

## A Note on the Shifting Comparative Advantage in Trade in Financial Services

In the March 1988 issue of this *Review*, H. W. Arndt examines the nature of comparative advantage in trade in financial services. He notes the elusive nature of a definition of financial services trade, concluding that the output of this sector sold to non-residents covers a variety of non-factor services based on the intermediation process.

Data for an empirical analysis of trade in financial services is provided in the International Monetary Fund's *International Financial Statistics* in its tables on "cross-border interbank claims" and "cross-border bank credit to nonbanks", each of which is shown by country of residence of the lending banks. The data reveal that international banking activity (as reflected in cross border bank claims) is dominated in absolute terms by the United Kingdom, the United States, Japan, Belgium-Luxembourg, Switzerland, the Cayman Islands, Germany, the Bahamas and Hong Kong.

However, as shown by Arndt, a somewhat different picture of country importance emerges if relative values are considered, specifically the ratio of cross-border claims to the basic money supply (M1) of each country in question. By the end of 1984, the highest ratios applied to several of the "offshore banking centers" - the Bahamas, Panama, Bahrain and the Cayman Islands - which are highly specialized in international bank lending. Significantly lower ratios apply to the U.S., the U.K., Japan and Germany which, while providing the bulk of international credit, are not highly specialized in this form of activity.

### Purpose of note

The Arndt study focuses primarily on conditions at a point in time (the end of 1984). It might be expected, however, that with the

dramatic increase in international bank activity since the 1960s, shifts in comparative advantage would be revealed by considering the available data over a period of several years. The purpose of this note is to examine changes in external banking activity over time for those countries that either (a) play an important role in this area in an absolute sense (the industrial countries) or (b) are highly specialized in financial activities (the offshore banking centers). Second, the various innovations that have developed in international banking are examined to determine their relationship to the provision of the traditional types of financial services.

The analysis will primarily involve a comparison of cross-border claims of banks of specific countries to cross-border claims of all countries over the years 1974-1989 (or later depending upon the availability of data).<sup>1</sup> This period analysis is expected to reveal important changes in the provision of financial services. For example, it is hypothesized that the debt crisis initiated in 1982 (following Mexico's decision to suspend debt servicing) will adversely affect the position of the major lending countries, particularly the United States and the United Kingdom. However, as a relative newcomer to major world money and capital markets, Japan's position is likely to reflect continued expansion. The impact on the offshore banking centers is more difficult to predict but, in all likelihood, will show a pattern different from that of the industrial countries.

### The position of the industrialized countries

As expected, an empirical analysis reveals that the various ratios relating to the U.S. banking position indicate a sharp growth in the provision of international financial services from the early 1970s through the early 1980s, but a significant decline in this activity in subsequent years (Table 1). Cross-border interbank claims of U.S. resident banks as a share of world claims of this type, increased from eight percent in 1976 to 17 percent in 1983; thereafter it gradually declined to about eleven percent in 1990. Cross-border nonbank claims of U.S. banks as a share of world claims of this type rose from

<sup>1</sup> The ratios are used rather than cross-border bank claims/M1 because of the difficulty in converting the M1 values of each country to a common unit (given the variability of the exchange rate system).

nine percent in 1977 to 16 percent in 1983 and declined thereafter to 5.5 percent in 1990 (Table 2). In addition, the U.S. ratio of total bank cross-border claims/M1 increased from 15 percent in 1974 to 82 percent in 1982; thereafter, it gradually declined during most years to about 74 percent in 1988.

Thus a decrease in U.S. international banking activity appears to be closely associated with the beginning of the Third World debt crisis in 1982 and the subsequent gradual withdrawal of bank lending in following years. In 1984, the U.S. also shifted from a net creditor to a net debtor nation.

Both cross-border interbank and nonbank claims of British institutions remained relatively more constant since the early 1970s and through 1990 (Tables 1 and 2). The emergence of British banks as the largest holders of cross-border claims in the late 1980s may reflect the fact that they were not affected as greatly by the debt crisis as were U.S. banks.

The growing importance of Japanese banks in world markets following the relatively recent government liberalization of bank activities outside the country is also evident in Tables 1 and 2. Japan's importance is likely to continue to expand as long as the domestic savings rate remains high and the balance of payments remains strong.

West Germany's world position in interbank and nonbank lending has remained relatively constant. This is likely to expand as the European Community implements its Banking Directive and as German banks establish operations freely throughout the Community.

The position of Belgium-Luxembourg as a financial center and source of banking activity has also remained relatively constant over time. Belgium-Luxembourg is also similar to Germany in that lending to non-banks has been significantly more important than interbank lending.

### The offshore banking centers

Several small countries and areas came to be established as financial havens in the post-World War II period. Frequently, bank offices were established in the off-shore centers to meet a legal requirement with actual production occurring in the country of the parent company. As noted by Arndt, these locations are highly specialized in providing financial services on an international basis.

TABLE 1

## RATIO OF CROSS-BORDER INTERBANK CLAIMS BY RESIDENCE OF LENDING BANKS BY COUNTRY TO CLAIMS BY BANKS FROM ALL COUNTRIES

Year	U.S.	U.K.	Japan	West Germany	Belgium Luxembourg	The Bahamas	Cayman Islands	Hong Kong
1976	8.4			5.3	5.8			
1977	8.4	16.2		4.7	6.1			
1978	10.2	15.8		4.2	6.4			
1979	9.4	17.2		3.5	7.2		3.9	1.6
1980	10.2	17.5		3.0	6.6		4.1	1.9
1981	12.6	17.9		2.7	6.2		4.3	2.1
1982	16.5	18.0	3.8	2.4	5.5		4.5	2.4
1983	17.0	18.3	4.4	2.1	5.2	6.1	4.6	2.7
1984	16.8	17.9	4.7	2.2	5.1	5.6	4.5	2.9
1985	14.8	18.4	6.0	3.0	5.9	4.4	4.3	3.6
1986	13.7	18.2	9.0	4.2	6.1	3.8	4.2	4.6
1987	11.7	17.5	11.9	4.2	6.2	3.3	4.0	5.8
1988	12.2	16.5	14.5	3.9	6.0	3.1	4.0	6.1
1989	11.8	15.0	14.5	4.5	na	3.0	4.3	5.8
1990	10.8	15.8	14.0	5.3	na	2.6	na	6.2

Source: International Monetary Fund. *International Financial Statistics, Annual Report* (various issues).

TABLE 2

## RATIO OF CROSS-BORDER NONBANK CLAIMS BY RESIDENCE OF LENDING BANKS BY COUNTRY TO CLAIMS BY BANKS FROM ALL COUNTRIES

Year	U.S.	U.K.	Japan	West Germany	Belgium Luxembourg	The Bahamas	Cayman Islands	Hong Kong
1974	13.5	23.3		7.8	11.7			
1975	11.9	20.6		7.5	12.0			
1976	10.8	18.0		7.9	11.3			
1977	9.5	19.0		8.4	12.5			
1978	9.1	18.4		9.1	13.0			
1979	10.0	17.9		9.0	12.9		3.5	1.9
1980	10.2	18.5		7.4	12.6		4.5	2.0
1981	12.0	19.5		5.9	11.9		5.5	2.1
1982	14.7	19.6	3.3	5.2	10.5		6.2	2.2
1983	16.0	19.6	3.7	4.7	9.8	6.1	6.2	1.9
1984	15.8	19.1	4.9	4.3	9.8	4.8	7.5	2.5
1985	12.6	19.6	6.6	5.1	10.2	4.9	7.9	2.2
1986	10.9	19.7	5.5	5.7	11.3	3.9	7.8	2.2
1987	8.9	17.6	10.4	6.2	11.5	3.3	7.6	3.9
1988	8.4	16.8	11.2	5.7	11.2	2.8	10.1	4.6
1989	7.2	15.4	11.2	5.7	11.0	2.4	9.7	5.7
1990	5.5	15.3	11.0	6.8	11.3	2.2	na	7.6

Source: International Monetary Fund. *International Financial Statistics, Annual Report* (various issues).

Included among the off-shore centers which remain important are the Bahamas, the Cayman Islands and Hong Kong (Tables 1 and 2). The position of the Bahamas has declined somewhat since data first became available in 1983. The Cayman Islands, however, has generally continued to gain slightly in importance since the late 1970s. And, interesting, Hong Kong has continued to expand in importance since 1982. At least initially, concerns were raised that a closer tie with the People's Republic of China might adversely impact Hong Kong's future in world finance.

### Innovation and the changing nature of financial services

One of the more important developments in international finance in recent years is the growth in "securitization" and off-balance-sheet activities (OBSAs) of major commercial banks. Banks located primarily in the major industrial countries have shifted their emphasis in the intermediation process and have become a less important source of loans and more involved in activities providing a fee type of income. This has included bank issuance of letters of credit, revolving underwriting facilities, note issuance facilities, and similar types of activities which have helped offset the decline in interest income from lending activity. In addition, banks have increased their activities in exchange markets, in swap agreements, and various other innovative activities. As noted by the Bank for International Settlements in its 1990 *Annual Report*, "... to a considerable extent, this off-balance-sheet activity has been used as a substitute for more traditional borrowing and lending business ..." And Sinkey (1990) has noted a "... movement from traditional banking to contingent-commitment banking."

The incentive for banks to "go off the balance sheet" was in part provided by the regulatory decision in the U.S. and other major countries in the 1980s to establish minimum capital/asset ratios. The growth in OBSAs illustrates Arndt's assertion that trade in financial services, unlike trade in goods, is not necessarily reduced by regulation and other distortions.

The shift toward OBSA banking did not completely alter the intermediation function performed by banks. This applies particularly to transaction and information functions provided by intermediaries to both borrowers and lenders. OBSAs involve an "unbundling" of

intermediation functions which may separate such informational functions as risk assessment from the funding and holding of assets. In fact, given the regulatory requirements that apply to deposit holding, the comparative advantage of banks may be in risk assessment rather than asset holding (Lewis, 1988). Thus the nature of financial services has changed as a result of the "unbundling" effect; therefore, cross-border claims, as a reflection of bank lending, less adequately capture the true nature of financial services.

Off-balance-sheet activities have sharply increased to become of major significance in relatively recent years. Only in the past few years have regulatory agencies formally included them in their assessment of the risk behavior of commercial banks. In the U.S., such activities have been included in call reports since 1988. For all U.S. located commercial banks, the non-interest income category, which includes fee and related types of income from OBSAs, increased from 1.33 percent of net assets in 1985 (or about \$3.4 billion) to 1.55 percent of assets (or about \$4.8 billion) in 1989 (Federal Reserve Board, 1990).<sup>2</sup>

The impact of the growth in off-balance-sheet activity on the production location of financial services cannot yet be readily determined. Although data on the geographic distribution of OBSAs remains limited, initial evidence suggests that such activities have been provided by the banks from the major industrial countries, especially the U.S. and the U.K. According to one estimate, the eleven largest U.S. banks held an average OBSA-to-capital ratio of 34.4 in 1987 (Sinkey, 1989).

For the most part, it might be expected that the innovative efforts would center on New York, London and Tokyo. Yet some forms of off-balance-sheet activity are clearly undertaken in other areas. For example, Singapore and Hong Kong are heavily involved in foreign exchange market activities, although in absolute terms the U.S., the U.K., Japan and Switzerland play a more important role.

## Conclusions

A major problem in analyzing international banking is in defining and quantifying the nature and value of intermediary services.

<sup>2</sup> "Developments Affecting the Profitability of Commercial Banks," *Federal Reserve Bulletin*, 1990. As a basis of comparison, it might be noted that the net interest margin for all banks over the same period of time ranged from 3.25 percent to 3.5 percent.

Although published data reflecting international bank efforts in the form of cross-border claims is of short duration (covering a period of 15 years or less), there is evidence of significant shifting among several of the countries that have played a major role in such activity. Cross-border activities of U.S. banks reached a peak in 1983, and the relative importance has declined significantly since that time. The U.K. and West Germany have maintained a relatively constant position whereas Japanese banks have experienced substantial growth.

With the exception of the Bahamas, the offshore banking centers have gained in relative importance in cross-border bank claims since the late 1970s. But cross-border claims no longer provide a comprehensive indication of international trade in financial services with the growth in OBSAs. Innovation in international financial intermediation has affected the role of commercial banks and their comparative advantage in this activity.

Thus, it might be concluded that a shifting of comparative advantage in financial services has occurred among the major suppliers in recent years. However, there is also an equally important, perhaps even more important, shift occurring in the nature and provision of financial services, particularly with respect to several innovations that have become an important component of the activities of major international banks.

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