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Offshore Banking: An Analysis of Micro- and Macro-Prudential Issues

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Abstract

The paper takes a closer look at offshore banking—a pervasive practice that has played a role in recent crises. Offshore banking is an increasingly attractive alternative to the sometimes heavily regulated financial markets of emerging economies. From a microeconomic vantage point, offshore banks seem to exploit the risk-return tradeoff by being more profitable than onshore banks, and in many instances also more leveraged. Risks stemming from offshore activities may be easily transmitted onshore with systemic consequences. Current prudential and supervisory frameworks are broadly adequate for risk management if effectively and universally implemented.

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Contents Page

Appendix Tables

Appendix Charts

I. INTRODUCTION

Offshore banking is a pervasive activity both with respect to the number of offshore financial centers (OFCs) and the volume of transactions. A number of factors ranging from favorable regulatory frameworks and convenient fiscal regimes, to the possibility of engaging in illegal activities, including money laundering, continue to attract business to OFCs. Offshore banking appears to be a particularly appealing option to the sometimes heavily regulated and maturing financial markets of emerging economies, especially those experiencing sustained high growth rates and in need of investment financing. Currently, OFCs are an important and growing intermediation channel for emerging economies, as suggested by a large and growing share of OFC assets and liabilities in relation to these countries.

The IMF's management and Executive Board recognize that the Fund can play an important role in addressing some of the issues surrounding offshore banking through surveillance, dissemination of internationally accepted prudential and supervisory standards, consultations, and conditionality.[1] Several features of offshore banking call for the Fund's involvement and, consequently, motivate staff work on this topic.

First, offshore banking has important implications for financial systems surveillance. A greater leeway for balance sheet management, granted by favorable regulatory frameworks in OFCs, makes offshore banks potentially more vulnerable than onshore banks to solvency and foreign exchange risks.These can be transmitted between offshore and onshore banks with implications for the soundness of onshore banking systems. Hence, a better understanding of offshore banking is important for the Fund's financial sector surveillance activities.

Second, offshore banking is a substantive issue for emerging economies with financial systems that are perhaps more vulnerable than others to reversals in capital flows, rapid accumulation of short-term external debt, unhedged exposure to currency fluctuations, and selective capital account liberalization. Offshore banking has most certainly been a factor in the Asian financial crises. It also played a significant, but not catalytic, role in the recent Latin America crises. A special effort is therefore needed to help emerging economies—an important part of the Fund's constituency—to avert financial crises through dissemination of internationally accepted prudential and supervisory standards appropriate for offshore banking. These are supplementary to the Basle Committee's *Core Principles* and include the

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[1] See, for instance, EBS/98/67 (April 10, 1998), BUFF/98/24 (March 5, 1998), the Communiqué of the Interim Committee of the Board of Governors of the IMF (October 4, 1998), and the opening address of the Managing Director to the Board of Governors of the IMF (October 6, 1998).

Basle Committee's *Minimum Standards*[2] and other recent initiatives of the international supervisory community.[3] There are, however, a number of gaps in the current regulatory and accounting frameworks that complicate, and may even impede, the effective consolidated supervision of offshore banking activities.

Third, offshore banking has implications for the Fund's work on the promotion of good governance. Offshore banking, as such, is less transparent than normal cross-border banking due to the complexity of ownership structures and relationships among different jurisdictions involved. This increases the potential for dubious activities and contributes to weakening good governance in banks and corporations.

This paper seeks to shed some light on offshore banking with the above considerations in mind. It focuses on offshore banking because it constitutes the majority of offshore activities, while recognizing that non-banks, notably corporations, play an important role in offshore markets.[4]

The paper is organized as follows. Section II provides an overview of offshore banking, focusing on the activities involved and its evolution. Section III assesses the adequacy of regulatory frameworks for effective consolidated supervision of offshore banking from the viewpoint of both home and host supervisory authorities, highlighting regulatory gaps that need to be addressed; it also briefly discusses relevant accounting issues. Section IV analyzes micro- and macro-prudential issues surrounding offshore banking and the transmission of risks between offshore and onshore banks. Section V illustrates the role of offshore banking in the recent crises of Asia and Latin America. Section VI concludes.

II. An Overview of Offshore Banking

A. What It Is and Where It Is Done

Offshore banking is the cross-border intermediation of funds and provision of services by banks residing in OFCs to nonresidents. Typically, offshore banks deal almost

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[2]See *"Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments,"* Basle Committee for Banking Supervision, July 1992.

[3] See "*The Supervision of Cross-Border Banking*," report by a Working Group comprised of members of the Basle Committee for Banking Supervision and the Offshore Group of Banking Supervisors, Basle, October 1996.

[4] On average, over the period 1992–97, about 85 percent of offshore center assets (relative to countries reporting to the Bank for International Settlements [BIS]) were bank assets.

always with other financial institutions and transact wholesale business denominated in currencies other than that of the country hosting the OFC.

OFCs are jurisdictions where offshore banks are exempt from a wide range of regulations which are normally imposed on onshore institutions. Specifically, deposits are not subject to reserve requirements, bank transactions are mostly tax-exempt or treated under a favorable fiscal regime, and they are free of interest and exchange rate restrictions. Moreover, in many cases, offshore banks are exempt from regulatory scrutiny with respect to liquidity or capital adequacy. Information disclosure is also low. A summary description of regulatory and tax regimes applied to offshore banks in selected OFCs is provided in Table 1. At the macroeconomic level, the IMF defines OFCs to be financial systems with external assets and liabilities out of proportion to the current account transactions of their domestic economies.[5] [6]

Countries may decide to establish OFCs for a number of reasons, including gaining access to international capital markets, attracting needed foreign technical expertise and skills, and introducing an element of competition in domestic financial systems while, at the same time, somewhat sheltering domestic institutions. They also hope to benefit from related income-generating activities and the creation of new jobs.

Most OFCs are countries, but some important OFCs are located within the border of countries. This is the case, for instance, of the U.S. International Banking Facilities, the Japanese Offshore Market, the Bangkok International Banking Facilities in Thailand, and the Labuan International Offshore Center in Malaysia (see below).

A number of *legitimate factors* continue to attract financial institutions and investors to OFCs. These include: (1) more convenient fiscal regimes which lower explicit taxation and increase net profit margins; (2) convenient regulatory frameworks that reduce implicit taxation also increasing profit margins; (3) minimum formalities for incorporation; (4) adequate legal frameworks that safeguard the integrity of principal-agent relations; (5) proximity to major financial centers; (6) the reputation of the particular OFC; and (7) complete freedom from exchange controls.

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[5] See (Cassard 1994).

[6] Gross flows intermediated by offshore banks residing in a particular country are recorded in that country's capital account. This, however, does not necessarily imply that these flows seep into the rest of the economy. This depends on whether exchange controls permit transactions between residents and offshore banks. While a country may have external assets and liabilities out of proportion to its current transactions, this does not necessarily imply capital account liberalization, which depends on exchange controls.

Table 1. Offshore Banks: Regulatory Framework in Selected Offshore Financial Centers

Offshore financial center	Activities and restrictions	Prudential regulations	Tax privileges	Role of regulators
Anguilla	Both private and public companies may operate onshore and offshore. All four domestic banks offer offshore banking services.	n/a	No taxes are levied.	Offshore (and onshore) banks are under the oversight of the Offshore Finance Committee chaired by the Governor (Anguilla is a British dependency with internal self-rule) with representatives of both the Government and private sector. The Eastern Caribbean Central Bank does not supervise the Offshore Sector.
Antigua and Barbuda	Offshore banks may be legally established under the International Business Companies (IBC) Act (1982) and are defined as corporations licensed to carry out banking business in currencies other than those of Caricom. Confidentiality provisions in the IBC Act make customer information disclosure possible only in cases related to criminal acts.	Minimum paid-in capital is US$1 million. Licensing includes information on shareholding, shareholders, directors, and officers with satisfactory evidence that the latter have the necessary education and experience, and recent financial information on the applicant. Offshore banks must submit quarterly returns and an annual audit must be submitted to the Inspector of Banks in the Ministry of Finance, which has the ability to carry out on-site inspections.	Offshore banks have a 50-year reprieve from taxes on profits. There are no income, capital gain, or other wealth taxes on individuals.	Offshore banks are regulated by the Supervisor of Banking and Trust Corporations and the Ministry of Finance. The Eastern Caribbean Central Bank does not supervise the Offshore Sector.
Bahrain	Deposits from nonbank institutions are allowed only if they are at least equivalent to US$50,000. Offshore banks cannot extend loans to residents of Bahrain; cannot offer current accounts.	Locally incorporated offshore and onshore banks must follow the same rules. Offshore institutions are required to disclose fully their ownership structure. They are subject to regular reporting requirements to the Baharain Monetary Authority (BMA) on a monthly, quarterly, semi-annually, and annually basis. Prudential requirements are applied on a consolidated basis.	Taxation is minimal.	Offshore banks must be licensed by the BMA, which also supervises them. A deposit insurance scheme is in place for all commercial banks. The BMA has the ability to provide lender-of-last resort (LOLR) facilitities to onshore banks. Offshore banks are excluded from LOLR support.
Barbados	Offshore banks must be licensed under the Offshore Banking Act of 1979 as an eligible company under the Companies Act or as a qualified foreign bank. Offshore banks are allowed to do business with residents such as the international business companies (IBC) and the foreign sales corporations (FSC).	Prior to licensing, supervisors investigate the applicants, the net-worth of the principals and capital adequacy, as well as background information on shareholders, directors, and senior officers. Applicant institutions must provide financial statements from shareholders controlling more than 5 percent of voting stock, information on corporate structure and approval of the parent supervisor. Offshore banks are required to submit quarterly returns; the Basle capital adequacy criteria for country and individual risk exposure apply.	Low-tax jurisdiction with an extensive web of bilateral tax treaties.	Offshore banks must be licensed by the Central Bank of Barbados ,which also regulates and supervises them.
Belize	IBCs are allowed to carry out offshore banking with appropriate licence. IBCs are prohibited from owning shares or assets in a locally-incorporated company. They cannot sell shares or borrow from a Belizean resident.	n/a	Taxation is minimal. A one-off fee of US$100 is levied with registered capital up to US$50,000.	Offshore banks must be licensed by the central bank of Belize under the 1996 Offshore Banking Act. The Central Bank also supervises offshore banks. The Belize Association of Offshore Practitioners (1995) also ensures a degree of professional code of conduct in the industry.

Table 1. Offshore Banks: Regulatory Framework in Selected Offshore Financial Centers

Offshore financial center	Activities and restrictions	Prudential regulations	Tax privileges	Role of regulators
Isle of Man, Jersey and Guernsey (Crown Possessions)	Allowed to engage in lending and deposit taking activities in foreign currencies with nonresidents.	Offshore banks are subject to conditions which cover ownership, management, capital adequacy, the production of accounts, audit, and similar requirements.	Taxation is minimal.	For the purpose of banking supervision, the Crown Possessions are not part of the U.K.; neither they are part of the EU. They have their own supervisory authorities. The U.K. deposit insurance fund does not apply to all kind of deposits made in the Crown Possessions. The Bank of England is not the lender-of-last resort to banks incorporated in the Crown Possessions.
Malaysia (Labuan)	Offshore banks are allowed to operate only in the International Offshore Financial Center (IOFC) on the island of Labuan off Borneo. Offshore banks cannot accept checking accounts and extend loans denominated in the Malaysian currency to both nonresidents and Malaysian residents.	No exchange controls are in place. There are stringent bank secrecy rules.	Taxation is minimal.	Offshore banks operating in the IOFC are not regulated by the Banking and Financial Institution Act of 1989, but are governed by separate legislation monitored by a regulatory body known as The Labuan Offshore Financial Services Authority. There is no formal deposit insurance scheme. Bank Negara has the ability to provide lender-of-last resort facilities with the approval from the Ministry of Finance.
Singapore	Typically, offshore banking is operated through Asian Currency Units (ACUs). ACUs are operational units whose function is to conduct business in the Asia Dollar Market. ACUs may also be operated by onshore commercial banks and merchant banks. In these cases, ACUs are distinct accounting entities (but not distinct legal entities) separately licensed by the Monetary Authority of Singapore (MAS). ACUs accept deposits and make loans in foreign currencies and are prohibited from doing business denominated in Singapore dollars. They cannot accept time deposits of less than SGD 250,000; operate savings account; have more than one location (no branches). Total credit facilities to Singapore non-bank customers must be less than SGD 50 million.	ACUs are exempt from several prudential regulations, most notably the reserve requirements (normally, 6 percent), the minimum liquid asset ratio (normally, not less than 18 percent), limitations on investments, limitation on acquisition of immovable property and some of the limitations on credit facilities (limits to a single borrower and related party or parties). Foreign ACUs are required to provide a guarantee from their parent institutions ensuring liquidity on demand to the ACU should it run into difficulties. ACUs are required to provide detailed financial statements to the MAS on a monthly basis.	ACUs are taxed at a concessionary rate of 10 percent (normal corporate tax rate is 26 percent). There is no withholding or income tax on nonresident ACUs depositors.	ACUs must be licensed by the MAS, which also supervises them. Inspections on the accounts of the ACUs are carried out on a regular basis. There is no formal deposit insurance scheme. The MAS has the ability to act as lender-of-last resort, but not an obligation to do so. In 1996, the Banking Act was amended to allow foreign regulators to inspect the Singaporean branches of banks under their oversight.

Table 1. Offshore Banks: Regulatory Framework in Selected Offshore Financial Centers

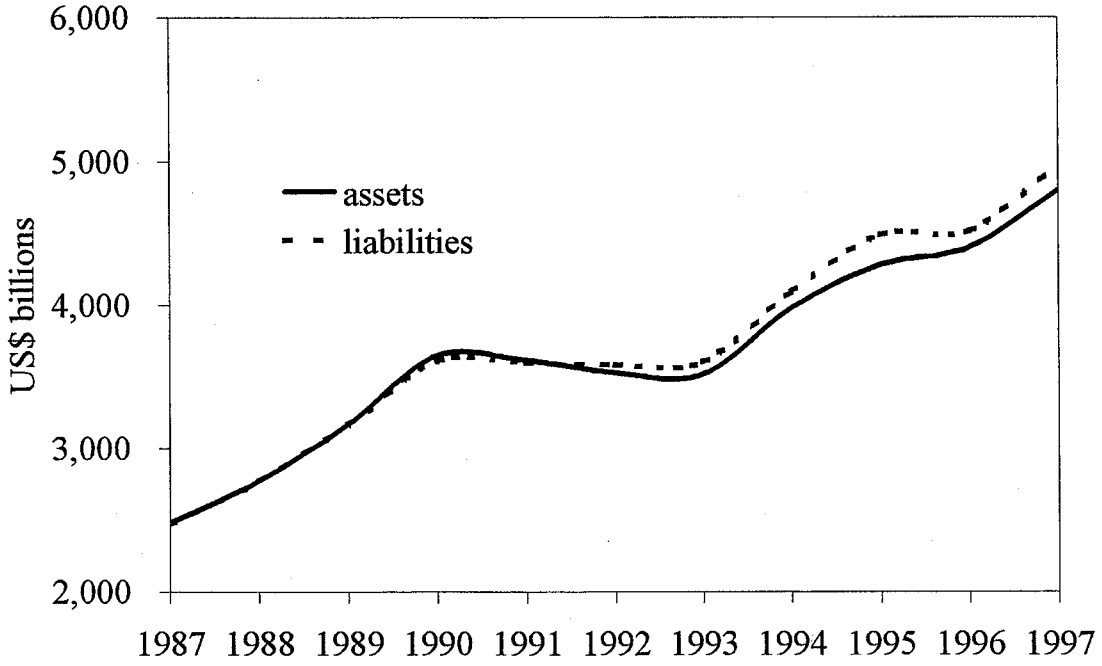
Offshore financial center	Activities and restrictions	Prudential regulations	Tax privileges	Role of regulators
Thailand	Allowed to engage in lending and deposit taking activities in foreign currencies with nonresidents. Also allowed to engage in treasury and corporate finance activities. Cannot engage in transactions denominated in Bath with Thai residents.	n/a	Offshore banks are taxed at a concessionary rate of 10 percent (corporate income tax rate is 30 percent).	Offshore banks are licensed by the central bank and are subject to its supervision. A deposit insurance scheme for Bath deposits is in place. It is not open to offshore banks.
The Bahamas	Nonresident companies, including offshore banks are allowed to operate freely in foreign currencies. Exchange control approval is required to operate Bahamian dollar accounts.	Under the Caricom Bank Supervision Harmonization Project (CBSHP), offshore banks are subject to application requirements, minimum required levels of capital and reserves, and external audits. Like onshore banks, offshore institutions must meet requirements in the areas of directors' qualifications, information disclosure and reporting.	No income, corporate, capital or withholding taxes apply.	The Central Bank of the Bahamas supervises Offshore banks.
The Philippines	Foreign banks can operate offshore banking units (OBUs). OBUs are permitted to conduct all normal banking transactions with nonresidents in any foreign currency. Deposits from nonbank institutions are allowed only if they are at least equivalent to US$50,000. Cannot conduct transactions denominated in pesos. Transactions in foreign currency with residents are strictly limited.	Locally incorporated offshore and onshore banks must follow the same rules. In order to gain approval from the Central Bank for the establishment of an OBU, foreign banks must provide a guarantee of financial support to the OBU if need be and promise to train local citizens in various international banking positions.	Taxation is minimal.	Offshore banks are licensed by the central bank and are subject to its supervision. A Deposit Insurance scheme (DIS) for peso deposits is in place. It is unclear whether offshore banks may participate in the DIS.
United States of America	U.S. banks are allowed to engage in cross-border transactions, including offshore banking, through head office international departments, foreign branches, foreign subsidiaries and affiliates, and international banking facilities (IBFs). U.S. banks are allowed to participate abroad in investment banking and other activities permitted to banks in many countries, but still prohibited at home.	Head office international departments are subject to U.S. regulations of their international lending exposure under the International Lending Supervision Act. IBFs are subject to Fed authorization and are regulated and supervised in the same way as the head office international departments. Reserve requirements are applied on foreign currency deposits held with IBFs when these funds are transferred to the U.S. parent institutions or lent to U.S. residents.	n/a	The Office of the Comptroller of the Currency (OCC) and the Fed are largely responsible for supervising the international operations of U.S. banks. They carry out off-site monitoring and on-site inspections of offices abroad. The U.S. Deposit Insurance scheme does not apply to IBFs.

Sources: National legislation various years, Thomson Bank Watch Country Reports (1998), M.G. Zephirin and D. Seerattan (1997).

Additionally, OFCs can be exploited for *dubious purposes*. OFCs attract funds partly because they promise anonymity and the possibility of tax avoidance or evasion. A high level of bank secrecy is almost invariably used as a selling point by OFCs some of which have been (and are) exploited also for activities related to **money laundering**.[7]

Offshore banking is a pervasive activity. Apart from being conducted in at least 69 OFCs world-wide (Table 2), during the period 1992–97, OFC cross-border assets grew at an average annual rate of 6.4 percent from US$3.5 trillion to US$4.8 trillion (Chart 1, and Appendix Tables A1a and A1b). At end-1997, the share of OFC cross-border assets in total cross-border assets stood at 54.2 percent.

Chart 1. OFC Banks' Cross-Border Assets and Liabilities



[7] See *Financial Havens, Banking Secrecy and Money Laundering*, U.N. Office for Drug Control and Crime Prevention, Global Programme Against Money Laundering (U.N., 1998).

Table 2. Countries and Territories with Offshore Financial Centers

Africa	Asia and Pacific	Europe	Middle East	Western Hemisphere
Djibouti	Australia	Austria	Bahrain	Antigua
Liberia	Cook Islands	Andorra	Dubai	Anguilla
Mauritius	Guam	Campione	Israel	Aruba
Seychelles	Hong Kong	Cyprus	Kuwait	Bahamas
Tangier	Japan 1/	Gibraltar	Lebanon	Barbados
	Macau	Guernsey	Oman	Belize
	Malaysia 2/	Hungary		Bermuda
	Marianas	Ireland 5/		British Virgin Islands
	Marshall Islands	Sark & Isle of Man		Cayman Islands
	Micronesia	Jersey		Costa Rica
	Nauru	Liechtenstein		Dominica
	Niue	Luxembourg		Grenada
	Philippines	Malta		Montserrat
	Singapore 3/	Madeira		Netherlands Antilles
	Thailand 4/	Monaco		St. Kitts and Nevis
	Vanuatu	Netherlands		St. Lucia
	Western Samoa	Russia		Panama
		Switzerland		Puerto Rico
		U. K. 6/		St. Vincent & the Grenadines
				Turks & Caicos Islands
				United States 7/
				Uruguay

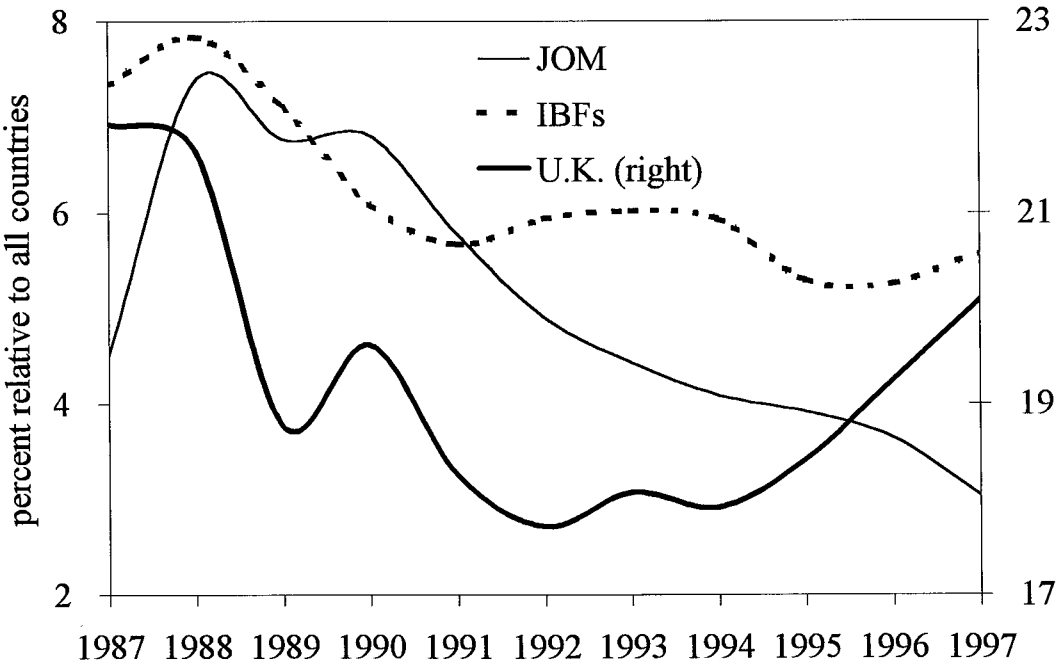
Sources: Bank of International Settlements; IMF Staff; Ghosh and Ortiz (1994); Cassard (1994); Far Eastern Economic Review (March 1992); Doggart (1993); and U. N. Office for Drug Control and Crime Prevention (1998).

1/ Japanese Offshore Market (JOM).
2/ Labuan
3/ Asian Currency Units (ACUs).
4/ Bangkok International Banking Facilities (BIBFs).
5/ Dublin
6/ London
7/ US International Banking Facilities (IBFs) are located in New York, Miami, Houston, Chicago and Los Angeles-San Francisco.

OFCs can be classified into three main groups. Offshore banks' sources and uses of funds, the liquidity of markets, and type of transactions determine whether OFCs are classified into primary, secondary or booking centers.[8]

Primary OFCs are large international full service centers with advanced settlement and payments systems, operating in liquid regional markets where both the sources and uses of funds are available. In terms of assets, London is the largest and most established primary OFC, followed by the U.S. International Banking Facilities (IBFs) and the Japanese Offshore Market (JOM). During the period 1987–97 the proportion of cross-border assets intermediated by primary OFCs has declined (Chart 2).

Chart 2. Primary OFCs' Cross-Border Assets



Secondary OFCs differ from primary OFCs in that they intermediate funds in and out of their region, according to whether the region has a deficit or surplus of funds. Regional centers include Hong Kong and Singapore's Asian Currency Units (ACUs) for South East Asia, Bahrain and Lebanon for the Middle East, Panama for Latin America,

[8] See Cassard (1994).

and Luxembourg for Europe. The shares of secondary OFCs in total cross-border assets have behaved disparately over the period 1987–97. The share of Asian OFCs in total cross-border assets has increased substantially, while the share of other secondary OFCs like Bahrain and Panama has remained static or even declined.

Booking OFCs do not engage in the regional intermediation of funds, but rather serve as registries for transactions arranged and managed in other jurisdictions. These OFCs are sometimes referred to as tax heavens and include most Caribbean OFCs.[9] During the period 1987–97, the share of Caribbean OFCs in total cross-border assets has remained somewhat stable at around 8.6 percent.

B. How It Is Done

Offshore banking is typically carried out through *offshore establishments*, that is offshore branches or subsidiaries. Offshore branches are legally indistinguishable from parent banks onshore. This facilitates the up- and downloading of assets and liabilities to and from parent banks as *intrabranch transfers. Shell branches* or booking offices are a particular case of offshore branches. Typically, they have low overheads and few employees and do not actively engage in offshore banking activities, but rather serve as registries for transactions arranged and managed from other jurisdictions. Offshore subsidiaries are autonomous legal entities incorporated in OFCs. They may be wholly or partially owned by parent banks onshore.[10] Offshore activities may also take place through so-called *parallel-owned banks,* that is, banks established in different jurisdictions that while having the same owner(s), are not subsidiaries of one another.

Typically, offshore banks engage in three types of transactions: eurocurrency loans (including syndicated loans) and deposits, the underwriting of eurobonds, and over-the-counter (OTC) trading in derivatives for risk-management and speculative purposes.[11]

Eurocurrency transactions are the bulk of offshore banking operations. They include transactions between banks and original depositors, between banks and ultimate borrowers, and between banks themselves on the inter-bank market.The latter constitutes the

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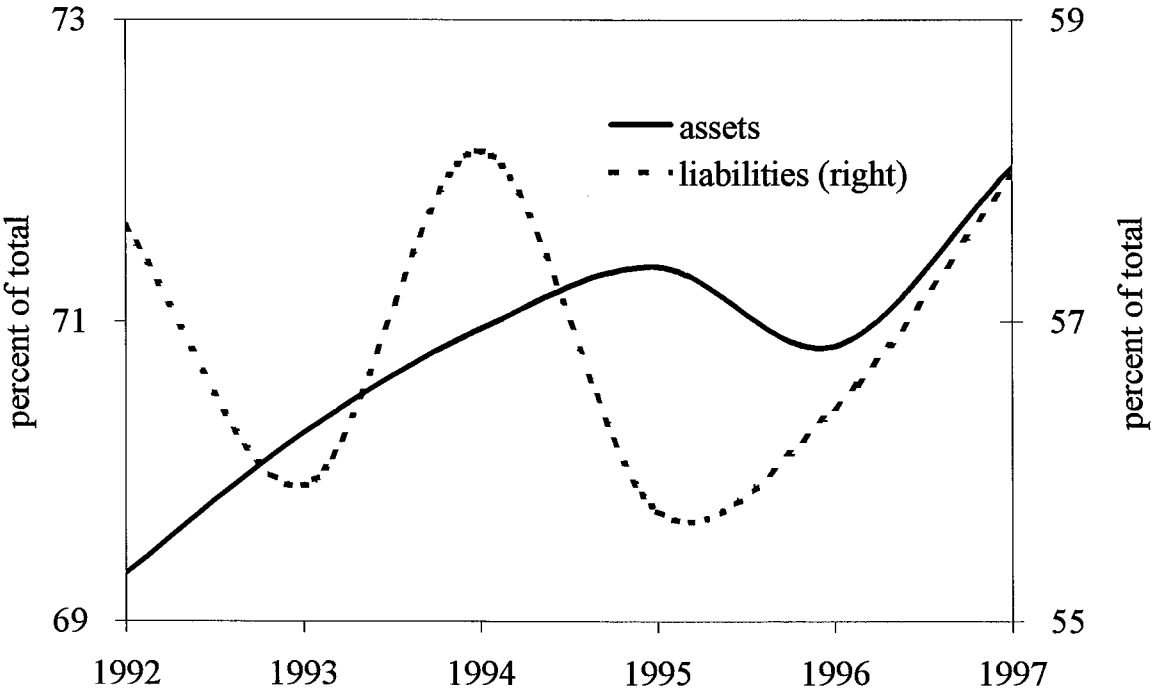
[9] Booking OFCs include Aruba, the Bahamas, Barbados, the British Virgin Islands, the Cayman Islands, the Channel Islands, the Seychelles, Turks and Caicos, the Marshall Islands, the Netherland Antilles, and Vanuatu.

[10] Accounting and prudential implications of these different corporate forms are explored in Sections III and IV.

[11] Eurocurrency markets consist of wholesale book-entry debt contracts, booked outside the country in whose currency they are denominated, and include eurocurrency deposits, eurobonds, euronotes, and eurocommercial paper.

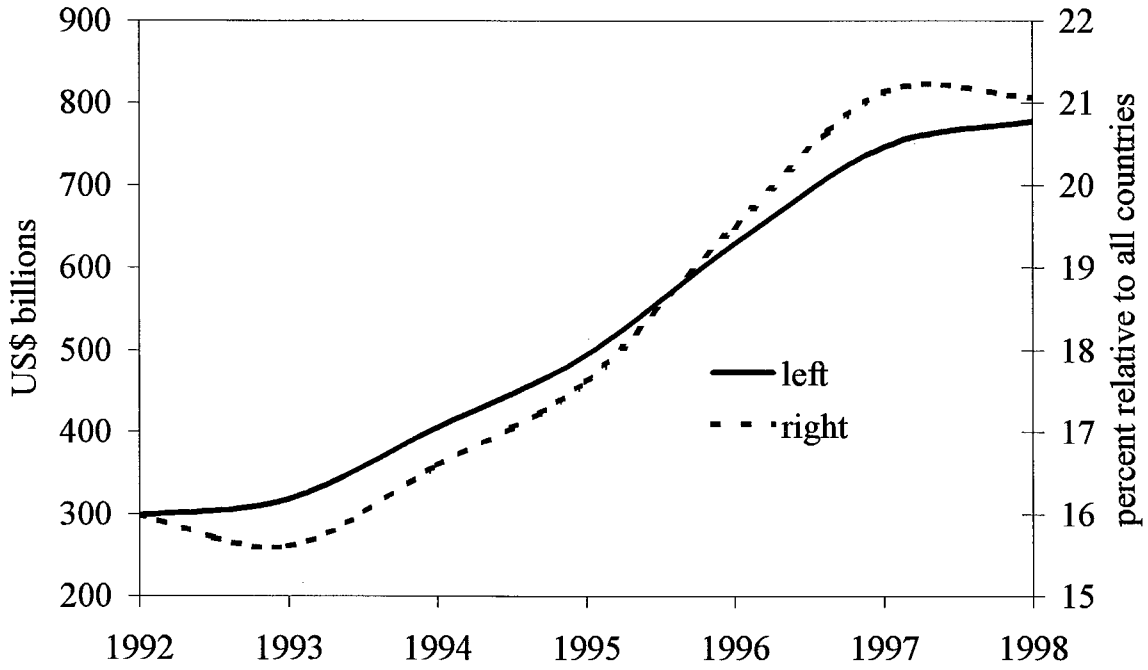
majority of eurocurrency transactions making the eurocurrency market essentially an interbank market. At end-December 1997, 72 percent of OFC banks' cross-border assets and 58 percent of cross-border liabilities were vis-à-vis other banks (Chart 3, and Appendix Tables A2a and A2b). The interbank nature of the offshore market implies that, in the event of financial distress, contagion is likely.

Chart 3. OFCs' Interbank Activity



The underwriting of eurobonds floated in international capital markets is also a significant part of offshore banking activities. Over the period 1992–97, the outstanding amount of international money market instruments (bonds and notes) issued in OFCs grew at an average annual rate of 20.2 percent. At end-1997, they stood at US$746.1 billion, or 21.1 percent of total international money market instruments (Chart 4, and Appendix Table A3).

Chart 4. Issuance of International Debt Securities from OFCs



While the use of OTC derivative instruments blossomed over the last decade, most of it seems to have been concentrated in major financial centers rather than OFCs. Because derivatives entail substantive counterpart, settlement, liquidity and legal risks they require the "infrastructure" of developed financial centers, where their use is more prevalent. Among OFCs, the use of over-the-counter trading in derivatives is thought to have increased in the IBFs, the JOM, and to a certain extent in secondary OFCs; unfortunately, stratified data is not easily available. Over the period 1987–96, the total notional value of *interbank* currency and interest rate swaps grew at an average annual rate of 31.8 percent and 54.3 percent, respectively.[12] At end-1996, interbank currency and interest rate swaps stood at US$3.1 trillion and US$10.3 trillion, or 27.2 percent and 53.5 percent of total interest rates and currency swaps, respectively (Appendix Table A4).

[12]The prominence of the interbank market in offshore banking suggests that a large part of the growth in OTC trading of derivative instruments may have involved offshore banks.

C. Evolution

The imposition of distortionary regulations on the financial sectors of industrial countries during the 1960s and 1970s was the main contributing factor for the growth of offshore banking and the proliferation of OFCs. Between 1964 and 1973 the number of foreign branches of U.S. banks grew from 181 to 699, of which 181 were in Caribbean OFCs and 156 in European OFCs.[13] Between 1964 and 1970 the total overseas assets of U.S. banks increased from US$7 billion to US$53 billion.

Specifically, the emergence of the offshore interbank market during the 1960s and 1970s can be traced to the imposition of reserve requirements, interest rate ceilings, restrictions on the range of financial products, capital controls, financial disclosure procedures, and high effective taxation in several OECD countries. In the United States, for example, capital controls were implemented through the Interest Equalization Tax (IET, 1964), the Foreign Credit and Exchange Act (FCEA, 1965), and the Foreign Direct Investment Restraint Program (FDIRP, 1972). Furthermore, Regulations Q (1977) and D (1979) imposed cash reserve requirements on demand deposits, and capped interest rates on time deposits, respectively.

The eurocurrency market (particularly in US dollars) flourished after the FCEA and FDIRP restricted U.S. bank credit to foreigners. These restrictions did not apply to foreign branches of U.S. banks, inducing many U.S. banks to refocus their operations to branches in London and booking offices in the Caribbean for easier access to eurocurrency markets. Activity in eurocurrency markets further increased after 1966, when U.S. money market rates rose above dollar deposit rates, provoking a credit crunch as depositors sought higher yields, and inducing banks to rely more on eurocurrency funding.

In an effort to enhance the competitiveness of U.S. banks and to regain eurocurrency market share, Regulations Q and D were amended in 1980 allowing U.S. banks to establish IBFs in New York and 11 other states. These are essentially free trade zones for dealings in eurocurrency (primarily eurodollars) and under the supervision of the Federal Reserve System. More recently over the period 1987–97, the cross border assets of IBFs grew at an average annual rate of 4.7 percent, and accounted for about 50 percent of total U.S. banks' cross-border assets at end-June 1997.

Similarly, the development of eurodollar bond markets can be traced to the IET and FDIRP which respectively made it unattractive for foreign firms to issue bonds in the United States, and restricted foreign investment by U.S. firms unless financed abroad. After the introduction of the IET, syndicated bond issues outside the United States

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[13] See Cassard (1994).

rose from US$135 million in 1963 to US$696 million in 1964.[14] The development of eurobond markets in currencies other than the U.S. dollar occurred simultaneously, in 1964–65, after the imposition of withholding taxes on German, French and Dutch bonds leading to the euromark, eurofranc and euroguilder bond markets, respectively.

In Asia, offshore interbank markets began to develop after 1968 when Singapore launched the Asian Dollar Market (ADM) and introduced the Asian Currency Units (ACUs), and Japan established the JOM with characteristics similar to the IBFs. The ADM was an alternative to the London eurodollar market for the investment of oil surpluses from Indonesia and Malaysia, and ACUs enabled local banks to engage in international transactions under a favorable tax and regulatory environment.[15] More recently, the cross-border assets of Asian OFCs have on average grown at a rate of 4.3 percent over the period 1992–97, and at end-December 97 accounted for 15.2 percent of total cross-border assets (Appendix Table A1a).

In Europe, Luxembourg began attracting investors form Germany, France and Belgium in the early 1970s due to low income tax rates, no withholding taxes on interest and dividend income, and banking secrecy rules. More recently, over the period 1987–97, Luxembourg's cross-border assets grew at an average annual rate of 8.0 percent, and at end-December 97 they accounted for about 4.4 percent of total cross-border assets.[16]

In the Middle East, Bahrain began to serve as a collection center for the region's oil surpluses during the mid 1970s, after passing banking laws and providing tax incentives to facilitate the incorporation of offshore banks. However, more recently over the period 1987–97, Bahrain's cross-border assets stagnated at an average annual rate of 0.6 percent, and at end-December 97 they accounted for only about 0.7 percent of total cross-border assets.[17]

With the 1990s coming to an end, offshore banking may be losing appeal for the financial institutions of *advanced economies*, operating in liquid, increasingly competitive, and well-regulated financial markets. As a result of distortionary regulatory frameworks being dismantled in favor of competition under prudential supervision, and capital

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[14] See Doggart (1993).

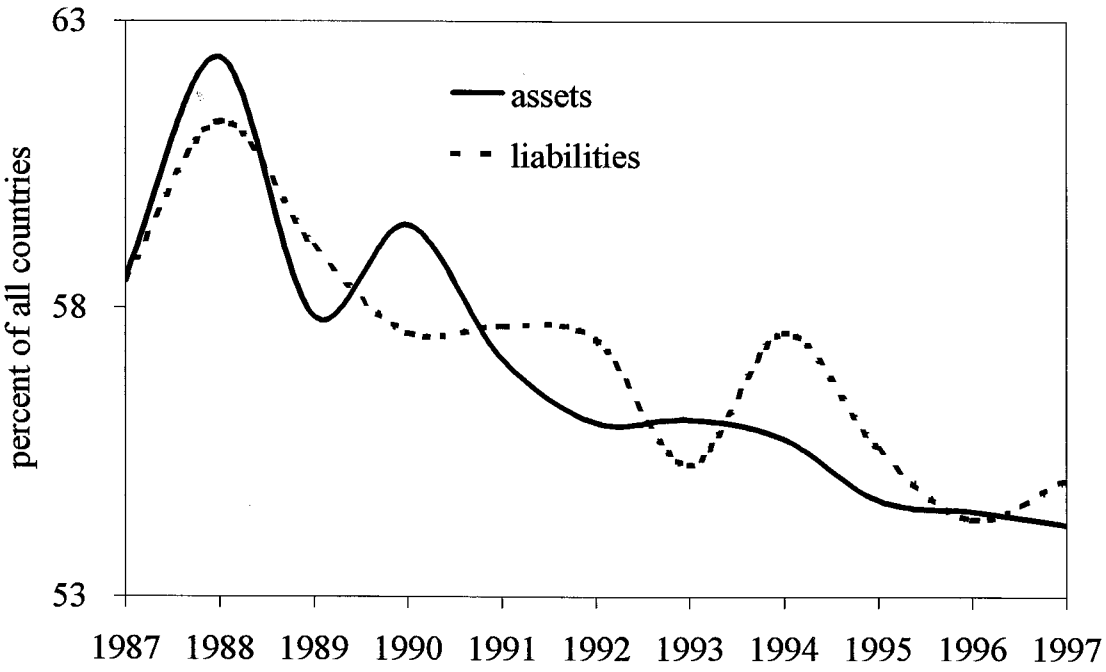
[15] Nonresident deposits in ACUs are not subject to withholding taxes on interest income. ACUs are also allowed higher foreign exchange position limits. Moreover, Singapore reduced its corporate tax rate from 40 percent to 10 percent to foster offshore activity. See Table 1 for more details.

[16] Data from BIS.

[17] Data from BIS.

account convertibility being increasingly embraced, the distinction between onshore and offshore banking has become progressively blurred in industrial countries.[18] In fact, the share of cross-border assets intermediated through OFCs decreased from 56.1 percent in 1992 to 54.2 percent in 1997 (Chart 5, and Appendix Table A1a). Furthermore, as previously noted, the activity of primary OFCs has also dropped over the period 1987–97 (see Chart 2 above).

Chart 5. OFC Banks' Cross-Border Assets and Liabilities

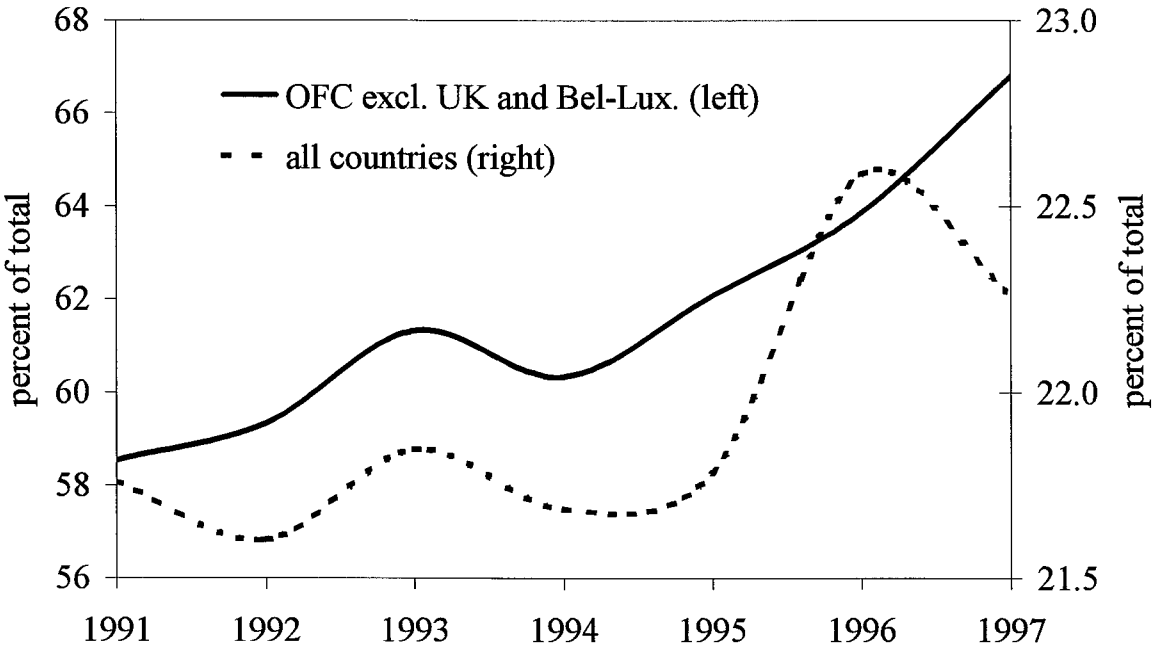


Offshore banking, however, is still an appealing alternative for banks operating in the sometimes heavily regulated and maturing financial markets of *emerging economies*. Excluding the U.K. and Belgium-Luxembourg, because they cater to industrial countries, the share of OFCs' cross-border assets in relation to emerging economies increased from 58.5 percent in 1991 to 66.8 percent in 1997. Similarly, the share of OFCs' liabilities vis-à-vis emerging economies increased from 36.4 percent to 42.6 percent over the same period

[18] See Cassard (1994) for convergence in regulatory frameworks and tax rates in industrialized countries.

(Chart 6, and Appendix Tables A5a and A5b).[19] These figures are particularly noteworthy because, in 1997, for the world as a whole, only 22.1 percent of banks' assets, and 29.8 percent of banks' liabilities, were in relation to emerging economies.

Chart 6. Banks' Cross-Border Assets vis-à-vis Emerging Economies

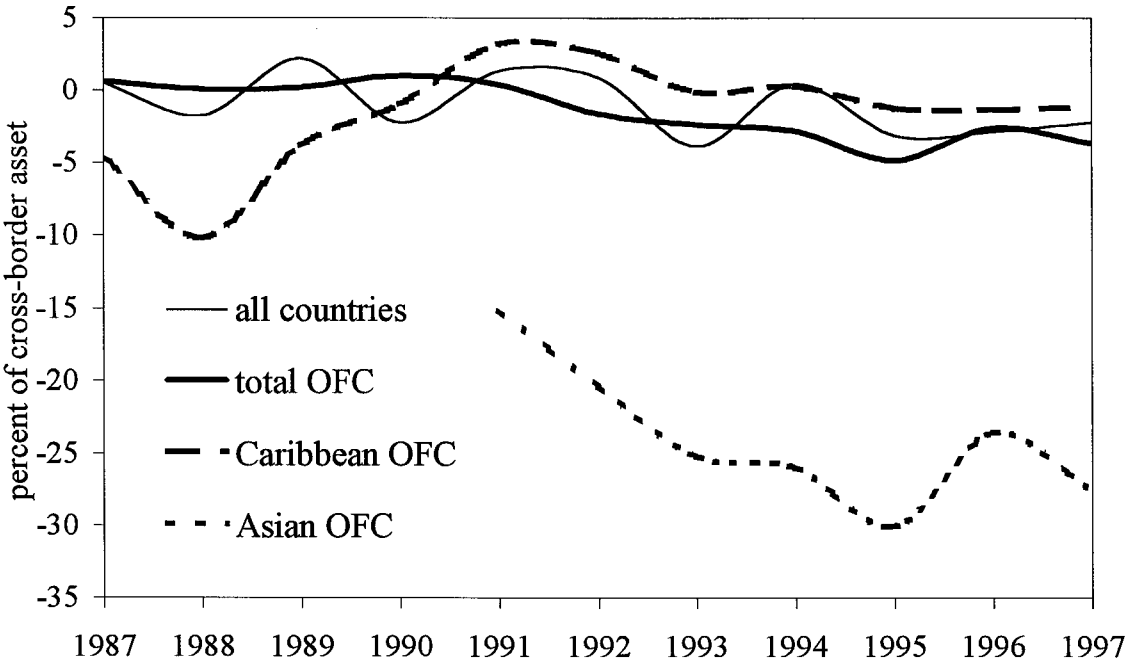


Not only has the use of Asian OFCs by emerging economies been significant, but Asian OFCs have also progressively increased their net cross-border liabilities. Over the period 1991–97, Asian OFCs' net cross-border liabilities, as a percent of cross-border assets, increased from about 15 percent to about 30 percent, suggesting that they intermediated some

[19] The data is based a sub-sample of OFCs reporting to the BIS including The Bahamas, Bahrain, Belgium-Luxembourg, The Cayman Islands, Hong Kong, Singapore, and the UK.

portion of the capital inflows into the region (Chart 7, and Appendix Table A6). Because eurocurrency transactions are the bulk of offshore banking activities, this also suggests that banks operating in Asian OFCs progressively increased their short foreign exchange position, leaving them more vulnerable to foreign exchange and liquidity risks.[20]

Chart 7. Banks' Net Cross-Border Assets



As a reference point, it should be noted that banks in other OFCs and banks engaged in ordinary cross-border banking maintained broadly squared net cross-border positions over the same period (a trend around zero in Chart 7).

[20] It is assumed that because eurocurrency transactions are short in maturity and denominated in foreign currency, the net cross-border position is a proxy for foreign exchange and liquidity risks.

III. CONSOLIDATED SUPERVISION AND ACCOUNTING

The issues raised by cross-border and offshore banking are not new for the international supervisory community. The first systematic attempt at regulating and supervising internationally active banks dates back to the "Basle Concordat" of 1975.[21] However, for almost twenty years, implementation of the principles of the Basle Concordat was on a best endeavors basis. Following the 1991 Bank of Credit and Commerce International (BCCI) bankruptcy in 1992, the Basle Committee issued its "Minimum Standards," which G10 supervisory authorities have followed since that time (Box 1).[22] Subsequently, in 1996, a working group composed of members of the Basle Committee and the Offshore Group of Banking Supervisors prepared a report (the "1996 Report") with 29 recommendations addressing a number of practical problems that had arisen in the implementation of the 1992 Minimum Standards.[23] [24]

Currently, new supervisory and regulatory initiatives are under way. These include a broad-coverage survey carried out by the Basle Committee and the Offshore Group of Banking Supervisors to assess the degree of implementation of the recommendations of the 1996 Report, [25] and the Caricom Bank Supervision Harmonization Project (CBSHP) aimed at enhancing regulation of offshore banks in the Caribbean region.[26]

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[21] See the Basle Committee, "Report on the supervision of banks' foreign establishments," (Basle: Bank for International Settlements, 1975), and the Basle Committee, "Principles for the supervision of banks' foreign establishments," (Basle: Bank for International Settlements, 1983).

[22] "*Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments,*" Basle Committee for Banking Supervision, July 1992.

[23] "*The Supervision of Cross-Border Banking*," report by a Working Group comprised of members of the Basle Committee for Banking Supervision and the Offshore Group of Banking Supervisors, Basle, October 1996.

[24] The 1996 Report recommendations aimed at improving access of home and host supervisors to information necessary for effective consolidated supervision and ensuring that all cross-border banking operations are subject to effective home and host supervision.

[25]This survey was discussed at the International Conference of Bank Supervisors in Sydney, Australia, October 21-23. Unfortunately, at the time of writing, details are not yet available.

[26] The CBSHP recognizes that offshore banks require an adequate legal framework, licensing policy, effective supervision and cooperation with other supervisory agencies. It establishes guidelines requiring that offshore banking legislation specify application criteria, minimum required levels of capital and reserves, supervision by central banks, and external audits.

Box 1. Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments

- All international banks should be supervised by a home country authority that capably performs consolidated supervision;
- The creation of cross-border banking establishments should receive the prior consent of both the host country and home country authority;
- Home country authorities should possess the right to gather information from their cross-border banking establishments;
- If the host country determines that any of these three standards is not being met, it could impose restrictive measures or prohibit the establishment of banking offices.

Supervisory coordination is key to effective consolidated supervision of an internationally active bank whether offshore or not. Supervisory coordination is key to enable home supervisors to assess all significant aspects of a bank's operations that bear on safety and soundness (solvency) wherever those operations are conducted, and host supervisors to assess the operation of offshore establishments as going concerns (liquidity).[27] Supervisory coordination becomes a must if home supervisors have reason to suspect the integrity of the offshore operation, the quality of its management, or the quality of internal controls being performed by the parent bank.

Typically, effective consolidated supervision of an offshore bank should involve two supervisory authorities, that is, those of the country where the parent bank resides (home country or onshore authorities) and those of the jurisdiction where the parent bank operates offshore, that is those of the OFC (host country or offshore authorities). As noted previously, the parent bank may operate offshore through a branch, including a booking office (i.e., a "shell branch"), or a subsidiary (which is an autonomous legal entity), all called "offshore establishments" of the parent bank.

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[27] Given the minimal involvement of an offshore establishment in the economy of the hosting OFC, the main concern of the host supervisors is about a liquidity crisis. This may explain why several OFCs require, as a licensing criterion, that parent banks provide a guarantee of liquidity support should their offshore establishments run into difficulties (see Table 1).

Three supervisory authorities may be involved when offshore banking is carried out through "shell branches."[28] This arrangement is likely to exacerbate the already complex coordination problems arising in the typical case where two supervisory authorities are involved.

However, there are cases where a single supervisory authority may be sufficient. In cases where OFCs are geographically located within the same country where parent banks reside (for instance, the U.S. IBFs, the Thai Bangkok International Banking Facility (BIBFs), the Japanese JOM, and the Malaysian Labuan Offshore Center), supervision of both onshore and offshore activities of these banks is performed by the authorities of that country alone. This arrangement is likely to enhance the effectiveness of consolidated supervision because coordination problems between different supervisory authorities are in principle eliminated.

Generally speaking, the 1992 Minimum Standards and the 1996 Report provide a broadly adequate regulatory and supervisory framework for effective consolidated supervision if appropriately implemented.[29] In particular, the 1996 Report gives home supervisors powers and means to ensure that parent banks operate prudently and do not take excessive risks that could threaten their solvency. Powers include an ability to carry out regular consolidated off-site monitoring and on-site inspections offshore. Means include an ability to request from parent banks information on their offshore establishments needed to calculate parent banks' consolidated capital adequacy ratios, large exposures (including intra-group exposures), funding and deposit concentrations.[30] Moreover, the 1996 Report underscores several qualitative aspects of organization and internal control systems that must be approved by bank supervisors.[31]

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[28] In addition to the supervisory authorities of the OFC and the country where the parent bank resides, the supervisory authorities of the jurisdiction from where the shell branch is managed may be involved.

[29] A similar conclusion is reached in El-Erian (1992) when discussing the adequacy of the 1992 Minimum Standards.

[30] Home supervisors' attention on offshore establishments' and parent banks' liabilities sides is called for especially in cases of suspect criminal activities (such as money laundering) or circumvention of prudential requirements.

[31] Home supervisors should be assured that: (1) the banking group has an appropriate risk management system covering the whole of its global activities; (2) the internal controls and internal audit procedures for controlling the group's overseas operations are of sufficient quality; (3) changes in ownership and control of any partly owned subsidiary are monitored; (4) the reporting process by which the home supervisors receive information from the head office of the parent bank is reliable; (5) the quality of management is adequate, with "fit and

(continued...)

Home-host supervisory coordination is pragmatically dealt with. The 1996 Report provides a set of principles for effective consolidated supervision to be used by host supervisors as a checklist to determine whether home supervisors are in compliance with the 1992 Minimum Standards.[32] It also provides a checklist for the benefit of home supervisors to ensure that host supervisors meet the 1992 Minimum Standards.[33] A host supervisory authority must meet requirements set forth in this checklist in order to become a member of the Offshore Group of Banking Supervisors.[34]

Yet, failures of offshore banks continue. In addition to the well-known BCCI case in 1991, there have been other offshore bank failures, including the Meridien Bank International (1995), The European Union Bank of Antigua (1997), and The American Express Bank International (1997).[35] These cases are likely to be an underestimate of the true dimension of the problem which became apparent from the role of offshore banking in the financial crises of Asia and Latin America (Section V).

There are some regulatory gaps which may impede effective consolidated supervision. First, the regulatory framework established by the Basle Committee and the Offshore Group of Banking Supervisors deals with internationally active banks and their offshore *establishments*, but it does not explicitly consider all offshore activities bearing a relation with parent banks. For instance, it does not comprehensively regulate offshore *affiliates*, i.e. offshore nonfinancial entities. In this connection, home supervisors may have difficulties in obtaining information concerning activities performed by offshore affiliates, such as corporate vehicles, unless a direct financial relationship between them and parent banks was established. This is typically the case of *financial conglomerates*, where a bank may be owned

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[31](...continued)
proper" test for individuals where appropriate; (6) the quality of assets and the levels of concentrations are known and are within appropriate parameters; (7) the liquidity of the institution is being monitored and there is no excessive reliance on a single third-party (or a limited number of sources) of funding; and (8) the statutory laws and supervisory regulations of both the host and home countries are being followed.

[32] See 1996 Report (cit.), Annex B.

[33] See 1996 Report (cit.), Annex C.

[34] Members of the Offshore Group are: Aruba, Bahamas, Bahrain, Barbados, Bermuda, Cayman Islands, Cyprus, Gibraltar, Guernsey, Hong Kong, Isle of Man, Jersey, Lebanon, Malta, Mauritius, Netherland Antilles, Panama, Singapore, and Vanuatu.

[35] See *Financial Havens, Banking Secrecy and Money Laundering*, United Nations Office for Drug Control and Crime Prevention, (Vienna, 1998). Twenty-three criminal cases involving offshore financial companies are also reported.

by an onshore holding company which also owns an offshore corporate vehicle (possibly participated in by the bank) through which offshore funds are raised (for instance through issue of bond debt). Although it may be inappropriate to consolidate offshore affiliates' accounts into onshore banks' when the nature of business is markedly different (see below), home supervisors should be explicitly empowered to deal with all aspects of foreign activities which affect directly or indirectly parent banks' soundness in order to ensure effective consolidated supervision. This proved to be an important issue in the Asian and Latin American crises (Section V).

Second, *shell branches* may, as noted, increase coordination difficulties among supervisory authorities. The recommendation made in the 1996 Report in this regard is to assign primary responsibility for ensuring effective consolidated supervision of the shell branch to supervisors of the parent bank. Also, the 1996 Report establishes no limitations on the ability of home supervisors to carry out on-site inspections on the books of the shell branch may be posed by OFCs. In the event home supervisors did not wish to undertake on-site examinations, there should be no constraints on internal and external audits.

Third, offshore activities carried out by *parallel-owned banks* cannot be consolidated with those of the "sister" bank unless a direct financial relationship between the two is established. However, given the common ownership structure of the two banks, funds may be shifted from one to the other and escape consolidated supervision by both home and OFC authorities. The appropriate remedial action indicated by the 1992 Minimum Standards is to enforce a change in the group structure so that operations of the type described above become subject to consolidated supervision.[36] To do so, it is necessary that appropriate disclosure requirements on banks' ownership structure be in place to enable supervisory authorities of the jurisdictions involved to recognize the existence of parallel-owned banks. This was also an important issue in the Asian and Latin American crises (Section V).

Finally, there is the case of parent institutions incorporated in under-regulated jurisdictions which engage in offshore banking operations without effective home consolidated supervision. For instance, offshore banks may be owned by nonbank holding companies incorporated in an under-regulated country. In this case, it should be the OFC supervisors' primary responsibility to deny a license to such offshore banks.To reach this goal, enforcement of the fourth principle established in the 1992 Minimum Standards should suffice (see Box 1 above).

The absence of consolidated accounting and reporting may also hinder consolidated supervision. The availability of consolidated accounts facilitates consolidated supervision, but it is not by itself a sufficient condition. For instance, consolidation may be difficult or inappropriate when the nature of business of offshore affiliates and the nature of

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[36] A judgment needs to be made by home supervisors that the group structure is deliberately set to impede consolidated supervision.

risks involved are markedly different (for instance if the offshore affiliate is an oil driller). However, this does not mean that the relation between parent banks and offshore affiliates should not be duly evaluated through effective consolidated supervision. Home supervisors should therefore be put in a position to carry out this task.

In the absence of consolidated accounting and reporting, offshore activities would not necessarily appear on parent banks' balance sheets unless actual transactions between parent banks and their offshore establishments take place. For example, offshore activities performed by a wholly owned subsidiary would not normally appear in the parent bank's accounts unless they were consolidated into the financial statements of the parent bank. Similarly, offshore activities performed by a branch might also escape domestic reporting if reporting arrangements applied only to domestic branches.

Differences in accounting standards are also an obstacle for consolidated supervision. Differences in accounting standards used for consolidation can cause problems when offshore activities are carried out by partly owned subsidiaries. According to the U.S. General Accounting and Auditing Principles (GAAP), subsidiaries that are more than 51 percent owned must be consolidated into the parent bank's accounts. Fewer shares are accounted for on an equity basis, whereby only the parent bank's net interest in the investment is included in its accounts. By contrast, International Accounting Standards (IAS) adopt the concept of "effective control" which may involve consolidation of some partly-owned operations with the assets and liabilities of the parent bank.

The above considerations point to the fact that, even assuming best efforts on the part of the supervisory authorities to implement international best practices and standards for effective consolidated supervision, gaps or disagreements in the existing regulatory and accounting frameworks coupled with the less-than-transparent nature of offshore banking activities, make the task of financial surveillance more challenging and difficult than ever. It therefore becomes important to form a better understanding of the micro- and macro-prudential issues surrounding offshore banking.

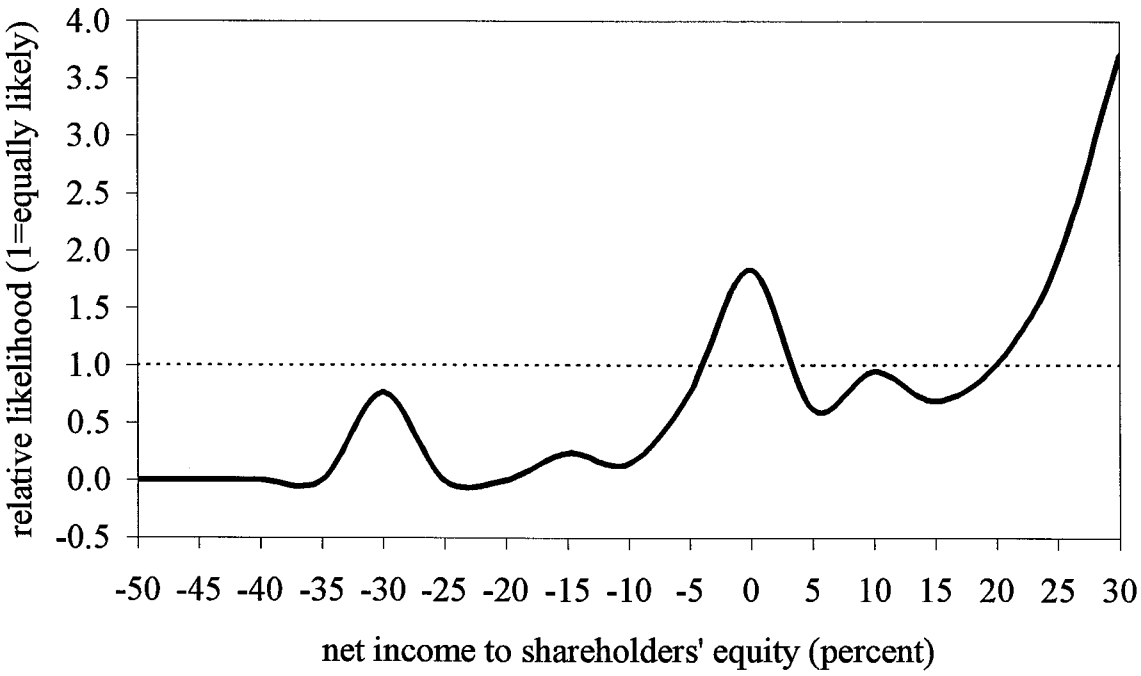
IV. Micro- and Macro-Prudential Issues

Favorable regulatory treatment in OFCs increases the operational leeway of offshore banks for balance sheet management relative to that enjoyed by onshore banks. Exemptions from reserve requirements on deposits; liquidity requirements; liability and asset concentration restrictions; capital adequacy thresholds; and stringent foreign exchange position limits, allow offshore banks to more freely manage their balance sheets (see Table 1 for details). Whether offshore banks choose to exploit the regulatory benefits offered by OFCs

and forgo some of the prudential fortitude associated with internationally accepted best practices, depends on the management of each bank. It may be that internal controls do not permit exploitation of prudential arbitrage, leaving the offshore bank to rely mainly on the tax benefits of OFCs to enhance profitability.

Because of favorable regulatory and tax treatments, offshore banks are less likely to be unprofitable and more likely to be profitable than onshore banks. Comparing a sample of offshore banks to a sample of onshore banks, and for a given ratio of net income to shareholders' equity, the former are more likely to be highly profitable and less likely to be unprofitable than the latter (Chart 8).[37] [38] While, in the past, offshore banks have benefited

Chart 8. Profitability of OFC Banks vs. OECD Banks



[37] The two samples, drawn from Thomson Bankstat for 1996, consist of about 580 banks in selected OFCs and 3,900 OECD banks—taken to represent onshore banks. Because not all banks in the selected OFCs are exclusively involved in offshore banking, some sampling errors may be possible.

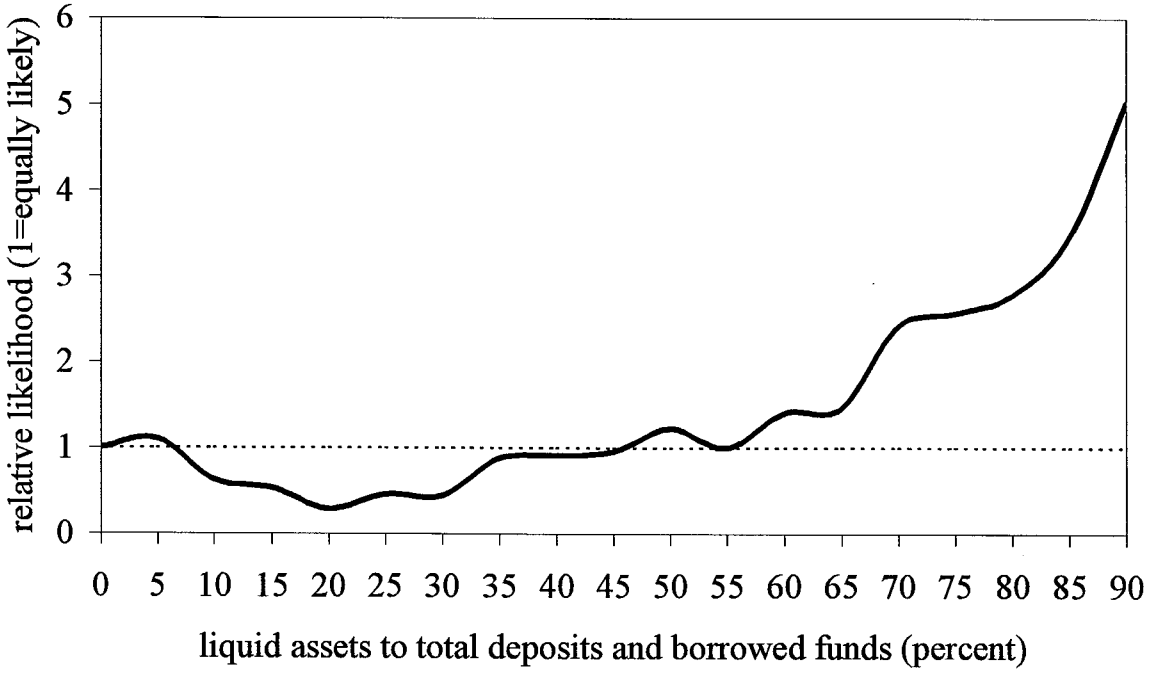
[38] Chart 8 shows the probability density functions (pdf) of offshore banks, normalized by that of onshore banks. It focuses on a range of net income to shareholders' equity ratios (–50 percent to 30 percent) that captures 90 percent of offshore banks in the sample. For raw

(continued...)

from tax and regulatory advantages, harmonization through the increasing adoption of internationally accepted prudential standards has diminished the regulatory advantages of lower implicit taxation. More and more, the main legitimate remaining advantage of operating offshore will be favorable explicit taxation. In addition, as noted previously, there is always the possibility of exploiting OFCs for dubious purposes.

Because they operate mostly in the interbank market, offshore banks are more likely to be liquid and less likely to be illiquid than onshore banks. Comparing the same samples of offshore and onshore banks, and for a given ratio of liquid assets to total deposits and borrowed funds, the former are more likely to be liquid and less likely to be illiquid than the latter (Chart 9).[39] Furthermore, at end-December 97, 72.1 percent of OFCs' cross-border

Chart 9. Liquidity of OFC Banks vs. OECD Banks

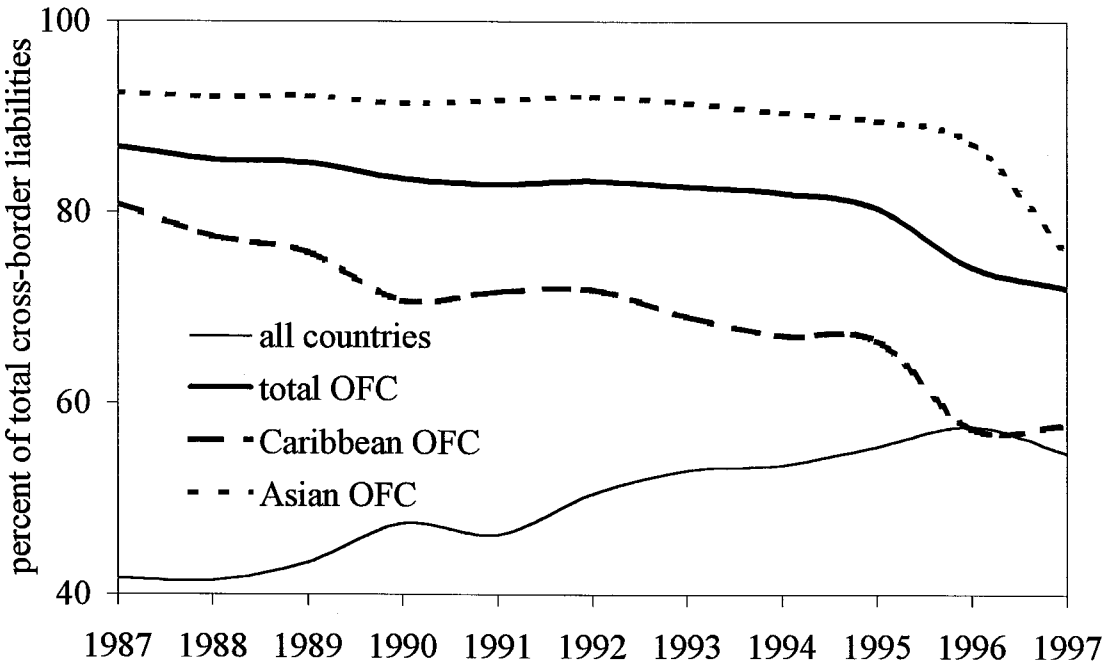


[38](...continued)
probability density functions, see Chart A1 in the Appendix.

[39] Chart 9 is the pdf of offshore banks normalized by that of onshore banks. It focuses on a range of liquid assets to total deposits and borrowed funds ratios (0 percent to 90 percent) that captures 90 percent of offshore banks in the sample. For raw pdfs, see Chart A2 in the Appendix.

liabilities were under one year, compared to the corresponding figure of 54.9 percent for all countries (Chart 10, Appendix Table A7a). Coupled with the fact that offshore banks operate mostly on the interbank market, this suggests that offshore banks are far more liquid than onshore banks.

Chart 10. Cross-Border Liabilities with Maturity Up to One Year



Also because of operational leeway, a significant number of offshore banks are more likely to be highly leveraged, that is less solvent, than onshore banks. Using the same two samples of offshore and onshore banks, and for a given ratio of shareholders' equity to total assets, offshore banks may be divided into two groups (Chart 11).[40] [41] The first group includes offshore banks that are more likely to be highly leveraged, that is less solvent, than onshore banks (between 0 percent and 7 percent). The second group includes offshore banks that are more likely to be less leveraged, that is more solvent, than onshore banks (14 percent

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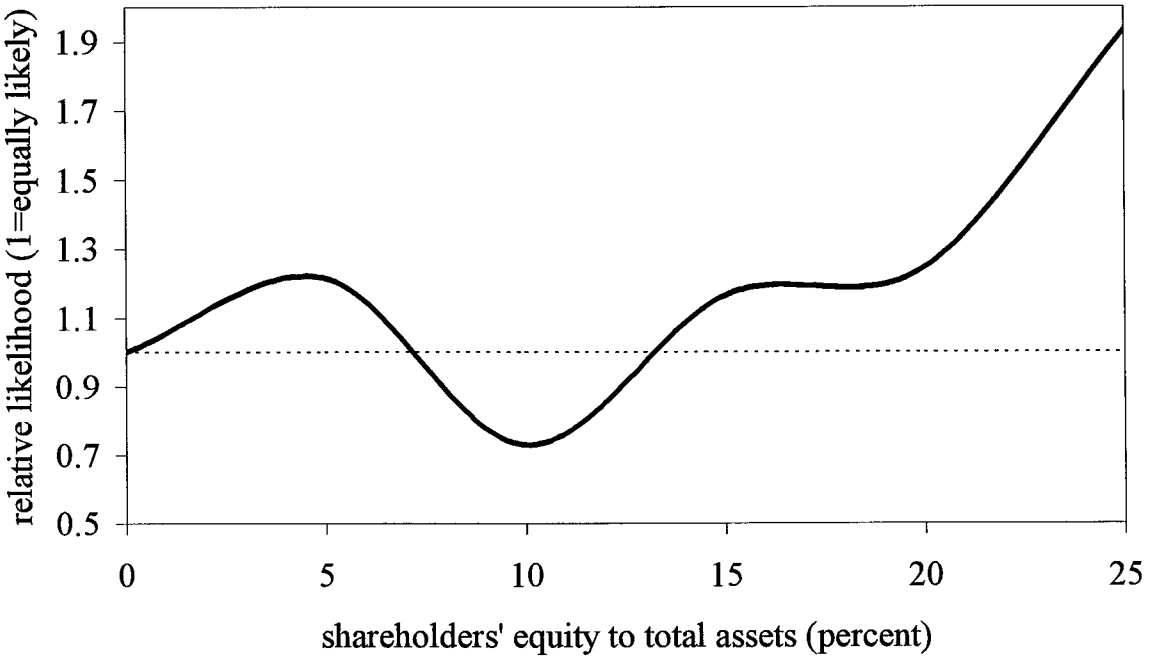
[40] Chart 11 is also a ratio of pdfs which focuses on a range of shareholders' equity to total assets ratios (0 percent to 25 percent) that captures 90 percent of offshore banks in the sample. For raw pdfs, see Chart A3 in the Appendix.

[41] This a non-risk weighted measure of leverage. Unfortunately, data on risk-weighted measures of solvency is not readily available. This issue is addressed at a conceptual level in the following paragraph of this section.

to 25 percent). The first group contains about 43 percent of offshore banks in the sample, while the second group contains about 11 percent of offshore banks in the sample, indicating that a more numerous group of offshore banks is likely to be less solvent than onshore banks. Whether this is a result of poor management and internal controls, or an intentional exploitation of less stringent regulations remains an open question.

Chart 11. Solvency of OFC Banks vs. OECD Banks



Operational leeway may result in offshore banks being more leveraged than onshore banks also when accounting for the risk composition of portfolios. The same regulatory advantages that permit a significant number of offshore banks to be more profitable and more leveraged than onshore banks, may allow them to be more leveraged also when accounting for risk. Because they are at a greater liberty to manage balance sheets, offshore banks may allocate a higher proportion of assets to higher-risk, higher-return activities. Using the Basle Committee's risk categories, and assuming that the two benchmark onshore banks maintain a risk-weighted capital adequacy ratio of at least 8 percent, Table 3 illustrates how offshore banks may distribute assets towards riskier categories. By allocating more assets towards the higher-risk categories, it is clear that the same capital structure supports higher risk-weighted assets as one moves from Offshore 1 through Offshore 6. Said differently, the ratio of capital to risk-weighted assets of offshore banks declines vis-à-vis that of onshore banks.

Table 3. Offshore vs. Onshore Banks: Risk Composition of Assets and Leverage

Banks		Assets								Capital		Leverage	
		Risk Categories 1/						Total	Risk-Weighted	Tier 1	Tier 2	Gearing Ratio	CAR
		1	2	3	4	5	6						
Onshore Benchmark 1		10.0	30.0	30.0	10.0	10.0	10.0	100.0	34.0	2.00	2.00	4.00	11.76
Onshore Benchmark 2		16.7	16.7	16.7	16.7	16.7	16.7	100.0	46.7	2.00	2.00	4.00	8.57
Offshore 1 (least risk)	2/	0.0	20.0	20.0	20.0	20.0	20.0	100.0	56.0	2.00	2.00	4.00	7.14
Offshore 2	2/	0.0	0.0	25.0	25.0	25.0	25.0	100.0	67.5	2.00	2.00	4.00	5.93
Offshore 3	2/	0.0	0.0	0.0	33.3	33.3	33.3	100.0	83.3	2.00	2.00	4.00	4.80
Offshore 4	2/	0.0	0.0	0.0	0.0	50.0	50.0	100.0	100.0	2.00	2.00	4.00	4.00
Offshore 5 (highest risk)	2/	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	2.00	2.00	4.00	4.00

1/ Assets included in risk category 1 (risk weight 0 percent): cash and loans to governments and central banks.
Assets included in risk category 2 (risk weight 10 percent): claims on public sector entities.
Assets included in risk category 3 (risk weight 20 percent): claims on OECD banks.
Assets included in risk category 4 (risk weight 50 percent): loans secured by mortage on residential property.
Assets included in risk category 5 (risk weight 100 percent): all other assets, including commercial loans.
Risk category 6 includes off-balance sheet items that need to be scaled by a conversion factor to determine the applicable risk weight.

2/ Offshore banks are exempt from reserve requirements on deposits they raise. Therefore, they have the ability to use the funds made free from reserve requirements (assets with a zero risk weight, being claims toward the central bank) to finance higher-risk-higher return assets (assets which carry positive risk weights depending on their risk category, as shown above).

Higher profitability and higher leverage, whether risk-weighted or not, suggest that the familiar risk-return tradeoff, so often found in finance, is also applicable to offshore banking. Onshore parent banks may seek to exploit this risk-return tradeoff by establishing offshore operations to boost expected returns on equity, while simultaneously increasing risk. Because parent banks are legally responsible for their branches and, to a lesser extent, subsidiaries,[42] the risk born by their offshore establishments is ultimately also borne by onshore parent banks.

From a macroeconomic perspective, the transmission of risks is only possible if capital account restrictions are not in place and funds can flow between parent onshore banks and their offshore establishments.[43] Whether offshore establishments reside in other countries, or are residents of a particular country X, capital account restrictions preclude the up and down-loading of funds that gives rise to the transmission of risks. In the first case, and because offshore establishments are viewed as nonresidents of country X, capital account restrictions preclude the flow of funds between offshore establishments and their parent banks residing in country X; only dividends (a current account item) would be transferable from offshore establishments to parent banks. In the second case, it is not the recording of offshore flows in country X's balance of payments that would measure that country's capital account restrictions, but rather the exchange restrictions on transactions between its resident parent banks and offshore establishments.[44]

The downloading of funds from offshore establishments to parent banks onshore accentuates the maturity mismatch; liquidity; credit; solvency; and foreign exchange risks normal to the banking business. The siphoning of large, short-term, foreign currency-denominated funds captured in the interbank eurocurrency markets can lead to an excessively rapid expansion of parent banks' balance sheets. Onshore parent banks may be able to build-up their capital base, to cope with the expansion of assets, only after some delay leaving them more vulnerable in the interim. Needless to say, the nature of funding increases the normal banking risks enumerated above.

The potential for transmission of risks also increases to the extent that funds, and perhaps the entire franchise, are uploaded from parent banks to offshore establishments. In some instances, problem assets may be uploaded to offshore establishments in order to escape the reach of onshore supervisory authorities. In other instances, the entire banking franchise may be uploaded to the point where the offshore

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[42] These are wholly owned subsidiaries or partially owned subsidiaries on which onshore parent banks can exert "effective control".

[43] Assuming that capital account restrictions are effective.

[44] This is a more general point applicable to all capital flows, not just those intermediated through offshore banks.

establishment becomes substantially larger, in terms of assets and liabilities, than the parent bank onshore; a case of the tail wagging the dog. The uploading of banking activities is particularly risky when uploaded activities supplant onshore activities that would otherwise be transacted between the parent bank and its onshore clients. Uploading of funds can take the form of ordinary deposits, shares in mutual funds, and other investment vehicles. Because offshore banks may exploit prudential arbitrage, uploaded onshore funds can be used to finance connected onshore activities—real estate and construction for example—further concentrating onshore risks in offshore establishments. Should there be a downturn in onshore activities financed by onshore funds and intermediated by offshore establishments, the consequences for onshore parent banks can be significant. A large, leveraged, illiquid, and, in the worst case, insolvent offshore establishment can easily sink its onshore parent bank. This proved to be a key issue in the Latin American crises (Section V).

The transmission of risks is equivalent to that in ordinary cross-border banking when offshore banks and onshore banks are unrelated. First, the relationship between unrelated offshore and onshore banks is likely to be more transparent, precluding exploitation of prudential arbitrage. Second, unrelated offshore banks are more likely to approach onshore banks purely on commercial grounds, and transact on market-based interest rates, quantities, and maturities. In some cases, however, the perception of implicit government guarantees to make good on obligations incurred by offshore establishments of domestic banks may play a role in the lending decisions of unrelated offshore banks, underscoring possible moral hazard (see *Malaysia* and *Venezuela* in Section V).

V. The Role of Offshore Banking in Recent Crises [45]

A. Asia

A common characteristic of the recent crises in Asia is that large capital inflows—driven by financial liberalization, pegged exchange rates, and channeled through domestic banking systems—fueled credit expansion and led to increasing exposures to liquidity, foreign exchange, and credit risks.[46] As noted previously, regulatory and tax advantages offered by OFCs induced onshore banks and corporations to tap international capital markets through offshore establishments (see, for instance, Chart 7). In *Thailand*, the establishment of the Bangkok International Banking Facilities (BIBFs) in 1993 led to a substantial increase in short-term offshore borrowing which fueled unhedged domestic lending to finance equity and real estate purchases. In *Malaysia,* substantial losses in the offshore operations of at least one bank were not recognized until a broad-based reform program in the

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[45] This section draws from documents prepared by IMF Staff.

[46] See *International Capital Markets Report 1998* (Washington: International Monetary Fund) (October).

regulatory and accounting frameworks was undertaken as a result of the financial crisis. In *Korea,* regulations limiting commercial banks' medium-and long-term borrowing in international markets, combined with the perceived official support to banks, encouraged the channeling of short-term international borrowing through the financial system for on-lending to corporations.[47] In *Indonesia,* however, offshore banking did not seem to have played a significant role, perhaps because the country never established formal offshore banking facilities and had a liberal capital account.

Thailand

In contrast to the late 1980s when longer-term flows (portfolio and direct investment) were more prominent, in the early 1990s Thailand's capital account was dominated by short-term inflows which accounted for about 60 percent of the total. In 1995, about two-thirds of short term inflows were intermediated through the BIBFs. Over the period 1993-1996, total lending in foreign exchange by the BIBFs increased on average by 38 percent annually and, at end-1996, stood at about US$32 billion.

Given that BIBFs were allowed to make foreign currency loans domestically ("out-in lending"), the ratio of BIBF out-in credit to total sector credit rose from 9.8 percent at end-1994 to 11.6 percent and 17 percent at end-1995 and end-1996, respectively. Lending from BIBFs was concentrated in manufacturing (almost one half), financial institutions (about one sixth), and real estate. Most of this lending was unhedged, thus increasing the banking system's vulnerability to foreign exchange risk.[48]

Thai BIBFs' main source of funds was borrowing from their foreign branches ("inter-office borrowing"), which was classified as short-term, but rolled over continuously as the foreign branches tended to borrow long-term to finance their lending to parent BIBFs.[49] This characteristic may have induced supervisory authorities to believe that Thai BIBFs did not engage in excessive maturity transformation. However, this belief was based on the assumption that, for each Thai BIBF bank as a whole, maturities were matched at all times.

As a belated response to the surging pressures from capital inflows through BIBFs, the preferential tax rate on BIBFs profits was reduced in May 1996 and, on June 23, 1996, the Bank of Thailand imposed a 7 percent reserve requirement on new foreign borrowing with

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[47] See *International Capital Markets Report 1998* (ibid).

[48] In 1996, of total lending in foreign currency by BIBFs of US $32 billion, the private sector is estimated to have hedged (mainly through forward operations) less than 10 percent.

[49] For foreign BIBFs, inter-office borrowing represented only about one third of their funding.

maturity of less than one year by commercial banks and BIBFs. As a result, BIBFs started to shift from short-to-medium-term borrowing. Nonetheless, in September 1996, Moody's downgraded Thailand's short-term sovereign ceiling rates from Prime 1 to Prime 2 and Thailand's long-term credit ratings in April 1997.

Malaysia

At end-December 1997, the 52 offshore banks (of which, 17 domestic) operating in the *International Offshore Financial Center (IOFC)* off Labuan in Borneo had short-term liabilities amounting to US$10.2 billion, or 34 percent of total short-term external liabilities.[50] As part of the reform efforts undertaken by the authorities after the outburst of the crisis, Bank Negara initiated a rigorous analysis of the asset quality and overall conditions of Malaysian offshore banks. Specifically, a broad-based program for regulatory reform and improved disclosure of financial information has been launched, including intensified monitoring of off-balance sheet items, and consolidated accounting and reporting. Stress test analysis of nonperforming loans and capitalization are now being consolidated across onshore and offshore operations.

The review of offshore operations revealed significant losses which were not previously recognized in at least one bank. Partly as a result of this review, Malaysia's commitment to protect depositors of Malaysian banks has been extended to include those of offshore banks (at end-December 1997, offshore deposits of Malaysian banks stood at US$14 billion).

Korea

During the period between 1993 and 1996, Korea made a number of important steps to liberalize the capital account. *Inter alia*, this led to a surge in international placements of syndicated loans and bond issues, with Korean banks particularly active in the international bond market. Regulations, however, still placed limits on access to trade credit and quantitative ceilings on the amount of foreign borrowing for domestic corporations. Moreover, regulatory ceilings reduced commercial banks' ability to borrow foreign medium- and long-term funds. This may have encouraged corporations to tap international capital markets through offshore establishments of banks belonging to the same *chaebol* (conglomerate), possibly at no arm's-length. This situation remained largely undetected because of weaknesses in the frameworks for consolidated supervision and accounting.

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[50] On a gross basis, total offshore short-term liabilities amounted to US$18.1 billion.

Indonesia

Over the period 1990–96, Indonesia's capital account continued to be driven by longer-term flows, notably foreign direct investment which accounted, on average, for about one-third of net private capital flows. Over the last two years of the period this proportion increased to about one half. Offshore flows were not noticeable, perhaps because Indonesia did not establish formal offshore banking facilities and enjoyed a liberal capital account.

B. Latin America

In Latin America, offshore establishments did not serve as intermediaries for capital inflows into the region, but rather as alternatives to domestic financial systems subject to heavy regulation and capital controls. Furthermore, and from the vantage point of onshore investors, political and economic uncertainty fueled the use of offshore establishments as safe heavens. The absence of effective consolidated supervision proved to be the most important factor in permitting the exploitation of prudential arbitrage through the up and downloading of assets and liabilities between offshore establishments and parent banks onshore.

Argentina

During the 1995 Argentine banking crisis, offshore establishments of Argentine banks played a prominent although not catalytic role in creating financial difficulties. Estimates of Argentine creditor and depositor losses from the failure of these offshore establishments ranged from US$3 billion to US$4 billion in April 1995.[51] On the eve of the crisis, Argentine banks operated two types of offshore establishments. The fist type included subsidiaries of large provincial banks in the Cayman Islands and Uruguay. The second type included shell branches of wholesale banks in the Caribbean. Most of the losses are attributed to shell branches in the Caribbean.

In the period leading up to the Tequila crisis, Argentine bankers and the more sophisticated investors had several incentives to operate and invest offshore. The tradition of exchange controls during the 1970s and 1980s, coupled with the economy's need to transact in foreign currency, was one factor contributing to the increased use of offshore banks. With the relaxation of exchange controls in the 1990s, after adoption of the currency board arrangement, came higher reserve requirements and more stringent prudential norms.[52] Banks, continued to maintain offshore establishments to exploit the positive effects of lower taxation and less stringent regulatory oversight on profit margins. Investors, continued to use

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[51] See Rodriguez Simon (1996).

[52] The currency board arrangement required a sound banking system and a greater reliance of monetary policy on reserve requirements.

offshore establishments to escape the reach of the fiscal authorities. Furthermore, offshore banks were perceived to be immune to country risks (deposit expropriation for example) by investors. Adding to the set of incentives to operate offshore was the ease of managing funds given technological advances.

Onshore parent banks encouraged the transfer of funds by depositors to their offshore establishments, effectively up loading part of the banking franchise. This was a mutually beneficial situation for depositors and bankers because both parties benefited from a lower effective tax burden. Furthermore, depositors were lured by the promise of higher rates of return. On the assets side, offshore establishments engaged in speculative investments in emerging market fixed income instruments (including Argentine bonds), and also frequently in real estate and commercial projects in Argentina. By exploiting prudential arbitrage bankers were able to avoid liquidity and capital adequacy requirements, provisioning, credit portfolio diversification, and disclosure requirements.

On the eve of the Tequila contagion, offshore establishments were fully invested in emerging market assets (Russian, Mexican, Brazilian and Argentine) making them particularly vulnerable. Equally vulnerable were the depositors and creditors of these institutions. The offshore establishments of Argentine banks suffered a run parallel to that on onshore Argentine banking system as a result of Tequila contagion. Full and unregulated exposure to emerging markets led to the failure of several offshore establishments and their onshore parents. The most affected were onshore depositors and creditors who, because offshore banks resided in different jurisdictions, were in a very week position to claim assets of failed offshore establishments despite being first in the liquidation line.

Venezuela

At least four factors can be associated with the 1994 banking crisis. First, uncertainty about economic policy in the run-up to the 1993 presidential elections spurred capital outflows which may have weakened the position of some banks. Second, insiders may have withdrawn funds from troubled banks owing to expectations about more stringent prudential regulations to be introduced in 1994. Third, it may have been inferred that implicit guarantees were weakened with the change of government. Fourth, the rise in real interest rates in the first half of 1994. However, weak supervision and uncertainty about economic policies had set the stage for the 1994 systemic crisis as early as the late 1980s.

The absence of effective consolidated supervision coupled with the universal banking model followed in the Venezuelan financial system, allowed financial groups, headed by commercial banks, to hide losses by shifting assets and liabilities around the group's balance sheets. Financial groups included related brokerage houses, liquid asset funds (a combination of money market and mutual funds), leasing companies, mortgage banks, finance companies and offshore establishments. The Superintendency of Banks and Other Financial Institutions (SBIF) was under the control of the Ministry of Finance and

focused more on monitoring compliance with banking regulations rather than assessing solvency of financial institutions. Furthermore, the SBIF was poorly staffed and lacked adequate financial resources to conduct meaningful prudential oversight.

Offshore establishments were among the preferred vehicles to exploit prudential arbitrage through the up-loading of assets and liabilities. Failure to monitor institutions at the group level and to account for related transactions was a major shortcoming of the supervisory regime, precluding a true assessment of the financial condition of banks. Moreover, offshore establishments were not at all monitored by the SBIF until the beginning of the crisis in 1994 when key regulations on information disclosure, risk classification, and common standards for external auditors were issued. The environment was conducive to the diversion of problem loans and losses to the institutions within the financial group where supervision and disclosure requirements were weakest. These included not only offshore establishments but also the liquid asset funds, which were very much related to the offshore establishments. A non-uniform reserve requirement on deposit-taking institutions also created incentives to channel funding to liquid asset funds, brokerage houses, and ultimately offshore establishments.

By late 1993 and early 1994 the week position of some commercial banks led to increased risk-taking in the hope of securing higher expected returns. It was common for depositor funds to be channeled within a financial group to related companies and activities. Speculative real estate, tourism and equity investments were made from offshore establishments with funding form of liquid asset funds and in some instances plain vanilla deposits. In one occasion the acquisition of a troubled bank was financed by a loan from the bank itself to the acquiror. The loan was of course booked through the troubled bank's offshore establishment.

During and after the crisis, even offshore depositors and investors were partially and, in some cases entirely, compensated for losses resulting in substantial fiscal pressures. As a result of the liberal investor compensation, the sum of government assistance provided in the first half of 1994 to depositors of troubled banks and remaining deposit liabilities of these banks, exceeded total reported deposits in the same banks at end 1993 by 100 percent. As the crisis unfolded, many banks down-loaded their offshore liabilities to the balance sheets of onshore parent banks.

VI. Concluding Remarks

Conclusions

- Frictions associated with tax regimes, overly stringent regulatory frameworks, and restrictions on capital flows, together with the possibility of dubious activities, continue to make offshore banking a pervasive activity in terms of the number of OFCs and the volume of transactions.

- Harmonization of tax regimes, financial liberalization under prudential oversight, and capital account liberalization have reduced the appeal of offshore banking for industrial economies, where the distinction between onshore and offshore banking has become progressively blurred. Nevertheless, offshore banking remains an attractive alternative to the heavily regulated financial systems of emerging economies, especially those in need of investment financing to sustain high rates of growth.

- Offshore banks seem to exploit the risk-return tradeoff by being more profitable than onshore banks, and in many instances also more leveraged. It may be no coincidence that offshore banks have played a role—sometimes a catalytic one—in recent Asian and Latin American financial crises. Whether this is a result of deficient internal controls, or an intentional exploitation of prudential arbitrage, remains an open question.

- Countries could in principle partially shield against the transmission of risks between onshore banks and related offshore establishments by imposing stringent exchange restrictions. However, while being a possible approach to risk management, the imposition of exchange restrictions is not necessarily the optimal strategy. Even under exchange restrictions, onshore banks are still legally responsible for—and therefore exposed to—the operations of related offshore branches and subsidiaries in which they have controlling interests.

- Rather than rely on exchange restrictions, countries should exploit current supervisory and prudential frameworks for risk management purposes. These frameworks are broadly adequate for managing risks if effectively and universally implemented. However, they require a high degree of coordination between onshore and offshore supervisory authorities. Moreover, remaining supervisory gaps coupled with heterogeneous accounting standards may be an impediment to effective consolidated supervision of offshore banking activities.

Recommendations

- Further harmonization of tax regimes and prudential frameworks, coupled with increasingly universal implementation, would leave distortionary regulation and questionable activities as the main raisons d'être for offshore banking.

- Given its universal membership, the Fund is in an unique position to play an important role in the dissemination of international best practices and standards for effective consolidated supervision of offshore banking in the same way as it is doing with the Basle Committee's *Core Principles.*

- The establishment of an OFC within a country's territory is preferable, from the vantage point of that country's supervisory authorities, to allowing the operation of

offshore establishments related to onshore banks in another country's territory. The benefits for prudential supervision are clear in the first case because it does not require a difficult-to-obtain satisfactory degree of coordination between different supervisory authorities. Furthermore, in the first case, operating profits of offshore establishments are retained within the country. These were certainly considerations when the United States established the IBFs which, in addition to prudential issues, proved a useful solution to problems associated with monetary management.[53]

[53] In the United States, the Federal Reserve has imposed reserve requirements on funds raised offshore when these are on-lent by or transferred from offshore establishments to onshore parent banks.

Table A1a. OFC Banks' Cross-Border Assets vis-à-vis All Countries 1/

	All Countries	OFCs 2/			
		Total	Total Excl. UK	Carribean	Asian
		In billions of US dollars			
Dec-92	6,293	3,525	2,410	589	1,087
Dec-93	6,272	3,518	2,384	560	1,092
Dec-94	7,135	3,977	2,699	633	1,231
Dec-95	7,828	4,280	2,838	638	1,340
Dec-96	8,076	4,400	2,845	652	1,316
Dec-97	8,841	4,796	3,020	739	1,344
		Percent change			
Avg. 1992-97	7.0	6.4	4.6	4.7	4.3
1992-97	40.5	36.1	25.3	25.6	23.7
		In percent of total			
Dec-92	100.0	56.0	38.3	9.4	17.3
Dec-93	100.0	56.1	38.0	8.9	17.4
Dec-94	100.0	55.7	37.8	8.9	17.3
Dec-95	100.0	54.7	36.3	8.2	17.1
Dec-96	100.0	54.5	35.2	8.1	16.3
Dec-97	100.0	54.2	34.2	8.4	15.2
Avg. 1992-97	100.0	55.2	36.6	8.6	16.8

Source: BIS and IMF Staff

1/ As reported by OFCs reporting to BIS.

2/ Includes: Bahamas, Bahrain, Cayman Islands, Hong Kong, IBFs, JOM, Luxembourg, Singapore, and the UK.

Table A1b. OFC Banks' Cross-Border Liabilities vis-à-vis All Countries 1/

	All Countries	OFCs 2/			
		Total	Total Excl. UK	Carribean	Asian
		In billions of US dollars			
Dec-92	6,236	3,583	2,564	574	1,308
Dec-93	6,514	3,602	2,550	561	1,367
Dec-94	7,103	4,090	2,890	632	1,551
Dec-95	8,073	4,487	3,137	646	1,743
Dec-96	8,309	4,515	3,055	661	1,626
Dec-97	9,038	4,973	3,267	747	1,714
		Percent change			
Avg. 1992-97	7.7	6.8	5.0	5.4	5.6
1992-97	44.9	38.8	27.4	30.3	31.0
		In percent of total			
Dec-92	100.0	57.5	41.1	9.2	21.0
Dec-93	100.0	55.3	39.1	8.6	21.0
Dec-94	100.0	57.6	40.7	8.9	21.8
Dec-95	100.0	55.6	38.9	8.0	21.6
Dec-96	100.0	54.3	36.8	7.9	19.6
Dec-97	100.0	55.0	36.1	8.3	19.0
Avg. 1992-97	100.0	55.9	38.8	8.5	20.7

Source: BIS and IMF Staff

1/ As reported by OFCs reporting to BIS.

2/ Includes: Bahamas, Bahrain, Cayman Islands, Hong Kong, IBFs, JOM, Luxembourg, Singapore, and the UK.

Table A2a. OFC Banks' Cross-Border Assets vis-à-vis Banks 1/

	All Countries	OFCs 2/			
		Total	Total Excl. UK	Carribean	Asian
		In billions of US dollars			
Dec-92	4,934	2,444	1,625	370	678
Dec-93	4,902	2,471	1,618	350	712
Dec-94	5,588	2,822	1,839	386	823
Dec-95	6,122	3,054	1,941	401	888
Dec-96	6,252	3,117	1,931	405	858
Dec-97	6,873	3,454	2,069	447	883
		Percent change			
Avg. 1992-97	6.9	7.2	5.0	3.9	5.4
1992-97	39.3	41.4	27.3	20.9	30.2
		In percent of total			
Dec-92	78.4	69.3	67.4	62.8	87.2
Dec-93	78.2	70.3	67.8	62.4	87.5
Dec-94	78.3	71.0	68.1	61.0	87.6
Dec-95	78.2	71.4	68.4	62.8	85.9
Dec-96	77.4	70.8	67.9	62.1	84.0
Dec-97	77.7	72.0	68.5	60.5	82.2
Avg. 1992-97	78.0	70.8	68.0	61.9	85.7

Source: BIS and IMF Staff

1/ As reported by OFCs reporting to BIS.

2/ Includes: Bahamas, Bahrain, Cayman Islands, Hong Kong, IBFs, Luxembourg, Singapore, and the UK.

Table A2b. OFC Banks' Cross-Border Liabilities vis-à-vis Banks 1/

	All Countries	OFCs 2/			
		Total	Total Excl. UK	Carribean	Asian
		In billions of US dollars			
Dec-92	4,500	2,065	1,338	357	484
Dec-93	4,593	2,013	1,285	347	490
Dec-94	5,094	2,377	1,512	424	575
Dec-95	5,665	2,501	1,556	421	599
Dec-96	5,665	2,548	1,565	436	579
Dec-97	6,213	2,882	1,727	516	634
		Percent change			
Avg. 1992-97	6.7	6.9	5.2	7.7	5.5
1992-97	38.1	39.6	29.0	44.6	30.9
		In percent of total			
Dec-92	72.2	57.6	52.2	62.2	58.6
Dec-93	70.5	55.9	50.4	61.9	57.0
Dec-94	71.7	58.1	52.3	67.2	58.8
Dec-95	70.2	55.7	49.6	65.2	55.7
Dec-96	68.2	56.4	51.2	66.0	54.9
Dec-97	68.7	58.0	52.8	69.1	58.7
Avg. 1992-97	70.2	57.0	51.4	65.3	57.3

Source: BIS and IMF Staff

1/ As reported by OFCs reporting to BIS.

2/ Includes: Bahamas, Bahrain, Cayman Islands, Hong Kong, IBFs, Luxembourg, Singapore, and the UK.

Table A3. International Debt Instruments by Country of Residence

	All Countries	OFCs		
		Total 1/	Asian 2/	Carribean 3/
	In billions of US$			
Dec-92	1,864.0	297.9	10.2	33.9
Dec-93	2,037.8	317.9	11.3	42.5
Dec-94	2,441.7	405.1	16.7	67.6
Dec-95	2,802.4	493.7	18.4	91.8
Dec-96	3,225.2	629.0	29.1	132.0
Dec-97	3,531.4	746.1	34.7	183.6
Mar-98	3,691.4	777.6	35.9	195.1
	Percent change			
Avg. 1992-97	12.9	19.1	26.3	38.0
	In percent of total			
Dec-92	100.0	16.0	0.5	1.8
Dec-93	100.0	15.6	0.6	2.1
Dec-94	100.0	16.6	0.7	2.8
Dec-95	100.0	17.6	0.7	3.3
Dec-96	100.0	19.5	0.9	4.1
Dec-97	100.0	21.1	1.0	5.2
Mar-98	100.0	21.1	1.0	5.3
Avg. 1992-97	100.0	17.7	0.7	3.2

Source: BIS and IMF Staff

1/ Bahamas, Bahrain, Bermuda, the Cayman Islands, Hong Kong, Luxembourg, Singapore, UK and other.
2/ Hong Kong and Singapore
3/ Bahamas, Bermuda and the Cayman Islands

Table A4. Notional Value of Interest Rate and Currency Swaps

	Interest Rate Swaps		Currency Swaps	
	Total	Interbank	Total	Interbank
	In billions of US$			
Dec-87	682.9	206.6	365.6	71.0
Dec-88	1,010.2	341.3	639.1	165.2
Dec-89	1,502.7	547.1	898.5	230.4
Dec-90	2,311.5	909.6	1,155.0	310.1
Dec-91	3,065.1	1,342.3	1,614.3	449.8
Dec-92	3,850.8	1,880.8	1,720.7	477.7
Dec-93	6,177.3	2,967.9	1,799.2	437.0
Dec-94	8,815.6	4,533.9	1,829.7	422.5
Dec-95	12,810.7	7,100.6	2,394.8	619.9
Dec-96	19,170.9	10,250.7	3,119.3	850.0
	Percent change			
Avg. 1987-96	44.9	54.3	26.9	31.8
	In percent of total			
Dec-87	100.0	30.3	100.0	19.4
Dec-88	100.0	33.8	100.0	25.8
Dec-89	100.0	36.4	100.0	25.6
Dec-90	100.0	39.4	100.0	26.8
Dec-91	100.0	43.8	100.0	27.9
Dec-92	100.0	48.8	100.0	27.8
Dec-93	100.0	48.0	100.0	24.3
Dec-94	100.0	51.4	100.0	23.1
Dec-95	100.0	55.4	100.0	25.9
Dec-96	100.0	53.5	100.0	27.2
Avg. 1987-96	100.0	44.1	100.0	25.4

Source: BIS and IMF Staff.

Table A5a. OFC Banks' Cross-Border Assets vis-à-vis Non-Reporting Countries 1/

	All Countries	OFCs								
		Bahamas	Bahrain	Belgium-Luxembourg	Cayman Islands	Hong Kong	Singapore	UK	Total	Total (Excl. UK and Bel-Lux)
					In percent of total assets					
Dec-91	21.8	40.1	93.3	24.1	49.6	39.5	53.9	43.6	47.5	58.5
Dec-92	21.6	41.2	90.3	24.5	55.7	43.5	55.2	39.2	46.3	59.3
Dec-93	21.8	38.8	92.2	24.6	56.9	49.6	56.7	40.4	47.6	61.3
Dec-94	21.7	33.3	92.4	25.1	52.1	49.8	60.1	34.5	45.0	60.3
Dec-95	21.8	38.7	92.1	29.3	49.3	55.6	61.7	38.3	47.5	62.1
Dec-96	22.6	44.3	91.7	30.5	42.9	61.5	63.0	40.6	49.2	63.9
Dec-97	22.3	54.7	92.9	34.7	48.7	60.1	61.8	43.3	52.4	66.8
Avg. 1991-97	21.9	41.6	92.1	27.5	50.7	51.4	58.9	40.0	47.9	61.8

Source: BIS and IMF Staff

1/ Calculated as a residual of total assets reported by banks in OFCs less the assets vis-à-vis reporting countries.

Table A5b. OFC Banks' Cross-Border Liabilities vis-à-vis Non-Reporting Countries 1/

	All Countries	OFCs								
		Bahamas	Bahrain	Belgium-Luxembourg	Cayman Islands	Hong Kong	Singapore	UK	Total	Total (Excl. UK and Bel-Lux)
	In percent of total liabilities									
Dec-91	26.4	27.0	73.6	41.6	55.0	22.9	33.4	44.1	39.9	36.4
Dec-92	27.8	35.1	75.3	44.9	60.1	24.5	34.2	39.8	40.8	39.9
Dec-93	29.5	31.2	75.2	44.0	60.7	24.1	32.8	32.6	37.5	38.6
Dec-94	28.3	45.9	75.1	47.5	64.6	22.6	32.8	36.3	40.3	40.4
Dec-95	29.8	46.7	72.0	44.7	58.9	25.1	34.2	33.2	38.3	39.8
Dec-96	31.8	50.3	74.4	47.9	63.3	27.6	36.9	35.9	41.4	43.4
Dec-97	31.3	51.0	75.6	46.1	57.1	25.7	39.4	39.3	41.8	42.6
Avg. 1991-97	29.3	41.0	74.5	45.3	59.9	24.6	34.8	37.3	40.0	40.2

Source: BIS and IMF Staff

1/ Calculated as a residual of total liabilities reported by banks in OFCs less the liabilities vis-à-vis reporting countries.

Table A6. Net Cross-Border Assets 1/

	All Countries	OFCs 2/		
		Total	Caribbean	Asian
	In percent to total assets			
Dec-91	1.33	0.38	3.16	-15.16
Dec-92	0.90	-1.65	2.57	-20.37
Dec-93	-3.86	-2.39	-0.12	-25.22
Dec-94	0.44	-2.83	0.24	-25.99
Dec-95	-3.13	-4.84	-1.25	-30.04
Dec-96	-2.88	-2.63	-1.35	-23.58
Dec-97	-2.23	-3.69	-1.11	-27.54

Source: BIS and IMF Staff

1/ As reported by OFC reporting to BIS.

2/ Includes: Bahamas, Bahrain, Cayman Islands, Hong Kong, IBFs, JOM, Luxembourg, Singapore, and the UK.

Table A7a. OFCs: Maturity Structure of Banks' Cross-Border Liabilities vis-à-vis Banks in Reporting Countries 1/
In Percent of Total

	All Countries					OFCs 2/				
	Up to and including one year	Over one year up to two years	Over two years	Unallocated	Total	Up to and including one year	Over one year up to two years	Over two years	Unallocated	Total
Dec-87	41.7	8.4	47.1	2.8	100.0	86.9	1.5	9.8	1.9	100.0
Dec-88	41.5	7.4	47.9	3.2	100.0	85.5	1.5	10.6	2.4	100.0
Dec-89	43.4	6.9	46.6	3.1	100.0	85.1	1.8	10.7	2.3	100.0
Dec-90	47.4	6.3	41.4	4.8	100.0	83.5	2.5	11.1	2.9	100.0
Dec-91	46.2	8.3	40.5	5.0	100.0	82.9	2.7	11.3	3.1	100.0
Dec-92	50.6	7.4	37.2	4.8	100.0	83.2	2.0	12.1	2.6	100.0
Dec-93	53.0	7.1	33.8	6.1	100.0	82.7	2.6	12.3	2.4	100.0
Dec-94	53.6	6.4	31.8	8.1	100.0	82.0	2.4	12.6	3.0	100.0
Dec-95	55.5	6.3	30.2	8.0	100.0	80.4	2.6	12.4	4.6	100.0
Dec-96	57.7	6.0	29.0	7.3	100.0	74.3	2.8	17.2	5.7	100.0
Dec-97	54.9	5.4	30.5	9.2	100.0	72.1	2.5	19.0	6.4	100.0
Avg. 1987-97	49.6	6.9	37.8	5.7	100.0	81.7	2.3	12.7	3.4	100.0

Source: BIS and IMF Staff

1/ As reported by banks in BIS reporting countries.

2/ Includes: Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Hong Kong, Lebanon, Liberia, Netherlands Antilles, Panama, Singapore, Vanuatu, and West Indies U.K.

Table A7b. OFCs: Sectoral Composition of Banks' Cross-Border Liabilities vis-à-vis Banks in Reporting Countries 1/
In Percent of Total

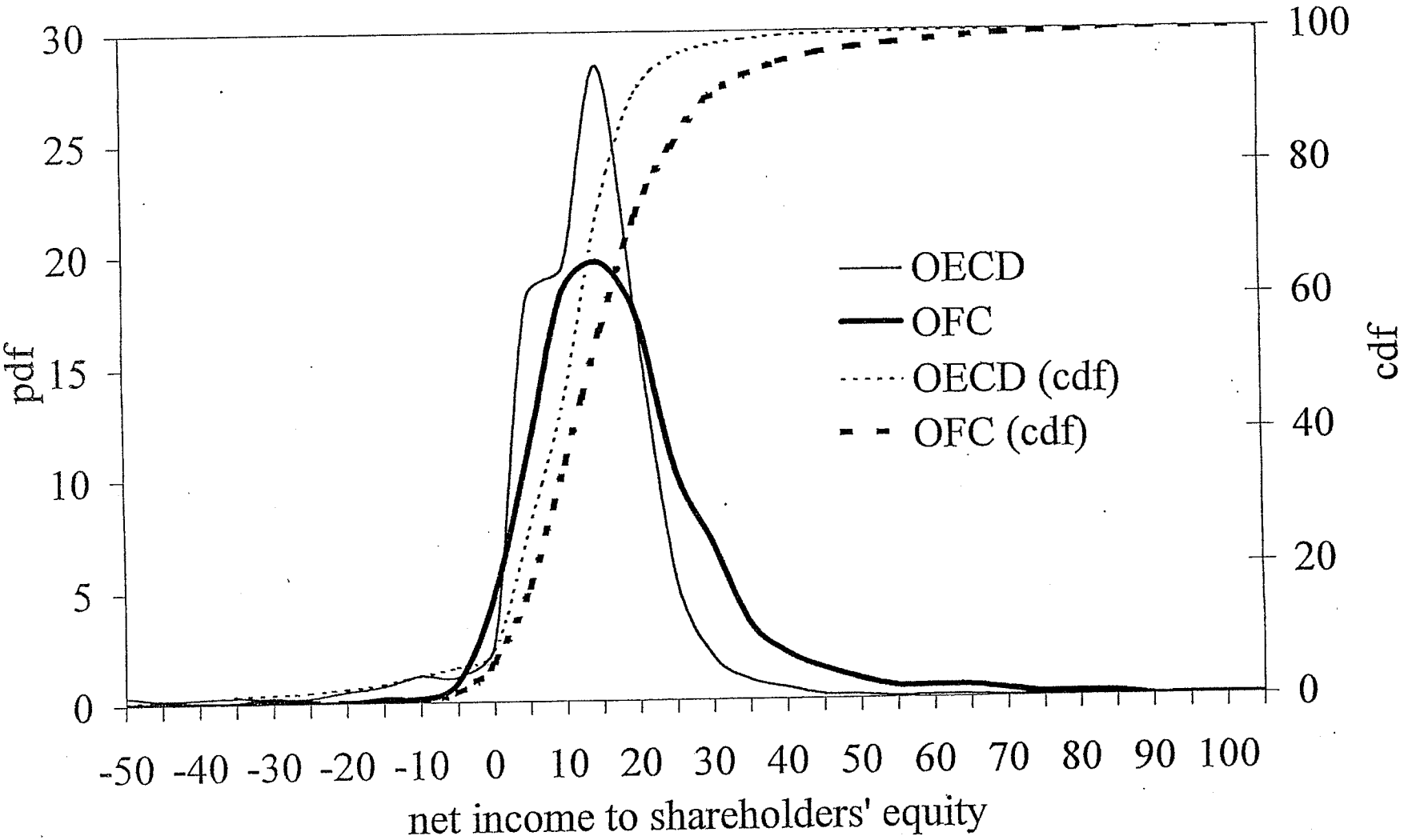
	All Countries					OFC 2/				
	Banks	Public sector	Non-bank Private Sector	Unallocated	Total	Banks	Public sector	Non-bank Private Sector	Unallocated	Total
Dec-87	29.6	40.5	26.7	3.3	100.0	66.0	2.4	28.9	2.8	100.0
Dec-88	30.3	40.5	25.8	3.4	100.0	61.0	2.5	33.8	2.8	100.0
Dec-89	31.8	37.6	27.0	3.6	100.0	60.3	1.6	35.5	2.6	100.0
Dec-90	34.0	31.3	31.2	3.6	100.0	60.2	1.7	35.7	2.4	100.0
Dec-91	35.9	29.8	31.8	2.5	100.0	55.8	1.8	41.0	1.4	100.0
Dec-92	38.7	26.7	32.8	1.7	100.0	53.1	1.5	44.0	1.4	100.0
Dec-93	40.0	24.7	33.9	1.3	100.0	52.3	1.3	46.2	0.2	100.0
Dec-94	39.3	22.3	37.6	0.8	100.0	47.8	1.8	50.2	0.2	100.0
Dec-95	41.5	19.9	37.3	1.2	100.0	67.8	0.5	31.4	0.3	100.0
Dec-96	36.7	17.1	46.0	0.2	100.0	60.6	0.6	38.5	0.2	100.0
Dec-97	37.7	14.2	47.2	0.8	100.0	55.7	0.6	43.4	0.3	100.0
Avg. 1987-97	36.0	27.7	34.3	2.0	100.0	58.2	1.5	39.0	1.3	100.0

Source: BIS and IMF Staff

1/ As reported by banks in BIS reporting countries.

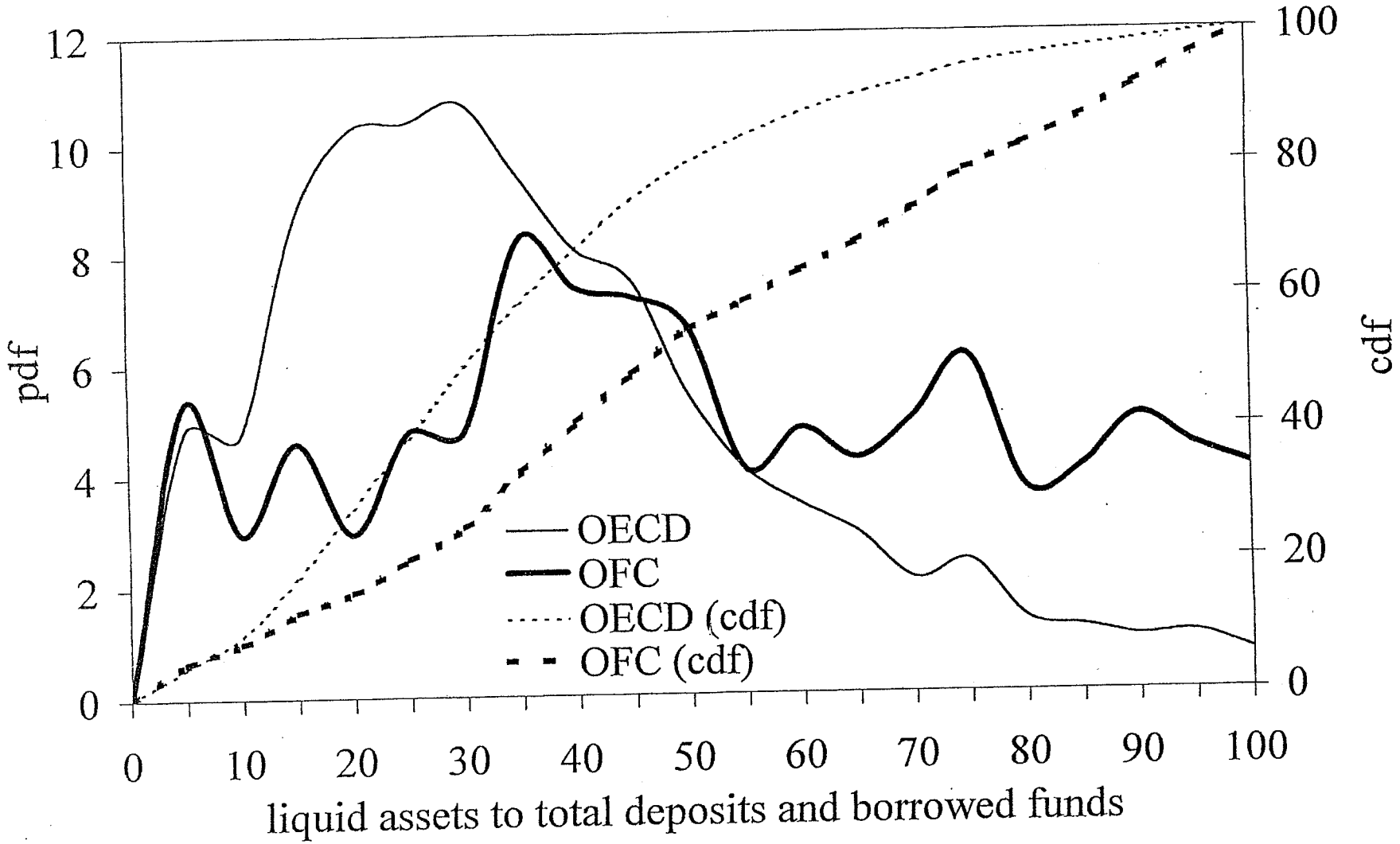
2/ Includes: Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Hong Kong, Lebanon, Liberia, Netherlands Antilles, Panama, Singapore, Vanuatu, and West Indies U.K.

Chart A1. Profitability



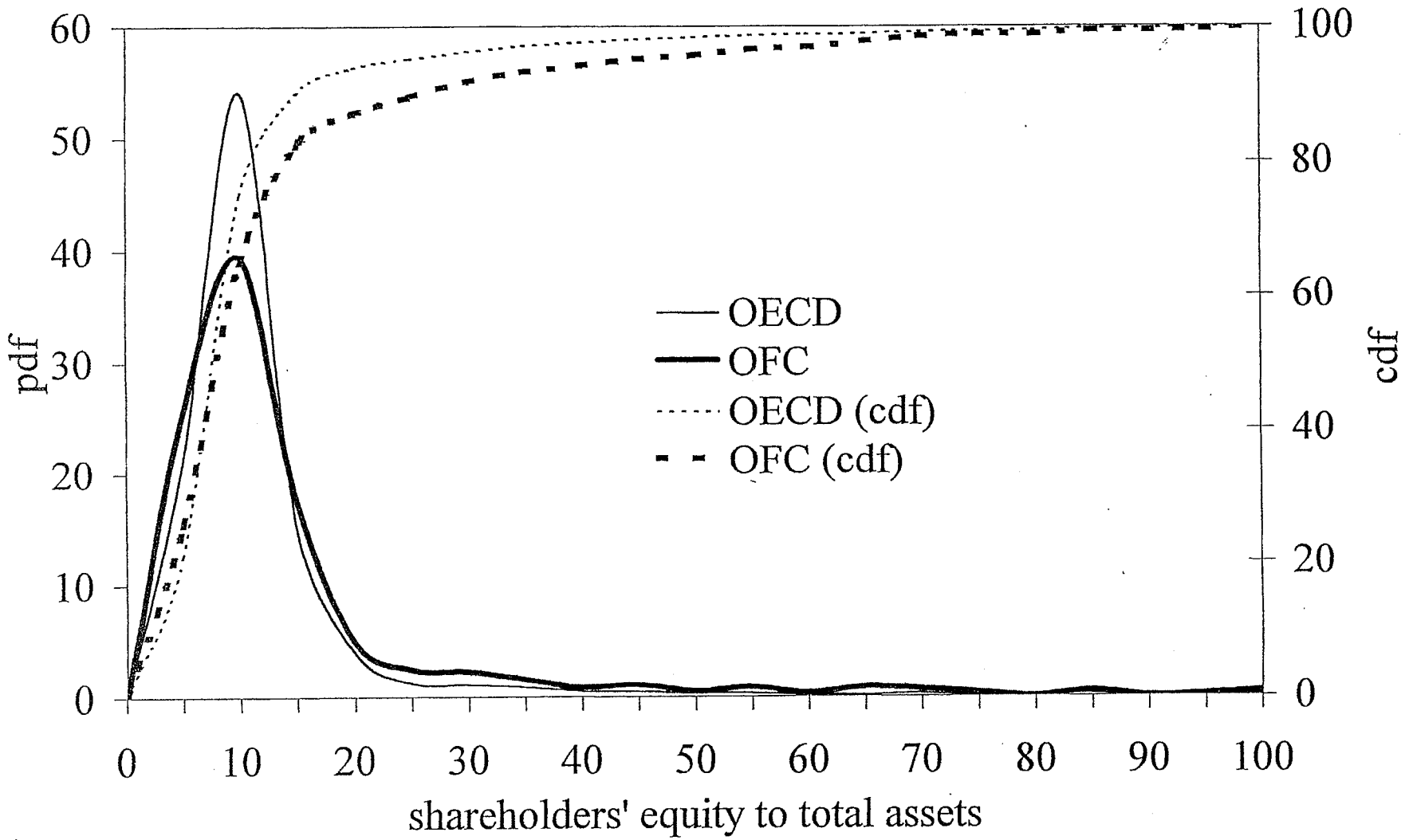
Source: Thompson Bankstat and IMF Staff.

Chart A2. Liquidity



Source: Thompson Bankstat and IMF Staff.

Chart A3. Solvency



Source: Thompson Bankstat and IMF Staff.

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