Working Paper

INTERNATIONAL MONETARY FUND

IMF WORKING PAPER

WP/94/107

INTERNATIONAL MONETARY FUND

Research Department

The Role of Offshore Centers in International Financial Intermediation

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September 1994

Abstract

The paper focuses on the role of offshore centers and markets in international finance during the past two decades and the migration of financial activity from the major financial centers to these offshore markets. The paper examines the prospects of offshore centers in view of the convergence of fiscal and regulatory regimes of offshore and domestic financial centers in recent years, the greater involvement of banks in derivative finance at the expense of the traditional offshore interbank markets, and the increased concentration of financial activity in the major financial centers.

JEL Classification Numbers:

F3, G2

1/ The author wishes to thank Robert Aliber, Marcello de Cecco, Mohamed El-Erian, David Folkerts-Landau, Gabrielle Lipworth, and Garry Schinasi for their helpful comments and suggestions.

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Summary

Offshore financial centers (OFCs) have challenged the supremacy of the large industrial countries' financial centers with their array of tax and regulatory incentives to nonresident investors, and the complete flexibility granted to the management of foreign assets. The emergence and growth of OFCs during the last three decades can be attributed primarily to regulations and taxes imposed in the industrial countries during the 1960s and 1970s, which provided incentives for firms to relocate some of their financial activities to offshore or Eurocurrency markets. By some estimates, more than half of the world's stock of money passes through offshore centers, about 20 percent of total private wealth is invested in these centers, and around 22 percent of banks' external assets is invested offshore.

In the last decade, however, the role of OFCs was challenged. During this period, the financial industry experienced massive deregulation, capital and financial controls were dismantled, markets were opened, tax rates were reduced, and international cooperation was improved. As a result, the regulatory and fiscal environments of domestic financial centers converged with those of offshore centers, and significantly reduced the comparative advantages that OFCs once had. In addition, the importance of offshore centers diminished as international banks reduced their activities in the interbank markets, which represent the primary business of OFCs, and increased their involvement in derivative finance, which tends to be conducted in the major financial centers. Finally, the higher concentration of financial activity in a small number of large financial centers offering considerable economies of scale--deep and liquid markets, efficient clearing and settlement systems, and sophisticated technology--raised the cost of switching from major financial centers to OFCs.

In light of these trends, the recent proliferation of small offshore centers (e.g., Dublin, Cyprus, Madeira, Malta, Malaysia's Labuan Island and Thailand's Bangkok's International Banking Facility) is unlikely to result in a proportionate increase in demand for their services. In the current liberalized and highly competitive environment, offshore centers will have greater difficulty in attracting financial activities away from the major financial centers.

I. Introduction

Over the last thirty years, offshore financial centers have sprung up in every corner of the globe, challenging the supremacy of the large financial centers of industrial countries with their array of tax and regulatory incentives to nonresident investors and the complete flexibility granted to the management of foreign assets. By some estimates, more than half of the world's stock of money transits through offshore centers, about $2 trillion of private wealth (20 percent of total private wealth) is invested in these centers, and around 75 percent of the captive insurance industry is located offshore. Moreover, in 1993, banks had $1.5 trillion of external assets invested offshore, representing about 30 percent of those in industrial countries, while offshore-based investment funds have around $1 trillion of assets under management.

Offshore Financial Centers (OFCs) are financial centers where nonresident foreign currency funds are deposited and then channeled through offshore financial intermediaries to other nonresident borrowers. According to Anthony (1983), the purpose of offshore centers is to act:

"-- As centers of domicile in which international companies, whether financial or otherwise, could incorporate commercial holding companies and overseas subsidiaries in the most advantageous fiscal and/or exchange control climate.

-- As locations from and through which to exploit international capital and money markets with greater freedom of action than was generally possible in the onshore countries of parental business origin.

-- As secure havens for international earnings, savings and pools of liquidity seeking international investment in a tax neutral environment."

From the perspective of host countries, offshore legislation is especially appealing for economies that are heavily dependent on one source of income (e.g., oil in Bahrain) or on one sector (e.g., agriculture in Guernsey, steel in Luxembourg), in that it may enable them to diversify their economic activity, increase employment, attract foreign capital and expertise, and develop their financial markets in a relatively short time. As offshore financial services and intermediation are provided exclusively to nonresidents and are not conducted in the local currency, local authorities impose minimal taxes and restrictions on offshore activities and offer a high level of secrecy on such activities. As for institutional and individual investors, offshore legislation appeals to holding companies that want to be exempt from investment income tax and capital gains tax, global corporations with worldwide income taxed at variable rates that seek OFCs for reducing their average rate of taxation, investment funds in search of greater discretion in their management of their assets and lower taxes, banks that want to be exempt from reserve requirements and that want to manage their assets from a lightly regulated

environment, and wealthy individuals who reside in highly taxed or politically unstable countries, or who seek confidentiality.

From the perspective of onshore countries, by tolerating looser jurisdictions in their neighborhood, while imposing strict regulatory and supervisory policies in their domestic markets, governments enable their domestic institutions to compete abroad through offshore branches on more favorable terms than the home regulations would allow. Generally, onshore countries tolerate offshore activities as long as they remain within their sphere of influence, excesses are not committed, and domestic businesses do not suffer from the competition. 1/

The goal of the paper is first to distinguish between the various types of OFCs and to examine the historical and geographical factors, coupled with the regulatory and fiscal incentives, that led to their emergence (Section II). Within this context, the paper reviews the emergence of the Eurocurrency markets, which represent the backbone of offshore markets, and traces the initial migration of banks and capital from restricted onshore centers to London and then gradually to smaller offshore centers (Section III). The paper then discusses the implications of the major changes that have swept the financial industry during the last decade--namely, the deregulation process, the decline in tax rates, the greater involvement of banks in derivative finance at the expense of the traditional interbank activities, and the increased concentration of financial activity in the major centers--on offshore centers (section IV). These trends have blurred the distinctions between domestic and offshore markets and have significantly reduced the appeal of offshore centers for international financial institutions. The last section offers some concluding remarks about the future of offshore centers in an integrated financial environment.

II. Classification and Activities of OFCs

Although there is no unanimity on the definition and numbers of offshore centers, the IMF defines offshore centers as financial systems whose banks have external assets and liabilities that are out of proportion to the current account transactions of their domestic economies, and applies the term "major offshore banking centers" to the following countries: the Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama and Singapore, where the ratio of deposit bank external assets to exports of goods and services is more than three times the world average. 2/3/ Moreover, London--although it does not fall within this

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1/ This is the case of the United States with some Caribbean offshore centers, the United Kingdom with the Channel Islands (which recently recommended to their financial companies not to market too heavily in the United Kingdom for fear of reprisals), Saudi Arabia with Bahrain, and Germany with Luxembourg.

2/ IMF, International Financial Statistics.

definition--is considered in the paper as an international offshore financial center for nonresident investors because a large share of international activity takes place in the city, and because it does not impose reserve requirements on Eurocurrency deposits and it does not levy withholding taxes or report information to foreign tax authorities on the interest income of nonresidents.

In this paper, OFCs will be grouped into three categories: (i) international or primary OFCs, which are full-service centers that act as financial intermediaries for worldwide customers and provide both the sources and uses of funds in their market area; (ii) regional or secondary OFCs, which either channel funds from outside their area to their region (borrowing in interbank markets), or channel the surpluses of their region to outside uses (lending in interbank markets) due to the low absorptive capacity of the region's economies; and (iii) booking OFCs or tax havens, which merely act as the location for shell branches of international financial institutions to record their financial transactions, and where both sources and uses of funds are from outside the region (Table 1).

Table 1. Sources and Uses of Funds

	Users Inside	Users Outside
Sources Inside	London	e.g., Bahrain
Sources Outside	e.g., Singapore, Hong Kong	e.g., Cayman Islands, Bahamas

1. International offshore centers

London is the quintessential international OFC--as opposed to New York and Tokyo which are major domestic financial centers with offshore facilities--as demonstrated by the following facts: the dollar and the deutsche mark are more widely traded in London than in their domestic centers; domestic currency transactions account for less than 25 percent of the total turnover; around 80 percent of international banking is in the hands of foreign banks; and, around 95 percent of European stocks bought or

3/ (...continued)
3/ The BIS, in addition to these centers, include Aruba, Barbados, Bermuda, Lebanon, Liberia, Vanuatu, and the West Indies. Others estimate that the number of OFCs is twenty one (McCarthy, 1979) or twenty five (Chang, 1989) and include, among others, Luxembourg and the Channel Islands.

sold outside their domestic markets are traded on the SEAQ International. 1/

London is the largest international banking center with 425 foreign banks and total external assets of $1 trillion, accounting for about 16 percent of total international business (Table 2-5). For the last thirty years, London has been the undisputed center of the Eurocurrency market, with almost 20 percent of worldwide activity, and of Eurobond issuance and trading. About three quarters of the primary and secondary market activity in the Eurobond market are estimated to take place in the city. In 1992, London was the world largest foreign exchange market with an average net daily turnover of $300 billion, accounting for almost 30 percent of worldwide activity (Table 6). Besides its leading role in the Euromarket, foreign exchange and international equity trading, London is a major international center for investment and fund management. In 1993, U.K.-based mutual funds controlled more than $125 billion in assets. London is also an important center for private banking, where an estimated $315 billion or 15 percent of private offshore wealth is invested, derivatives trading (London's futures exchange LIFFE is the largest in Europe with 68.4 million contracts traded in 1992), and international insurance.

London owes its international role to a history of openness, its status as a major trading and industrial nation, the absence of reserve requirements and other monetary regulations on Eurocurrency transactions, a flexible fiscal and regulatory regime, 2/ efficient clearing and settlement systems, the relative ease of establishing foreign banks, and the economies of scale generated by the presence of a large number of financial institutions and a wide range of financial markets. In addition to the propitious environment for international financial activity, London is, by many accounts, the most competitive financial center in Europe and perhaps in the world. After deregulating its financial sector in the 1980s, whereby fixed commissions were abolished, unrestricted listing on the stockmarket was allowed and electronic trading was introduced, London captured significant financial business from other European centers. In particular, an important part of the foreign exchange trading of the smaller European centers shifted to London because of its liquid markets and low transaction costs (between 1989 and 1992, London's increased its share of global foreign exchange trading from 25 to 30 percent). A significant part of equity trade migrated from Paris to London to avoid a stockmarket turnover tax and stamp duties (later eliminated), and large German banks relocated their capital markets operations (bunds trading) to London to escape domestic

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1/ In 1991, London's turnover in foreign equities, at £138 billion, was almost three times that of New York, and more than 60 times that of Tokyo.

2/ Although London imposes income and capital gain taxes, it provides nonresident individuals and corporations offshore legislation to avoid withholding tax on interest payments.

Table 2. Comparative Performance of Selected Offshore Centers: Cross-border Assets, 1977-93

	1977	1980	1985	1990	1993
			(In billions of U.S. dollars)		
The Bahamas	88.5	135.2	143.1	174.7	162.3
Bahrain	14.1	31.4	50.7	59.3	68.9
Cayman Islands	31.5	84.5	167.2	389.4	394.6
Hong Kong	17.5	35.8	101.2	463.8	512.0
Luxembourg	51.2	104.8	130.9	355.1	376.5
Netherlands Antilles	2.4	7.4	6.6	16.4	24.9
Panama	14.0	34.2	33.1	10.2	13.6
Singapore	18.1	44.6	120.5	346.7	317.6
United Kingdom	171.5	356.3	590.1	1069.0	1052.7
Offshore centers 1/	186.0	373.1	622.3	1460.5	1493.9
All countries	889.6	1836.3	2984.0	6788.2	6756.2
			(In percent of total)		
The Bahamas	9.9	7.4	4.8	2.6	2.4
Bahrain	1.6	1.7	1.7	0.9	1.0
Cayman Islands	3.5	4.6	5.6	5.7	5.8
Hong Kong	2.0	1.9	3.4	6.8	7.6
Luxembourg	5.8	5.7	4.4	5.2	5.6
Netherlands Antilles	0.3	0.4	0.2	0.2	0.4
Panama	1.6	1.9	1.1	0.2	0.2
Singapore	2.0	2.4	4.0	5.1	4.7
United Kingdom	19.3	19.4	19.8	15.7	15.6
Offshore centers 1/	20.9	20.3	20.9	21.5	22.1

Source: IMF, International Financial Statistics.

1/ Offshore centers refer to the seven offshore banking centers as defined by the IMF, excluding the United Kingdom and Luxembourg.

Table 3. Comparative Performance of Selected Offshore Centers: Cross-border Liabilities, 1977-93

	1977	1980	1985	1990	1993
	(In billions of U.S. dollars)				
The Bahamas	88.6	134.8	141.4	182.0	173.9
Bahrain	14.1	31.0	48.3	57.7	66.7
Cayman Islands	31.1	83.4	162.2	401.0	390.3
Hong Kong	13.1	32.6	83.3	402.7	437.5
Luxembourg	48.2	98.5	117.2	308.1	320.6
Netherlands Antilles	2.3	7.1	6.1	15.7	23.6
Panama	14.7	34.6	32.5	10.3	13.0
Singapore	18.3	43.5	129.7	354.9	328.2
United Kingdom	183.7	377.7	625.7	1201.0	1134.1
Offshore centers 1/	182.1	367.0	603.5	1424.3	1433.2
All countries	938.7	1914.2	3049.3	7148.9	6839.6
	(In percent of total)				
The Bahamas	9.4	7.0	4.6	2.5	2.5
Bahrain	1.5	1.6	1.6	0.8	1.0
Cayman Islands	3.3	4.4	5.3	5.6	5.7
Hong Kong	1.4	1.7	2.7	5.6	6.4
Luxembourg	5.1	5.1	3.8	4.3	4.7
Netherlands Antilles	0.2	0.4	0.2	0.2	0.3
Panama	1.6	1.8	1.1	0.1	0.2
Singapore	2.0	2.3	4.3	5.0	4.8
United Kingdom	19.6	19.7	20.5	16.8	16.6
Offshore centers 1/	19.4	19.2	29.8	19.9	21.0

Source: IMF, International Financial Statistics.

1/ Offshore centers refer to the seven offshore banking centers as defined by the IMF, excluding the United Kingdom and Luxembourg.

Table 4. Comparative Performance of Selected Offshore Centers: Cross-border Claims on Foreign Nonbanks, 1977-93

	1977	1980	1985	1990	1993
			(In billions of U.S. dollars)		
The Bahamas	33.0	48.6	43.0	33.1	38.1
Bahrain	3.8	8.6	16.0	9.5	14.2
Cayman Islands	10.6	25.4	69.6	188.4	179.9
Hong Kong	8.7	11.2	19.6	136.5	231.0
Luxembourg	35.5	70.4	89.6	196.1	212.0
Netherlands Antilles	1.7	4.7	3.7	8.6	12.5
Panama	8.8	23.1	23.0	7.6	10.0
Singapore	5.4	14.1	39.7	129.5	144.1
United Kingdom	54.2	103.5	173.1	259.9	324.3
Offshore centers 1/	71.9	135.8	214.6	513.1	629.8
All countries	285.0	571.9	896.5	1756.1	2062.8
			(In percent of total)		
The Bahamas	11.6	8.5	4.8	1.9	1.8
Bahrain	1.3	1.5	1.8	0.5	0.7
Cayman Islands	3.7	4.4	7.8	10.7	8.7
Hong Kong	3.0	2.0	2.2	7.8	11.2
Luxembourg	12.5	12.3	10.0	11.2	10.3
Netherlands Antilles	0.6	0.8	0.4	0.5	0.6
Panama	3.1	4.0	2.6	0.4	0.5
Singapore	1.9	2.5	4.4	7.4	7.0
United Kingdom	19.0	18.1	19.3	14.8	15.7
Offshore centers 1/	25.2	23.7	23.9	29.2	30.5

Source: IMF, International Financial Statistics.

1/ Offshore centers refer to the seven offshore banking centers as defined by the IMF, excluding the United Kingdom and Luxembourg.

Table 5. Comparative Performance of Selected Offshore Centers: Cross-border Liabilities to Foreign Nonbanks, 1977-93

	1977	1980	1985	1990	1993
	(In billions of U.S. dollars)				
The Bahamas	16.0	35.0	58.1	57.7	62.9
Bahrain	3.5	8.5	13.1	17.3	18.1
Cayman Islands	9.8	30.0	61.1	178.2	151.4
Hong Kong	...	...	...	...	...
Luxembourg	13.1	28.8	44.7	196.1	229.0
Netherlands Antilles	2.8	1.6	3.1	8.0	12.7
Panama	...	5.2	9.3	5.1	6.0
Singapore	2.8	10.5	29.7	70.2	66.0
United Kingdom	36.4	95.5	157.9	334.8	274.8
Offshore centers 1/	35.0	90.9	174.4	336.4	317.1
All countries	238.6	451.0	824.6	1709.9	1755.6
	(In percent of total)				
The Bahamas	6.7	7.8	7.1	3.4	3.6
Bahrain	1.5	1.9	1.6	1.0	1.0
Cayman Islands	4.1	6.7	7.4	10.4	8.6
Hong Kong	...	...	...	...	...
Luxembourg	5.5	6.4	5.4	11.5	13.0
Netherlands Antilles	0.4	0.4	0.4	0.5	0.7
Panama	...	1.1	1.1	0.3	0.3
Singapore	1.2	2.3	3.6	4.1	3.8
United Kingdom	15.2	21.2	19.1	19.6	15.7
Offshore centers 1/	14.7	20.1	21.1	19.7	18.1

Source: IMF, International Financial Statistics.

1/ Offshore centers refer to the seven offshore banking centers as defined by the IMF, excluding the United Kingdom and Luxembourg.

Table 6. Comparative Performance of Selected Offshore Financial Centers: Net Foreign Exchange Market Turnover by Type of Transaction, April 1992

(In billions of U.S. dollars per day)

	Total	Spot	Forward	Swaps	Futures	Options
Bahrain	3.47	1.87	...	...	--	...
Hong Kong	60.91	31.74	1.85	26.76	--	0.56
Luxembourg	13.32	6.22	0.95	6.03	0.01	0.10
Singapore	75.86	37.28	3.12	33.25	--	2.21
United Kingdom	300.22	147.94	19.88	122.67	2.89	6.83
United States	192.30	94.70	13.63	58.61	5.99	19.37
Japan	126.10	47.69	9.38	63.09	0.01	5.94
All reporting countries	1130.30	540.57	69.65	457.49	9.49	44.74

Source: Bank of International Settlements, Central Bank Survey of Foreign Exchange Market Activity in April 1992, (Basle: Bank for International Settlements, 1993).

restrictions. Moreover, the concentration of large insurance companies and pension funds in the city, have provided investors with continuous access toa large domestic savings base.

The offshore banking markets of New York and Tokyo are significantly smaller than the London Eurocurrency market, with the Japanese Offshore Market (JOM) accounting for $485 billion in external assets and the U.S. International Banking Facilities accounting for $251 billion, compared to $1 trillion for London in mid-1993. 1/ Besides the fact that they rely more on domestic than international business, New York and Tokyo are not viewed as international OFCs because of (i) the limited integration of their domestic and offshore markets; and (ii) the restrictions on the use of offshore markets for underwriting and distributing Eurobonds and Euro-equities, as commercial banks are not allowed do engage in securities operations in either center. The integration between offshore and onshore facilities, or what is referred to as "seepage", is advantageous to banks because it allows the latter to use the offshore market, as a cheaper alternative to the domestic interbank market, for raising money to finance business in the domestic market. 2/ New York and Tokyo have been reluctant to allow a full integration of their offshore and domestic markets, for fear of disruption to the domestic money supply.

2. Regional offshore centers 3/

Regional offshore centers act as hosts to foreign financial institutions--whose head offices are in the major financial centers--that locate in these centers to benefit from their geographic proximity to the countries in which their customers (multinationals) operate. Most regional OFCs lack financial autonomy, due to their small local economic base, and have gained preeminence because of their location near a large country or a dynamic region (e.g., Singapore with South East Asia, Hong Kong with Japan and China, Luxembourg with Germany and France, and Bahrain with Saudi Arabia); their liberal financial environment; and their relatively superior infrastructure (e.g., telecommunications, transport systems) and labor force. Typically, regional OFCS specialize in one or two financial activities, ranging from interbank operations in the Euromarkets to trading of foreign currencies and fund management, while the rest of their financial markets are underdeveloped.

The majority of regional OFCs require that foreign institutions maintain a physical presence, employ staff, pay minimum capital

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1/ The JOM is, however, the largest offshore banking market in Asia, with external assets that exceed those of Hong Kong and Singapore.

2/ Banks transfer deposits taken in offshore markets to their foreign branches, and then transfer them back as interbranch deposits free of withholding taxes and reserve requirements.

3/ Regional OFCs include Hong Kong, Singapore, Luxembourg, Bahrain, Panama, Lebanon, Malta, Labuan, Gibraltar, Cyprus, Dublin, and Madeira.

requirements, and conduct financial transactions such as raising, lending and investing funds in their jurisdictions, all of which involve high initial fixed costs. In return, regional OFCs grant offshore companies tax concessions, a flexible regulatory environment and attractive tax treaties (Tables 7 and 8). 1/ The decision of a firm to move to a regional OFC does not, however, depend only on these incentives, but also on the depth and liquidity of financial markets, the quality of the supervisory regime, which becomes increasingly important as the instruments traded become more sophisticated, and the efficiency of the payment and clearing systems. In addition, firms tend to choose centers where sufficient information is available (e.g., Singapore), where historical or economic ties with their home country exist (e.g., Chinese firms in Hong Kong, Saudi Arabian banks in Bahrain), and where the legal system is comparable to that of their home country (e.g., French and German firms in Luxembourg). The most important regional OFCs are discussed below.

Over the past decade, Singapore has emerged as the regional offshore banking center for South East Asia and the fourth largest foreign exchange trading center in the world. Singapore hosts about 200 offshore banks with total external assets of $318 billion and had an average net daily foreign exchange market turnover of $74 billion in April 1992. The attractiveness of Singapore stems from its proximity to the booming Southeast Asia region, from its modern infrastructure and skilled labor force, and from various tax concessions granted to profits from offshore activities, including a reduction of the corporate income tax from 27 percent to 10 percent. 2/ In addition, Singapore does not impose reserve and liquidity requirements on offshore deposits and does not levy withholding taxes on the interest paid to nonresident deposits held with offshore banks. The confidence of foreign investors to maintain offshore deposits in Singapore and engage in foreign exchange activities is also attributed to the rigorous supervisory and regulatory regime maintained by the monetary authorities. 3/

Although Singapore's banking and foreign exchange market are well developed, its bond, equity and futures markets remain relatively underdeveloped, primarily due to the relatively small size of the domestic economy, and the absence of fiscal deficits which has reduced the supply of

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1/ The majority of regional OFCs and some booking centers (only the ones that levy taxes) rely on tax treaties to avoid double taxation of interest and dividends. Many of these treaties were signed either after colonial times or were a type of subsidy to offshore economies from industrial countries.

2/ These activities include gold and financial futures transactions, fund management, underwriting of offshore bonds and floating rate notes, and insurance operations.

3/ The Singapore foreign exchange market has benefitted from the active trading of Southeast Asian central banks which prefer to operate in well regulated centers with a central bank (as opposed to Hong Kong which does not have a central bank).

Table 7. Summary of Taxes in Selected Offshore Centers

(In percent)

	Personal Income Tax	Corporation Profits Tax	Capital Gains Tax	Withholding Tax	
				Interest	Dividends
Bahamas	No	No	No 1/	No	No
Bahrain	No	No	No	No	No
Bermuda	No	No	No	No	No
British Virgin Islands 2/	3-20	15	taxed as income	No	No
Cayman Islands	No	No	No	No	No
Channel Islands	20	20	No 1/	20 3/	20 3/
Cyprus	20-40 4/	20-25 4/	No 1/	No	No
Hong Kong	15 5/	17.5 5/	No	No	No
Luxembourg	up to 51.25	33	taxed as income 6/	No 7/	15 6/
Netherlands Antilles	22-56	32-39 6/	taxed as income 6/	No	No
Singapore	up to 30	27 8/	No	27 9/	No

Source: Doggart (1993); and Price Waterhouse, Corporate Taxes: A Worldwide Summary (1993).

1/ Except in relation to local property deals.
2/ Offshore entities like the International Business Companies are exempt from any form of taxation.
3/ No tax is withheld from payments to non-residents.
4/ Special rates apply for offshore entities (4.5 percent) and their employees.
5/ Local source income or assets only.
6/ Not applicable to offshore corporations.
7/ Except for bond interest which represents a right to profit participation.
8/ A 10 percent concessionary rate applies to income derived from offshore transactions.
9/ The withholding is significantly reduced for countries with a tax treaty.

Table 8. Double Tax Treaties in Selected Offshore Centers

Bahamas	None
Bahrain	None
Bermuda	United States (limited)
British Virgin Islands	Japan and Switzerland
Cayman Islands	None
Channel Islands	Jersey with the United Kingdom and Guernsey; and limited treaty with France. Guernsey with Jersey and United Kingdom.
Cyprus	Austria, Bulgaria, Canada, China, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Kuwait, Norway, Poland, Romania, Sweden, United Kingdom, and United States 1/
Hong Kong	United States (limited)
Luxembourg	Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Morocco, Netherlands, Norway, Spain, Sweden, South Korea, United Kingdom, and United States
Netherlands Antilles	Netherlands, Norway, and Thailand
Singapore	Australia, Bangladesh, Belgium, Canada, China, Denmark, Finland, France, Germany, India, Israel, Italy, Japan, Republic of Korea, Malaysia, Netherlands, New Zealand, Norway, Philippines, Sri Lanka, Sweden, Switzerland, Taiwan Province of China, Thailand, United Kingdom, and United States.

Source: Doggart (1993).

1/ Cyprus had tax treaties with the former Czechoslovakia, former Yugoslavia, and former Soviet Union.

bonds. Additional factors that have held back the development of capital markets include the lack of mature pension funds and insurance companies in the region, the dominance of multinational companies (which are not listed on the Singapore stock exchange) in local business activity, and restrictions on foreign listings. In 1992, Singapore raised less than $1 billion on the Asian dollar bond market, while the bulk of Asian offshore bond activity occurred in the London Eurobond market. 1/ The total market capitalization of the Singapore Stock Exchange (SES) stood at $133 billion in 1993, compared to $1.2 trillion in the United Kingdom and $3.0 trillion in Japan. The futures market (SIMEX), although one of the most developed in the region, is relatively small (a total of 12.2 million contracts were traded in 1992), with the bulk of the activity revolving around the three-month Eurodollar and Euro-yen contracts, and the Japanese Nikkei 225 index 2/. The trading of currency futures and options, however, remains embryonic and illiquid. Finally, international fund management in Singapore, although still small relative to that of major financial centers, has been growing rapidly in recent years. In 1993, about 83 fund managers, mostly foreign, had an estimated $38 billion of assets under management, compared to 51 fund managers with total funds of $6 billion in 1989. The growth of the fund management industry has been constrained by the fact that about half of domestic savings are absorbed by the government administered compulsory pension fund, the Central Provident Fund (CPF), and the Post Office Savings Bank (POSB). 3/ However, the recent implementation of measures to relax the controls over the investment of CPFs funds is likely to give further impetus to Singapore's fund management industry (see Annex II).

Hong Kong is the other leading regional OFC in Asia, specializing in Eurocredit loan syndication, fund management and equity trading. Hong Kong was able to achieve this regional role due to its proximity to China and Japan, its low-tax regime (interest earnings and profits from offshore activities are not taxed while the profit tax on domestic activities is 17.5 percent), its lack of exchange and capital controls, its light-handed regulatory system and its advanced clearing and settlement systems. In mid-1993, Hong Kong had the fourth largest international banking center in the world with external assets totalling $512 billion. 4/ As the regional center for Eurocurrency loan syndication, Hong Kong-based banks arrange

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1/ The clearance and settlement of bonds was handled by specialized clearing houses in Europe (Cedel in Luxembourg and Euroclear in Brussels).

2/ The tight regulations of the Tokyo and Osaka Stock Exchanges and the higher margin requirements for futures and options trading explain the trading of the Nikkei index in Singapore.

3/ About 40 percent of every wage earner's salary is transferred to the CPF, with employers contributing 18.5 percent and employees 21.5 percent. Up to recently, individuals were only allowed to withdraw certain amounts for housing and a range of investments.

4/ Interbank activities are the predominant business of the banking sector with Japanese banks accounting for its largest share.

around 50 percent of Asia's offshore borrowing needs, including term loans and floating-rate notes. While China uses Hong Kong banks as its main source of foreign borrowing, European (in particular, the United Kingdom) and U.S. banks are the region's largest supplier of funds. Between 1983 and 1991, Chinese borrowing from Hong Kong banks rose from $1 billion to $19 billion, accounting for more than half of the BIS reporting banks' claims on China (Doggart, 1993). Hong Kong also plays an important regional role in fund management on account of its favorable treatment of offshore funds, its large investor base, its low stock market commission rates, and the freedom given to the private sector to manage its savings. As of March 1994, the total value of all the 900 authorized unit trusts and mutual funds in Hong Kong, including funds managed outside Hong Kong, amounted to $45.5 billion.

During the past few years, the Hong Kong Stock Exchange (HKSE) has grown rapidly, with market capitalization increasing from $77 billion in 1989 to $385 billion in 1993, fueled by the conversion of China to a market economy and the expanding cross-border trade between the two countries. As the Chinese stock exchanges of Shanghai and Shenzhen remain underdeveloped, an increasing number of Chinese companies are listing their shares on the stock exchange in Hong Kong to benefit from its access to foreign investors. As a regional capital market, however, the HKSE remains underdeveloped and does not have an importance comparable to that of London in the European market. Futures markets are small, with 1.1 million contracts traded in 1992, and the Hong Kong dollar debt market is thin and illiquid.

Luxembourg is a regional offshore center that specializes in the management of investment funds (mutual funds, open-ended funds and closed-end funds) and private banking (an estimated 6 percent of offshore private wealth, or about $120 billion, is invested in the country). In 1993, Luxembourg was the fourth largest center for mutual funds activity (after the United States, France and Japan), with 1,123 funds controlling $268 billion in net assets. 1/ German investors were the largest buyer of these funds primarily because of the more liberal rules for investment management and the wider variety of funds allowed in Luxembourg (money market funds have not been introduced so far in Germany due to the opposition of the monetary authorities). 2/ Also, until the recent abolishment of the 0.9 percent Swiss issuance tax on investment fund certificates, Swiss banks had virtually all their mutual fund business in Luxembourg. The success of the mutual funds industry can be attributed to the swift implementation of the EC directive on Undertakings for Collective Investment in Transferable Securities (UCITS) in 1988, which provides for a homogeneous mutual fund format, and the creation of "umbrella funds" or compartment funds, which allow investors to shift investments from one

1/ A large number of these funds, however, although listed in Luxembourg, are managed from London, New York or Tokyo.

2/ For instance, Deutsche Bank's mutual fund businesses have more money under management in Luxembourg ($25 billion) than in Germany ($21 billion).

compartment to another without being taxed (because no capital gains are realized).

Luxembourg ranks as the third largest international banking center in Europe (after the United Kingdom and France) and hosts 214 banks, 90 percent of which are foreign-owned, with $376.5 billion in external assets, accounting for 7 percent of the Eurocurrency market. Luxembourg has attracted foreign banks primarily because it does not impose minimum reserve requirements, maintains a tight secrecy regime, allows the use of bearer shares and offers a favorable tax environment, including the absence of taxes on the investment income of foreign depositors. Most of the foreign banks, however, are subsidiaries, which essentially use Luxembourg to register their transactions, and as funding centers for business generated by the parent bank or its foreign branches. For instance, Swiss banks have offshore operations in Luxembourg to avoid Swiss stamp duty and transactions taxes.

Luxembourg is also an important center for the listing of Eurobonds, with almost 90 percent of the world's outstanding Eurobonds listed on its stock exchange, due to the attractive tax advantages provided by the holding company legislation 1/, the ease of listing bonds on the Stock Exchange, the low charges and brokerage fees, and its Eurobond clearing system, Cedel, which is electronically linked to the other European clearing house, Euroclear, in Brussels. More than 10,000 securities denominated in 20 currencies are listed on the local exchange. The listing of Eurobonds is, however, largely a cosmetic procedure designed to enhance the acceptability of Eurobonds to institutional investors that are not allowed by their authorities to purchase unlisted securities (Benzie, 1992). Except for Ecu denominated bonds, most Eurobond trading occurs in London and not in Luxembourg. Luxembourg's regional role in the foreign exchange and equity market is minor. In 1992, Luxembourg's average net foreign exchange market turnover was estimated at $13.3 billion while the stock exchange listed 268 shares (primarily accounted by foreign companies) with a total market capitalization of $12 billion.

During the past fifteen years, Bahrain has endeavored to become the regional offshore banking center of the Middle East. In the mid-1970s, Bahrain began to act as a collecting center for the oil surpluses of the region and to complement the Saudi banking sector in providing for the needs of the booming Saudi economy. The primary activities of the Offshore Banking Units (OBUs) consisted of recycling the oil surpluses of the region to Eurodollar markets (interbank lending), financing regional trade, and engaging in money market operations and foreign exchange trading (in

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1/ A holding company is set up solely to participate in other Luxembourg or foreign companies, does not have industrial or trading activity of its own and does not keep commercial establishment open to the public. Holding companies are exempt from corporation tax on dividend and royalty income and from capital gains tax and withholding tax on payments of dividends.

particular, arbitraging the Saudi Arabian riyal/dollar interest rate spread). Bahrain's offshore banking sector grew rapidly until the mid-1980s, at an average annual rate of 30 percent, when it was severely affected by political events in the region and the sharp decline in oil prices. After reaching a peak of $63 billion in 1983 compared to $16 billion in 1977, OBUs' external assets hovered around that level for the next decade. Bahrain's economy was particularly affected by these shocks because of the lack of diversification of its financial sector, with almost exclusive reliance on interbank activities, and its inability to develop specific financial niches. The decline in oil revenues and the political tensions resulted in a massive migration of foreign banks, as reflected by the sharp drop of OBUs from a peak of 76 in 1984 to 45 in 1993.

As a regional foreign exchange trading center and capital market, Bahrain has been able to achieve only a limited role. Bahrain's role in the international foreign exchange market is minor, with an average daily turnover of $3.5 billion in 1992 (0.3 percent of the $1.1 trillion worldwide daily turnover), and has been on a downward trend in recent years due to the lengthening of trading hours in European and Asian financial centers and the faster financial liberalization of these centers compared to Bahrain. Bahrain's stock market is small and illiquid, primarily because of the small domestic base and restrictions on foreign participation. In 1993, 31 companies were listed on the exchange with a total market capitalization of $5.3 billion.

In summary, the success of Singapore and Hong Kong is attributable to their proximity to a stable and dynamic region, a liberal financial environment, a favorable tax and regulatory regime, and unsophisticated financial markets in their vicinity. The success of Luxembourg is explained by its ability to develop financial niches and to provide more flexible fiscal and regulatory incentives than its neighbors. Bahrain's difficulty in achieving a dominant role stems from the political instability in the region, the lack of diversification of its financial sector, and its inability to develop specific financial niches.

3. Booking offshore centers 1/

Booking centers, which represent the majority of offshore centers, are *primarily used by financial institutions as the legal home of registration* for financial transactions arranged and managed in other jurisdictions (e.g., Eurocurrency deposits and loans, Eurobonds, mutual funds, hedge funds, insurance), and by individuals for trust planning, tax evasion

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1/ Booking centers include the Cayman Islands, the Bahamas, the Netherlands Antilles, the British Virgin Islands, Aruba, Bermuda, Barbados, the Channel Islands, the Seychelles, the Turks and Caicos, the Marshall Islands, and Vanuatu.

(particularly wealth and inheritance taxes) and anonymity. 1/ In general, foreign companies do not maintain a physical presence in these centers but only "shell" branches, do not have staff and facilities (only a local representative) and do not offer deposits taking, withdrawals and loans services. As such, the financial sector in a booking center can be characterized as contestable (Baumol, 1982) because firms are not burdened by sunk costs and can decide to exit from the jurisdiction at a very short notice. The fact that the demand for their services is highly elastic to changes in their taxes and regulations has forced booking centers to offer highly attractive legislation for offshore activities, including ease of entry, no taxes or minimal taxes on income and capital gains, no withholding taxes, no reserve requirement, small capital requirements, a lax regulatory regime, and low license fees, stamp duties, and levies (Table 7).

The main booking centers are concentrated in the Caribbean Islands and the Channel Islands in Europe and cater to their specific geographical markets. 2/ Investors tend to prefer centers that fall within a time zone close to their own, that have comparable legal systems, and that have similar languages. Although the majority of these centers provide similar tax and regulatory incentives, the bulk of the financial activity is concentrated among few centers which have developed specific niches in either interbank activities, investment funds registration, or international insurance operations. The majority of the booking centers do not have developed capital, money, foreign exchange, and commodity markets. By the same token, futures markets are nonexistent in these centers, because they lack active cash markets in all of the underlying instruments, efficient clearing and settlement systems, and sophisticated technology. A brief description of the activities of the major booking centers is given below. 3/

During the past decade, the Cayman Islands have attracted a large number of international banks to its jurisdiction, primarily because of its attractive and flexible legislation and efficient bureaucracy, but also due to the misfortunes of other centers such as Panama, which experienced political tensions, and the Bahamas, which was associated with drugs and money-laundering scandals. More than 500 banks and trusts companies

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1/ Holding assets through an offshore company, either in the form of a subsidiary or a holding company, allows shareholders to avoid income, capital gains and inheritance taxes because the shares of the company change hands in any disposal, while assets remain under the same ownership. By allowing the use of nominee or bearer shares (which are anonymous), and not requiring that annual returns be filed and that the beneficial ownership of a company be disclosed, booking centers offer a high level of secrecy to investors.

2/ For instance, the Channel Islands primarily cater to U.K. and continental European investors while the Cayman Islands, the Bahamas and Bermuda predominantly cater to U.S. investors.

3/ For a more detailed description, see Doggart (1993).

(a third of which are from U.S. origin) are registered on the Island and about $395 billion in external assets are booked through these banks. 1/ Almost 90 percent of these banks are "shell" branches and they mainly engage in interbank lending and borrowing on Eurocurrency markets. About 7 percent of worldwide Eurodollar transactions transit through the Island. Banks use the Cayman Islands because of the complete freedom to engage in Eurodollar transactions, the absence of reserve and capital requirements, the ability to repatriate profits at will, the absence of restrictions on transfers of currency to and from the country, and minimum reporting requirements. The Cayman Islands also benefit from a better international reputation than other centers because it conforms to G-10 standards of banking regulations, has improved its relationship with the United States through treaties and exchanges of information, and has been more successful than other centers at screening banks with dubious activities. 2/ In addition to banks, over 29,000 companies are registered on the island with activities ranging from investment and mutual funds sales, international trading, shipping, reinvoicing, insurance, and real estate. 3/

The Cayman Islands and, to a larger extent, the Netherlands Antilles are also an effective conduit for Eurobond issues or "floatation" due to their administrative flexibility, ease of bond issuance--whereby bond issuers can create a company in 24 hours--and tax incentives. 4/ More than 68 percent of international bonds issued in offshore centers, excluding London, are booked in the Netherlands Antilles and the Cayman Islands (Table 9). These booking offshore centers are used by international borrowers to establish overseas financial subsidiaries and to issue bonds through these subsidiaries. 5/ In many instances, this is the only way that domestic authorities will recognize a bond as a Eurobond and abstain from taxing it. Typically, a corporation would set up a financial subsidiary in the Cayman Islands or the Netherlands Antilles (e.g., Exxon, Sears, Coca-Cola, Merill Lynch) to issue bonds in a European center

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1/ Offshore banks are generally not allowed to engage in activities with residents.

2/ Offshore banks require legitimate capitalization, upwards of $480,000 and annual maintenance costs of approximately $25,000. Therefore the formation of banks that are not valid business entities is discouraged. The *BCCI affair, where one of the arms of the bank was registered on the island,* demonstrates, however, the difficulty of completely weeding out shady banks.

3/ The majority of these companies are registered under the exempted company status, which can be incorporated within a day or two for a total cost of $2,200. Exempted companies are granted a twenty-year guarantee against future taxation and the identity of shareholders need not be divulged to local authorities.

4/ These centers do not levy withholding taxes, do not impose minimum share capital and do not restrict the issuance of bond debt to a percentage of the paid-up capital, unlike, for instance, Luxembourg which limits bond debt to ten times the paid-up capital.

5/ These bonds are always guaranteed by the parent company.

Table 9. Comparative Performance of Selected Offshore Centers: Amounts Outstanding, 1991-93

	1991	1992	1993
	(In billions of U.S. dollars) 1/ 2/		
International Bond Issues			
The Bahamas	1.2	1.2	1.5
Bahrain	0.4	0.3	0.3
Cayman Islands	21.5	23.2	26.8
Hong Kong	8.7	7.5	10.3
Luxembourg	18.6	18.8	16.1
Netherlands Antilles	57.0	51.1	45.6
Panama	...	...	...
Singapore	1.7	1.4	1.3
United Kingdom	167.6	161.2	174.1
All reporting countries	1651.7	1689.5	1847.9
	(In billions of U.S. dollars) 2/		
Euro-notes			
The Bahamas	1.0	0.6	0.7
Bahrain	0.1	0.1	0.1
Cayman Islands	2.7	3.3	7.7
Hong Kong	0.3	0.7	0.8
Luxembourg	2.3	2.8	4.4
Netherlands Antilles	0.1	--	0.9
Panama	...	...	...
Singapore	0.2	0.2	0.1
United Kingdom	18.1	25.0	37.1
All reporting countries	152.3	186.8	255.8

Source: Bank for International Settlements, International Banking and Financial Market Developments (Basle: Bank for International Settlements, February 1994).

1/ International bond issues include Eurobonds and foreign bonds.
2/ By country of residence which is determined by the residence of the borrower.

(primarily London) and then transfer the borrowed funds through the booking centers to its home country. The interest payments on these bonds would be tax free because they would be made through the booking centers. These centers, however, as almost all other booking centers, do not engage in either the listing or trading of Eurobonds.

The Channel Islands, Bermuda, and, to a lesser extent, the Bahamas and the Cayman Islands are the preferred offshore centers for registering investment funds, which invest in money market instruments, bonds, equities, real estate, and hedge funds, which are leveraged investment funds. In 1993, funds registered in the Channel Islands had over $40 billion in assets under management, while investment funds registered in Bermuda had over $7 billion in assets under management. These centers appeal to foreign investors because they do not impose limits on the charges and management expenses that may be levied, there are limited restrictions on the types of investments that the funds can engage in, there are no capital gains taxes on profits resulting from switching investments, profits and dividends accrue tax free until repatriated to the home country, and there is complete anonymity as far as the owner of the funds (Doggart, 1993). 1/ In addition to these incentives, Bermuda's tight regulatory procedures, whereby funds managers must substantiate their investment management reputation and experience to local authorities, have contributed to its appeal over other offshore competitors. Bermuda is also the world's largest center for registering captive insurance companies. 2/ About 1,200 captive insurance companies are licensed on the Island out of an estimated worldwide total of 3,200, primarily because of its favorable excise tax exemptions.

The British Virgin Islands (BVI) have been the preferred choice of private investors and small companies because it is simple and inexpensive to obtain a tax-exempt status. Individuals generally use the BVI to create trusts which are used for asset protection, estate planning, pensions, and charitable purposes. Typically, investors would incorporate their companies under the popular International Business Company legislation (IBCs) at the modest fee of $300 to $1,000, which exempt them from income taxes and stamp duties, from filing financial statements, and from disclosing the identity of directors or shareholders. More than 25,000 IBCs are domiciled in the BVI.

In summary, booking OFCs have been used by both institutions and individuals as a convenient channel for deferring or dodging taxes, registering corporations, holding companies, trusts, and funds at a lower cost, with little bureaucratic interference, and away from the scrutiny of domestic authorities. It can be inferred that onshore governments allow

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1/ U.S. hedge funds are domiciled in these offshore centers to avoid the regulations of the U.S. Securities and Exchange Commission.

2/ Captive insurance are insurance subsidiaries set up by organizations or individuals to handle the owners' insurance needs. These companies are registered offshore mainly to deduct insurance premiums from taxable income.

their domestic institutions to book their international transactions in these centers to enable them to be competitive abroad, while maintaining their domestic operations under home supervision.

III. The Emergence of Offshore or Eurocurrency Markets 1/

The offshore interbank markets or Eurocurrency markets are the common thread among offshore centers and account for the most important part of the activities of financial institutions in these OFCs. The emergence of offshore centers and markets can be primarily attributed to the stringent regulations and high taxes imposed in the industrial countries during the 1960s and 1970s, which encouraged firms to relocate some of their financial activity to more favorable jurisdictions. During this period, most OECD countries erected restrictions on capital, such as reserve requirements, interest rate ceilings, financial disclosure procedures, limits on financial products offered, and introduced a plethora of taxes aimed at enlarging their national tax bases, including capital gain taxes, wealth taxes, estate and gift taxes. These restrictions and taxes induced large multinational corporations and financial institutions to search for centers with lower regulatory and fiscal burdens that allowed activity in a broader array of financial services (e.g., mutual funds, captive insurance) and offered better sources of return due to lower borrowing costs and higher deposit rates. 2/ Concomitantly, the spread of telecommunication and technological innovation in fund transfer mechanisms allowed faster and greater financial linkages around the world, increased access to worldwide financial information, and significantly reduced the cost of operating from distant centers. The combination of restrictions and technological change caused a major expansion in banks' international networks with branches springing up around the globe and engaging in a variety of financial activities.

The first major jump in offshore activities began in the 1960s after the United States imposed capital controls--the Interest Equalization Tax (IET) in 1963, and the Voluntary Foreign Credit Restraint (VFCR) and Foreign Direct Investment (FDI) Program in 1965--aimed at correcting the deteriorating U.S. balance of payments by restraining capital outflows and

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1/ Eurocurrency markets consist of deposits and loans booked outside the country in whose currency they are denominated. They comprise Eurocurrency deposits, Eurobonds, Euronotes and Eurocommercial paper.

2/ For instance, in the 1960s, multinational corporations began to take advantage of the low tax environment in Hong Kong, Liberia and Panama to conduct their transfer pricing schemes, book their financial transactions and register their shipping activities.

limiting U.S. banks from lending to foreigners. 1/ These restrictions, which did not apply to foreign branches, induced U.S. banks to move their foreign operations to overseas branches and to the Eurocurrency markets. The shift of financial activity to Eurocurrency markets increased dramatically after 1966 when U.S. money market rates rose above the interest rate ceilings on dollar deposits allowed by Regulation Q, provoking a credit crunch. 2/ Large U.S. banks experienced massive runs on their deposits as depositors looked for higher returns from nonbanks, causing shortages of funds and losses of resources (Higonnet, 1985). The credit crunch and the increase in cost of funds induced U.S. banks to open up foreign branches to seek funds in the Eurodollar market and then re-lend them to the parent bank. Between 1964 and 1970, the total assets of U.S. banks overseas branches increased from $7 billion to $53 billion.

The development of the Eurobond market was also influenced by the imposition of the IET and the FDI regulations. The IET made it unattractive for foreign firms to issue bonds in the United States while the FDI regulations limited U.S. firms foreign investment unless it was financed by funds raised abroad (Johnston, 1982). After the introduction of the interest equalization tax, internationally syndicated bond issues raised outside the United States rose from $137 million in 1963 to $696 million in 1964 (Doggart, 1993). During 1965, U.S. firms raised $340 million in Eurobond issues. The development of the Eurobond market in non-U.S. dollar currencies developed during the same period primarily because of withholding taxes in most domestic markets. For instance, the imposition in March 1964 of a 25 percent withholding tax on domestic German bonds was instrumental in developing a Euro-deutsche mark bond market. A similar development occurred in 1965 with respect to the Euro-french franc and the Euro-Guilder bond.

Initially, the migration of financial activity to Eurocurrency markets essentially involved the large U.S. banks and was primarily limited to London because of its favorable regulations regarding offshore loans and deposits. However, in the late 1960s, the migration of U.S. activity to offshore markets became more generalized as U.S. banks began to establish offshore branches in booking centers, primarily in the Bahamas, taking advantage of a 1969 Federal Reserve regulation which allowed U.S. banks to

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1/ The IET raised by 1 percent the effective annual cost to foreigners of borrowing in the United States; the VFCR and the FDI Program established voluntary limits on outward direct investment unless matching balance of payments earnings accrued.

2/ The Board of Governors imposed Regulation Q to regulate the maximum level of interest rates paid on time deposits in the U.S. (but not on deposits abroad). The regulation was binding when credit was tight and market interest rates rose above the level set by Regulation Q.

access the Eurodollar market from "shell" offices in a Caribbean center. 1/ By 1973, U.S. banks had 699 overseas branches, compared to 181 branches in 1964, of which 177 were located in Caribbean offshore centers and 156 in European centers (Brimmer and Dahl, 1975; Johnston, 1982).

Offshore interbank markets began to emerge in Asia around 1968 when Singapore established the Asian Dollar Market (ADM), an offshore market in foreign currencies similar to the Eurodollar market in London, and abolished the withholding tax on interest income paid to nonresidents. The establishment of the ADM was partly induced by the need to invest the surpluses arising from the oil boom in Indonesia and Malaysia. The ADM was therefore perceived by bankers as an alternative to the London Eurodollar market for placing these funds. Following the launching of Asia Currency Units (ACUs) which allowed local banks to engage in offshore activities without being subject to exchange controls and banking regulations, Singapore passed a series of measures designed to encourage offshore business such as tax concessions on offshore activities (e.g., the corporate income tax was reduced from 40 percent to 10 percent) and easier granting of licenses for offshore banking (see Annex II). 2/ Between 1969 and 1975, the number of ACUs increased from 9 to 66 foreign banks and total assets increased during that period from $123 million to $13 billion.

In the early 1970s, Luxembourg began attracting investors from continental Europe, particularly from France, Germany, Belgium and the Netherlands, due to its low income tax, the absence of withholding taxes on interest and dividends paid by holding companies, extensive tax treaties and strict banking secrecy rules. In the Middle East, offshore activities developed in the mid-1970s as Bahrain began to act as a collecting center for the oil surpluses of the region, passing banking laws to facilitate the incorporation of foreign firms and granting significant tax incentives to banks dealing with offshore business. 3/ All these emerging OFCs were involved in the Euromarkets, with deposit gathering and lending accounting for the bulk of their activities. In 1977, the interbank liabilities of the seven offshore centers (as defined by the IMF) represented 83 percent of their total foreign liabilities while interbank lending represented 64 percent of their foreign assets (Tables 2-5). The preponderance of such

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1/ The Federal Reserve Board authorized the creation of "shell" branches in the Caribbean to allow small U.S. banks, that were unable to afford to have a branch in a European financial center, to participate in the Eurocurrency market and service their foreign customers outside the VFCR restrictions.

2/ One of the reasons behind the development of the Asian dollar market was the time zone difference with Europe. Singapore had few hours overlapping with London which allowed banks to complete transactions within the same day.

3/ Offshore banks were not subject to either reserve requirements or income taxes, no restrictions on leverage and maximum lending units were imposed and profits on offshore activities were tax free.

activity arose from transactions with the parent bank or other branches of the bank.

During the second half of the 1970s, the majority of capital controls were dismantled in the United States (the Interest Equalization Act was abolished in 1974), Germany (1974), the United Kingdom and Japan (1979). However, high U.S. interest rates and strict regulations on the issuance of foreign bonds in the United States, continued to fuel the growth of the Eurocurrency markets as U.S. banks looked for cheaper sources of funds around the world. This led to the internationalization of the large U.S. banks through growth of their foreign branches across the globe seeking finer rates of return in unregulated, low tax offshore markets where reserve requirements and deposit insurance premia were absent. Between end-1973 and end-1980, foreign currency lending by offshore branches of U.S. banks increased five-fold. These funds, however, although booked offshore, were managed in the head offices. The increase in the activity in the Euromarkets came also from oil producing nations that invested their surpluses in Eurocurrency deposits, mainly in London, for fear of restrictions from U.S. authorities in the aftermath of the oil embargo. During this period, Eurocurrency deposits by OPEC countries with BIS reporting banks grew from $11.5 billion by end-1973 to $128.7 by end-1980.

The Asian Dollar Market (ADM) also witnessed a spectacular growth during the 1970s, surpassing the growth rate of the Eurodollar market. Between 1976 and 1980, the number of ACUs operating in the ADM increased from 69 to 108 foreign banks, while total assets increased from $17 billion to $54 billion. Among the factors contributing to this rapid growth, were the favorable change in taxation and exchange control regulations between 1976 and 1978, the development of domestic and capital markets in Singapore, the political stability of Singapore, and the fast growth of the region. In Bahrain, the growth of OBUs was also impressive. By 1980, there were 58 OBUs with a total assets of $37 billion compared to 26 OBUs with total assets of $6 billion in 1976. The growth of Bahrain's offshore center reflected the petro-dollar surpluses of the region, the favorable tax environment, the riyal/dollar trading market, the advantageous time zone between New York, London and Tokyo, and the decline of Beirut as a financial center, following its civil war.

The U.S. reserve requirements that were maintained throughout the 1980s encouraged foreign banks and to a lesser extent U.S. banks to book some of their transactions from their "shell" branches in Caribbean centers. According to the Federal Reserve Regulation D, U.S. branches and agencies of foreign banks had to maintain a 3 percent reserve requirement against their deposits and Eurocurrency liabilities booked in the United States, but not if the loans were booked abroad. U.S. banks, however, had to maintain a reserve against net borrowing from affiliates abroad and against loans to

U.S. nonbanks booked at their foreign branches. 1/2/ According to a recent study by McCauley and Seth (1992), this asymmetry in treatment between U.S. and foreign banks was mirrored by the asymmetry in behavior between the U.S. and foreign banks in their offshore credit to the commercial and industrial sector in the United States. In order to arbitrage these regulatory differences, foreign banks booked the majority of their commercial loans to U.S. firms in offshore centers. 3/ The growth of offshore commercial loans by foreign-owned banks is estimated to have increased from $20 billion in 1983 (23 percent of their total U.S. commercial loans) to $170 billion in 1992 (47 percent of their total U.S. commercial loans) whereas the growth of offshore commercial lending by U.S. banks slightly increased from $17 billion to $21 billion during the same period which represents less than 6 percent of their total commercial and industrial loans (Table 10). In addition to the regulatory arbitrage, the growth of offshore booking in the 1980s was fueled by the increasing discrepancy between offshore rates and money market rates in the United States, because it was cheaper to obtain funds offshore, and the rising current account deficit which was being financed by foreigners who were more willing than U.S. residents to hold Eurodollars.

During the last decade, London has remained the most important financial center for Eurocurrency transactions although its share of world activity has declined from more than 30 percent of the Eurocurrency liabilities of BIS reporting banks in the early 1980s to 20 percent in 1993. The decline is primarily ascribed to the rise of Japan as a financial center during this period. The share of the main regional and booking offshore centers (excluding London and Luxembourg) in worldwide interbank activity has remained stable between 1980 and 1993 at close to 19 percent, although

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1/ The foreign branches of U.S. banks were however allowed to lend to multinationals' foreign offices free of reserves. Also, if a U.S. bank was a net lender to its foreign branches, the loans to U.S. borrowers by these branches were not subject to the reserve requirement. In that case, the Eurocurrency reserves applied only to the excess of foreign branch loans to U.S. borrowers over net domestic funding of branches.

2/ The offshore branches of U.S. banks in the Cayman Islands and the Bahamas were a more attractive location for the booking of deposits of U.S. banks and their customers. Whenever the deposits of U.S. banks were not bound by reserve requirements or deposit insurance premia or whenever they could avoid paying local taxes, U.S. banks could offer U.S. residents slightly higher rates on their offshore deposits as compared to the ones offered in the United States. The volume of nonbank deposits booked in the Cayman Islands and the Bahamas has remained, however, minuscule (less than 2 percent) relative to the ones booked at domestic offices.

3/ Some foreign banks (e.g., Japanese) were, however, under-represented in offshore centers either because of the risks associated or to avoid suspicion and greater investigation from U.S. tax authorities, while others (e.g., until 1986, the Italian banks) were restricted by their monetary authorities from operating offshore.

Table 10. Foreign Bank Share of U.S. Commercial and Industrial Loan Market, 1983-93

(In billions of dollars, except when noted)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993 Q2
Commercial and industrial loans to U.S. addresses	467	512	556	623	654	712	765	804	777	743	748
I. Loans by U.S.-owned banks	381	402	419	454	445	464	481	477	428	380	378
A. Onshore	364	382	401	439	431	446	460	454	407	360	359
B. Offshore	17	20	18	15	15	18	21	22	22	21	19
II. Loans by foreign-owned banks 1/	86	110	137	169	209	248	284	327	348	363	370
A. Onshore	66	78	92	109	130	153	168	179	196	193	190
B. Offshore 2/	20	31	45	60	79	95	116	148	152	170	161
Foreign share (in percent)	18	21	25	27	32	35	37	41	45	49	49
A. Onshore	14	15	17	18	20	21	22	22	25	26	25
B. Offshore	4	6	8	10	12	13	15	18	20	23	24

Sources: McCauley and Seth (1992); Bank for International Settlements; Federal Financial Institutions Examination Council: Report of Condition, Federal Reserve Form 2502 and 2951; and Federal Reserve Bulletin.

1/ Includes branches, agencies, and subsidiaries with at least 10 percent foreign ownership.
2/ These figures are estimated by McCauley and Seth (1992) in two steps. First, they calculate the commercial and industrial proportion of total claims on nonbanks of branches and agencies of foreign banks in the U.S.. Then, assuming that the offshore proportion is the same, they apply this fraction, 60 percent, to the offshore claims on U.S. nonbanks of foreign banks.

the distribution among these OFCs has changed significantly (Table 3). In 1980, 55 percent of the total interbank liabilities of offshore centers were booked in the Bahamas and the Cayman Islands whereas Singapore and Hong Kong held 24 percent. By 1993, the shares of the Bahamas and the Cayman Islands had declined to 31 percent whereas the shares of Singapore and Hong Kong had increased to 63 percent. On one hand, this redistribution demonstrated the growth of the Asian region and the role of Singapore and Hong Kong as regional financial centers. On the other hand, it represented a decline in incentives to book financial transactions in the Caribbean due to the decrease of restrictions, reserve requirements, and withholding taxes in the United States; the slowdown in economic activity in Latin America; and the negative repercussions of political instability (Panama), loss of tax treaties (Netherlands Antilles), and drugs scandals (the Bahamas). Bahrain's share of worldwide interbank activity was halved during the last decade, standing at less than 5 percent of worldwide interbank liabilities in 1993. As mentioned earlier, the setbacks suffered by Bahrain's offshore economy are attributable to the political problems of the region, the decline in oil prices, the fact that many of its services were replaced by indigenous banking sectors in the region (e.g., Saudi Arabia and Kuwait), and the lack of diversification of its economy (see Annex I).

IV. The Diminished Comparative Advantage of OFCs

With the exception of London, the "raison d'etre" of offshore centers has been the existence of capital restrictions, high taxes and stiff regulations in domestic financial centers, and the insufficient coordination of supervisory and fiscal policies among onshore economies. In the last decade, however, the financial industry was swept by massive deregulation, capital and financial controls were dismantled, markets opened up, tax rates declined, and international cooperation improved. As a result, the regulatory and fiscal environments of domestic financial centers have converged with those of offshore centers, thereby significantly reducing the incentives of firms to move to OFCs. The comparative advantage of offshore centers has also diminished because of two other factors. The first is the decline in international banks' activities in interbank markets, which represent the primary business of OFCs, and their growing involvement in derivative finance, which tends to be conducted in the major financial centers. The second factor is the increased cost of switching from primary centers to secondary offshore centers due to the higher concentration of financial activity in a small number of large financial centers which provide considerable economies of scale ranging from deep and liquid markets, to efficient clearing and settlement systems, and to sophisticated technology. In light of these trends, secondary offshore centers will have greater difficulty competing with the major financial centers and attracting financial activity away from these centers.

1. Convergence of fiscal and regulatory regimes

By offering lower taxes and a more favorable regulatory and fiscal environment, offshore centers captured a significant part of the interbank market from onshore centers. In order to regain some of the lost financial activity and narrow arbitrage opportunities between offshore and onshore jurisdictions, domestic centers followed a two-pronged approach. 1/ On one hand, they liberalized their economies, lowered their taxes, and made it more attractive to conduct business at home. On the other hand, they introduced measures aimed at increasing the cost of operating offshore, including more comprehensive supervision, higher penalties on offshore activities, abrogation of tax-treaties with OFCs, and intensified pressure on the latter to enhance their supervisory regimes. These measures resulted in a convergence of the tax and regulatory regimes between domestic and offshore centers, and a blurring of frontiers between onshore and offshore markets.

The extensive financial liberalization that occurred throughout the industrial world in the late 1970s and 1980s, partly in response to the migration of firms and capital to offshore centers in the 1960s and early 1970s, is documented in Table 11 (Goldstein and Mussa, 1993). Besides the financial liberalization, the shift of financial activity to OFCs induced a decline in tax rates in the major OECD countries during the past twenty years (Table 12). Withholding tax regimes were abolished in three large domestic bond markets during the 1980s (the United States in July 1984, France in 1984 for nonresidents and 1987 for residents, and Germany in 1984) which resulted in a significant loss of business for OFCs. For instance, after the repeal of the U.S. withholding tax, the issuance of U.S. bonds through the Antilles gradually ceased, and after the removal of the tax in France and Germany, foreign investor participation in the French and German domestic markets increased rapidly. Reserve requirements, which are implicit taxes, have also diminished sharply in recent years, and for the United States, Japan, Germany, France, Canada, and Switzerland stand well below their 1980 levels. After the Eurocurrency reserve requirements in the United States were reduced to zero in December 1990, the incentive of foreign banks to book loans to U.S. borrowers offshore and of U.S. banks to book their deposits in offshore centers declined. As reported by McCauley and Seth (1992), at least $12 billion of "shell" branch loans were rebooked in the United States between the beginning of 1991 and mid-1992. The share of deposits of branches of U.S. banks in foreign countries that were booked in the Cayman Islands and the Bahamas declined from 30 percent in 1990 to 26 percent in 1992.

1/ In Annex I, a simple analytical model is presented which captures the factors that affect the migration of capital from domestic centers to OFCs.

Table 11. Highlights of Financial Liberalization in Major Industrial Countries

United States

1964 - Interest Equalization Tax introduced

1971 - NASDAQ system introduced

1972 - IMM opens, trading FX futures

1975 - dereg. of sec. firms' commissions
- CBOT opens, trading int. rate futures

1978 - International Banking Act

1979 - Reg. K: subs. of comm. banks can deal in and underwrite equity securities outside of the U.S.

1980 - DIDMCA phases Reg. Q out by 1986

1981 - International Banking Facilities

1982 - Security Pacific is first bank to set up a sec. firm sub.
- currency options introduced

1982 - shelf-registration procedure (Reg. 415)

1984 - 30 percent withholding tax on interest income paid to foreigners repealed

1986 - NYSE, AMX, NASD allow foreign issuers if they comply with home country laws
- Government Securities Act

1987 - CBOT begins evening trading to coincide with Japanese trading hours

1988 - Primary Dealer Act requires reciprocity before foreign fin. inst. can become dealers in U.S. gov't sec. mkt.

1989 - CFTC approves GLOBEX

1990 - Rule 144a exempts from registration privately-placed debt and equity offered to qualified instit. buyers

1991 - multi-jurisdictional disclosure system with Canada

1992 - reforms to government securities market include re-design of auction rules
- after-hours trading on NASDAQ International

Canada

1977 - Equity options introduced at TSE, MSE
- Computer Assisted Trading Scheme (CATS) goes online at TSE

1980 - Interest rate futures introduced at TSE

1983 - Negotiable commissions at ME, TSE

1984 - Toronto Futures Exchange (TFE) opens.
- Montreal and Boston exchanges establish automated trade routing system

1986 - Blue Paper "New Directions for the Financial Sector" published: agenda includes integration of financial services industries by common ownership and extension of powers

1987 - From June, all banks are allowed to own securities companies.
- Ontario allows restricted cross-border activity by foreign dealers
- Ontario and B.C. allow foreign ownership of securities dealers incorporated in these provinces

1989 - Bank Act eases restrictions on foreign share of Canadian banking activity

1990 - Pension funds can increase foreign assets eventually to 20% in 1993.

1991 - Canadian and U.S. securities regulators recognize a multi-jurisdictional disclosure system
- Introduction of off-hours trading sessions

1992 - Ontario allows foreign advisers to provide investment advice to sophisticated investors
- deposit-taking and similar institutions given expanded securities trading and advisory powers

France

1967 - Bank lending rates deregulated, interest on demand deposits forbidden

1984 - New Banking Law provides a unified regulatory structure
- Foreign exchange controls rescinded, money market opened up

1985 - CP market opens, but only to non-banks
- capital market fees, taxes reduced, deregulated.

1986 - Computerised securities quotation and order system (CAC) introduced
- MATIF opens
- T-bills available to all investors
- Deregulation of banking commissions.
- Interest rates on deposits longer than 3 months are liberalized
- Partial capital flows liberalization

1987 - Reform of the government securities market: introduction of market makers
- Options introduced

1988 - new Stock Exchange Law: banks and other financial institutions can own securities companies; strengthened prudential rules for stock exchange members; deregulation of commissions
- OATs listed on the NYSE

1990 - Virtually all exchange controls eliminated

1991 - Reform of the market for negotiable credit securities
- regional stock exchanges link to Paris

1992 - Completion of the electronic payment and delivery system for securities
- Introduction of efficient payment and delivery system for ECU securities

Germany

1981 - temporary capital controls lifted

1984 - tax on foreign investors' income from German bonds eliminated

1985 - Bundesbank allows issues of DM bonds with innovative features and allows foreign-owned banks in Germany to lead-manage foreign DM bond issues
- DM FRNs, currency swaps, zero-coupon bonds introduced

1986 - bond option trading introduced
- DM CDs introduced

1987 - private use of ECU placed on same footing as that of other currencies
- Federal Bond Consortium opened to foreign banks

1988 - foreign investors allowed to buy five-year Fed. Bonds in the primary market

1989 - rules for foreign DM bonds eased

1990 - DTB opens
- FX-denom. bond, note issues permitted
- primary market for Federal bonds changed to include auctions

1991 - securities transfer tax abolished
- non-residents allowed to buy one- to two-year Treasury Financing Paper
- DM CP market starts up
- Federal Treasury Notes introduced

1992 - proposals for centralized supervision of securities trading; enforcement of insider trading, and reporting regs.;
- money market mutual funds authorized
- company and stamp taxes abolished
- German branches of foreign banks can lead-manage DM bond issues and MTN and CP programmes;
- regional exchanges to be integrated

Table 11 (continued). Highlights of Financial Liberalization in Major Industrial Countries

Italy	Japan	United Kingdom	Other
1984 - open-end investment funds introduced 1985 - stock exchanges introduce continuous auction trading for listed shares - proposed securities market reforms include computerization and integration of systems for quoting, information dissemination, order routing and execution, clearing and settlement; concentration of all securities transactions in one market system; regulating the market for unlisted securities; regulation of securities firms - controls on capital inflows lifted, restrictions on residents' foreign assets relaxed. 1988 - creation of screen-based Government securities market based on a system of primary dealers - *most remaining foreign exchange* controls abolished 1990 - Government securities market open to foreign investors - remaining foreign exchange controls abolished 1991 - approval of comprehensive regulatory framework for securities business and reforms to the organization and functioning of the markets, including futures and options. - start of screen-based trading on the stock exchange. 1992 - completion of centralized share depository - MIF opens - tax exemption of interest payments from certain foreign currency bonds is removed.	1970 - first Samurai bond 1972 - interbank FX trading begins in Tokyo 1973 - six foreign stocks listed on TSE 1974 - ban on issuance of Japanese corporate bonds overseas is lifted 1978 - first issue of Euro-yen bonds by a non-resident 1979 - first issue in Japan of unsecured yen-bonds by a foreign private company - foreign exchange controls relaxed - banks can issue short-term FX loans - Gensaki bonds offered to non-residents - domestic CD market begins, open to non-residents 1980 - sec. firms offer MT govt. bond funds - new Foreign Exchange and Foreign Trade Control Law - FX banks can make MT, LT FX loans 1981 - Japanese bk. subs. can lend ST Euro-yen to finance trade with Japan 1982 - Japanese banks can lend LT Euro-yen to borrower of their choice - new Bank Law and Securities and Exchange Law 1983 - banks can sell newly issued, MT and LT government bonds OTC - JASDAQ introduced - Samurai bond regulations relaxed - postal insurance can buy foreign bonds 1984 - securities firms can sell FX CDs, CP in the domestic market - banks allowed to buy/sell government bonds in the secondary market - Euro-Yen CDs introduced - non-Japanese banks can lend yen - FX trading no longer tied to commercial trade and hedging - futher relaxation of Samurai rules	1979 - foreign exchange controls abolished 1981 - first issue of ECU T-bills 1982 - LIFFE opens 1986 - "Big Bang": negot. commissions; dual capacity sec. firms; other fin. instit. can own sec. firms; computer trading system modelled on NASDAQ; SEAQ Intl.; improved trading and settlement systems for government securities - Financial Services Act set up the SIB and SROs, RPBs which report to it; new investor protection rules - Central Gilts Office set up--provides book-entry transfer, rolling one-day settlement, and assured payments; market makers for Gilts - CP market introduced 1987 - Banking Act formalizes BoE supervision 1988 - introduction of a comprehensive trade reporting system covering all markets in the U.K.	1973 - floating exchange rates - ERM starts up - EC First Non-Life Insurance Directive allows insurers licensed in one member to open branches in other members 1975 - Basle Concordat implements home country supervision 1976 - first currency swap 1979 - First Life Insurance Directive 1981 - first interest rate swap - first ECU bond 1983 - Basle Concordat revised to implement consolidated supervision 1985 - EC Directive on UCITS - White Paper on completion of the single market 1986 - Single European Act - EC First Directive on Capital Liberalization 1988 - BIS capital standards agreed - EC Second Directive on Capital Liberalization 1989 - OECD Code on Liberalization of Capital Movements agreed - EC Insider Trading Directive - EC Second Banking Coordination Directive agreed 1992 - Investment Services Directive agreed

Table 11 (concluded). Highlights of Financial Liberalization in Major Industrial Countries

Japan cont'd

1984 - Euro-yen bond rules relaxed
- swaps and hedging of forward FX allowed
- yen-FX conversion limits for foreign banks abolished
- Euro-yen CDs by banks and by for. subs. of Japanese securities firms are allowed
- banks can deal in the secondary market for government bonds

1985 - introduction of government bond futures
- bankers' acceptances introduced
- nine foreign banks open trust subs.
- interest rate deregulation begins
- Euro-yen FRNs, zero-coupon bonds, CDs, warrants introduced
- withholding tax on Euro-yen bonds issued by Japanese residents removed
- wider non-resident access to Samurai and Euro-bond markets allowed
- MT, LT Euro-yen loans liberalized
- first Shogun bond issue
- first Euro-yen straight bond issued
- bond rating agencies set up

1986 - TSE admits 6 foreign members
- 12 Japanese firms make markets on SEAQI
- Japan Offshore Banking Market opened
- restrictions on Japanese purchases of foreign securities removed
- insurance company and pension fund trust accounts can increase FX assets

1987 - Euro-Yen CP introduced
- Japanese banks' overseas subsidiaries can deal in foreign CP
- membership in government bond syndicate opened to foreign banks
- Japanese financial institutions can trade in overseas futures markets
- stock index futures traded on Osaka exchange
- banks allowed to sell govt. bonds on the secondary market from date of issue
- auction used in primary market for 20-year government bonds
- domestic CP market introduced

1988 - Financial Futures Trading Law
- 4 Japanese securities firms become primary dealers in U.S. govt. sec. mkt.
- restrictions on domestic and Euro-yen CP issues by non-residents relaxed
- postal savings system allowed to increase foreign assets and to diversify domestic investments
- participation of residents in overseas financial futures markets permitted
- tax on bond transactions reduced

1989 - TIFFE opens
- foreign securities firms appointed lead managers in government bond syndicate
- relaxation of restrictions on the JOM
- medium- and long-term Euro-yen loans to residents permitted
- all financial institutions allowed to trade as brokers in overseas financial futures markets

1990 - licenses given to foreign companies to enter the bank trust market
- commissions for large transactions are lowered

1991 - Report of Securities and Exchange Council on capital market reforms proposes that banks and other financial institutions be allowed to own securities subsidiaries
- two Japanese branches of US securities companies allowed to trade in foreign exchange
- foreign securities companies' subsidiaries in Japan are given banking licenses

1992 - legislation on financial sector reforms passes the Diet
- Securities and Exchange Surveillance Commission established: responsible for investigation of unlawful conduct, and inspection of securities firms with respect to the observance of regulation of securities transactions
- investment trust "Guidelines" revised to facilitate establishment of investment trust management companies by both domestic and foreign firms.
- securities houses allowed to offer money market funds

Sources: IMF (1993), ISMA (1993), OECD (1991, 1993), Takeda and Turner (1992).

Table 12. Corporate Income Tax Rates in Selected Industrial Countries, 1977-93

(In percent)

	1977	1993
Australia	50.0	39.0
Belgium	48.0	39.0
Canada	46.0	38.0
Denmark	37.0	34.0
France	50.0	33.3
Germany	56.0	45.0 1/
Ireland	45.0	40.0
Italy	25.0	36.0
Japan	40.0	37.5
Luxembourg	40.0	33.0
Netherlands	48.0	35.0
New Zealand	45.0	33.0
Sweden	56.0	30.0
United Kingdom	52.0	33.0
United States	48.0	34.0
Average	45.7	36.0

Source: Price Waterhouse, Corporate Taxes: A Worlwide Summary, various issues.

1/ The tax rate is reduced to 30 percent for distributed profits.

During the 1980s, the United States and Japan enacted legislation to make their domestic financial centers more competitive in conducting banking activities with nonresidents. In December 1981, the Federal Reserve Board authorized the establishment of International Banking Facilities (IBFs) to regain the Eurodollar market from offshore markets. The authorization enabled U.S. banks to accept dollar denominated deposits from non-U.S. residents free of reserve requirements, deposit insurance, and interest rate limitations. The IBFs were successful in halting the growth of offshore loans by U.S. banks as the latter began to shift a substantial amount of their international activities with nonresidents from offshore branches to the domestic IBFs. 1/ The U.S. share of international bank loans increased from 9.3 percent in 1980 to 15.4 percent in 1983. The principal losers from the establishment of IBFs were booking centers in the same time zone (in particular, the Bahamas and Panama) and continental European centers, rather than London. 2/ The growth of IBFs continued during the 1980s and accounted, by mid-1993, for 47 percent of the external assets of U.S. banks. Japan followed the example of the United States by establishing the Japan Offshore Market (JOM) in December 1986 along the same lines as the IBFs. 3/ The JOM grew rapidly and by mid-1993 accounted for 54 percent of the external assets of Japanese banks. The JOM together with the progress toward deregulated interest rates and increased use of market-based lending rates in Japan has had a significant impact on the reduction of the size of Japanese operations in offshore centers.

On the prudential front, the reduced regulation in the international financial system, the internationalization of banks activities, and the proliferation of offshore centers, induced prudential authorities to place greater emphasis on the consolidated regulation and supervision of banks' worldwide activities (1983 Basle Concordat). In consolidating regulations, the authorities stressed that it was the only reliable way of assessing the soundness of banking groups and their potential risk to the financial system. The Basle Committee recommended that home-country authorities should be responsible for monitoring the risk exposure of internationally active banking groups on the basis of all of their business activities wherever they may be conducted. 4/5/ Moreover, in order to improve the

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1/ For instance, the assets of the branches of U.S. banks in the Bahamas declined from $104 billion in 1981 to $95 billion in 1982.

2/ Between 1980 and 1983, the Bahamas' share in international lending declined from 7.1 percent to 5.3 percent. During the same period, the share of centers in continental Europe declined from 36.6 percent to 27.1 percent, whereas London's share rose from 25.8 percent to 26.6 percent.

3/ Foreign loans were exempted from reserve requirements, withholding taxes, and deposit insurance premia, and deposit rates ceilings were removed.

4/ Countries have to abide by the principle of parental responsibility for the solvency of their foreign branches, and to a lesser extent that of their foreign subsidiaries.

supervision of offshore activities, a committee called the Offshore Group of Banking Supervisors was created in 1980, with the aim of increasing cooperation and exchange of information among OFCs authorities on the soundness of banks registered in their jurisdiction.

The BCCI scandal in 1991, where the offshore bank was able to operate outside the scrutiny of regulators by exploiting gaps in the system 1/, raised further the need for comprehensive consolidated supervision of offshore banks and led the Basle Committee to propose that home-country supervisory authority be complemented by giving greater authority to the host country over the establishment of foreign banks in its jurisdiction. The Committee recommended the setting of minimum standards for the supervision of international banking groups, whereby the host country would: ensure that the home-country authorities of a bank or banking group located in its jurisdiction is capable of performing consolidated supervision of its global activities; expect to receive consolidated statements of the bank's worldwide operations; and, conduct on-site examinations of the bank if deemed necessary. Also under consideration is a proposal to redesignate the concept of home-country to denote the main place of business rather than the country of incorporation.

While broadening their supervision, some countries also took measures aimed at curbing the involvement of their domestic firms in offshore activities. These measures essentially centered on the repeal of tax treaties and changes in domestic tax provisions. 2/ For instance, in 1984, the United States suspended its tax treaty with the British Virgin Islands, and in 1987 it abrogated its tax treaty with the Netherlands Antilles which had enabled U.S.-based investors to circumvent U.S. taxes on a variety of U.S. investments. 3/ In 1986, the U.S. Tax Reform Act eliminated most of the provisions that allowed U.S. banks to avoid taxes by operating in offshore centers. Banks could no longer defer their subsidiaries' taxes on interest, dividends, and capital gains until the income was repatriated; deferring these taxes had been a major incentive behind the move of banks to OFCs. In 1984, both Britain and France passed a

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5/ (...continued)

5/ See El-Erian (1992) and Basle Committee on Banking Regulations and Supervision Practices (1983).

1/ By incorporating its holding company in Luxembourg, where it was not subject to supervision, BCCI was able to avoid consolidated home-country supervision of all its international activities. In addition, by using a dual banking structure through two subsidiaries in Luxembourg and the Cayman Islands, BCCI was able to circumvent the supervision of the host-country authorities due to incomplete information flows and splitting of lead regulatory responsibilities among the jurisdictions. See El-Erian (1992).

2/ Other measures such as higher penalties, better reporting of foreign activities, and tighter monitoring of offshore activities were also implemented.

3/ Holding companies incorporated in the Antilles enjoyed tax benefits and secrecy in their real estate transactions abroad.

Finance Act designed to put an end to the use of offshore subsidiaries to circumvent the taxation of undistributed income. The new regulations stipulated that resident companies holding shares (at least 10 percent in the case of Britain and at least 25 percent in the case of France) in foreign companies registered in low-tax jurisdictions would be subject to domestic corporation tax (Doggart, 1993). In 1991, following the BCCI affair, the British government passed additional laws to curb offshore business; British residents were no longer allowed to defer or avoid taxes by setting up trusts to hold their assets offshore, and capital gains taxes would be payable on assets sold from a trust even if the latter was domiciled offshore. In recent years, Spanish and Portuguese authorities took action to halt the use of offshore companies by foreigners to own property in their countries.

The pressure on highly taxed and stringently regulated jurisdictions to reduce their taxes and regulations was accompanied by pressure on offshore centers to raise their supervision to more acceptable international standards. During the 1980s, investors became more aware of the costs and consequences of operating in loosely regulated centers, as a number of scandals associated with offshore centers surfaced. The financial collapses in the Isle of Man (Savings & Investment Bank in 1982, Maxwell pension fraud in 1993), in Gibraltar (Signal Life affair and the Barlow Clowes International affair in the 1980s) and in Dubai and the Cayman Islands (BCCI affair in 1991), reduced the appeal of these centers for foreign investors. 1/ As a result, OFCs were subjected to mounting pressure to scrutinize the origin of the funds, to enforce anti-laundering legislation, and to abide by onshore trading laws. In response to these pressures, some OFCs tightened their screening of companies moving to their jurisdiction and stepped up their monitoring of illegal activity. For instance, the Cayman Islands began to share records with U.S. Drug Enforcement Agency in 1984, signed a treaty of mutual assistance with the United States and Britain in 1986 covering all non-tax criminal matters, and recently tightened reporting requirements, lending guidelines, and performance reviews. Luxembourg agreed that its banking secrecy laws do not apply when there is evidence of criminal activity and that they will no longer license banks or holding companies that do not conduct business in the country. The Channel Islands imposed drug-trafficking laws similar to the ones in the United Kingdom, and the Bahamas toughened its banking laws and cracked down on drug smugglers. 2/ All these measures have narrowed the differences between what is permissible in offshore and onshore jurisdictions.

1/ In almost all these cases, the investors either recovered very little or had to wait for very long before recovering their money.

2/ Moreover, the Channel Islands' protocol with Brussels, which gives them the benefits of the free-trade association without having to harmonize their laws with EC directives, is contingent on their maintaining strict laws and standards and not being involved in shady transactions.

Due to this convergence in regulation and taxation, the structure of a modern financial center lies somewhere between that of the traditional financial center and the offshore center, offering low taxes, a flexible and friendly regulatory environment, and sound prudential system. As to the future, the high integration of the financial industry and the ease of substitutability of financial products are likely to prevent significant divergences in the regulatory and tax environment of the major international financial centers from occurring. Mutual and pension funds, which control a growing share of the capital that circulates in the international financial system, operate on a worldwide basis, are performance oriented, and would shift funds swiftly from less attractive jurisdictions to more attractive ones. 1/ Depositors and borrowers would always find legal ways to avoid costly regulations and taxes by shifting the booking of their transactions to less regulated centers. In view of the mobility of capital and the facility to arbitrage major discrepancies in tax and regulations, governments would be increasingly weary of taxing financial services, burdening companies with excessive regulations and reimposing capital controls. Within this context, the calls by some economists, in the aftermath of the recent ERM crises, to impose short-term capital controls on foreign exchange trading in order to reduce exchange rate volatility 2/, are more likely to result in a shift of activity from major financial centers to regional offshore centers (although, at this time, only Singapore could vie for such a position) than in reducing short-term volatility. The magnitude of the shift would depend, however, on how much bank capital can move to an OFC in support of foreign exchange transactions without increasing sovereign risk (i.e., the risk of expropriation). Assuming a global banking foreign exchange position of $300 billion, a capital of $30 billion (based on a 10 percent collateral) may be sufficient to provide an adequate settlement guarantee for all the foreign exchange positions that might occur on banks' balance sheets. In the event that banks conclude that shifting such an amount to an OFC would not increase their sovereign risk significantly, capital controls on foreign exchange transactions would be ineffective even with full cooperation among the major financial centers.

1/ In 1989, the imposition of a withholding tax on interest payments in Germany resulted in massive capital outflows which led to its prompt repeal.

2/ These measures include either levying a tax on foreign exchange transactions, maintaining zero interest margin deposits with the central bank against net forex positions, or imposing additional capital requirements against forex positions.

2. The shift from interbank activities to derivative finance 1/

The growth in the use of derivative financial instruments to manage risk has been one of the most spectacular developments in finance during the last decade. In their search for profitable activities and for instruments that facilitate hedging and position-taking, banks have gradually reduced their reliance on traditional interbank markets and have expanded their activities in derivatives markets. 2/ The factors that contributed to this shift include: the higher capital ratios set by the Basle Capital Accord, which induced banks to increase off-balance sheet business and, in some cases, to reduce interbank activity; the institutionalization of savings and the more active management of portfolios internationally; and advances in technology, which have enhanced banks' abilities to assess market risks and to meet more diverse customer demands. 3/ Between 1986 and 1992, financial derivative instruments witnessed a 900 percent increase whereas during the same period the external assets of BIS reporting banks increased by 83 percent. The ratio of the outstanding notional value of derivative contracts on interest rates and currencies to the BIS reporting banks' external assets increased from 27 percent by the end of 1986 to more than 138 percent by the end of 1992.

During this period, almost all of the derivatives trading took place in the major financial centers, with organized exchanges in the United States, Europe, and Japan accounting for more than 93 percent of exchange-traded instruments. Regional OFCs, essentially Singapore, played a minor role in the derivatives markets while booking centers did not play any role. The main reason behind the lack of development of derivative markets in offshore centers is the fact that the trading of derivative instruments entails higher risks (credit, liquidity, settlement and legal risks) than interbank activities and requires more available liquidity than that needed in traditional banking operations. The risks are primarily attributed to the complexity of derivatives which are well understood by only a limited number of participants and the intricate linkages between market participants in a given derivative transaction, which significantly complicate the evaluation of counterparty risk. 4/ As such, financial institutions have been reluctant to add to their intermediation costs by moving to secondary

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1/ Derivative finance includes the writing and trading of forward contracts, futures, options, swaps, and warrants. The value of these instruments is derived from the value of an underlying asset which can be a financial instrument (e.g., shares or bonds), a commodity (e.g., oil or gold) or an index (e.g., S&P or Nikkei). See Folkerts-Landau (1994).

2/ For a detailed analysis of derivative finance, see International Capital Markets, Part II (1993).

3/ See "Recent Developments in International Interbank Relations," BIS Report (1992).

4/ Evaluating risks is particularly important since the management of these risks is conducted bilaterally between the individual counterparties while central banks only retain supervisory responsibilities.

financial centers such as the OFCs, where, in the majority of cases, the sovereign risk (risk of expropriation) is higher than in the primary financial centers, the legal and regulatory systems are weak, access to cash liquidity and funding is limited, and the performance of settlement systems is poor. In view of the greater risks involved, derivatives trading has been limited to a few trading centers, which offer a high level of prudential supervision, sufficient liquidity resources, and sophisticated settlement systems; and to a small group of highly rated institutions, whose general exposure to risk is known and which have the human and technological ability to handle these complex transactions around the clock. 1/

3. Increased concentration of financial activity

The dismantling of capital and exchange controls together with the *liberalization of financial markets have increased the clustering of* financial activity and financial intermediaries in a small number of large financial centers, each a leader in its time zone. Financial activity tends to cluster in the large financial centers due to the economies of scale generated from their deep and liquid markets, which reduce the cost of searching for counterparties with whom to trade and lower trading transaction costs, their efficient clearing and payment systems, and their skilled labor force. 2/ The concentration can be witnessed in London, New York, and Tokyo, which, together, accounted in 1992 for 60 percent of the worldwide foreign exchange market, 40 percent of international bank lending, and 33 percent of the issuance of international bonds. London and New York's stockmarkets alone accounted for 90 percent of equities traded outside their home country.

This heightened concentration of financial activity has decreased the likelihood that a large number of financial firms will relocate from a major financial center to a secondary offshore center. On one hand, the financial industry has historically demonstrated a high level of inertia in moving from one center to another, due to the existence of external economies of scale or "thick market externalities" in the major financial centers (Grilli, 1989). On the other hand, the cost of relocation has substantially increased in recent years, as the financial sector has become more complex and reliant on advanced hardware and software systems, expensive electronic and automated trading systems (e.g., NASDAQ, Globex for futures, Reuters

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1/ Derivatives trading is concentrated among about fifty institutions worldwide, with the bulk accounted for by a handful of large U.S. banks.

2/ Economies of scale accrue when the financial industry reaches a certain critical mass, reflected by the number of financial institutions and the range of financial markets, that enables it to become a magnet for firms to move in ("bandwagon effect"). See Davis (1990).

2000 for foreign exchange and Instinet for equities), and sophisticated settlement systems. 1/

The disintermediation process of the past decade has also increased the concentration of finance in the major financial centers and away from small offshore centers. Institutional investors in OECD countries--pension funds, investment funds, and insurance companies--only operate in large and liquid financial markets and invest most of their assets in government securities, bonds issued by large and highly rated corporations, and very liquid equity markets. 2/3/ Moreover, these institutions depend on international portfolio diversification, and on the volume of cross-border equity transactions, and, therefore, are highly sensitive to international settlement. As such, they prefer to operate in the centers which offer the shortest settlement cycle, allowing them a more flexible management of their portfolios across international markets and a lower risk exposure. 4/

Finally, as capital flows increased between industrial countries, major financial centers extended their trading hours in order to overlap with each other, thereby reducing the need for firms to operate in regional OFCs to cover different markets. 5/ Moreover, the shift from floor-based trading to multi-location screen-based trading, has reduced the need to have more than one trading center in each time zone (8 hours). It is not a matter of coincidence that the three major trading financial centers (New York, London and Tokyo) cover a different time zone allowing round-the-clock trading. However, within a time zone, some trading activities may shift from a major financial center to a smaller OFC when transaction fees, turnover taxes, fixed commissions, and general cost-of-living expenses become unduly high. For instance, some banks have relocated their regional treasury operations from Tokyo to Singapore, due to the high costs in Tokyo. However, as seen elsewhere, the shift of activity tends to be reversed as soon as the major financial center re-establishes its competitiveness.

1/ The development of either advanced trading systems or sophisticated settlement systems may be too costly to undertake unless the initial costs can be spread over a large number of participants.

2/ At the end of 1991, institutional investors controlled almost \$12 trillion or 60 percent of commercial banks total assets, compared to \$2.5 trillion at the end of 1981 or 38 percent of banks assets.

3/ Although institutional investors manage and invest their funds in the main financial centers, some book their transactions in offshore centers because of the lower costs.

4/ For instance, securities bought in London can be reinvested in New York within the same day.

5/ For instance, as London and Tokyo have lengthened their trading hours, Bahrain's time zone advantage has significantly diminished.

V. Concluding Remarks

The dynamics between onshore and offshore economies over the last three decades can be characterized as follows. Initially, when a sector of an onshore economy became uncompetitive due to higher taxes or stricter regulations, it would splinter off from the rest of the financial industry and migrate to offshore centers. The migration would either be to an international offshore center such as London or to smaller OFCs, which compensated for their size and lack of sophistication by offering low taxes and attractive regulatory incentives. In response to the magnitude of the flows to OFCs, domestic financial centers gradually reversed the tide by deregulating their economies, lifting their capital controls, lowering their tax burdens, and increasing their supervisory cooperation. In that sense, offshore centers were instrumental in instigating the tide of deregulation and liberalization of financial markets during the last decade. This process led to the consolidation of some financial centers and the downfall of others.

London consolidated its role as the most important international financial center and as the heart of European financial activity, while a small number of OFCs emerged as financial hubs for their region (e.g., Singapore, Hong Kong) or developed financial niche markets, such as the mutual fund industry in Luxembourg, the banking sector in the Cayman Islands, and the captive insurance market in Bermuda and the Channel Islands. The success of these small centers was attributable to their proximity to a growing region, their stable macroeconomic and political environment, their modern infrastructure and communications network, and their high level of regulatory rectitude. The critical mass of technical expertise and the economies of scale acquired by these centers will probably give them a sustainable and lasting competitive advantage over other centers. On the other hand, the majority of OFCs were unable to attract significant financial activity to their jurisdictions (e.g., Antigua, the Cook Islands, Dubai, Nauru, Turks and Caicos, Vanuatu) due to a variety of reasons ranging from underdeveloped infrastructure, to lack of a skilled labor force, to unstable political regimes, and to involvement in money laundering, and also due to the stiff competition among OFCs. Many others suffered sudden and severe losses of financial activities due to domestic or regional political problems (e.g., Panama, Bahrain), loss of tax treaties (e.g., the Netherlands Antilles), tightening of regulations (e.g., Montserrat), involvement in drug trade (e.g., the Bahamas), and financial scandals (e.g., Gibraltar, Isle of Man).

As to the future of OFCs, in light of the trends mentioned in the previous section, namely, the decline in regulatory and tax burdens, the decline in the importance of interbank markets and the increased cost of switching from domestic centers to OFCs, the recent proliferation of small offshore centers (e.g., Dublin, Cyprus, Madeira, Malta, Malaysia's Labuan Island and Thailand's Bangkok's International Banking Facility) is unlikely to result in a proportionate increase in demand for their services. In a liberalized and highly competitive environment, the likelihood that these

centers acquire the necessary critical mass that would induce firms or markets to relocate from primary financial centers to their jurisdictions is remote. However, if these centers were to succeed in challenging the established OFCs within their time zone, they would more likely emerge as booking centers than as regional centers with "physical" international financial activity taking place in their jurisdiction. In this regard, the registration of financial transactions (e.g., Euro-banking, mutual funds, captive insurance, shipping) in offshore centers will probably continue to appeal to foreign investors for several reasons. On one hand, major financial centers are unlikely to extend the full array of tax and regulatory incentives that tax havens provide. On the other hand, offshore centers offer foreign companies complete discretion and flexibility in the management of their assets. Moreover, individuals, who value secrecy and confidentiality, engage in illicit activities or fear having their assets confiscated, would continue to use tax havens for incorporating their trusts and for tax planning or tax evasion.

In addition to their booking activities, offshore centers may begin to attract back-office operations--settlement work, share registration, processing of credit card billing and other labor intensive activities--from primary centers. With the technological revolution of the last decade, shifting the physical location of less sophisticated tasks from high costs financial centers to countries with cheaper labor is feasible. Industrial countries have already moved their back-office activities to less expensive regions or cities (Citicorp moved its back-office operations to South Dakota, Salomon Brothers moved its settling transactions to Florida and in the United Kingdom, credit card processing shifted to Manchester and Southend); the move to developing countries could be the next step.

Bahrain

I. The Emergence of Offshore Activities

There are several factors that explain the emergence of Bahrain as a regional offshore center in the Middle East over the last two decades. First, in the early-1970s, Bahrain's almost exclusive reliance on revenues from a limited supply of oil subject to volatile prices induced local authorities to lay down the foundations for a banking and financial center that would provide the country with another source of income. 1/ Second, the region's phenomenal growth in oil revenues during the mid-1970s generated a need for a financial center that would recycle the oil surpluses to international interbank markets. With Saudi Arabia, the largest economy in the region, lacking the physical and financial structure necessary to absorb these flows, combined with its conservative attitude towards banking, Bahrain began to operate as the regional financial center. Finally, the emergence of Bahrain coincided with the beginning of the Lebanese civil war and the consequent decline of Beirut as the main banking center of the region.

In 1975, the first offshore institutions were set up in Bahrain and comprised Offshore Banking Units (OBUs), Investment Banking License units (IBLs) and representative offices. 2/ Offshore institutions were granted significant regulatory and fiscal incentives, including an exemption from the expensive requirements that prevailed in other Gulf countries of having a local sponsor or local ownership, and from maintaining reserve and liquidity requirements at the central bank. In addition, OBUs were exempt from corporate income tax and no withholding tax was applied to interest income. 3/ Offshore banks, however, had to maintain a physical presence, be fully staffed, conduct real financial activities and submit audited balance sheets and income statements to the central bank. No "shell" branches were allowed. Local commercial banks--referred to as Full Commercial Banks--were authorized to operate offshore if they obtained OBU licenses for nonresident transactions, and maintained separate accounting records for such transactions.

1/ According to some estimates, at the current rate of oil extraction and barring discoveries of new reserves, Bahrain's onshore oil reserves may only last another ten years.

2/ OBUs had to either be a full branch of their parent bank or be locally incorporated. They were allowed to engage in all types of banking activities with nonresidents, but required special approval for business with residents. IBLs engaged in merchant banking including securities business, underwriting, investment advice, capital raising, and portfolio management. Representative offices promoted business between their home countries and Gulf countries, but did not engage in banking activities.

3/ In order to be licensed, however, OBUs had to pay an annual registration fee of $25,000, which was relatively higher than that of other offshore centers.

The potential of the Gulf region as a source of funds, combined with Bahrain's regulatory and fiscal incentives, its modern infrastructure and communications network, its liberal financial environment, and a favorable time zone between London, Tokyo, and New York 1/ encouraged a large number of banks to open up branches in Bahrain. By 1983, 75 OBUs had been licensed with total assets of $62.7 billion, compared to 26 OBUs in 1976 with total assets of $6.2 billion (Tables A1 and A2). 2/ During the period 1976 to 1983, the share of the offshore sector in the economy increased from 2.6 percent of GDP, to 12.6 percent. About 72 percent of the OBUs were from non-Arab countries, primarily, the United States, the United Kingdom, and France, and held 53 percent of total assets. The sources of funds were predominantly from the six Gulf Cooperation Council (GCC) countries (63 percent)--Saudi Arabia, Kuwait, the United Arab Emirates, Oman, Qatar, and Bahrain--and from Western Europe (25 percent), which were also the main users of funds (41 percent for the GCC and 21 percent for Western Europe). As a whole, GCC countries were a net supplier of $13.6 billion of funds to the OBUs in 1983.

The activities of OBUs revolved essentially around interbank deposit taking and lending, complementing the Saudi banks in financing the booming Saudi economy, and trading the Saudi riyal/dollar spread. Between 1976 and 1983, interbank assets accounted for about 70 percent of OBUs total assets, whereas their lending to nonbanks (multinationals and government enterprises) was around 25 percent. Banks transactions were of a short-term nature (liabilities of up to six months represented more than 90 percent of total liabilities) and were primarily conducted in dollars (68 percent). The lack of medium- and long-term lending was ascribed to the difficulty encountered by foreign firms in assessing local credit risks and profitability of projects, combined with a legal bias against lenders which made loan recoverability highly uncertain. As such, the extension of medium- and long-term facilities had to be secured against collateral (e.g., factories, machinery and land), and targeted towards a small number of prime Arab borrowers. Moreover, in order to increase their fee income while spreading risks among a number of institutions, OBUs engaged in Euro-loan syndications as lead managers or co-managers, lending primarily to Arab borrowers, but also to Latin American, Eastern European, and Chinese borrowers. In the late seventies, Bahrain accounted for about 10 percent of the lending volume in the international syndicated loan market.

The establishment of an offshore center in the vicinity of Saudi Arabia, in conjunction with its underdeveloped financial markets and its conservative attitude towards interest remuneration, prompted Saudi banks to channel their almost interest-free deposits to the remunerated Bahrain's

1/ Bahrain was also open for trading during the weekend.
2/ In addition, 15 IBLs were licensed and 47 representative offices.

Table A1. Assets and Liabilities of Offshore Units, 1971-93

(In millions of U.S. dollars)

	Bahrain (OBUs)						Singapore (ACUs)					
	Total	Nonbanks	Interbank				Total	Nonbanks	Interbank			
			Outside Bahrain	In Bahrain	Inter-OBU	Other			Outside Singapore	In Singapore	Inter-ACU	Other
Assets												
1971	...	...	...	...	...	...	1,063	189	851	...	...	23
1976	6,214	1,734	3,780	136	510	54	17,354	4,048	12,537	414	...	485
1980	37,466	8,493	19,866	204	6,707	2,176	54,393	12,402	28,512	1,085	9,955	2,438
1983	62,741	15,977	32,052	384	8,996	5,332	111,861	30,385	51,965	2,791	19,690	7,030
1986	55,680	13,862	32,445	232	6,379	2,762	200,602	38,742	111,079	4,927	30,604	15,250
1990	59,863	9,405	44,115	758	2,299	3,286	390,396	125,516	195,935	8,745	34,440	25,760
1991	53,382	9,796	37,558	254	1,941	3,833	357,725	134,078	162,181	8,221	26,626	26,619
1992	69,767	11,304	50,427	231	2,394	5,411	355,379	134,184	158,291	9,726	26,740	26,437
1993	60,199	16,853	34,930	163	2,363	5,890	386,103	136,857	169,846	12,717	31,714	34,969
Liabilites												
1971	...	...	...	...	...	...	1,063	238	811	...	...	14
1976	6,214	598	4,939	87	510	80	17,354	1,960	14,268	799	...	327
1980	37,466	8,530	19,927	410	6,707	1,892	54,393	9,251	29,620	1,304	9,995	4,191
1983	62,741	14,734	32,436	1,881	8,996	4,694	111,861	20,620	63,258	1,788	19,698	6,498
1986	55,680	13,072	29,681	1,581	6,379	4,967	200,602	33,805	123,905	4,861	30,604	7,429
1990	59,863	17,276	34,690	676	2,299	4,922	390,396	63,886	263,033	11,956	34,438	14,083
1991	53,382	16,853	28,568	856	1,941	5,164	357,725	63,499	240,931	14,259	26,624	12,412
1992	69,767	15,907	44,276	804	2,394	6,386	355,379	63,612	234,885	18,195	26,742	11,945
1993	60,199	19,330	31,571	656	2,363	6,279	386,103	62,669	258,721	18,502	31,717	14,494

Sources: Bahrain Monetary Agency, Quarterly Statistical Bulletin, various issues; and Monetary Authority of Singapore, Monthly Statistical Bulletin, various issues.

Table A2. Number of Offshore Units, 1968-93

	Bahrain (OBUs)	Singapore (ACUs)
1968	...	1
1969	...	9
1970	...	16
1971	...	19
1972	...	25
1973	...	46
1974	...	56
1975	2	66
1976	26	69
1977	33	78
1978	42	85
1979	51	101
1980	58	108
1981	65	120
1982	72	137
1983	75	153
1984	76	160
1985	74	174
1986	68	180
1987	65	183
1988	62	190
1989	56	191
1990	52	199
1991	51	198
1992	47	196
1993	45	195

Sources: Bahrain Monetary Agency; and the Monetary Authority of Singapore.

offshore markets, thereby realizing an instantaneous profit. 1/ The bulk of the riyal funds were invested in liquid instruments such as short-term or overnight deposits earning high returns; between 1975 and 1980, interest paid by Bahrain banks on riyal deposits averaged 8 percent. Moreover, given the Saudi exchange rate policy of maintaining a stable riyal/dollar exchange rate, and the higher return on U.S. dollar deposits than on riyal deposits (the dollar/riyal spread averaged 5 percent between 1975 and 1980), OBUs began to borrow Saudi riyals from Saudi banks, convert the riyals into dollars and invest the dollars on the Euromarkets for the duration of the riyal deposits (Seznec, 1987). 2/ In other words, a forward market in riyal-dollar transactions was created. These transactions were extremely profitable and encouraged the establishment of numerous OBUs whose main interest was to capitalize on these easy foreign exchange gains. Foreign banks were also active players in this market either using the funds of their sister companies in Saudi Arabia or borrowing from Saudi banks to invest in Bahrain's financial markets. Bahrain's forward market grew from $541 million in 1976 to $18.7 billion in 1983, with trading against the dollar accounting for most of the activity.

II. Development of Bahrain's Offshore Center During the Last Decade

The rapid growth of Bahrain during 1976-83 period came to a halt in the mid-1980s, as the region was struck by a major recession, the international debt crisis unfolded, and structural weaknesses in the offshore sector appeared. The decline in oil prices from around $34 a barrel in 1981 to around $16 in 1986, and the war between Iran and Iraq, led to a significant deceleration in the growth of economic activity in the region and a contraction in offshore activities in Bahrain. 3/ The impact of the recession on the decline in projects-related finance is evidenced by the drop in the value of contracts awarded in the GCC, from $37.5 billion in 1982 to $5.4 billion in 1987. As the bulk of OBUs regional lending went into construction-related projects, the collapse of the oil market left the banks with a huge portfolio of nonperforming loans, primarily from Saudi companies, which had to be provisioned against for many years. Moreover, OBUs suffered from the collapse of the Kuwaiti unofficial stock market (the Souk el Manakh) in 1982. During the early part of the 1980s, many syndicated loans were floated in Bahrain to lend money to Kuwaiti traders. These loans were fully secured by either land or shares. After the Souk-el-

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1/ Between 1976 and 1983, more than 60 percent of riyal deposits in Saudi Arabian banks were held in demand deposits free of interest.

2/ The supply of regional currencies came primarily from local contractors involved in the construction boom of Saudi Arabia that wanted to convert their revenues in riyals into their home currencies.

3/ The region is heavily dependent on oil revenues, which account for more than two thirds of government revenues in Saudi Arabia, more than 85 percent in Kuwait and Qatar, more than 70 percent in Oman and the UAE, and more than 64 percent in Bahrain.

Manakh crash, the values of these collateral assets plummeted, causing major losses to OBUs (e.g., Al Bahrain Arab African Bank and Bahrain Middle East Bank) and a drop in their medium-term lending. In addition to the regional problems, OBUs suffered from the international debt crisis in 1982, as OBUs had large exposures to Latin American countries (e.g., Arab Banking Corporation and Gulf International Bank), which led to a severe drop in their loan syndication business which had been an important and lucrative activity.

As such, as the second wave of Arab and foreign banks arrived in Bahrain in the early 1980s, the oil surpluses had dried up, investment opportunities in the region were diminishing, and the loan syndication business was curtailed. Between 1983 and 1986, the number of OBUs contracted by nine percent to 68 units and their assets shrunk by 11 percent to $55.7 billion. The majority of the OBUs leaving Bahrain were branches of large foreign banks (e.g., Continental Illinois, Lloyds Bank, Kredietbank) while regional banks maintained their activities on the island. During this period, OBUs profits declined from $448 million in 1983 to $73.6 million in 1986, primarily on account of their provisioning for bad debts and the lower volume of business in the region.

Although the recession and political tensions of the region prompted the decline in offshore activities in Bahrain, they also exposed three underlying weaknesses in the conduct of banking in Bahrain. First, the lack of indigenous business in Bahrain combined with a small savings base, a limited array of financial instruments offered to customers, and a high reliance on interest-based income, did not provide Bahrain with the necessary critical mass for absorbing regional shocks and redirecting its activities to other sectors. With international banks moving away from interbank activities into fee-based off-balance sheet activities, Bahrain lacked the adequate expertise and technology to participate in these markets.

Second, the inadequate local protection for banks in GCC countries--against the risk of not getting interest paid and even principal--was highlighted when foreign banks, burdened with a portfolio of nonperforming loans, encountered difficulties in using local legal systems for recovering their collateral. GCC courts, in particular the Islamic Sharia courts, often revealed a bias against lenders and, in some instances, ruled that interest payments were illegal and ordered banks to return past payments made by borrowers (Johnston and Leite, 1987). Moreover, the lack of full compliance with international regulatory and reporting requirements (disclosure and Basle capital ratios), and the reluctance of some local banks to accept comprehensive auditing, reduced further the willingness of foreign banks to increase their exposure to domestic entities. As such, OBUs reduced their lending activity to domestic entities and increased their exposure to banks abroad and governments; between 1983 and 1986, OBUs loans to banks abroad and governments increased from 57 percent of their total assets to 67 percent.

Third, Bahrain was a high cost financial center. According to U.N. and IMF estimates in 1987, Bahrain was one of the most expensive financial center in the world, ranking higher than London, New York, Singapore, Hong Kong and most other OFCs. 1/ Costs of living, telecommunications and social charges were expensive, and the need to employ a high proportion of expatriate staff in senior positions increased operating costs of banks substantially. By many accounts, the rising operating costs in Bahrain were an important factor behind the decline in OBUs profitability and the departure of some foreign banks (e.g., Bank of America in 1990).

In addition to the above mentioned factors, Bahrain was subject to the regional competition of Saudi Arabia and Dubai, and from the lengthening of trading hours in the major financial centers, which undermined its importance as a regional trading center. In the early 1980s, Saudi Arabia developed a sophisticated financial infrastructure, and Saudi banks began establishing joint ventures with western banks and opened branches in London, New York, and Singapore giving them greater access to international financial markets. Moreover, as their local financial markets developed, fueled by the financing needs of the government budget deficits, Saudi banks had less incentive to place their funds in Bahrain. Concomitantly, and following the intensified speculation against the riyal in the mid-1980s which was perceived to be overvalued following the drop in oil revenues, the Saudi Arabia Monetary Authority (SAMA) took a variety of measures to halt the speculation against its currency and to prevent the internationalization of the riyal, including the issuance of 90-day treasury bills to remove excess liquidity from the market, and introduced restrictions on the riyal syndication market. These measures, coupled with the decline in Saudi-related project lending, caused a major blow to the activities of OBUs.

Dubai attracted business from Bahrain, in particular trade financing, due to its flourishing trade with Iran. Although Bahrain had a more skilled labor force than Dubai, a more established financial industry, and a sounder legal and regulatory regime, Dubai's appeal over Bahrain stemmed from its free trade zone (Jebel Ali) which allowed foreign companies 100 percent ownership of their interests in the zone, its financial and trading links with Iran, its high level of income and liquidity, its adherence to free-trade, and its lower operating costs. In response to the competition from Dubai, Bahrain liberalized some of its investment rules in 1992, allowing investors to set up enterprises that are 100 percent foreign-owned, and introduced a seven day fast track system for foreign companies registration. The earlier 49 percent maximum share on foreign ownership of local interests had been an impediment to the move of many foreign firms to Bahrain.

Throughout the last decade, Bahrain's share of the international foreign exchange market has remained small, accounting for less than 0.5 percent of international activity. In addition to the regional and structural disadvantages, Bahrain's time zone advantage has been diminishing

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1/ Johnston and Leite, 1987.

in recent years, as European and Asian centers trading hours began to overlap and weekend trading failed to attract sufficient interest from participants in the major financial centers.

After a brief period of recovery between 1987 and 1989 in which OBUs assets climbed back to $72.6 billion, Bahrain's offshore sector suffered another setback after the Gulf war in 1990. The war sharply reduced confidence in the region and led to large withdrawals of funds, the cutting of interbank international credit lines, and the departure of a large number of Japanese and German banks. With the shortage of interbank lines, and the reluctance of the Bahrain Monetary Agency (BMA) to meet the needs of OBUs and to act as a discount window for their assets, many OBUs had to sell assets to meet their obligations. 1/ OBUs assets declined to $53.4 billion in 1991 before recovering to $60.2 billion in 1993 while the number of OBUs declined from 56 in 1989 to 45 in 1993.

III. Concluding Remarks

Bahrain's prosperity as a regional OFC and its potential to become the financial hub of the Gulf region will depend on its ability to expand its capital and securities markets, develop financial niches, and improve its legal and regulatory framework.

With the short supply of public and banking funds in the region, GCC governments have encouraged the development and revitalization of their domestic stock markets as a conduit for privatizing state enterprises, raising capital, and improving the valuation of assets. In the same vein, Bahrain has recently introduced measures to deepen its financial markets and attract foreign participation. These measures would allow non-GCC investors, who have lived in the countries for at least three years, to trade the shares of some offshore companies listed on the exchange 2/, and would also allow foreign residents to invest in the shares of local companies through mutual funds and unit trusts. Bahrain's stock exchange, although one of the most sophisticated in the region, remains small and illiquid. Since the official inauguration of the stock exchange in 1989 3/, the number of companies listed on the exchange has remained at around 30 (21 Bahraini and 9 offshore entities), with a total paid-up capital of $2.4 billion. By the end of 1992, the total market capitalization of the Bahrain stock exchange stood at $4.4 billion and the value of shares traded averaged $168 million. Considering the size of its

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1/ However, BMA met the needs of domestic banks which also had to deal with a run on deposits.

2/ At this time, non-GCC investors are allowed to trade the shares of four OBUs, namely, Arab Banking Corporation, Bahrain International Bank, Faysal Islamic bank and Trans-Arabian Investment Bank.

3/ Shares had been traded informally for many years before the the official opening 1989.

stock market and the competition from neighboring countries' exchanges (e.g., Abu Dhabi and Oman), Bahrain may encounter difficulties in developing the financial deepening and economies of scale that would allow it to become the regional financial center.

In order to develop economies of scale and regain the regional importance that it had in the early 1980s, Bahrain would have to develop a niche market in the GCC region based on its regional customer base, which would rely more on end-users deposits than on interbank funds. Bahrain could emerge as the Luxembourg of the Middle East, with regional securities listed and traded on its stock exchanges. Bahraini authorities are examining several measures that would encourage regional and international companies to list their shares on the exchange and increase linkages with regional stock exchanges. Bahrain could also become a center for fund management if the stock markets of the region are more integrated and support the mutual fund industry. In January 1993, the BMA took some steps in this direction, issuing new regulations that would allow the local incorporation of international fund managers that would specialize in investments in the region. Some of the funds also could be structured to meet Islamic Sharia laws.

In September 1992, and following the BCCI debacle, GCC central bank governors voted to adopt BIS capital adequacy requirements and to adhere more strictly to international accounting standards by disclosing more information about their assets and liabilities, their maturity structure, related party transactions, and foreign exchange open positions. The BMA also introduced a deposit insurance scheme for small investors, including residents and nonresidents, which will apply to demand and time deposits and will cover deposits up to $39,700. In order to further enhance its attractiveness to foreign investors, Bahrain will need to create a codified legal and accounting system, tighten further its supervision of offshore activities, reduce legal restrictions on foreigners' access to domestic capital markets, and implement policies to foster greater integration of Arab financial markets.

Singapore

I. The Emergence of Offshore Activities

During the nineteenth century and early twentieth century, Singapore was an important regional entrepot trading center and developed a small but relatively sophisticated banking and financial center to service the trading and commercial needs of the region. By the time of its independence in 1965, Singapore had 34 licensed banks, of which ten were local entities, nine were branches of European or North American banks, and 15 were branches of Asian banks (Bryant, 1986). The financial services offered by these banks revolved around financing trade flows, short-term interbank deposit taking and lending, and some foreign exchange trading.

In the late 1960s, as part of a new development strategy aimed at promoting an export-oriented manufacturing sector and diversifying its economy from entrepot trade, the Singapore authorities decided to expand the role of the financial sector and to turn the city/state into a modern financial center, catering to regional and international investors. Underlying this decision lay several local and regional developments. First, being part of Malaysia, Singapore's trading activities suffered significantly from the trade embargo imposed on Malaysia by Indonesia in 1964, following political tensions between the two countries. During that year, Singapore's trade shrank by 24 percent while the growth of its economy came to a halt (Ng, 1979). Second, following its sudden separation from Malaysia in 1965, Singapore's volume of entrepot trade declined dramatically as it lost a major market. Finally, the decision of the British government in 1967 to withdraw its military forces from Singapore over a period of three years, instead of the originally proposed ten years, dealt another blow to the economy of Singapore. Expenditures related to the presence of the British forces on the island accounted for about 15 percent of Singapore's GNP and around 13 percent of the population was directly or indirectly associated with the military forces. These factors, combined with Singapore's lack of natural resources, prompted the government to actively promote the development of additional sources of growth for its economy.

Thus, in 1968, the Singapore authorities introduced a series of tax and regulatory incentives to attract foreign financial activities and investment to the country. One of the first measures taken was the granting of a license to the Bank of America to set up an entity referred to as an Asian Currency Unit (ACU), similar to the European Currency Unit in London, to

handle international transactions. 1/ The objective of ACUs was to enable banks to engage in international transactions under a favorable tax and regulatory regime, and to attract nonresident deposits to finance local and regional investment needs. The most important tax incentive granted to ACUs was the exemption from withholding tax on interest income earned on ACUs deposits held by nonresidents. ACUs were also allowed higher foreign exchange position limits than domestic banks to promote their participation in the foreign exchange market. These tax incentives, however, did not apply to the domestic operations of banks, referred to as Domestic Banking Units (DBUs), and Singapore residents were not permitted to deposit funds or borrow from ACUs.

Although the Singapore government was selective in granting full banking licenses to foreign banks, the attractive tax incentives offered by the authorities induced many foreign banks to open branches in the country (ACUs increased from one in 1968 to 14 in 1970). Concerned that such an influx of foreign banks would create excessive competition to the domestic sector and would ultimately lead to an over-banked financial sector, the government created a new category of banking license in 1971 which restricted the involvement of foreign banks in domestic banking business. Specifically, restricted-license banks were allowed to operate an ACU with the similar range of business as a full-license bank, except that they were not permitted to accept time deposits of less than $250,000, operate saving accounts, and set up branches in the country. However, as the flux of foreign banks continued (ACUs increased from 19 in 1971 to 46 in 1973), the Singapore government decided to restrict further the domestic activities of foreign banks and introduced the "offshore banking license" in 1973. Banks with an "offshore" category license primarily concentrated on offshore wholesale banking with nonresidents, and foreign exchange and Asian dollar transactions. However, they were prohibited from accepting Singapore dollar deposits, except from other banks and approved financial institutions, and their extension of credit to Singapore residents was restricted to a maximum of S$30 million. 2/ With the exception of a few full-licenses granted for political reasons, the majority of licenses granted after 1973 have been offshore licenses.

The establishment of ACUs, coupled with the decision of the government to abolish the withholding tax on foreign currency deposits held by nonresidents, spurred the development of the offshore Asian Dollar Market

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1/ The ACU is a bookkeeping entity that records transactions by nonresidents with banks operating in the Asian Dollar Market. ACUs are not allowed to incur assets or liabilities denominated in Singapore dollars. Although the ACU is an integral part of a bank, separate accounting records of ACU transactions have to be maintained to avoid leakages from the offshore sector to the domestic economy and to prevent disruptions in the domestic monetary policy.

2/ The dollar lending limit for offshore banks has subsequently been raised and stood at S$100 million in 1993.

(ADM), which is the Asian leg of the Eurocurrency market, and the launching of Singapore as the regional OFC in Southeast Asia. Between 1971 and 1983, the ADM grew rapidly, from $1 billion to $111.9 billion and at an annual growth rate of 62 percent, surpassing the growth rate of the Eurocurrency market; meanwhile the number of ACUs increased from 19 to 153 units (Tables A1 and A2). 1/ As with other OFCs, interbank assets accounted for around 74 percent of ACUs activities while lending to nonbank customers constituted only 23 percent of total assets. An examination of the structure of the ADM in the first half of the 1970s clearly reveals the regional character of ACUs financial transactions. The main sources of nonbank funds were from Asia (88 percent), with Hong Kong, Singapore, and Indonesia being the principal depositors. Although European countries contributed about 8 percent of the funds, the United States and the Middle East provided, respectively, 2 and 1 percent. With regards to the uses of funds, Asian countries (mainly Indonesia) also were the main recipients of funds, receiving more than 80 percent of the loans, while European borrowers received about 3 percent of the funds. As common in offshore markets, ACUs primarily engaged in short-term transactions, with loans under three months accounting for more than 60 percent of total lending. Between 1971 and 1983, the importance of the financial sector in the Singapore economy grew substantially, as evidenced by the share of financial and business activities in real GDP, which increased from 17 percent of GDP to almost 23 percent, and the share of the labor force employed by the financial sector increased from 5.9 percent to 8.1 percent.

The Asian Dollar Bond (ADB) market was launched in 1971 but began to be active in the second half of the seventies, following the end of the worldwide recession. The factors that contributed to the growth of the ADB were the removal of the withholding tax on interest income received by nonresident holders of ADBs in 1973, the waiver of the stamp duty tax in 1973, the exemption from estate duty on approved ADBs in 1976, and the application of a 10 percent concessionary tax rate on the profits of ACUs derived from managing, underwriting, and selling ADBs in 1978. Between 1971 and 1982, 95 issues amounting to $3.6 billion were floated in the ADB market, with nonresident borrowers accounting for the majority of the issues. The share of the ADB market in the Eurobond market was, however, small, averaging less than two percent, and the secondary market for ADBs was underdeveloped.

The most important factor behind the spectacular growth of Singapore offshore markets during the seventies and early eighties was the rapid growth of Asian economies and the large flows of foreign direct investment to the region which generated large surpluses of capital that had to be intermediated. As no regional financial center had the infrastructure and

1/ The growth of the offshore banking sector also significantly outpaced the growth of the domestic banking sector. Commercial banks assets increased from S$6.1 billion in 1971 to S$56.5 billion in 1983 at an annual growth rate of 20 percent.

expertise to provide for the needs of large multinationals, most intermediation was taking place on the Eurocurrency markets in London. As such, conditions were ripe for the entry of Singapore as the regional collecting and funding center. Moreover, in the late 1970s, as the tightening of monetary conditions in the United States led to increases in Eurodollar interest rates, international banks began to aggressively tap the surpluses of the Asian-Pacific region and to use Singapore as the regional base. In addition to these external factors, Singapore's benefitted from a time zone advantage, because it was situated between Europe and the Far East, which allowed it to trade with London, Tokyo, and New York within the same day; a modern communications network and developed infrastructure, due to its historical role as the regional entrepot trading center; a stable political system; and a reliable legal system and regulatory regime.

Another determining factor behind the success of Singapore was the financial liberalization it embarked on during the 1970s. In 1972, the Monetary Authority of Singapore (MAS) removed the 20 percent statutory liquidity requirements on foreign currency deposits, which had put the ADM at a disadvantage compared to the Euromarket, and eliminated the cartel system of fixed exchange rates, giving a significant impetus to the growth of its foreign exchange market. 1/ Around the same time, the restrictions on the participation of Singapore residents in the ADM, which had been imposed to prevent leakages from the offshore sector to the domestic economy, were relaxed. In particular, residents were allowed to borrow foreign currency from ACUs for export financing and other trade-related activities. Also, resident individuals and corporations, including pension funds, were allowed to hold deposits in the ADM. 2/ In 1975, the fixed interest rate cartel which prevented banks from setting interest rates freely was abolished, and in 1978, foreign exchange controls were lifted, while restrictions on payments, remittances and repatriation of profits to most countries, were eliminated.

Finally, Singapore maintained the competitiveness of its offshore sector by offering additional tax concessions for offshore activities and by widening its double tax treaty network. In 1973, the corporate income tax of ACUs on interest income from offshore loans made in foreign currencies was reduced from 40 percent to 10 percent, partly to align its tax incentives with those of Hong Kong where a 10 percent tax rate was in effect. During the same year, the 1/2 percent stamp duty tax was waived on approved ACU offshore loans and, three years later, on all offshore loans. The waiving of the stamp tax was aimed at encouraging loans to nonbank customers by reducing the spread between deposit and lending rates on nonbanks, which averaged about one percent compared to less than 1/4 percent on interbank loans. In 1976, the 10 percent concessionary rate was extended

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1/ Until 1972, banks bought and sold foreign exchange at rates determined by the Singapore Association of Banks.

2/ Deposits were, however, limited to S$100,000 for individuals and S$3 million for corporations. These ceilings were increased over the years.

to other offshore activities, including fees and commissions on offshore letters of credit. Later in the decade, the preferential tax treatment was extended to negotiable certificates of deposits in foreign currencies issued by ACUs, foreign exchange transactions that did not involve the Singapore dollar, dividends paid by resident companies out of offshore income, and offshore reinsurance business.

II. Development of Singapore's Financial Center During the Last Decade

The growth of offshore activities continued throughout the 1980s, although at the slower pace of 18 percent annual growth rate. In the beginning of the 1990s, the growth of the ADM contracted, with total assets falling from $390 billion in 1990 to $355 in 1992 before rebounding to $386 billion in 1993, and the number of ACUs declined from 199 units in 1990 to 195 units in 1993. The slowdown was entirely accounted for by a fall in interbank activity (Table A1), reflecting the contraction in the international business of Japanese banks in wake of the asset price deflation in Japan. The decline in interbank activity, however, reveals a greater focus of ACUs towards lending to regional nonbank customers over the last decade. Between 1980 and 1993, the share of loans to nonbank customers (multinationals as well as regional companies) in total assets increased from 23 percent to 35 percent. As the Southeast Asian region grows and industrializes, Singapore's offshore center is likely to continue to play a pivotal role in channelling capital to the region. 1/

During the past decade, Singapore continued to promote its offshore financial sector by providing further fiscal incentives, introducing new financial instruments, and deepening and widening its financial markets. Fiscal incentives centered around the extension of tax concessions or exemptions for income derived from activities such as syndicated offshore loans and other credit facilities, unit trusts owned by nonresidents and managed by approved fund managers domiciled in Singapore, oil trading activities, and swap transactions denominated in foreign currencies. Moreover, the limit on foreign ownership of shares in local banks was increased from 20 percent to 40 percent, and international securities houses were allowed to own local stockbroking firms as long as they serviced foreign clients and the wholesale domestic market. Activity in the offshore ADM also benefitted from the introduction of a broader array of financial instruments such as floating rate notes, Asian commercial paper, revolving underwriting facilities, and note issuance facilities.

Although international banking remained the backbone of its financial industry, accounting for 35 percent of the financial sector, Singapore acquired a leading role in foreign exchange trading during the last decade

1/ For instance, between 1989 and 1991, Indonesian and Thai companies raised almost $4.7 billion in Singapore.

and overtook Switzerland in 1992 to become the fourth largest foreign exchange market in the world with an average net daily turnover of $81 billion. Singapore was able to acquire this role due to the large number of international banks in the country, the close regulation of its prudential authorities which has attracted regional central banks and international investors, its modern infrastructure, and its low operating costs.

Since its establishment in 1973, the Stock Exchange of Singapore (SES) has been dominated by Malaysian companies which accounted for about 60 percent of the companies listed on the foreign exchange. 1/ The low representation of Singapore companies on the SES was primarily attributable to its small domestic base, the difficulty of small companies in meeting the stringent listing requirements of the SES, and the informal means of obtaining financing that were prevalent at the time. In 1990, after the Kuala Lumpur Stock Exchange (KLSE) became active, Malaysian shares were delisted from the SES, reducing the number of stocks listed on the Singapore exchange by more than half. Since then, the SES has recovered from the loss of activity and by end-1993, 235 companies were listed on the main board with a market capitalization of $133 billion, compared to 175 companies with a market capitalization of $49 billion in 1990.

Singapore's capital markets were given significant impetus in 1990, when an over-the-counter (OTC) market known as CLOB International was launched. The CLOB allowed investors to trade securities listed on regional stock exchanges (particularly Malaysia, Hong Kong and the Philippines). 2/ By 1992, about 128 companies (113 from Malaysia and ten from Hong Kong) with a combined market capitalization of $78 billion were listed on the CLOB International. In light of the high dependency of Singapore exchanges on the listing and trading of Malaysian companies, and the risk that the latter relocate to the KLSE as it becomes more sophisticated, the government has encouraged the participation of domestic investors in local exchanges. In particular, regulations governing investment of the Central Provident Fund (CPF) were relaxed, allowing CPF holders to invest 40 percent of their funds, in excess of S$34,600, in shares, unit trusts, and property. Capital markets will also gain depth from the privatization of government-linked companies that the government has embarked on. For instance, the privatization and floating of Singapore Telecom in 1993 deepened the Singapore's equity market significantly; in March 1994, the utility company accounted for more than 20 percent of total market capitalization.

Since its opening in 1984, the Singapore International Monetary Exchange (SIMEX), which trades in commodity and financial futures and options, has grown steadily from 539,000 contracts in 1985 to 12 million in

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1/ Prior to 1973, Singapore had a joint stock exchange with Malaysia.
2/ Share trading in the OTC market is entirely computerized, enabling the SES to handle large volumes of transactions. Singapore was one of the first countries in the world to introduce a fully computerized trading system.

1992, at an average of 65 percent a year. Except for Tokyo, SIMEX is the most active and sophisticated derivative exchange in Asia. In recent years, trading on the SIMEX has become increasingly dominated by Japan-related contracts (e.g., futures and options on the Euro-yen and Nikkei index), which accounted for 50 percent of total contracts in 1992, compared to 25 percent in 1989. The trading of Japanese derivatives is primarily due to restrictions in Japanese futures markets. 1/ The appeal of SIMEX to foreign investors stems from the tight regulation of the exchange by the MAS, from the mutual offset arrangement with the Chicago Mercantile Exchange--whereby a trader may open a contract on one exchange and close it on the other--from the tax incentives, and from the efficient clearing system. 2/

Activity in the Asian Dollar Bond market remained weak during the last decade, as most issuance and trading of bonds took place in London, reflecting the economies of scale and liquidity of the Eurobond market. Fund management, although still in its infancy, has picked up in recent years, following the introduction of tax incentives and the larger participation of domestic investors subsequent to the relaxation of controls on the investment of CPF funds.

III. Concluding Remarks

The success of Singapore as a regional offshore financial center is primarily attributable to the fast growth of the Asia-Pacific region to which Singapore has catered extensively, to the political stability that prevailed on the island during the last three decades, and to its initial head start over neighboring centers in terms of a more advanced infrastructure and a larger pool of skilled workers developed during its years as an entrepot trading center. Moreover, the active involvement of the government in granting tax and regulatory concessions to offshore activities and the continuous upgrading of its infrastructure and technology allowed Singapore to develop economies of scale, acquire a critical mass of technical expertise, and, hence maintain its competitive edge over neighboring financial centers. Singapore's chances of becoming a major financial center will remain constrained, however, by the size of its economy, its limited investor base, the opening up of Southeast Asian economies and the improvement of their domestic banking capabilities, and the increased competition from other neighboring offshore centers (e.g., Malaysia's Labuan Island and Bangkok's International Banking Facility).

1/ For instance, the Tokyo and Osaka Stock Exchanges tightened regulations on stock index futures and options trading in December 1991, including raising margin requirements for futures and options trading.

2/ Tax incentives include a concessionary 10 percent tax rate on income derived from transactions in approved exchange with nonresidents, ACUs, foreign branches of a company resident in Singapore, and other members.

Analytical Framework

In order to illustrate the factors that determine the migration of capital from domestic financial centers to offshore centers, a simple model based on Gros (1990) is presented. The model consists of two countries, an onshore and an offshore country, with two sectors, households which provide the savings, and firms which borrow the savings to finance investment projects. It is assumed that households hold all their savings in either domestic or offshore (Euro) bonds and that firms can only borrow by issuing bonds in domestic or offshore markets. 1/

Although the shifting of capital from domestic to offshore markets is motivated by regulatory and tax incentives in OFCs, it entails switching costs. Households' switching costs may be attributable to the risk of being caught evading taxes or to higher expropriation risks. Firms switching costs may be due to restrictions on capital movements, information costs, or costs of opening branches or subsidiaries in offshore centers. 2/ Switching costs vary across households due to different degrees of risk aversion, and across firms due to the greater access of large firms to Euromarkets and therefore to their lower costs in establishing their reputation abroad and obtaining financing. Assuming a continuous and uniform distribution of households and firms which can be respectively indexed by two real numbers j and k which are normalized to lie in the interval [0,1], the switching costs for households and firms are equal to $\theta_h j$ and $\theta_f k$. The parameters θ_h and θ_f are positive constants and indicate the maximum switching cost, that of the household or firm with index 1, i.e., $j=k=1$.

Households are indifferent between holding their savings in domestic or Eurobonds when the after tax return on domestic bonds equals the after tax return on Eurobonds minus the switching costs:

$$(1-\tau)i = (1-\tau^*)i^* - \theta_h c_h \tag{1}$$

where i and i^* are the interest rates on domestic and Eurobonds, τ and τ^* are the tax rates withheld on domestic bonds and Eurobonds, and c_h represents the extent of savings that are shifted to offshore markets.

Similarly, firms will be indifferent between financing their investments in domestic or offshore markets when the cost of borrowing at

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1/ In order to simplify the model, the exchange rate between the two countries is normalized to one.

2/ It is assumed that when households invest their savings offshore they are evading taxes whereas firms can legally borrow abroad to avoid domestic regulations.

home plus domestic regulatory costs equal the cost of borrowing offshore plus offshore regulatory costs and switching costs:

$$i + \alpha = i^{*} + \alpha^{*} + \theta_{f}c_{f} \qquad (2)$$

where α and α^{*} represent the cost of regulations in domestic and offshore markets (e.g., disclosure requirements), and c_f represents the extent of investments financed offshore.

Assuming that savings equal investments and hence that the current account is balanced, the following relation must hold in equilibrium: 1/

$$c_f = c_h = c \qquad (3)$$

where c represents the total amount of offshore activity as a proportion of total domestic savings or investments.

Solving equation (1) to (3), the total financial activity that migrates from domestic to offshore centers is given by:

$$c = \frac{(\tau-\tau^{*})i + (\alpha-\alpha^{*})(1-\tau^{*})}{(1-\tau^{*})\theta_f + \theta_h} \qquad (4)$$

Offshore activity is shown to be positively related to the tax and regulatory differentials between domestic and offshore centers, respectively, $\tau-\tau^{*}$ and $\alpha-\alpha^{*}$, and negatively related to the switching costs of households and firms, θ_h and θ_f.

1/ It is also assumed that only domestic households and domestic firms participate in domestic capital markets. This assumption is valid since offshore investors would have to pay a higher regulatory and fiscal burden by investing in domestic markets.

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