Restructuring Hainan's International Trade and Finance: Currency, Foreign Exchange, and Trade

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Supported by the National Research Center for Science and Technology for Development, People's Republic of China
PREFACE

This is one of a series of four RAND Notes prepared for the National Research Center for Science and Technology for Development (NRCSTD) and the government of Hainan province, in accord with RAND’s memorandum of agreement with NRCSTD and China’s Ministry of Foreign Economic Relations and Trade. The other three Notes are Donald Putnam Henry, Restructuring Hainan’s Fiscal System, N-3293-NRCSTD; Charles Robert Roll, Jr., A Comparison of Hainan with the Other Special Economic Zones, N-3295-NRCSTD; and K. C. Yeh, The Lessons of East Asian Development and Alternative Development Strategies for Hainan, N-3294-NRCSTD. The RAND work is intended to assist NRCSTD and the Hainan government in planning the province’s development along market-oriented lines.
This Note, one of four interrelated RAND studies designed to assist the National 
Research Center for Science and Technology for Development in Beijing and the 
Government of Hainan Province, considers "the possible development of an independent, 
convertible currency . . . and other foreign exchange and trade policies that [can] contribute 
to . . . Hainan's goals of close interaction and integration with the mainland economy and 
with the international economy."

The planning of Hainan's development is intended to accord with the three principles 
established by the Beijing and Hainan leadership: a market-based economy; private as well 
as public ownership; and an economy integrated with the international economy. This 
planning process can usefully be viewed as a systems problem, consisting of six 
components: (1) monetary reform; (2) fiscal reform; (3) price and wage deregulation; (4) 
protection of property rights, privatization, and breakup of monopolies; (5) social-security 
reform; and (6) currency convertibility. The six components are interactive and mutually 
supporting. Hence, the effectiveness of any single component is significantly reduced if it is 
not implemented in conjunction with the others.

Currency convertibility in the reform of the foreign trade system is important because 
it links world prices and costs in terms of dollars or hard currency with domestic prices and 
costs in terms of Hainan's currency. Convertibility is also of central importance in attracting 
foreign investment.

The study next considers how a convertible currency for Hainan (HC) could be 
established, and how the ensuing exchange rate would be determined. In examining this 
question, the discussion addresses the following points:

1. For currency convertibility to be sustainable and to contribute to Hainan’s 
development as a market economy linked to the international economy, it is 
essential to maintain control of credit and the money supply, as well as fiscal 
discipline in the management of Hainan’s expenditures and revenues. These 
functions can be exercised, respectively, by a suitably prepared People’s 
Bank–Hainan Branch (PBHB) and by a budget office in the central Hainan 
administration.
2. One concrete and accessible route to a convertible currency for Hainan is to establish the Ren Min Bi (RMB)—Foreign Exchange Certificate (FEC) as Hainan’s currency. The supply of HC (FEC) would be controlled by the PBHB and linked at the outset to the transactions and liquidity balances that Hainan’s population and enterprises wish to hold.

3. The present system of export quotas—both “passive” and “active” quotas—is analyzed. It is concluded that, on economic grounds, all the arguments in support of export quotas are seriously flawed and, leaving aside political considerations, which the Note does not address, the quotas should be removed.

4. The various factors affecting the price elasticities of supply for Hainan’s exports, and the price elasticities of demand for Hainan’s imports, are addressed. Concerning exports, the tentative conclusion is reached that, if export quotas are removed, prospects would appear to be bright for boosting Hainan’s exports and hard currency earnings well above the $354 million reached in 1989. With respect to import elasticities, it seems probable that Hainan’s unfilled demand for several categories of imports, especially consumer durable goods, would be quite high at current prices and at a fixed exchange rate. It is less clear how elastic these demands would be if a floating exchange rate raised domestic prices in HC for these imports. Nevertheless, with a convertible currency and a free market for foreign exchange, these import demands will tend to increase, thereby raising the HC exchange rate above the present fixed RMB/dollar rate.

5. The problem of moving to a convertible currency for China as a whole would be considerably more difficult than doing so for the HC alone. One reason for the greater difficulty is the existence of an “overhang” of hundreds of billions of currently low-velocity RMB that might be unleashed if a convertible currency market were established for China as a whole. Nevertheless, the gap between the official, recently devalued RMB/dollar rate and the open or black market rate is only 30 percent—a disparity that is relatively small compared to the difference between the official and black market rates for such other unconvertible currencies as the Soviet ruble.

6. In light of these considerations, this Note ventures the judgment that, providing monetary and fiscal discipline is maintained, the convertible rate in a floating exchange market for the RMB—FEC would perhaps be between 5 and 6 per U.S. dollar.
The study then addresses the question of whether a rapid or gradual path toward convertibility is preferable, and suggests how a fairly rapid process of moving toward convertibility might be accomplished within a period of about one year.

Brief consideration is given to the question of a Free Trade Island (FTI), a Free Trade Zone (FTZ), or Special Customs Zone (SCZ) status for Hainan, and some of the advantages and disadvantages of each are discussed. Between the FTI and FTZ, it would appear that the FTI is probably preferable to an FTZ for Hainan. And SCZ status may have distinct practical advantages in the near term.

Finally, the Note addresses the issue of policies for attracting foreign investment to Hainan. This problem is likely to be a serious one because of several significant broad changes in the world economy that will probably result in a tightening in the availability of world capital supplies. In shaping Hainan's policies to attract foreign investment, currency convertibility should be viewed as one of the most important issues in the increasingly competitive global capital market of the 1990s.

This Note concludes by identifying relevant issues that have been neglected or given only limited attention because of limitations of the scale and budget of the RAND effort.
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I. INTRODUCTION

According to the project description of December 1, 1989, agreed upon between RAND and the National Research Center for Science and Technology for Development in Beijing, one of the four tasks to be undertaken by RAND is "to analyze . . . the possible development of an independent, convertible currency . . . and the other foreign exchange and trade policies that contribute to . . . Hainan's goals of close interaction and integration with the mainland economy and with the international economy."\(^1\)

Formulation of this topic derived from the RAND team's earlier visit to Hainan and Beijing in June and July 1988 and the preliminary survey of Hainan's strategic development plan that the team made following that visit.\(^2\)

The starting point for our selection and investigation of this subject—as for the analyses of the other three tasks described in the project description\(^3\)—is the specific policy objectives for Hainan's development previously established and reaffirmed by Hainan's top leadership (the then—Party Secretary, Xu Shijie, later replaced by Deng Hongxun; Governor Liu Jianpeng; and Vice Governor Bao Keming), and the top leadership of the central government in Beijing (General Secretary Jiang Zemin and Premier Li Peng). These objectives call for Hainan's development in accord with three principles:

1. A market-based economy;
2. Private as well as public property rights and ownership;
3. An "outward-looking" economic structure linked with the international economy.

Furthermore, according to the Hainan and Beijing leadership, these principles are to be sought through a social and political structure consisting of "a small and efficient government in a large and growing society."

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\(^{3}\) See "Hainan's Strategic Development Plan," pp. 3–5.
Each of these principles—especially the first and third—directly influences the following discussion of restructuring Hainan’s foreign trade and finance. Specifically, our analysis of currency convertibility derives directly from the government’s principle of a market-based economy, and our discussion of foreign trade and foreign investment is closely related to the principle of linking Hainan to the international economy.
II. ECONOMIC REFORM AS A SYSTEMS PROBLEM

It is a truism that all modern economies comprise a mixture of market-based and government-based roles and influences. Thus, while the economy of Hong Kong is dominated by market forces, its government nevertheless plays a powerful economic role, for example, in regulating the provision and pricing of electric power and telecommunications, although private firms produce these services; in providing essential infrastructure and public services; in controlling monetary policy through the Exchange Fund; and, prior to the creation of this Fund, in overseeing and guiding the central monetary role of the Hong Kong and Shanghai Bank.

At the other extreme, while the Soviet economy is predominantly controlled (and confined) by the central authorities, nevertheless, small private or cooperative establishments provide a range of services (e.g., restaurants, television maintenance, automotive repair) through the market mechanism.

The generic issue that economic systems face is not that of a pure choice between markets or governments, but rather a more complex choice of where to draw the line between the roles of markets and governments. Previous economic studies, as well as international experience, strongly suggest that economic efficiency and rapid economic growth are advanced by giving the market the predominant role and are impeded by giving the government the predominant role.

This does not imply that the role of government is small or unimportant, nor does it imply that planning is inconsistent with the functioning of a market economy. Indeed, as discussed in a previous RAND Note, the government’s role in the planning of policies, rather than projects, is central for Hainan’s development. But for this role to be efficiently exercised, it is necessary to maintain certain distinguishing characteristics of a market economy. These include the prevalence of economically valid prices for goods and services, as well as factors of production—that is, prices that reflect their scarcity values and opportunity costs. The distinguishing characteristics also include the conduct of government procurement and other operations at these same valid prices and the prevalence of economic competition.

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\(^1\)Wolf, et al., *Preliminary Observations*. 
Moving the economy of Hainan toward a balance between markets and governments that will be efficient and dynamic, as well as equitable, and in conformity with the three guiding principles already referred to, requires enlargement of the market's role and diminution of the government's role. In turn, movement toward this goal depends on a package of related and mutually reinforcing reform measures. Thus, the effectiveness of individual reform measures—such as currency convertibility or price deregulation—is contingent on effective implementation of other measures in the package: In other words, the whole is greater than the sum of its parts. Indeed, without the "whole," the effectiveness of individual parts will be severely impeded.

In this sense, reforming Hainan's economy (to accord with the leadership's three principles) is analogous to reforming any large system, for example, in education, in the military, in health, or in other domains. Reforming such systems requires that the component parts be restructured as a whole because of the interactions and complementarities between them.

This view of economic reform as a systems problem is illustrated in Fig. 1. The lines indicate the contribution of one element to the effectiveness of another element, to which the

Fig. 1—Components of economic reform in Hainan
arrow points. (For example, monetary and fiscal reform reciprocally contribute to each other, and both monetary and fiscal reform contribute to successful deregulation of prices and wages.) Each of the six elements is less likely to be effective without the reciprocal support provided by the other elements. Hence, efforts to reform nonmarket economies by piecemeal steps are more likely to founder than to succeed.

Consider, for example, the link between the first two elements. Monetary reform is necessary to limit growth of the money supply to a rate that accords with the growth of real output. It is also a necessary condition for basing access to credit on borrowers’ economic capabilities and the associated risks, rather than on their political connections or credentials. Fiscal reform requires a budget process that constrains government expenditures to a level approximating that of revenues. By precluding “off-budget” subsidies, fiscal reform would prevent transactions that would otherwise vitiate monetary discipline, as well as budgetary balance.

In turn, the third element—deregulation of prices and wages—requires monetary and fiscal restraint if deregulation is to change relative prices by linking them, as well as wages, to real costs and productivity, while avoiding general inflation.

For deregulation of prices and wages to affect the behavior of management, labor, entrepreneurs, and consumers in ways that promote efficient use of resources and economic growth, contemporaneous implementation of the fourth element—privatization, legal protection of property rights, and the breakup of state monopolies into competing entities—is essential. This requires an appropriate legal code and appropriate procedures for resolving disputes over property transactions and acquisitions. It also requires a choice among several alternative ways of changing from state ownership to private ownership—a subject that is beyond the scope of this study, but might be examined in subsequent work.

Whichever method or methods of privatization are selected, their success remains synergistically linked to the other elements of the transformation package. Unless rewards are linked to asset ownership, and unless such rewards can be accumulated legally, incentives to innovate and to increase productivity will be impaired. Private ownership and competition are essential for market forces to provide an effective “stick,” as well as “carrot.” If ownership is in the hands of the state, the discipline imposed by market competition will be attenuated, if not eliminated. When state enterprises are confronted by losses, they typically evade or ignore the threat of bankruptcy that private enterprises would face if confronted by similar losses.
The fifth element in the package—the establishment of a social security system as a "safety net"—is also essential for the process to succeed. Without it, the process as a whole may create a fear of widespread unemployment, as well as social stress, political instability, and a serious impediment to accomplishing the transformation to a market system.

In the past, social protection—against illness, disability, age, and unemployment—has principally been the responsibility of state enterprises. As privatization proceeds, these social welfare functions are likely to become the principal responsibility of government, with financing from taxation and from contributory levies on the insured members themselves.

The final element—currency convertibility—is essential to complete the transformation process by linking internal markets and their prices, wages, productivities, and technologies to those of international markets. This linkage provides the opportunity for comparative costs and comparative advantage to operate for the benefit of the transforming economy of Hainan. Moreover, if the other elements of the package—especially monetary and fiscal discipline and market-determined prices—are effectively implemented, currency convertibility with a floating exchange rate can be established and sustained, with minimal hard currency reserves.²

Although the following discussion will focus on foreign trade and currency convertibility, the systems view depicted in Fig. 1 underlies the discussion. Some of the other components shown in the figure—notably the monetary and fiscal reforms and the social security system—are addressed in three other RAND Notes.³

²See the discussion below, pp. 7–8.
III. CENTRAL IMPORTANCE OF CURRENCY CONVERTIBILITY

Hainan’s economy is a system, and economic reform and restructuring should therefore be viewed as a systems problem in which the six aspects described in Fig. 1 play interactive and interdependent roles. Currency convertibility is of central importance in the restructuring process because, through the exchange rate, convertibility links the domestic economy to the international economy. Convertibility is thus essential if the third policy principle mentioned earlier—an “outward looking” Hainan linked to the international economy—is to be realized.

Currency convertibility means that holders of local Hainan currency (HC) can buy foreign exchange, and holders of foreign exchange can buy HC (or are willing to sell their foreign exchange), at a price in HC reflecting the respective demands for and supplies of foreign exchange. The exchange rate is the price of foreign exchange, analogous to the price in HC of other goods and services. Although convertibility can be limited, rather than complete—applying to some transactions and not to others—the pitfalls and risks associated with such limitations are serious. The results will be analogous to those accompanying attempts to establish multiple prices for the same commodity, say, rice or textiles: leakages, arbitrage, black markets, and corruption.

Convertibility requires establishment of a realistic exchange rate at the outset and creation of a mechanism that allows the rate to “float,” that is, to allow changes in the rate to occur as market conditions change. The exchange rate performs a crucial function by linking world prices and costs in dollar terms with domestic prices and costs in terms of Hainan’s currency. Thus, if the foreign price of a commodity X, say in dollars, is above the domestic price in Hainan as mediated by the HC, it is likely that exports of that commodity can be expanded or that additional domestic production can substitute for imports. On the other hand, if the domestic price of a commodity Y exceeds the foreign price, the general implication follows that imports of Y should probably be increased.

Conversely, inconvertible and overvalued HC would obscure promising opportunities for export expansion and import substitution.

If Hainan were to establish free convertibility of its own currency, questions would arise as to whether a reserve of foreign exchange would be necessary to undergird the initial exchange rate, and what the level of this reserve would be. In principle, and provided that the monetary and fiscal components of reform are properly controlled, convertibility can be
established with small or no reserves. Adjustments in the market rate will ensue, thus reducing HC demand for foreign exchange as the rate rises or increasing the demand as the rate declines. In practice, it may be sensible to consider maintaining some minimum reserve level as a plausible contribution to reducing skepticism and building confidence in foreign exchange markets.

In this connection, it is instructive to note how modest were the exchange reserves held by other countries that have recently established convertible currencies. For example, when Poland established convertibility of the zloty in 1990, its net reserves were substantially negative, inasmuch as its hard-currency debt was over $50 billion, while the U.S. stabilization loan to Poland at the time was only $1 billion!

When the Philippines established convertibility of the peso in 1962, its exchange reserves (minus gold) were only $34 million. When the Indonesian rupiah was made convertible in 1966, its reserves were about $20 million. And when the Korean won became convertible—although not fully so—in 1964, the country's exchange reserves were $130 million. ¹

These reserve levels are remarkably small, and especially so in light of the fact that the volume of trade and foreign exchange transactions of the aforementioned countries are orders of magnitude greater than those of Hainan.

Because of the importance of convertibility in restructuring the economy, it is useful to consider what would be a plausible hard-currency exchange rate for the hypothetical HC.

Ignoring for the moment the role of foreign investment and the capital account, the general answer is that the convertible HC/dollar exchange rate would be one that equates the supply of foreign exchange earnings (through exports of goods and services from Hainan), to the demand for foreign exchange to pay for Hainan's imports. If the demand for foreign exchange by holders of HC exceeds supply, the HC will depreciate, thereby making imports less attractive because they become more expensive, while making exports more attractive because they become more profitable. On the other hand, if the supply of foreign exchange earned by exporters exceeds demands by holders of HC at the current rate, the HC will appreciate, thereby making imports more attractive and exports less so.

If the instruments for maintaining monetary and fiscal discipline [boxes (1) and (2) in Fig. 1] are operating effectively—and again ignoring the effects of autonomous capital flows—the exchange rate that sustains convertibility will fluctuate within a reasonably narrow

¹The author is indebted to Wang Hui, a graduate fellow in the RAND Graduate School, for research assistance on the issue of exchange reserves.
range reflecting the parity between production costs in HC and world prices for tradable goods.

Tables 1 and 2 summarize Hainan’s principal exports and imports in 1989. Hainan’s exports in 1989 were more than twice the level recorded in 1988.\(^2\) According to Tables 1

### Table 1

**HAINAN’S PRINCIPAL EXPORTS, 1989**  
(in millions of U.S. dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total exports</td>
<td>354.1</td>
</tr>
<tr>
<td>Clothing and materials (duck, goose, and rabbit down; work gloves; cotton fabric and clothes; rayon; silk; leather)</td>
<td>47.0</td>
</tr>
<tr>
<td>Food and food products (shrimp, pig, pineapple, pepper, sesame, rapeseed, tea, garlic, black bean, etc.)</td>
<td>35.0</td>
</tr>
<tr>
<td>Ferroalloy, pig iron, scrap steel</td>
<td>28.7</td>
</tr>
<tr>
<td>Minerals and products (alumina, zircon, silicon, fluorite, tellurium, tin ore, tungsten)</td>
<td>26.1</td>
</tr>
<tr>
<td>Other</td>
<td>217.3</td>
</tr>
</tbody>
</table>

SOURCE: Materials received from Hainan government, March 1990.

### Table 2

**HAINAN’S PRINCIPAL IMPORTS, 1989**  
(in millions of U.S. dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total imports</td>
<td>371.5</td>
</tr>
<tr>
<td>Consumer durables (TVs, tape recorders, VCRs, refrigerators)</td>
<td>96.6</td>
</tr>
<tr>
<td>Automobiles and motorcycles</td>
<td>86.3</td>
</tr>
<tr>
<td>Rice and wheat</td>
<td>63.4</td>
</tr>
<tr>
<td>Oil and gas products</td>
<td>44.3</td>
</tr>
<tr>
<td>Other</td>
<td>80.9</td>
</tr>
</tbody>
</table>

SOURCE: Materials received from Hainan government, March 1990.

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\(^2\)Hainan was established as a separate province in April 1988. It is not clear from the data available to us whether the 1988 export figures include or exclude exports from the island in the three months of the year when it was still part of Guandong province.
and 2, Hainan had a deficit on trade account in 1989 of $17.4 million. Although we have not obtained data on foreign capital inflows, these inflows must at least have reached this figure through direct investment, joint ventures, and foreign lending, including capital inflows from the mainland.

With this background, it may be useful to consider the level at which the potential HC might be initially pegged. A satisfactory answer to the question would require more data collection and analysis than permitted by the time and budget available to the RAND team.

However, a few relevant comments are worth noting:

1. For currency convertibility to be sustainable and to contribute to Hainan's development as a market economy linked to the international economy, control of credit and the money supply—both HC script and credit—is essential. Monetary control might be vested in the People’s Bank–Hainan Branch (PBHB), or it might be lodged in a newly created Exchange Fund along the lines recently adopted in Hong Kong.

2. Maintaining fiscal restraint in the province’s management of Hainan’s expenditures and revenues is a necessary adjunct of monetary discipline. Unless Hainan’s budget processes ensure a reasonably close balance between revenues and outlays, pressure will surely intensify to loosen monetary discipline by monetizing the budget deficit and expanding the money supply. Inflationary pressures will thus be generated that would jeopardize currency convertibility, as well as Hainan’s general economic development. In 1989, the province’s budget involved outlays of about 1.2 billion RMB and revenues of 600 million RMB, with the gap apparently bridged by transfers from Beijing. (Actually, the province’s true financial picture may be less severe than this deficit implies because about 200 million RMB were collected as customs duties by the province and transferred to Beijing. A second potential offset to the budget imbalance arises from the controlled prices at which Hainan sold its output of rubber and ores to the central government.)

3. Consideration of currency convertibility for Hainan assumes that HC is separated from the mainland’s RMB currency. The rate of exchange between the mainland’s RMB and HC that would emerge in Hainan’s currency market

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3These and other issues of fiscal reform are addressed in a companion paper by Henry, Restructuring Hainan’s Fiscal System.
would depend on the relative demands for and supplies of the two currencies, and these would be influenced by the relative prices and deliveries of their respective exports and imports, as well as by other factors. Convertibility of the mainland’s currency is a larger problem, but its eventual resolution may be assisted by the experience that would be gained through a “pilot” experiment with convertibility in Hainan. If and as HC convertibility works effectively in facilitating capital inflows and trade expansion, the path to full RMB convertibility may be easier to plan and quicker to achieve.

4. One concrete and accessible route to a convertible currency for Hainan would be to establish the RMB–Foreign Exchange Certificate (FEC) as the HC. The supply of HC(FEC) would be controlled by the People’s Bank, and linked at the outset to the transactions and liquidity balances that Hainan’s population and enterprises wish to hold. Another route to convertibility would be to tie the supply of HC to holdings of foreign currency reserves by the monetary authorities, in accord with Hong Kong’s precedent. Although this procedure would have an advantage in damping fluctuations in the HC’s exchange value, it is probably a less realistic option because it would require additional foreign exchange support from the central government in Beijing.

With these comments and assumptions as background, what can be said about the rate at which RMB–FEC, as Hainan’s official currency, would exchange for hard currency? Answering the question requires consideration of two other subjects: (1) export quotas and (2) import and export elasticities of demand and supply, respectively.

**EXPORT QUOTAS**

In explaining the establishment and maintenance of export quotas in China, policymakers in Beijing distinguish between so-called “passive” and “active” quotas. Passive quotas arise from limits imposed on China by foreign countries to protect their own domestic producers (e.g., textile quotas applied by the United States and by the European Community, sugar quotas in the United States), at the expense of their consumers. Because national quotas apply to all of China for these commodities, policymakers in Beijing assign shares of these quotas to individual provinces based on several criteria, for example, their historical production and export records, their economic “needs” and employment conditions, and their comparative costs and efficiency.
“Active” quotas are applied to China’s 23 provinces by the Ministry of Foreign Economic Relations and Trade for three reasons: first, to maintain prices in the Hong Kong, Macao, and other foreign markets by limiting supplies of products in which China is ostensibly the dominant supplier (e.g., ginseng, pure silk, shrimp); second, to ensure that adequate supplies of these products are available for China’s own consumption; and third, to protect traditional provincial exports and market shares.

On economic grounds, all of these arguments are seriously flawed. Of course, special political and regional considerations may play a decisive role in explaining China’s maintenance of export quotas. The RAND team does not address these considerations in this study. However, for China, or for Hainan, wishing to expand hard-currency earnings and to progress toward currency convertibility, the maintenance of export quotas is, on economic grounds, inappropriate and misguided.

While this is not the place for a detailed discussion of why export quotas for Hainan are misguided, the essential reasons for this conclusion can be briefly noted:

1. Neither Hainan nor China is a perfect monopolist for its export products—even in the nearby Hong Kong and Macao markets. Consequently, export quotas, by limiting exports from China, thereby enable competing suppliers (e.g., in Indonesia, Vietnam, the Philippines) of the same or near substitute products to garner a larger and perhaps increasing share of foreign markets for these products. Ironically, China’s “active” quotas are thus a form of protection and subsidy for competing foreign suppliers—especially those in the Asia-Pacific region.

2. By capping exports of particular products for which Hainan may be the most efficient (i.e., lowest cost) producer (e.g., shrimp, vegetables, pigs), passive as well as active export quotas reduce the aggregate producers’ surplus (i.e., the excess of hard-currency receipts over China’s real economic costs) to the detriment of the Chinese economy as a whole.

**IMPORT AND EXPORT ELASTICITIES**

Without detailed work that would require more data collection, analysis, and time than the RAND team has available, we cannot attempt to calculate precise elasticities of demand for imports or elasticities of supply for hard-currency exports. However, a few comments can help to clarify the essential points bearing on the original exchange question.
Price elasticities of supply of Hainan’s exports depend on two components: the elasticities of supply of exports from Hainan and the corresponding elasticities of demand in buying countries. It is reasonable to assume that several of the principal product categories shown in Table 1 (e.g., minerals, clothing and materials, food and food products), are produced at constant or decreasing costs in Hainan. Consequently, small increases in prices could be expected to result in relatively large increases in export supplies from Hainan. Furthermore, since Hainan is a relatively small supplier in large world markets, it can be viewed as a “price taker” in these markets. Hence, foreign demand for its products is probably quite elastic, which means that within the relevant range of its output capacity, Hainan should be able to increase export sales of these products.

The tentative conclusion that results from this discussion of export elasticities is this: In the absence of the constraint imposed by export quotas, and with reasonably serious marketing efforts by Chinese and foreign-partner commercial enterprises, prospects would appear to be bright for boosting Hainan’s exports and its hard-currency earnings well above the $354 million reached in 1989.

With respect to import elasticities, it seems highly probable that the unfilled demand in Hainan for the categories of consumer durable goods imports shown in Table 2 would be quite high at current prices and at a fixed exchange rate. At the same time, it is not clear how elastic these demands would be if a floating exchange rate raised domestic prices in HC for these imports. Clearly, the more rigorous the monetary and fiscal restraints referred to earlier, the more these demands for imports would be controlled. Nevertheless, with a convertible currency and a free market for foreign exchange, these import demands will tend to increase, thereby raising the HC exchange rate above the present fixed RMB/dollar rate.

The outcome of these considerations bearing on export and import elasticities is uncertain. Nevertheless, some informed conjectures are possible. With the 30 percent devaluation of the RMB in December 1989, the fixed rate of exchange for China’s currency is approximately 4.6 RMB per dollar, while the open or black market rate has been about 30 percent higher (6 RMB per dollar). Although this is an appreciable disparity, it is relatively modest compared to the disparities between fixed and black market exchange rates prevailing for other inconvertible currencies. For example, the black market rate for the Soviet ruble has been about 2500 percent above the official rate, and the black market rate for the East German mark was about 600 percent above its fixed exchange rate prior to unification of the German currencies.
Moreover, the RMB free market in China is affected by the "overhang" of hundreds of billions of currently low-velocity RMB that might by unleashed if a convertible currency market were established for China as a whole, thereby resulting in sharp escalation of the free market floating rate. If the HC is to be convertible, it should be insulated from this potential pressure. This requires a separate currency for the province.

While a reliable estimate of the answer to the original question of the hard-currency exchange rate that would result for the HC is not feasible, the author's rough judgment, based on the foregoing considerations and assumptions, is that—assuming that credible fiscal and monetary discipline is established—the convertible rate in a floating exchange market for the RMB–FEC would be between 5 and 6 per U.S. dollar.

PATHS TO CONVERTIBILITY: GRADUAL OR RAPID?

As previously noted, for a convertible system to be effective, appropriate monetary and fiscal institutions must be developed to exercise the necessary restraint and control of monetary and fiscal policy. Full-scale development of these institutions will require a preparatory period. However, from discussions the RAND team had in Hainan, there is reason to think that the PBHB and the Governor's Office would be reasonably well-equipped to exercise these monetary and fiscal roles, respectively, after a relatively short preparatory period of, say, one year. For example, if PBHB were authorized to establish reserve requirements and limits on credit extensions by branch banks and by the specialized Agricultural, Industrial, and other banks in Hainan, it should be able within a reasonable time to control the supply of RMB–FEC while meeting necessary transaction and liquidity currency demands. Furthermore, the Governor's Office, perhaps with technical assistance from the Finance Ministry in Beijing and perhaps from external consultants, should be able to establish a strengthened budget office to enable the province administration to exercise the necessary fiscal management functions referred to above.

It would also be possible to move toward convertibility through a deliberate and sequential, rather than immediate, process. For example, as an interim measure, the province might consider allowing for convertibility on the free exchange market of a specified percentage of export earnings (e.g., 50 to 60 percent), together with a stipulation that the remaining 40 to 50 percent of foreign exchange earnings would be guaranteed against inflation, although initially converted at a fixed rate. During such an interim period, the financing of imports would be similarly bifurcated, with essential food imports financed by using the fixed-rate portion of foreign exchange earnings, while the larger remaining
share of export earnings would be auctioned in the free market at the floating convertible rate. This process would, in other words, allow the import elasticity mechanism described earlier to function, thereby controlling imports of consumer durables, while maintaining imports of essentials at the fixed rate.
IV. FREE TRADE ISLAND, FREE TRADE ZONE, 
OR SPECIAL CUSTOMS ZONE?

Hainan can maximize its linkages with the international economy, in accord with the provincial government’s third principle, by moving toward a free trade status vis-à-vis the world economy, while maintaining some degree of regulation in trade with the mainland. In this connection, the experience of Hong Kong, which has a population about the same as that of Hainan in a considerably smaller area, is worth careful consideration in planning development policy for Hainan itself. This experience, together with that of Taiwan relating to Free Trade Zones (FTZs) is the subject of K. C. Yeh’s comparative evaluation of the lessons of the newly industrialized economies that may be relevant to Hainan.\(^1\) The experience of Hong Kong, combining free trade with the rest of the world and moderately regulated trade with the mainland, may have special relevance for Hainan.

In general, the wider the scope for the operation of comparative costs and comparative advantage in its international trade, the closer will be the linkages between Hainan and the world economy. This proposition suggests that a free trade status for the island as a whole is probably preferable to one or more FTZs or ports standing alone. The basis for this judgment is far from conclusive, although a number of relevant considerations that lead in this direction can be cited.

There are perhaps grounds for presuming that the infrastructure needed for a Free Trade Island (FTI) and the attendant costs would be greater than those for an FTZ, simply for reasons of scale. However, this presumption may not be valid. Even with an FTI, the pattern of urban concentration that would emerge can help to signal a preferred sequence of infrastructure needs and priorities (e.g., airports, roads, water supply, sewage), thereby economizing on costs by sequencing them. On the other hand, an attempt to circumscribe a defined FTZ or free trade port runs the risk of a misallocation of infrastructure investment because of the arbitrary geographic limits imposed by the targeted area. Factor endowments and comparative advantage can play a more pervasive role if their operation is not restricted by arbitrary geographic limits. Moreover, there may be more scope in an FTI for financing infrastructure development by user fees than in one or two FTZs because, in the latter case, the larger part of the island outside the FTZ would tend to become a high-cost area, hence less able to pay user fees.

\(^1\)Yeh, *The Lessons of East Asian Development.*
In Hong Kong's development, there have been occasions when special preference or protection has been offered to enable certain infant industries (e.g., Hong Kong Telecommunications) or public "monopolies" (e.g., Hong Kong Electric) to get started. Thus, there may be occasions—and one would hope they would be rare—when Hainan may consider this course even within the scope of a free trade policy for the island as a whole. If and when Hainan's development policies contemplate some form of protection for a particular firm or industry, it is generally preferable policy to use tariffs rather than quotas—especially tariffs that carry with them a specified descending scale over a specified time period. This would provide the prospect of some competitive pressures to motivate the emerging industry toward efficient behavior, which would be lacking without specification of a termination date. If protective tariffs are used, it is especially difficult to ensure that an "infant" industry will ever mature.

As a step toward free trade status for the province as a whole, Hainan's move toward a market system linked to the world economy could be advanced by becoming a Special Customs Zone (SCZ). As an SCZ, Hainan could pursue the six components of systemic reform discussed above. It could also adopt generally free trade relations with the world economy and employ tariffs selectively for "infant industry" and revenue purposes. SCZ status would enable Hainan to insulate the island's economy from that of the mainland, while maintaining special economic relations with the mainland for some transactions (e.g., perhaps, rubber, grain), at the same time as it moves these transactions rapidly toward world market prices.
V. FOREIGN INVESTMENT

In its efforts to attract foreign investment—whether in the form of direct investments, joint ventures, portfolio investments, or foreign lending—Hainan faces a highly and increasingly competitive international environment. This changing environment is being shaped by two significant macroeconomic factors.

The first is the increasing globalization of capital markets and the multinational character of direct investment. Their joint effect enables sources of capital supply to consider many options throughout the world before allocating capital resources. Although Hainan has some obvious potential advantages in attracting capital from sources in the Asia-Pacific region—especially Japan, Korea, Taiwan, and Hong Kong—these sources increasingly are able to extend their scope more widely and globally than ever before, notably to Western and Eastern Europe, Latin America, and North America.

The second significant macroeconomic change is the probable tightening in sources of world capital supply. At the same time as the available options for investment are widening, the sources and amounts of capital supply are likely to be increasingly constrained by major macroeconomic changes in two of the principal capital sources: Japan and Germany. In Japan, it seems likely that savings rates will decline appreciably in the next several years as a result of a number of factors: the changing age composition of the population; rising consumption standards and aspirations; and increasing demands for internal infrastructure investment and social welfare spending. In Germany, the large additional burden that has been imposed by the unification of East and West Germany will substantially reduce German capital available for international investment.

To be sure, these trends may be partly offset by other developments in international capital markets. For example, in the United States, there is likely to be an upturn in gross savings rates and an improvement in the external balance of payments. This, combined with a reduction in defense spending, will tend to increase the supply of international capital from the United States. On the other hand, demands for additional resources for rebuilding infrastructure and for domestic public programs may absorb much if not all of these increases. It is also quite possible that Korea and Taiwan, as well as Hong Kong, may be able to add to their international capital exports above the levels they have provided in recent years.
Of course, Hainan is a relatively small potential claimant on global capital supplies, and hence it will be affected only peripherally by these global macroeconomic developments. Nevertheless, they will affect the character of the international capital market in which Hainan will be operating, the interest rates charged by foreign lenders, and the expected rates of return on potential foreign investment. This environment is, and will become increasingly, competitive. To attract foreign investment to Hainan, it is therefore of critical importance that Hainan develop policies to make the island’s economic climate as attractive to potential investors as can reasonably be accomplished.

Currency convertibility is one major component of this climate and perhaps the most critical one. Its critical role relates, of course, to the salient concern of foreign lenders and investors to be assured of debt service and earnings repatriation, respectively. Several of the other major components are reflected in the schematic diagram in Fig. 1 showing the six dimensions of systemic reform. More specifically, these other components include the protection of property rights and long-term leasing arrangements, fiscal and monetary stability, simple and competitive tax policies, adequate labor supply and advantageous real labor costs, adequate public infrastructure, and political stability. In connection with the development of appropriate tax policies that will appeal to foreign investors, there are some advantages in formulating a policy of flat and low taxes, as generally apply in Hong Kong, instead of resorting to tax “holidays” and special concessions. The latter tend to be invidious from the standpoint of follow-on investment, as well as providing obvious opportunities and incentives for special pleading and corruption in the bureaucracy.

Although currency convertibility is, as we have emphasized, a key factor in motivating foreign investment (even in cases where much of the output is intended for export), a system of convertibility with floating rates such as has been described here is usually less appealing than one with fixed rates. The obvious reason is that a floating rate system introduces an additional element of uncertainty in calculations by potential investors of cost and benefits.

On the other hand, a fixed rate system whose permanence is judged to be precarious may be a stronger deterrent to foreign investment than a floating rate system that has a higher prospect of permanence. Moreover, it is not unreasonable to expect that, after a period of time, a futures market for foreign exchange may develop to provide a hedge against adverse changes in short-term exchange rates. Financial institutions in Hong Kong, as well as in other financial centers in Tokyo and New York, can help to ensure that this form of insurance is available as a contribution to stabilizing the exchange rate risk to which prospective investors are exposed.
While this discussion has stressed the importance of shaping policies in Hainan to attract foreign investment, it is no less important that policymakers in Hainan adopt principles that limit the opportunities for foreign investors to extract unnecessary rents and take unwarranted advantage of the provincial economy. These principles include nonpreferential access to investment opportunities, open competition and bidding by potential foreign investors, and free and nondiscriminatory entry by nationals of different foreign countries.
VI. CONCLUDING OBSERVATIONS

The foregoing discussion has tried to embed the consideration of Hainan’s international trade and finance in the larger context of systemic economic reform in the province. Numerous relevant subjects have been neglected or been given only minor attention because of the limited scale of the RAND effort. These neglected issues include methods and options for privatization or partial privatization of state enterprises, the outlook for Hainan’s exports and imports, and infrastructure needs for attracting foreign investment. The foregoing discussion has also stopped short of considering institutional arrangements and operational mechanisms for implementing fiscal and monetary reform, price reform, currency convertibility, and the other ingredients of systemic reform. Instead, the analysis has focused on several key aspects of Hainan’s international economic reform: currency convertibility, foreign trade and a free trade or special customs status for the province, and foreign investment. In selecting, developing, and refining specific policies to implement these aspects of reform, it is worthwhile to give special attention to certain criteria that will contribute to successful outcomes. One such principle is simplicity and clarity in the specification of policies, with special attention to their ease of implementation. For example, a system that calls for multiple exchange rates with partial convertibility, or policies that distinguish different exchange rates for different categories of exports and imports, would be neither simple nor clear and would be likely to impose excessive implementation burdens on Hainan’s administrative structure.

Another essential criterion is to minimize opportunities and incentives for corruption. For example, a free trade status for the island as a whole will probably be easier to police and enforce than would be a narrower confinement of the free trade access. The FTI would probably also reduce opportunities that would arise in an FTZ for leakages to occur from the zone to the rest of the island.

At a general level, it is worth calling attention to the fact that efforts to improve upon the developmental outcomes of market processes may entail greater risks of “nonmarket failure” in the form of bureaucratic delays, arbitrariness, and potential corruption.

A 19th century poet (Alexander Pope) composed a couplet that contains an element of Confucian wisdom: “For forms of governance let fools contest; whatever is best administered, is best.” Although this observation perhaps carries the point to excess, it has the merit of calling attention to the vital importance of an honest, efficient, and hence
probably quite small administration if the province is to be successful in carrying out the three basic principles of Hainan's development policy.