indirect) taxes. Depreciation of the riel abetted fiscality."[162]

The economic destruction expressed itself in industry, where the manufacturing index which had been 100 in 1960 fell to 73 in 1972.[163] Accordingly, less than 50% capacity utilization was reported due to difficulties in obtaining raw materials and replacement parts.[164] In agriculture, as was discussed earlier, the Khmer Republic saw a dramatic decline as well. From a self-sufficient net exporter of rice, SONEXIM (Cambodia's National Import-Export Society) reported imports of 309,214 tons of rice, 5,633 tons of cotton fiber, 1,614 tons of cotton linen, 2,043 tons of tobacco leaves, 30,740 tons of wheat, and 20,720 tons of flour using American economic aid by March 31, 1974.[165] Burstein explains that,

In the Khmer Republic, c. 1974-5, the small export sector absorbed resources largely irrelevant to home goods production and, as the writ of the Lon Nol government became more and more confined to Phnom Penh, exportation became less and less significant... One reckons that import demand probably was inherently inelastic: (1) the bourgeoisie did not make serious choices, surely not at the margin, between home goods and imported goods for consumption.[166]

Within one year, Cambodia would no longer accept American or humanitarian aid in any capacity, for a new regime would control the country.

Democratic Kampuchea (1975-1978)

In this [the Sihanoukist and Khmer Republic periods] we lost all sense of soul and identity. We were completely enslaved by the reactionary, corrupt, and hooligan way of thinking, by the laws, customs, traditions, political, economic, cultural, and social ways and lifestyle, and by the clothing and other behavioral patterns of imperialism, colonialism, and the oppressor classes.

Official Khmer Rouge Announcement (FBIS IV, April 28, 1977:H1)[167]

After the cessation of U.S. incursions into Cambodia in 1973 and the Paris Peace Accord with North Vietnam in that same year, the political and military situation in the Khmer Republic had so disintegrated as to make eminent the victory of the communist forces against the pro-American Lon Nol regime. On April 17, 1975, the Khmer Rouge guerrillas, who had for the last five years amassed virtually all Cambodian provinces, entered the capital. A significant body of paperwork was created at S-21 torture center or Tuol Sleng, where confessions were extracted during the 1977 and 1978, but few economic statistics are available because gathering data was not a high priority for the new government. The Khmer Rouge issued a four-year plan for 1977 to 1980. This plan, along with seven other important documents, was translated and published in Chandler, Kiernan, Boua, Pol Pot Plans the Future (1988).

From the point at which they smelled victory, it seems, the Khmer Rouge had planned the evacuation of all cities for the purpose of revolution. Charles Twining writes,

An extraordinary [Cambodian communist] party congress held in February 1975, reportedly presided over by Khieu Samphan, is generally thought to have made the decision to evacuate cities and abolish all currency after the takeover. The fact that the cities were all emptied within several days of the fall, with the people knowingly directed to spots in the countryside where they camped at least temporarily, does not give the impression of a sudden, knee jerk action. This had all been organized before hand.[168]

If not the most radical, the Cambodian communist revolution was surely the most deadly per capita. Estimates of the death toll range from a low of 750,000 (associated with Michael Vickery) to a high of 3 million (associated with pro-Vietnamese elements) resulting from disease, starvation, forced labor, and execution (i.e., unnatural deaths). At 1.5 million, the proportion killed out of a population of over 7 million in 1975 amounts to over 20%.

For the next few days after April 17th, Phnom Penh's two to three million residents were told by the Khmer Rouge to leave the city in order to seek refuge from an impending U.S. bombing of the capital. There were, of course, no such bombings. As the world has come to learn from the plight of the Cambodian refugees who now reside in America and elsewhere, what transpired next was far from a liberating revolution.[169] A Khmer Rouge broadcast in May 1975 states:

Upon Entering Phnom Penh and other cities, the brother and sister combatants of the revolutionary army . . . sons and daughters of our workers and peasants . . . were taken aback by the overwhelming unspeakable sight of long-haired men and youngsters wearing bizarre clothes making themselves [*sic*] undistinguishable from the fair sex. . . . Our traditional mentality, mores, traditions, literature, and arts and culture and tradition were totally destroyed by U.S. imperialism and its stooges. Social entertaining, the tempo and rhythm of music and so forth were all based on U.S. imperialistic patterns. Our people's traditionally clean, sound characteristics and essence were completely absent and abandoned, replaced by imperialistic, pornographic, shameless, perverted, and fanatic traits. (FBIS IV, May 15, 1975:H4)[170]

The economy underwent massive restructuring; money was banned and banks were closed. Markets were all but destroyed. All who had lived in the cities were now to work in the countryside. The Khmer Rouge leaders were following in the footsteps of Mao Zedong's Cultural Revolution in which he proclaimed that from agricultural backwardness China would become the most industrialized country in the world. The leaders of the Khmer Rouge movement Saloth Sar (better known to the world by his *nom de guerre* as Pol Pot)[171] and French-educated economist Khieu Samphan, to name but two, sought to recast Cambodia anew; perhaps into a brave new Democratic Kampuchea.

The Khmer Rouge Have a Plan

The Khmer Rouge four-year plan ends with the five following "Vanguard Standpoints":

1. Independence, mastery, self-reliance, control of one's future;

2. Revolutionary patriotism; revolutionary pride in one's nation, revolution, people and Party;

3. Believe totally in the Party, the revolution, the people, the workers, the peasants and the army;

4. Let the great revolutionary movement of the people spring up with the speed of a super great leap forward;

5. Save up, improve, and think up new ideas to win the fight, and spring forward bravely. Use little capital, which is the nation's natural resource, but produce many high quality results.[172]

Images of outdoing the Maoist experience are self-evident in "super great leap forward." In fact, the Khmer Rouge were infatuated with the idea of being the fastest, purest Socialist state. Many books have detailed the creation of Democratic Kampuchea, among them Jackson (1989), Ponchaud (1978), Chandler (1992), and Etcheson (1984). The initial result of Khmer Rouge rule was rapid: the rustication of an economy.

Soon after the end of the fighting on 17 April 1975 and the entry of the revolutionary forces [Khmer Rouge] into Phnom Penh, virtually the entire population was ordered to begin moving out of the city into rural areas. Excepted from the general order were some factory workers and some skilled employees of technical services, such as municipal water and electricity plants. The evacuees were given of such reasons as the danger of American bombardments, and were told that the evacuation was only for three days, after which they would be able to return...

Whatever the validity of the pragmatic reasons given for urban evacuation, there was also an ideological reason, derived from the Cambodian communists' peculiar class analysis of their society, which also determined the position in which the evacuees found themselves once they reached the rural areas.[173]

According to Vickery (1986), three classes were created: "Full Rights, Candidate, and Depositees." Most of the city dwellers were positioned in the lowest class (Depositees). "This meant that virtually all workers or petty bourgeois were placed in that lowest and socially disadvantaged group and the poorer peasants were *de jure* as well as *de facto* the privileged class."[174] The revolution was thus complete.[175] Those who had been unfortunate enough to have been well-to-do or in any way part of the *ancien regime* (especially with respect to the Lon Nol regime) were placed at the bottom of the totem pole where they were to lead a hand-to-mouth existence. On the other hand, those who had been subsistence farmers, cliques and Khmer Rouge devotes were to become the new elite. The economy of Democratic Kampuchea can be compared with very few others in the world, even those inspired by the Sino-Soviet experience. Like the People's Republic of China, Cambodia became a collectivized economy. Vickery writes,

Economic activity was entirely managed by the state apparatus. There were no markets, no currency, no independent exchange; in most places no private garden production or independent food gathering, and by 1977 there was even a policy, ever more strictly enforced, of communal cooking and eating. Movement outside the basic unit, village or co-operative was forbidden without written authorization, which was rarely granted...

With the entire population transformed into poor peasants, education beyond that which a poor peasantry would need was neglected, and even classes in basic literacy functioned only in a few more prosperous and well-run districts. Medicine was also at a very primitive level, both because over half the doctors had emigrated before April 1975 and medicines were not available, and because the DK [Democratic Kampuchea] authorities often refused to deploy medical personnel among the `new'[Depositees] people.[176]

In sum, the Khmer Rouge regressed Cambodia's economy by perhaps fifty years. By undertaking radical social engineering, the Khmer Rouge reversed the social order, destroyed traditional notions of family, and ruined an entire country. Wealthy families were to become poor, in an instant, and the economic focus of a nation now turned like a laser beam onto agriculture. Whereas the 1950s, 1960s and early 1970s saw poor quality schooling, the late 1970s would see virtually none.

Agriculture and in particular the production of rice, rebounded to pre-war levels by 1976, but at what human cost? Surely few others but the Khmer Rouge leadership and those having full rights ate well. The role of rice was not insignificant to the Khmer Rouge. Rice was at the core of their plan to develop an industry that would *serve* agriculture.

Rice is the basic crop of our people as well as the basis of Cambodia's new economy. If we have plenty of rice, we have plenty of everything. (FBIS IV, July 16, 1975:H1) *If we have rice, we have everything*; our people can eat their fill and we can export it for hard currency. The more rice we produce the greater potential we have for export. The more we export, the better we can afford to buy equipment, machines, and other instruments necessary for building our industry and communications lines and for rapidly changing our agriculture. (FBIS, July 25, 1975:H3) [Emphasis is Jackson's own.][177]

What was the new Kampuchea planning to do with the income from exported rice? "This income, in turn, was to be used to purchase agriculture machinery and other industrial equipment, both for the areas where the rice is grown and for the central government."[178] The late Malcolm Caldwell followed the course of rural development in Cambodia with his posthumously published book,Kampuchea; Rationale for a Rural Policy (1979). In a chapter titled "Economic Development, 1975-1978 and Prospects," Caldwell writes,

Despite all the exultant Western forecasts of famine and starvation to follow the alleged "bloodbaths" of liberation, the first figures for the main season harvest of 1975 were excellent, showing yield up to twice the pre-war average at over two tons per hectare, and exceptional yields of seven tons where new high yield strains were already in use. The total crop amounted to 3.25 million tons of paddy (2.2 of rice), permitting 250 grams of rice per meal per adult (350 of the production force)--a recovery from the dark days of the late 1960s and the war to the levels recorded for the 1950s....

The policies pursued by the Khmer Rouge leaders while still in the guerrilla also bore fruit in the shape of greater diversity in the diet. Meat eating was boosted by countering Buddhist reluctance to take life and by encouraging the raising and slaughtering of livestock, particularly pigs (... "pork is allotted on the basis of one pig every two weeks for each production solidarity group of ten people.")[179]

Caldwell's claims of adequate nourishment are mistaken for at least parts of Cambodia (hence why would there have been starvation to begin with?).[180] Chandler negates this claim for "hardly anyone's material needs (except those of CPK cadre and soldiers) were met to anyone's satisfaction between 1977 and 1979)."[181] Twining's account of the situation before complete victory by the Khmer Rouge is even less favorable,

[Before 1975,] In Siem Reap province, [already controlled by the Khmer Rouge] for example, the communists brought to the area an excess of violence, massacring people for reason or no reason, breaking children's heads open, showing that they were the masters... The emphasis then was on work, and more work, all in groups.[182]

Furthermore, Twining writes of the situation afterwards:

One feature that distinguished Democratic Kampuchea from the rest of the world was the absence of money. In April 1975, stories of Cambodian riels blowing in streets or being used in fires, with nothing to replace them, stirred the imagination... Self-sufficiency was the principle throughout the land. Rice was grown for consumption by the populace and for export outside the local area. Each cooperative had one rice pounder to remove the husks from the kernels of rice... An individual was allowed to have two basic possessions of his own: a bowl and spoon.[183]

On January 5, 1976, the new Constitution of Democratic Kampuchea was promulgated. Article 2 of the Constitution, regarding the economy, declared that, "All important general means of production are the collective property of the people's State and the common property of the people's collectives.

Property for everyday use remains in private hands."[184] Borrowing an essentially socialist credo on private property, Democratic Kampuchea, however, was not one's typical Sino-Soviet inspired economy. In July-August 1976, the Party issued a four-year plan for 1977-1980. It was ambitious in its goals, and detailed too. For instance, the Khmer Rouge goal for rice production called for the doubling of productivity per hectare. "Sensibly enough," Chandler writes, "the document argues that exports of agricultural products, rather than minerals or manufactured goods, could best provide the income needed by DK (Democratic Kampuchea) for autarchic economic growth. No other resources existed in the country."[185]

In so doing, the Khmer Rouge years set Cambodia's economy backward developmentally and continue to create problems for Cambodia's development.[186] The effects of the Vietnamese invasion that sent Pol Pot and his entourage into the Western zone of Cambodia, from Phnom Penh, would devastate and already crippled economy. The decade of occupation which followed, combined with ongoing warfare left Cambodia with 6 million land mines and the highest per capita amputee rate in the world.

The People's Republic of Kampuchea (1979-1989) **and the State of Cambodia** (1989-1992)

In December 1978, the Vietnamese invaded Democratic Kampuchea. "[Cambodia] has the doubtful distinction of being the only [country] where the Marxist regime (Pol Pot's) was overthrown by another Marxist government with the help of a Marxist neighbour (Vietnam)."[187] What was left of Cambodia's economy was further ravaged by war in this, the Third Indochina Conflict. The People's Army of Vietnam (now unified) refused to withdraw from Cambodia for a decade, which meant that for these ten years the U.S. Embargo on Vietnam now applied to Cambodia as well. The embargo (whether justified or not) made it impossible for the economy to receive significant aid from the international community. No "Dutch disease" there, but the economic potential of the country was reduced dramatically. Trade liberalization, which we saw in chapter 2 as an endogenous growth promoting factor, was absent for that decade. As a devoutly Socialist state, the People's Republic of Kampuchea's (PRK) trade with non-Marxist states was discouraged. The most thorough study of that economy was Grant Curtis' Cambodia, A Country Profile (1990). Cambodia's major trading partners and patrons were Vietnam and the Soviet Union with some help from relief agencies such as UNICEF and the Red Cross.[188]

Money and Wages Are Re-introduced

Since there had been no Cambodian currency from 1975-1978, transactions in post-Democratic Kampuchea were made using gold, the Thai *Baht*, or the Vietnamese *Dong*.[189] The PRK economy was state-controlled and goods were rationed according to salary. Salaries themselves were determined by the state, a sampling in Table 4.2 represents 1984 wages per month. At the beginning of 1984, the official exchange rate was seven riels per dollar; by October of 1988 it had devalued to 142 riels per dollar, *officially*.[190]

Table 4.2: 1984 Official State Salaries

Profession	Salary
Teachers	from 160 riel for a new teacher to 482 for a principal of a secondary school ($22 and $68, respectively)
Doctors	300 for a medical doctor ($43)
Pharmaceutical employees and	170-200 (specialized worker), 370 for the factory director, plus allowances (e.g. children) ($24-$29

	$53, respectively)
Tire factory employees	140 (unskilled worker), 4000 for the director, plus allowances ($20 and $571, respectively)
Textile factory workers for a	140 (unskilled worker), 230 for semi-trained, 300 fully-qualified machine operator ($20, $33, and $43, respectively)

Source: Vickery, Kampuchea: Politics, Economics, and Society (1986), p. 131

Prices for certain commodities such as kerosene, cigarettes, soap, rice, sugar, and condensed milk were subsidized by the State.[191] Throughout the 1980s, Cambodian officials devalued the riel such that by April 1990, 380 riels would be exchanged for one dollar (when in 1984 it had been seven riels to one dollar).[192]

Agriculture Revisited

While the "ultra-collectivization" of the Democratic Kampuchea period had been left behind, attempts to forge ahead with agricultural collectivization failed because, "the system did not bring much to the peasants and [due] to the lack of efforts from the Government in implementing it."[193] In 1979, land utilization for the production of rice was less than 30% that of the prewar level.[194] For the new government, "development of a collective economy was the goal, family (i.e. individual private) economy should be encouraged and expanded in order to aid the collective economy."[195] Under the PRK regime, land ownership was nationalized, as in most socialist countries. Restitution and reparations were out of the question, but individuals who had farmed in the area could continue to do so, without harm. The lack of draft animals such as water buffaloes and cattle[196] combined with what Viviane Frings calls "individualistic peasant culture" made agricultural collectivization a failure.

Rice production since 1984 improved with the exception of one setback in 1988. Total rice output from 1984 to 1993 reached the nominal total for 1957 to 1966. However, per capita output (real output where total output is divided by the population of Cambodia) had not yet recovered. Cambodia still imports rice to this day. The persistent need to import rice for the whole decade shows that self-sufficiency is still elusive.[197]

Rice Still First, But for How Long?

Timmer's agricultural development path outlined the phases of economic development and their impact on agriculture. Where does Cambodia stand today with respect to agriculture? The*Economist*'s Country Profile sums it up:

The war economy of the 1970s and 1980s made the country dependent on food imports and food aid, however, while depriving it of opportunities for modernising agriculture. Thus, while output and production took off in neighboring Thailand and Vietnam, Cambodia's comparative advantages have declined. World bank specialists suggested in 1992 that Cambodia's largely rain-fed rice economy have to be replaced by a more diversified food crop and export crop economy, especially in view of the threat posed to water supplies by rapid, uncontrolled deforestation. The total land restored to [agricultural] production in the 1980s was substantially less than the amount worked in the 1960s (about 1.8m ha compared with 2.5m ha in 1969)... Controls on the prices of rice and other food crops further discouraged peasant production of surpluses as did multiple forms of taxation.[198]

Must Cambodia undergo another green revolution? Average yields for rice as measured by tons per hectare (t/ha) show that from 1987 to 1992, Cambodia remained at about 1.28 t/ha without any sign improvement. Cambodia's agricultural sector still has a long way to go before returning to 1960s production levels. Total recovery is not assured anyhow since the devastation of two decades of war, revolution, and starvation have left much of the land unsafe because of landmines. There is today at least one landmine for every two Cambodians. But with help, Official Development Aid (ODA) from multilateral and bilateral sources, Cambodia can utilize many of the efficiency increasing technologies used elsewhere.

Table 4.3: Paddy production

	1987	1988	1989	1990	1991	1992
Output (`000 tons)	1,814	2,400	2,200	1,700	2,400	2,400
Area (`000 ha)	1,418	1,801	1,700	1,460	1,800	1,840
Average yield (t/ha)	1.27	1.33	1.29	1.16	1.33	1.30

Source: Country Profile, Indochina: Vietnam, Laos, Cambodia 1993/94 (1993), p. 102.

Dual Sectors Agricultural Modernization

An indicator of agricultural modernization is the use of tractors. In 1986, 1,000 tractors were reported in use by the PRK ministerial report; in 1987, it increased to 1,200 and the following year reached 1,600.[199] By 1992 however, the number of tractors used was estimated to be 1,200. On that level, at least, it does not appear that Cambodian farmers are converging on the use of such technology as would be advisable under the dual sector neo-classical economy model of economic growth. The *Economist*'s Country Profile cites "inefficient techniques, such as the Khmer preference for ploughing with a pair of yoked oxen or buffalo rather than a single animal"[200] as an example of a backward agricultural practice still prevalent today.

Agricultural production outside of rice since 1967 has not recovered with respect to corn and vegetables. However, root and oleaginous crops (which includes sweet potatoes and soybeans) have rebounded. Most of the 1980s saw this type of recovery, at times remarkable. For instance 369 thousand tons of root crops were produced in 1980, more than ten times the level of 1967 and more than three times 1984, 1988, and 1992 levels.[201]

Table 4.4: Secondary food crop production (`000 tons)

	1967	1980	1984	1988	1992
Maize (corn)	149.5	122.7	59.3	46.9	70
Root crops	35.8	369.0	81.7	77.9	80
Oleaginous	63.1	14.2	35.6	36.9	76
Vegetables	430.0	282.8	139.9	266.5	...

Source: Country Profile, Indochina: Vietnam, Laos, Cambodia 1993/94 (1993), p. 102.

Industry: A Slow Re-birth

Industry, which had minimally survived under Pol Pot was slow to recover under the PRK. 57 plants operated with an employment of 154,000 in such fields as textiles, chemical, soap, etc., under the

Ministry of Industry's control.[202] Reasons for slow recovery, aside from state ownership and nationalization, according to Vickery (1986) stemmed mainly from the lack of raw materials and power. Shortages abound, the only two products which satisfied "both demand and plan [were] cigarettes and soft drinks."[203] By 1988, the composition of manufacturing output was two-thirds state-controlled. The percentage share of the private and handicrafts sectors was high for textiles, chemicals (including rubber), mechanical, construction, and light industry.[204]

Table 4.5: Manufacturing Output, 1988

	Value of output (riels m)	% share of state sector	% share of private/ handicraft sectors
Food processing of which:	1,747.2	67.6	32.4
cigarettes	1,064.5	100.0	--
textiles	255.4	13.7	86.3
chemicals (incl. rubber)	213.2	39.2	60.8
Mechanical	138.4	33.8	66.2
Light industry	90.2	31.2	68.8
Construction	45.6	9.9	90.1
Ministries of Industry and transport	23.8	100.0	--
Total incl. others	2,518.3	...	...

Source: Country Profile, Indochina: Vietnam, Laos, Cambodia 1993/94 (1993), p. 106.

Year	Nominal GNP205
1987	98,890,000,000
1988	195,560,000.000
1989	247,300,000,000
1990	594,800,000,000
1991	1,396,800,000,000

As is the case in most LDC economies, macroeconomic statistics on the economy were at best unreliable, if available at all. Statistics on national income gathered from the World Bank are in nominal terms, and therefore cannot be used in relation to other years. In 1989, Cambodia was among the socialist countries that underwent change in light of the end of the Cold War or the "end of history," to use Francis Fukuyama's phrase. A steady move to increase privatization in agriculture had been taking place since 1988, and in 1989, the last Vietnamese troops departed Cambodian soil. In a symbolic gesture to the coalition of parties fighting the PRK government along the Thai-Cambodian border, Hun Sen, the prime minister of Cambodia, changed the country's name to the State of Cambodia (SOC). In addition, a new flag (which was in actuality the old flag under Sihanouk) was promulgated; re-instated were the red and blue colors of on background to Angkor Wat.

According to statistics gathered by the United Nations Transitional Authority in Cambodia (UNTAC), "[estimates] for 1987-1992 reveal that the services sector was expanding rapidly while the share of wealth produced by agriculture steadily declined."[206] Real economic growth rates have been uneven, but mostly positive, going from a high of 16.2% in 1988 to -0.1% in 1990. Table 4.6 shows that in 1992 industry accounted for 16% of GDP, while agriculture took 45%.

Table 4.6: Sectoral Origin of Gross Domestic Product

	1987	1988	1989	1990	1991	1992
Agriculture	106.8	106.2	113.2	112.2	131.5	135.6
Industry	31.7	40.9	41.3	40.3	43.7	49.7
Services	69.3	94.4	92.8	94.5	105.0	117.5
Total GDP	207.9	241.5	247.3	247.0	280.3	302.8
Real growth %	...	16.2	2.4	-0.1	13.5	8

Note: Billions of riel at 1989 constant prices.

Source: Country Profile, Indochina: Vietnam, Laos, Cambodia 1993/94 (1993), p. 99.

George Irvin's study of the Cambodian economy, "Rebuilding Cambodia's Economy: UNTAC and Beyond" published in May 1993 uses scenario projection for 1992, 1993, and 1994 derived by UNTAC and the World Bank. Retail price inflation worsened considerably in the late 1980s when "a growing proportion of the [budget] deficit was monetised [i.e., eliminated by printing more currency]" and monetary emissions rose 20% in 1989, then to 40% since 1990.[207]

Table 4.7: Retail Price Inflation

1989	1990	1991	1992	1993/Q1
70%	157%	121%	200%	20%

Source: Irvin, "Rebuilding Cambodia's Economy" (1993), p. 10.

Trade Balance: In Deficit As Always

The current account of Cambodia during the late 1980s continued to be in the red--though without worsening by too much. Because the State of Cambodia was part of the CMEA (Soviet, East European, etc.) or Comecon countries, most trade occurred within the CMEA zone. Its principal exports were rubber crepe, unprocessed timber, red maize, soybeans, sesame and tobacco. The expansion of exports occurred amidst equally increasing imports. Trade with countries that had convertible currency, such as Thailand, has worsened considerably since cross-border trade was established in 1989 "with Thailand and Singapore via Koh Kong and Kampong Som ports."[208]

Table 4.8: Trade Imbalance (1987-1990)

	1987	1988	1989	1990
CMEA zone (Riel m)				
Exports	22.5	23.0	26.8	42.0
Imports	-113.0	-120.0	-110.9	-132.5
Balance	-90.5	-97.0	-84.1	-90.5
Convertible zone				

($ m)				
Exports	4.7	12.0	17.4	16.6
Imports	-8.4	-10.0	-24.1	-37.6
Balance	-3.7	2.0	-6.7	-21.0

Source: Country Profile, Indochina: Vietnam, Laos, Cambodia 1993/94 (1993), p. 108.

Rebuilding Post-Sihanouk Cambodia

Although it would be easy to call the People's Republic of Kampuchea a total failure, with hindsight, there were mitigating factors such as ongoing warfare, the trade embargo and Western aid boycott that prevented recognition of the PRK in the eyes of Washington and the United Nations. Given "the political, economic, and social system of Democratic Kampuchea [during its 1975-1978 reign] was... an absolute disaster for the people of Cambodia,"[209] PRK collectivization looked positively harmless. To their credit, the PRK and later SOC leaders chose to accept official development aid (ODA) instead of the "grin and bear" policy of Democratic Kampuchea's politburo. Bilateral and multilateral aid has poured into Cambodia since 1986, though modestly. Since 1989, when the Vietnamese army began to leave Cambodia, ODA doubled. In 1991 it tripled. In 1994 the total amount of ODA committed to Cambodia (both in soft and hard loans and transfers) at the second International Conference On the Reconstruction of Cambodia (ICORC) in Tokyo garnered over 800 million dollars through 1996.

Irvin's warning to donor countries that they "need to reflect on such unpleasantries [as the Khmer Rouge] ... to stay the course,"[210] has been eclipsed by the internal political maneuvering and endemic corruption which have once again surfaced in Cambodia. Human rights have reached an all time low since 1993, the same year in which Fred Z. Brown's Rebuilding Cambodia: Human Resources, Human Rights, and Law was published. The 1993 Cambodian Constitution devotes an entire chapter (V) to the economy, of which Article 56 states, "The Kingdom of Cambodia shall adopt [a] market economy system. The preparation and process of this economic system shall be determined by law."[211] Though left undefined, "market economy" is understood to mean ruled by the invisible hand which shapes supply and demand. The security of private property, which is essential to such an economy, is guaranteed: "**Article 60**--Khmer citizens shall have the right to sell their own products. The obligation to sell products to the State, or the temporary use of State or properties shall be prohibited unless authorized by law under special circumstances."[212] With respect to these principles, Cambodia has officially turned away from more than a decade of socialist, at times radical Maoist command economy.

With Sihanouk, the Khmer Rouge, and Beyond

Presently, the Cambodian economy faces deflationary price pressures due to UNTAC's dismantlement, though these have receded. The Khmer Rouge still control portions of Cambodia and recently murdered a number of foreign tourists from England, the U.S., and other countries. It is imperative that for any serious economic push to take place, the Khmer Rouge security threat must be neutralized. For now, Cambodia's agricultural sector must be rebuilt and modernized once more. 1995 Cambodia is still in the Mosher phase (modernization and investment in agriculture) if it is there at all, and there can be no industrial movement before agricultural subsistence is at the very least achieved. The State, by law, must promote the economic development of the agricultural sector, technology, and credit: "**Article 61**--The State shall promote economic development in all sectors and remote areas, especially in agriculture, handicrafts industry, with attention to policies of water, electricity, roads, and means of transport, modern technology and a system of credit."[213] These are particularly praiseworthy suggestions given Cambodia's economic history. Of course, whether the rule of law even works in the new Kingdom is quite another issue. The construction of an independent judiciary with powers of enforcement and precedent, takes time. While this happens, the new government's plan for the Cambodian educational system is shadowy, "**Article 67**--The State shall adopt and educational program according to the principle of modern pedagogy including technology and foreign languages."[214] Though we cannot be sure of which technologies, or what, besides foreign languages, will be taught, there can be no doubt from past experience that Cambodia must adopt an educational system suited to its economic needs. The following chapter concludes this thesis by recasting the economic analysis regarding Cambodia in the 1950s and 1960s alongside Khieu Samphan's 1959 dissertation and its aftermath.

CHAPTER 5: CONCLUSION

Il y a donc trop de jeunes semi-intellectuels alors qu'il y a tres peu d'emplois nouveaux pur eux dans les secteures secondaires et tertiares : cetter situation provient de l'inadaptation du system de l'Education Nationale aux besoin du pays. [trans. Thus, there are too many young semi-intellectuals whereas there are too few new employment opportunities for them in the secondary and tertiary sectors: this situation arises from the inadaptability of the educational system to the country's needs.]

--Mrs. Tip-Man, Under-Secretary of Social Works, 1967[215]

As we have Cambodia has traveled many roads toward and away from economic development. The post-Sihanouk years proved that a country could move backward, and very quickly and brutally at that. To rephrase the question posed by Michael Vickery in 1992 article "The Cambodian Economy: Where has it come from, where is it going?" one could say: Cambodia's economy has come full circle, from backwardness to the cusp of development and back again. Returning to the years in which Sihanouk was in power (1955-1970), one can see a period in which Cambodia's economy could have benefited from a higher level of saving (from an improved marginal propensity to save), schools geared towards Cambodia's needs and more investment in agricultural technology to create sustained economic growth. This thesis has emphasized that the absence of factors such as these contributed to mediocre economic growth during those years.

Vickery is cynical in his assessment of Cambodia's development potential in those years when he writes, "Cambodia in the 1960s gained a misconceived reputation as a small country rich in natural resources, which left to itself, could enjoy infinite progress."[216] Yet his cynicism is not far off base. Why Cambodia's economy failed to take off in the 1960s was due largely to improvident decisions which left the economy weak after 1970. Vickery's analysis places most of the responsibility on the State rather than the market, and correctly so:

Cambodia became independent in 1953-1954 with a weak state and weak economy. There was little attempt by the state to mobilize domestic capital for development, or even to collect taxes which were legally due. The lack of endogenous financing for the state was made up by large foreign aid contributions, in particular, until 1964, from the United States, which contributed from 10% to over 20% of the budget... Major projects, whether initiated by foreign aid or by the government, became *appanages* for Sihanouk's favorites who grew wealthy while books showed red. The economic relationships were free-market, quasi-, or ezratz capitalist.[217]

To be sure, there were classic market failures such as price distortions and high transactions costs courtesy of widespread corruption and bribery, but these failures exacerbated an even greater economic malaise: low levels of saving, low standards of education, and eroding purchasing power. Though we discussed corruption only briefly, this should not discount its pervasive hold on the Cambodian economy. Mr. Chanou's and the MGP student's recollections give a common face to this menace. As was the case for education and banking, corruption is nothing new nor unique to developing countries. We examine a positive model of corruption, following which normative conclusions are drawn.

An Economic Model of Corruption

Bribery and nepotism, falling under the rubric of patronage and patron-clientelism, have not die. One can analyze this corruption as an additional cost to transactions. High transaction costs are signs of imperfect markets and a classic example of market failures.

How does one begin to eliminate such corruption?

Using a cost-benefit model of corruption, one can better see the policy implications for minimizing corruption.

Let B = Benefits of being corrupt

Let p = Probability of being caught and prosecuted

Let C = Cost of punishment for being corrupt

When the benefits to being corrupt "B" are greater than the probability of getting caught "p" times the punishment "C", then being corrupt will be rational:

$B > p(C)$

In other words, one will gain more from being corrupt than not. It is incentive compatible. Therefore, to logically minimize corruption implies an increase in the probability "p" and the punishment "C" of being "corrupt" in order to obtain the following condition:

$B < p(C)$

All of this simply means that one must change the acceptability of corrupt practices which have plagued Cambodia under Sihanouk, Lon Nol, and to this day. One needs supervisors who are not corrupt. That is difficult without checks and balances.[218] Who supervises the supervisor, and then who supervises him/her? In the end, God is the ultimate supervisor... (meta-supervising!). One also needs to have credible punishments: (1) courts and the rule of law, (2) large fines (greater than the bribe), and (3) if necessary, prison sentences.

Khieu Samphan, Economist and Revolutionary

Corruption was not Cambodia's only problem. Poor educational standards, a low level of saving and a trade imbalance were also fundamental problems. Turning momentarily to that last factor, we examine Khieu Samphan's 1959 dissertation. For all of his radicalism, Khieu Samphan's 1959 dissertation advocated rather unrevolutionary structural reforms in the tariff structure, countryside and financial system of Cambodia's economy. The thesis, which I have argued set the pretext for Khmer Rouge action and policy has components which merit closer scrutiny. Samphan argued for the simplification of the tax structure on peasants for the purpose of agricultural modernization and consolidation. He was extremely critical of what he saw as the exploitation of Cambodia's economy by greedy landowners, importers, and "usurers." In the dissertation, he writes, "usurers and landowners, principal beneficiaries of the highest rural incomes, tend to spend their money on imported luxury goods."[219] This particular observation echoed chapter 3's point on Cambodia's spendthrift economy.

Where his analysis differs from my own is in its inherently Marxist-Leninist premise regarding the role of the international economy and the need for "autonomous development." This autonomous development required greater state intervention and ownership in the form of state-owned enterprises. In his interpretation, the international economy exploits the Third World as does the bourgeoisie toward the proletariat in classical Marxism. For instance, a trade deficit is solved by "a state monopoly on trade in all major commodities."[220] These particular assumptions lead him to draw conclusions, which although internally consistent, have little validity outside the theoretical limits of a Marxist-Leninist universe. Laura Summer's translation summary points to "an important section of the dissertation, [in which] Khieu Samphan traces the cause of Cambodia's economic backwardness and vertical disintegration to the nineteenth century penetration of the economy by more advanced French capitalism."[221]

Khieu Samphan's defense of autonomous development is consistent within the framework of the Egyptian Marxist economist, Amin Samir (1957). The conclusions he makes in Cambodia's Economy and Problems of Industrialization (as initially titled and partially translated by Summers in 1976) follow:

The task of industrializing Cambodia would appear above all else a prior, fundamental decision: development within the framework of international integration, that is, within the framework of free external trade, or autonomous development.

International integration has apparently erected rigid restrictions on the economic development of the country. Under the circumstances, electing to continue development within the framework of international integration means submitting to the mechanism whereby handicrafts withered away, precapitalist structure was strengthened and economic life was geared in one-sided fashion to export production and hyperactive intermediary trade. Put another way, agreeing to international integration means accepting the mechanism of structural adjustment of the now underdeveloped country to requirements of the now dominant, developed economies. Accepting international integration amounts to accepting the mechanism by which structural disequilibria deepens, creating instability that could lead to violent upheaval if it should become intolerable for an increasingly large portion of the population. Indeed, there is already consciousness of the contradictions embodied in world market integration of the economy.

Self-conscious, autonomous development is therefore objectively necessary. . . .[222]

In the first instance, Samphan offers two possible paths: "international integration" or "autonomous development". Because of conditions imposed on the country by the "international integration" method of development, Samphan argues, atavistic modes of production are amplified. How does he reach that particular finding? By going back to the late 19th century, when the industrialized French penetrated the pre-industrial Cambodian economy, Samphan asserts that this disruption stopped the course of development for Cambodia. In other words, French colonization derailed the Cambodian economy. Using balance of trade and composition of trade analysis, to make his case, Samphan concludes that exploitation takes place when Cambodia and France trade, and that peasants too are exploited by urban elite who buy imported luxury goods which deplete foreign exchange reserves. Hence, the contention that "structural disequilibria" from "international integration" would lead to "social upheaval ... for an increasingly large portion of the population." In other words, revolution.

Khieu Samphan's conclusions appear logical if "international integration" is, in fact, the root of disequilibria and the cause of underdevelopment. But is it? Clearly not. In this heretofore exploitation-exploited schema, where underdevelopment grows from the yoke of capitalism and international integration, a less-developed country can expect to develop only if it severs itself from the World-System (that is, the world itself). For Khieu Samphan, autarkic development was renamed "conscious, autonomous development" to make it appear more palatable. Later, conscious, autonomous development was re-christened "self-reliance." Today, however, autarky has been discredited, and integration, liberalization, privatization, and deregulation are the new axioms of the post-Cold War international economy. His mistakes are tampered by ideology, yet they are, in the last analysis, academic.

This thesis, using different assumptions based on six economic models of development, has instead emphasized that the low levels of saving in the 1950s and 1960s Cambodian economy hampered economic growth. Far from employing explanations of core-periphery exploitation dynamics, this thesis has argued that the chronic trade deficits which Cambodia suffered in that same period resulted from the Dutch disease, ineffective trade and exchange rate policies; which, in turn, were linked to luxury imports consumption and uneven exported rice production. Foreign aid only exacerbated the problem. The 1963 austerity measures which doubled many tariffs on luxury goods, according to Summers, resulted in growing inflation and were quickly abandoned by the Royal Government. In sum, the reforms were halfheartedly adopted and quickly rejected if the appropriate resistance was applied. This was unfortunate given the circumstances of the following years, namely war, revolution, starvation, and occupation. The Khmer Republic saw a Cambodia at war on two fronts: against the North Vietnamese and the guerrilla Khmer Rouge. As was presented in chapter 4, that war economy produced hyperinflation and virtually destroyed Cambodia's rice capacity. Hundreds of thousands died, and when the worst was thought to have passed, entered the Khmer Rouge.

The Tragedy of Cambodian Economic History

The Cambodian economic experience is a tragic one because it took so many wrong turns and had such poor luck. Looking back, the Sihanouk years were a mixture of failures beneath small victories. The educational system failed in its mission to educate in fields that would propel or were appropriate to the economy's needs, and the government failed to create incentives for individuals to save. Instead, the French education system was adopted, and banks were nationalized. It is true that austerity measures are bitter pills to take, but for a very ill patient like Cambodia's economy, there was no alternative treatment. The Royal Government of Cambodia, especially during the early 1960s--when there was still great potential for development--did not have the gumption to levy tariffs on imports that were clearly draining foreign exchange reserves. Foreign aid too, which could have done a great deal of good for Cambodia, was instead depleted year after year on luxury imports. The chronic trade deficits, despite sometimes excellent rice exporting years, were elements of contradictory economic times. These contradictions reached critical mass, to use a favorite Marxist axiom, just as the bordering war in Vietnam spilled into Cambodia.

While nothing done during the 1950s or 1960s could have mitigated the economic catastrophe of the Democratic Kampuchea period (1975-1978), the Sihanouk reign was a sad backdrop to a period that could have otherwise seen an economy priming its agricultural pump. Remy Prud'homme's clairvoyant vision in <u>L'Economie du Cambodge</u> is the most commendable economic analysis of the Sihanouk years. In chapter 20, the conclusion of his book, Prud'homme concludes, among "a" through "h", the following:

c) Au cours des dix dernieres annees [depuis 1959] est nee une industrie au Cambodge ... d) Le Cambodge jouit d'une monnaie saine mais menacee ... g) La situation des finances publiques [l'infrastructure et l'education] n'est pas sans poser quelques problemes ... h) L'Economie du Cambodge s'est developpee depuis l'Independance a un rythme saitisfaisant, mai qui semble avoir tendance a diminuer. [trans. c) For the last ten years [since 1959] an industry was born in Cambodia ... d) Cambodia enjoyed a sound but menaced currency ... g) The situation of public finance [infrastructure and education] is not without its problems ... h) Since independence, Cambodia's economy has developed at a satisfactory rhythm, but with a tendency to diminish.][223]

He saw the immediate problems which enveloped the Cambodian economy, at precisely the moment before critical mass was reached. From his 1969 critique of the Cambodian school system to its financial market, this author can only agree. Though Vickery would likely take exception to such relative optimism, the 1950s and 1960s could have been decades of sustained and balanced growth. Instead, they were at best mediocre years.

Revisiting Timmer's Agricultural Transformation

Agriculture's contributions to development are unequivocally important to a country as agrarian as Cambodia. Using Timmer's model, the course of Cambodia's economic development took her to the steps of extracting agricultural resources for industrialization. But the war and revolution of the 1970s reversed development in a great leap backward. The Mosher phase that Cambodia finds herself in today is the direct result of two decades of destruction mainly due to misdirected economic development: ultra-collectivization, autarky, and sheer brutality. Instead of privatizing, Cambodia collectivized. Instead of industrializing, the Khmer Rouge rusticated an entire country.

From these contemporary dark ages, we turn further back to the 1950s and 1960s and re-iterate the six growth theories placed in historical perspective on Cambodia. These were the Harrod-Domar, Keynesian, Two-Gap, Solow, Endogenous, and Dual Sector economy models, served to show what Cambodia lacked--or in some cases had too much of (Two-Gap and Keynesian for instance). Many of these critical elements would have aided her in achieving sustained economic growth. Yet they were too often insufficient or misplaced.

The Harrod-Domar, Keynesian, and Two-Gap Model

The Harrod-Domar model suggests that increasing the level of saving helps to increase economic growth. Cambodia, during the years in which it actually had a central bank (1955-1975) did not increase its level of saving. Instead Cambodia decreased it. Since the capital-output ratio "k" is assumed constant, the only variable which can be changed is "s" (the marginal propensity to save). Remedies for low saving, range from higher interest rates (in an austerity measure plan that restricts the money supply or decreases government expenditures, for instance) to more banks in which to save. In understanding why individuals behave in one way as opposed to another, an economist must always ask himself or herself: "Is the behavior incentive compatible?" If it is not, a normative economist would think of how to create compatible incentives and eliminate incompatible ones.

The Keynesian model was less convincing on Cambodia, since it is clear the government spent, and spend it did. For much of the 1960s, Cambodia's budget was in deficit, and it imported more than it exported. Indications of a spendthrift economy would argue for austerity measures--not increased spending. Of course, the Keynesian model can work on the supply-side too. The Sihanouk government did not take the classical *laissez-faire, laissez-passer* policy with respect to the private sector. It was indifferent to the private sector, dabbling with Socialism and nationalization instead. As the educational system produced fewer employable graduates (in the private sector), because of the wrong emphasis on the civil service, this reduced the economic potential of the nation.

The Two-Gap model's introduction of the foreign aid/exchange factor served to distinguish why many Cambodians purchased luxury imports. While we cannot be assured that the economy's purported 7% unemployment rate in 1962 indicated full-employment, we know that Cambodia was peculiar in that it did not suffer from the worst maladies afflicting the very poorest countries of the world: starvation and massive unemployment. Recall too that Cambodia was underpopulated relative to its neighbors. In the 1970s and to a milder degree in the 1950s and 1960s (though everything was mild in comparison to the 1970s), Cambodia suffered from the "Dutch disease". Its trade balance indicates as much, and the fact that foreign aid played such a major role in subsidizing the economy, that aid became a disservice to domestic producers who were priced-out of the market.

The Solow and Endogenous Growth Model

The Solow growth model which highlights the role of technology in general would have told Cambodia to educate its citizens in the basic sciences. Yet Cambodia's educational system did not emphasize sciences *per se*. Even more disturbing was that quality of education took second place to the quantity of schools created. Nowhere was this misplaced priority made more apparent than when,

Convinced, according to Charles Meyer, by a visit to an Indonesian university campus in 1964 that tertiary education should be promoted, the prince [Sihanouk] ordered a rapid expansion of campuses and faculties but gave little, if any, thought to how these were to be financed, stocked with books and equipment and staffed, or to what should happen to graduates of these institutions.[224]

This was understandable given the increasing budget deficits, but why maintain an educational system far removed from Cambodian reality? Endogenous Growth theory calls upon picking winners. Adopting the French "*fonctionnaire*" system of education was a serious impediment to the long-term future rate of output growth.

The Dual Sectors Model

Using the dual sectors model or the dual sector economy models, the impact of intersectoral labor transfers and the importance of technology in agriculture were underlined. Here, Cambodia's modernizing efforts were more hazy in retrospect. We know that agricultural production with respect to rice, improved under Sihanouk, but were these improvements sufficient and could they be sustained? Well prior to the war years when production fell precipitously, Etcheson's observation that the expansion of cultivated acreage increased from 1913 to 1965 suggests that it was not just the use of more efficient farming techniques for which production rose. According to Etcheson, the density of cultivated land areas had increased 41% from 1913 to 1965. And from 1955 to 1965, that density had gone up another 12%.[225] Clearly, the rate at which individuals cultivated land outpaced the rate at which that land was increasing. Cambodia could have been on the ascent by 1970, yet by all economic indicators, the economy was getting weaker and the war would swing its final blow.

In sum, Cambodia's economic development and history have undergone many phases and transformations since the missed opportunities of the 1950s and 1960s. "Those who cannot learn from history," said George Santayana, "are doomed to repeat it." The biggest challenge Cambodians face for the remainder of the 1990s is to learn from past mistakes, and yes, from history itself. To be sure, rebuilding Cambodia will not be effortless, but the nadir of its *rendez-vous* with death has passed quietly. Cambodians today are no longer under the tutelage of the Khmer Rouge nor the People's Republic of Vietnam. They control their own destiny as Southeast Asia's youngest democracy and market economy. Cambodia's seventh and most recent constitution in less than fifty years,[226] testifies to a country that has seen more than its share of overthrown governments. The lessons to be learned from the Sihanouk years can themselves be applied to these coming years. Cambodia is once again a kingdom and Norodom Sihanouk is once again its king.[227] While markets, schools, banks, and the rule of law are restored, the promise of economic development, higher standards of living for all Cambodians, can still be kept if the elements to a sound economy are recognized, promoted, and preserved.

APPENDIX: CHAPTERS V AND VI OF THE 1993 CAMBODIAN CONSTITUTION[228]

CHAPTER V

Economy

Article 56--The Kingdom of Cambodia shall adopt [a] market economy system. The preparation and process of this economic system shall be determined by law.

Article 57--Tax collection shall be in accordance with the law. The national budget by law. The national budget shall be determined by law.

The management of the monetary and financial system shall be defined by law.

Article 58--State property notably comprises land, mineral resources, mountains, sea, underwater, continental shelf, coastline, airspace, islands, rivers, canals, streams, lakes, forests, natural resources, economic and cultural centers, bases for national defense and other facilities determined as State

property.

The control, use and management of State properties shall be determined by law.

Article 59--The State shall protect the environment and balance of abundant natural resources and establish a precise plan of management of land, water, air, wind geology, [*sic*] ecologic system, mines, energy, petrol, and gas, rocks and sand, gems, forests and [*sic*] forestrial products, wildlife, fish and aquatic resources.

Article 60--Khmer citizens shall have the right to sell their own products. The obligation to sell products to the State, or the temporary use of State or properties shall be prohibited unless authorized by law under special circumstances.

Article 61--The State shall promote economic development in all sectors and remote areas, especially in agriculture, handicrafts industry, with attention to policies of water, electricity, roads, and means of transport, modern technology and a system of credit.

Article 62--The State shall pay attention and help solve production matters, protect the price of products for farmers and crafters, and find marketplace for them to sell their products.

Article 63--The State shall respect market management in order to guarantee a better standard of living for the people.

CHAPTER VI

Education, Culture, Social Affairs

Article 64--The State shall ban and severely punishes those who import, manufacture, sell illicit drugs, counterfeit and expired goods which affect health and life of the consumers.

Article 65--The State shall protect and upgrade citizens' rights to quality education at all levels and shall take necessary steps for quality education to reach all citizens.

The State shall respect physical education and sports for the welfare of all Khmer citizens

Article 66--The State shall establish a comprehensive and standardized education system throughout the country that shall guarantee the principles of educational freedom and equality to ensure that all citizens have equal opportunity to earn a living.

Article 67--The State shall adopt and educational program according to the principle of modern pedagogy including technology and foreign languages.

The State shall control public and private schools and classrooms at all levels.

Article 68--The State shall provide primary and secondary education to all citizens in public schools

The State shall disseminate and develop the Pali schools and the Buddhist Institutes

Article 69--The State shall protect and promote the Khmer language as required.

The State shall preserve ancient monuments, artifacts and restore historic sites.

Article 70--Any offense affecting cultural and artistic heritage shall carry a severe punishment.

Article 71--The perimeter of the national heritage sites as well as heritage that has been classified as world heritage, shall be considered neutral zones where there shall be no military activity.

Article 72--The health of the people shall be guaranteed. The State shall give full consideration to disease prevention and medical treatment. Poor citizens shall receive free medical consultation in public hospitals, infirmaries and maternities.

The State shall establish infirmaries in rural areas.

Article 73--The State shall give full consideration to children and mothers. The State shall establish nurseries, and help support women and children who have inadequate support.

Article 74--The State shall assist the disabled and the families of combatants who sacrificed their lives for the nation.

Article 75-- The State shall establish a social security system for workers and employees.

BIBLIOGRAPHY

Akerlof, George and Janet L. Yellen, ed. Efficiency Wage Models of the Labor Market. New York: Cambridge University Press, 1986.

Allingham Michael and M.L. Burstein. Resource Allocation and Economic Policy. London: Macmillan, 1976.

Amin, Samir. "Les effects structurels de l'integration internationale des economies precapitalistes." Thesis, Paris, 1957. [As referenced in Khieu Samphan's dissertation.]

Berliner, Nancy. "On the Face Of It, Money Talks." *New York Times,* Business Section, p. 8, March 5, 1995.

Bhardan, Pranab, et al., ed. Handbook of Development Economics, Vol 1. North Holland, 1988.

Brown, Frederick Z., ed. Rebuilding Cambodia: Human Resources, Human Rights, and Law. Washington: SAIS, Johns Hopkins University, 1993.

Caldwell, Malcolm. Kampuchea; Rationale for a Rural Policy. Hyderabad, [India]: Janata Prachuranalu, 1979.

Cambodge. Bound magazine published circa 1970.

Caves, Richard E., et al. World Trade and Payments: An Introduction, 6th ed. New York: HarperCollins College, 1993.

Chandler, David P. A History of Cambodia, 2nd. ed. Boulder, Colo.: Westview, Press, 1992.

Chandler, David P. Brother Number One: A Political Biography of Pol Pot. Boulder, Colo.: Westview, Press, 1992.

Chandler, David P. The Tragedy of Cambodian History: Politics, War, and Revolution Since 1945. New Haven: Yale University Press, 1991.

Chandler, David P., Ben Kiernan, Chanthou Boua. Pol Pot Plans the Future: Confidential Leadership Documents from Democratic Kampuchea, 1976-1977. Monograph Series 33. New Haven, CT: Yale University Southeast Asian Studies, 1988.

Chanou, Pasin. Personal e-mail communication, 07/17/95.

Chantrabot, Ros. La Republique Khmere: 1970-1975. Paris: Editions L'Harmattan, 1993.

Cohen, Stephen S. and John Zysman. Manufacturing Matters: The Myth of the Post-Industrial Economy. New York: Basic Books, 1987.

"Cambodia's Constitution;" (1993) translated by Hann So, posted on the Internet, 08/06/95.

Constitution du Royaume du Cambodge, indeterminate publisher, 1956.

Country Profile, Indochina: Vietnam, Laos, Cambodia 1993/94. London: Economist Intelligence Unit, 1993.

Country Profile, Indochina: Vietnam, Laos, Cambodia 1994, 2nd. quarter. London: Economist Intelligence Unit, 1994.

Curtis, Grant. Cambodia, A Country Profile: A Report. prepared for the Swedish International Development Authority. Stockholm: Swedish International Development Authority, 1990.

Dauphin-Meunier, Achille. Histoire du Cambodge. Paris: Presses universitaires de France, 1961.

Delvert, Jean. Le Cambodge. Paris: Presses universitaires de France, 1983.

Delvert, Jean. Le Paysan Cambodgien. Paris: Mouton, 1961.

Development Context of Cambodia, Sectoral Position Papers. Tokyo: Cooperation Committee for Cambodia, 1994.

Ear, Sophal. "The Khmer Rouge Canon 1975-1979: The Standard Total Academic View on Cambodia" *Undergraduate Political Science Honors Thesis*, UC Berkeley, May 1995.

The East Asian Miracle: Economic Growth and Public Policy. New York, NY: Oxford University Press, 1993. World Bank policy research report.

Etcheson, Craig. Personal communication (letter), 10/07/94.

Etcheson, Craig. The Rise and Demise of Democratic Kampuchea. Boulder, Colo.: Westview, 1984. Westview special studies on South and Southeast Asia.

Forest, Alain. Le Cambodge et la colonisation Française: Histoire d'une colonisation sans heurts (1897- 1920). Paris: L'Harmattan, 1980. [Actual dissertation was used instead, not this published book.]

Frings, Viviane. "The failure of agricultural collectivization in the People's Republic of Kampuchea, 1979-1980." Clayton, Vic., Australia: Centre of Southeast Asian Studies, Monash University, 1993. Working papers (Monash University. Centre of Southeast Asian Studies); 80.

Gerschenkron, Alexander. Economic Backwardness in Historical Perspective, A Book of Essays. Cambridge, Belknap Press of Harvard University Press, 1962.

Gillis, Malcolm, D. Perkins, M. Roemer, and D. Snodgrass. Economics of Development, 3rd ed. New York: W. W. Norton, 1992.

Gourdon, Alain. Les Finances du Cambodge: Traite Elemantaire. Phnom Penh: Ministere des Finances, 1960s.

Hall, Robert E., and John B. Taylor. Macroeconomics, 4th ed. New York: WW Norton & Company, 1992.

Heder, Stephen R. "Pol Pot and Khieu Samphan." Clayton, Vic., Australia: Centre of Southeast Asian Studies, Monash University, 1991. Working paper (Monash University. Centre of Southeast Asian Studies); 70.

Human Development Report. New York: Oxford University Press, 1993.

Irvin, George. "Rebuilding Cambodia's Economy: UNTAC and Beyond." The Hague, Netherlands: Institute of Social Studies, May 1993. Working paper series No. 149.

Ing, Sarom. "Re: Questionnaire on Cambodia's Economy," personal e-mail communication, 07/21/95.

Jackson, Karl D., ed. Cambodia, 1975-1978: Rendezvous With Death. Princeton, N.J.: Princeton University Press, 1989.

"Japan's Dangerous Post Office." *Economist*, October 29, 1994, pp. 20-22.

Kampuchea in the Seventies: report of a Finnish inquiry commission. Helsinki, Finland: Kampuchean Inquiry Commission, 1982.

Kasliwal, Pari. Development Economics. Cincinnati, OH: South-Western College Publishing, 1995.

Khieu Samphan. Cambodia's Economy and Industrial Development; translated by Laura Summers. Ithaca, N.Y.: Southeast Asia Program, Dept. of Asian Studies, Cornell University, 1979. Data paper (Cornell University. Southeast Asia Program); no. 111.

Khmer Republic. Bound magazine published until December 1972.

Kiernan, Ben. How Pol Pot Came to Power: A History of Communism in Kampuchea, 1930-1975. London: Verso, 1985.

The Killing Fields. Goldcrest Films & Television Ltd. [videorecording] Burbank, CA: Warner Home Video, 1986. VHS.

Lacouture, Jean. Survive le peuple cambodgien! Paris: Le Seuil, 1978.

Lim, Peth. *Personal Interview* on March 4th, 1995.

MGP student. "Re: A Personal Invitation," personal e-mail communication, 06/10/95.

MGP student. "My small contribution to your request," personal e-mail communication, 07/19/95.

Muscat, Robert J. Cambodia: Post-settlement Reconstruction and Development. New York, NY: Columbia University, 1989. Occasional papers of the East Asian Institute.

National Programme to Rehabilitate and Develop Cambodia. New York: U.S.-Indochina Reconciliation Project, 1994.

Ngor, Haing S. A Cambodian Odyssey; with Roger Warner. New York: Macmillan, 1987.

Osborne, Milton E. Before Kampuchea: Preludes to Tragedy. Boston: G. Allen & Unwin, 1979.

Osborne, Milton E. Sihanouk: Prince of Light, Prince of Darkness. Honolulu: Hawaii U.P., 1994.

Ponchaud, Francois. Cambodia: Year Zero; translated from the French by Nancy Amphoux. New York : Holt, Rinehart and Winston, 1978.

Preobrazhensky, Evgeny. The New Economics. UK: Oxford University Press, 1965.

Prud'homme, Remy. L'Economie du Cambodge. Paris: Presses universitaires de France, 1969.

Romer, David, Mankiw N., D. Weil. "A Contribution to the Empirics of Economic Growth." *Quarterly Journal of Economics*, May 1992.

Rostow, W. W. The Stages of Economic Growth: A Non-Communist Manifesto. New York: Cambridge University Press, 1990.

Schanberg, Sydney H. The Death and Life of Dith Pran. New York: Penguin, 1985.

Summers, Laura. "Cambodia's Economy and Problems of Industrialization." *Indochina Chronicle*. Berkeley, CA: Indochina Resource Center, September-November 1976, pp. 5-25.

Todaro, Michael P. Economic Development in the Third World, 4th ed. New York: Longman, 1989.

Vickery, Michael. "Cambodia's Economy: Where has it come from, where is it going?" Indochina Economic Reconstruction and International Cooperation: papers and proceedings of a symposium held at the Institute. Tokyo: Institute of Developing Economies, 1992. I.D.E. symposium proceedings; no. 12.

Vickery, Michael. Kampuchea: Politics, Economics, and Society. Boulder: L. Rienner Publishers, 1986. Marxist regimes series.

World Factbook. Washington: Central Intelligence Agency, 1993.

Wright, Martin ed. Cambodia: A Matter of Survival. Harlow: Longman, 1989. Countries in crisis series.

Nautilus Institute
608 San Miguel Ave., Berkeley, CA 94707-1535 | Phone: (510) 423-0372 | Email: nautilus@nautilus.org