

Disintermediation in Financial Services: An Empirical Investigation of Indian Banking Sector

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The phenomenon of disintermediation has occurred throughout the world, in both developed as well as developing economies, somewhere early and somewhere later. Capital market has also gone through changes, with government and corporations opting for direct market borrowings and investors diversifying their portfolio internationally; thus leading to reduction of banks share in global stock. Study has been made in almost all the economies where disintermediation affected the banking sector. So far as the Indian financial service sector is concerned, the observations made in this paper clearly bring out the growing evidence of diversification in the options available to the investors for parking their savings in different instruments. In this process bank's deposit mobilisation has got a jolt, possibly in future more pressure will be found on this activity. Small scale savings and insurance products are making an inroad into the domain of bank deposits. On the other side, Indian corporate and individuals have found many other options for garnering the desired fund for fulfilling their need of resources and simultaneously the loan portfolio of the bank has been affected. The income from this portfolio is not even sufficient to meet the interest expenditure arising out of deposit, indicating a shortfall in the generation of adequate income from the primary activities. This has warranted a strategic shift in the banking focus areas. Banks have found to be increasingly investing in Govt. securities to get an assured rate of return, rather than investing in loan portfolio. This provides a clear indication of disintermediation in banking industry and in the financial service sector as well.

Introduction

Financial service sector is the life line of any country. It assumes more significance because of its greater dominance as well as the magnitude of repercussions on the economy, in case of their structural changes. Special emphasis is given to this sector because of the unique character of financial intermediaries and the added complexity of different practices followed among them. The primary function of financial service industry is to mobilize savings and to allocate those funds among competing users/investors on the basis of expected risk-return. This process is carried out through intermediation

of financial intermediaries who are primarily commercial banks, which provide credit in the form of loans and institutional investors such as insurance companies, pension funds and venture capitalists, which provide financing in the form of debt and equity.

Banks are the systemic institutions, not only possess the potential of a great catalyst of growth but also on the other hand have the capability of causing catastrophe to an economy. When they efficiently mobilize and allocate funds, this lowers the cost of capital to firms, boosts capital formation, and stimulates productivity growth. Their role in the intermediation process is very significant because of overwhelming control over the entire financial assets of the economy and more because of the under development of capital market in most of the developing economies like India and many others. They are the primary financial intermediaries that arise during saving-investment process and come in between the ultimate borrowers and lenders. They accept deposits on promise to pay a rate of interest, which is then converted to different categories of assets out of which loan is the most prominent one.

In an economic system other institutions like mutual funds, non-banking financial companies also function in the same line with banks although their way of accepting deposit as well as investment pattern may be different. Hence intermediation as a term meaning, "to have middle-man (intermediary) between borrowers and lenders, rather than borrowers and lenders dealing directly to each other" (*financial dictionary, anz.com*); is not meant for banks alone but arises with any source of indirect finance. However, the basic philosophy towards development of diversified financial system with banks and non-banks is to enhance the risk pooling and risk sharing opportunities by investors and borrowers.

The role of financial institutions in the capital intermediation process has changed significantly over the years. In the past, funds were intermediated through banks and other savings institutions. The savings of individuals were deposited in these institutions, which subsequently lent the funds as business and consumer loans. The advent of direct market financing for large borrowers, techniques such as securitization, and the institutionalization of savings has led to the disintermediation of financial institutions. Over the years, financial intermediaries have been steadily losing market share in the global financial intermediation business to capital markets; this is known as 'financial disintermediation' – that is, the bypassing of financial institutions.

Disintermediation - A Theoretical Exposure

While the term disintermediation is used to describe a variety of different developments, it is properly defined as a move from the intermediated provision of financial services via banks to direct financial relations between borrowers and lenders. In a world of complete markets, this process would lead to a situation where there would be no need for financial intermediaries anymore. As a result of the existence of transaction and information costs, however, financial intermediation is unlikely to become redundant. Hence,

disintermediation can more properly be defined as a loss in importance of traditional banking activities, such as the collection of deposits from households and the provision of bank loans to companies. In this scenario, the role of financial institutions shifts to the provision of financial services on a fee basis. This development, which could rather be characterized as 'bank disintermediation', does not necessarily imply that there is an overall decrease in financial intermediation.

Disintermediation is thus the "cutting of middle-man, so that the borrowers and lenders can deal with each other directly". It takes place with the development of alternative sources of investment thereby giving investors and borrowers a wide variety of options. But in relation to banks, disintermediation describes what happens when money is moved from banks and invested. In such direct financing borrowers and lenders directly deal with each other. Although this term is not directly related with deregulation as disintermediation was already in place much before deregulation (FRBSF, 2002) and is mostly because of the availability of alternative instruments of savings and borrowings. However, due to deregulation, there is development of new and innovative market instruments and this has contributed more towards banking disintermediation. Another factor is development of technology i.e., facilities like ATM, Phone Line Banking, Internet Banking, etc., that allows customers to avail banking services without visiting the banks. This is mostly referred to as 'technological disintermediation'. Nevertheless, with this development even the non-financial companies have entered into financial service industry.

This is particularly true in case of Continental Europe. Elsewhere in USA and UK, banks are merging with non-banks and with securities and insurance firms. Whereas in Central European Economies, Australia, Japan and Latin American countries, the reason for banking disintermediation respectively are investment funds, pension funds, postal saving schemes and tax by government on bank withdrawals. Tougher capital regulations have helped to preserve the funding advantage that some large companies have in accessing international capital markets on their own. And the growth so far can be seen with the declining share of banks deposits in the global finance from 45% in 1980 to 30% today (Business India, 2005), with corresponding increase in the debt and equity securities. So the banks have been forced to find additional sources of revenue including new ways of intermediating and fee-based businesses.

Objective and Methodology

In Indian economy, though disintermediation is already in place not much work has been done in this field. The process of disintermediation started from 1980 onwards with the development of capital market instruments and other saving instruments as well as change in government policy; and at that period some study has been made but that may be said to see the initial effect, as at that period the term 'disintermediation' was only introduced to Indian economy. But with liberalization process being brought into effect from 1990 onwards, a few works were done at that period, i.e., at

the beginning of 1990's; but again that can be said to study the initial period effect; as that period was the beginning of the new phase for upcoming of new institutions and instruments to give diversified options to investors and borrowers.

Keeping all these in the background, the study attempts to find out:

- i) the disintermediation impact on the household saving pattern, and
- ii) the impact on the primary functions of the banking organisations viz. deposit mobilisation and resource deployment.

The study is based on secondary source of data. Data used for this is mostly based on publications by Reserve Bank of India, CMIE, and Central Statistical Organisation. Leaving aside the few initial years of liberalisation i.e. 1991-94, it covers the period from 1994-95 to 2004-05 where the disintermediation phenomenon in the entire financial sector could be better traced. Specifically, the study covers two aspects of the banks operation viz. deposit taking and loan disbursal. The trend of deposit accepted and loan given by banks as well as for other sources of investment and borrowing available in the market are analysed with the help of suitable ratios. Comparative analysis of deposit mobilisation by other intermediaries is also made.

The schematic arrangement of this paper begins with the section highlighting the concept of disintermediation and the precise objective and methodology of the paper. The second section reviews the existing disintermediation phenomenon around the world including India. The third deals with the trend analysis of house hold saving in the Indian economy and attempts to through light on the possible impact on the major banking variables and the last section brings out the conclusion.

Disintermediation - International Experience

In industrial countries with highly developed financial markets, the greater use of indirect instruments requiring commercial banks to hold a part of public deposits as cash or reserve can lead to financial disintermediation as people may opt for investing money in unregulated market (Alexander 1996). Capital market has gone through dramatic changes all over the world with bond market developing to meet the requirements of the long-term creditors; and government and corporations are moving to market as well as with investors diversifying their portfolio internationally and also NBFCs competing with banks (Dicky 2005, Business India 2005, Hauslre 2002). This is leading to shift away from banks to market, with a decline in bank's share in global stock from 45% in 1980 to 30% today (Business India, 2005). Although banks, non-banks and stock markets are active in richer countries, it is the stock market that is more efficient than banks in market based economies and vice-versa for underdeveloped economies. (Kunt & Levine, 1999).

In developed country like USA the growth rate of banks in terms of both deposit and lending capacity declined due shift in preferences for borrowing by companies as well as investors' preference shifting towards market based

instruments. They had to face tough competition from upcoming new instruments of savings as well as non-banks having the advantage of better technology, reduced service price, etc., among others; and so started to sell alternative investment products (Boczor 1978, Lipp 1982, Friedman 1982, Barnard jr 1987, Ghosh 1991, Kehrer 1997, Maloney 2001, Allen & Parwada 2002). In Australian market due to the growth in compulsory pension scheme, bank deposits have fallen from 62% in 1990 to 45% in 2001, whereas superannuation assets have risen from 27% to 38% in this period, thus requiring alternative to bank deposits (Buch & Golder, 1999). But it is the retirement funds that directly compete with no substitution effect between traditional deposits and managed funds (Allen & Parwada, 2002).

Building societies in UK have privileged position over banks, whereas in the CEE economies (i.e., Czech Republic, Hungary and Poland) are growing, most of the monies are going from the bank to investment funds, i.e., fixed income, cash and mixed funds (Bledowsky 2002). In Germany, the share of bank deposits in household savings declined by 16% points after 1980 and that of insurance increased to 20% but more shifts is towards fixed assets. Over the past two decades, though the share of equity has doubled, but bank financing in companies still accounts for 45-55% since the past five decades (Buch & Golder, 1999). In Japan the Postal Saving System (PSS) and The Fiscal Investment and Loan Program (FLIP) forms the system of government intermediation. PSS is a source of disintermediation from private banks as the investors consider the deposit as direct govt debt and the private banks deposit as insured upto 10 million (as the limit of DIC to insure) (FRBSF, 2002).

However, since 1988 in some Latin American countries, bank debit taxes have contributed to disintermediation as people opt for more of direct cash transactions or through offshore banks. It is found that disintermediation rate is 28%, 41% and 47% in Venezuela, Colombia and Ecuador respectively, and not significant in Brazil with tax rate ranging between 0.2%-2.0% (Kirilenko & Summers, 2002). The Middle East and North African (MENA) region is facing the challenge of financial liberalization, due to reduction in boundaries between banks and non-banks as well as financial innovation. The three major driving factors are liberalization, technical changes, and market innovation. And disintermediation being one of the four trends is still in early stage due to slow emergence of securities market. (Grais & Kantur 2003).

Over the last twenty-five years or so, a series of developments have contributed towards financial deregulation. There were episodes of banking crises in both developed and developing countries since 1980 and one of the reasons for this was excessive state regulation. The other reasons for deregulation can be technological development as well as pressure on World Bank and IMF by UK and USA to encourage other countries to deregulate.

Disintermediation - Indian Experience

In Indian financial market, changes started to take place from 1980's. And with the introduction of the new instruments of savings in market there

was a decline in the rate of bank savings. So it could be said that financial disintermediation was already in place from the first half of 1980's (Murthy 1984, Jadhav 1988). Further due to liberalization of Indian economy and with increased importance of capital market during 1990's the share of bank credit (especially to commercial sector) decreased. This is due to new investment options available in the market (EPW 1991, RBI 2002, RBI 2000 Krishnamurthy 2004).

Financial deregulation was the initiation of government in response to the crisis that surfaced during 1991, thus bringing it closer towards failure to meet its international payment obligations. So in order to strengthen the system, decision was taken for financial sector restructuring. Based on the recommendations of various committees, importantly Narsimham committee 1991 and 1998, the focus shifted towards promoting infrastructure and over a period of time the system evolved with four segments viz; banking, insurance, capital and money markets, and specialized institutions of lending; thus deepening the financial system and broadening the sphere of competition for banks and disintermediation.

Disintermediation in India started from 1980's with development of capital market as well as initiative from government towards tax concession policy and permission to Public sector undertakings to accept deposit. Another factor was the introduction of new tax concession schemes by LIC and Small Saving Schemes by Postal Department. All these led to reduction of banks share in household savings. With liberalization of economy, capital is moving freely and, good credit worthy borrowers are trapping cheap source of finance from domestic as well as international market. Before 1990, there was only LIC and GIC in insurance sector, but the post-liberalization gave rise to private sector, where even the MNCs have entered Indian market in collaboration with domestic firms.

The banking industry in response to the challenges thrown up by the disintermediation is increasingly taking the form of developing specialised service capability to meet the rapidly changing customer preferences, and in recent years have turned increasingly to non-interest income deployment of funds. During the year 2004, it consisted of 17% of the total income (Ramasastry, Samuel, Gangadaran, 2004).

Household Investment Pattern vis-à-vis Deposit Mobilisation by Banks

The overall picture in post reform period is quite opposite to the expected trend. Despite of several reforms in financial markets household savings in form financial instruments are in a declining spree. Savings are more locked in physical assets rather than financial. Obviously, this trend has the potential to affect all the categories of financial savings and so also bank deposits. Further, the expanded addition of institutions and instruments to the financial market arena has also the potential of bringing greater degree of disintermediation into the financial services provided by banks. The entry of foreign players to the list is adding fuel to this trend and affects the deposit taking ability of Indian banks. The mushrooming of small saving institutions and growing awareness about the insurance products have already been

made a dent into the household savings. The share of bank deposits has been on a sliding scale.

The visible trend from Table-1 is the increasing share of investment in physical assets. Over the 10 years there is a clear shift towards small saving and insurance, whereas the bank deposit has fallen. All together if these trends continue to remain the deposit of banking is going to be severely affected. The share of "shares and debentures" has shown a declining trend. This indicates a lesser confidence among investors in stock market may be due to the poor governance of this segment. Companies are unable to use the capital market as an alternative to banks, hence the downward pressure on loan yields is less than it would have been if the capital market had taken off. More importantly, perhaps, deposit growth has not been threatened because depositors are reluctant to desert banks in favour of capital market instruments, given their experience with the stock market (*Ram Mohan, 2002*). But in years to come coupled with full Capital Account Convertibility (CAC) and other reform measures the stock market is likely to attract better clientele thus has the potential to further distract the house hold saving from banks. The opening of pension sector is yet to come, once in place it will have the capability of furthering this concern. Attracting deposits would be one of the future challenges before Indian banking.

Table 1: Disintermediation in house hold savings

Share of house hold savings	1994-95	1999-00	2003-04	Shift
a. Total Gross Domestic Savings (in Rs. Cr.)	251463	468681	776420	+ ve
b. House hold saving in GDS (%)	79.3	86.3	86.5	+ ve
c. Financial savings in house hold savings (%)	60.6	50.9	46.8	- ve
d. Physical savings in house hold savings (%)	39.4	49.1	53.2	+ ve
e. Bank deposits in financial savings of house hold (%)	45.5	37.6	44.5	- ve
f. Shares and debentures in financial savings of house hold (%)	11.9	7.5	1.4	- ve
g. Investment in small savings in financial savings of house hold (%)	9.0	11.9	14.2	+ ve
h. Insurance funds in financial savings of house hold (%)	7.8	11.9	12.7	+ ve

Source: CSO, GOI (2005).

The annual growth rates provided in Table-2 indicate a decline in growth rate of deposit mobilisation by banks supplemented by the corresponding increase of the mobilisation by small saving schemes and mutual funds. Contrary to the popular belief that there is perceptible growth in the capital market and growing primary market mobilisation through corporate securities

brought disintermediation to the banking activities, it is evident from table-1 and table-2 that the growth in capital market mobilisation has in fact come down in recent years. Thus the disintermediation in banking sector is basically brought by the mobilisation of savings by intermediaries like Post office, mutual funds and insurance organisation and not by the capital market.

Table 2: Resource mobilisation Annual Growth rates (in %)

Year	Deposit mobilisation by Bank	Mobilisation by Saving Schemes	*Primary market mobilisation	mobilisation by Mutual Funds	Deposits with NBFCs
1995-96	12.23	-30.34	-14.39	-52.59	14.75
1996-97	16.55	22.56	-10.85	-26.60	98.59
1997-98	18.37	73.49	20.80	138.77	-74.44
1998-99	19.31	38.54	54.91	99.11	17.33
1999-00	19.27	-0.93	16.80	169.67	11.96
2000-01	16.15	30.47	7.59	51.79	-18.20
2001-02	11.55	0.30	-2.88	76.99	4.04
2002-03	18.89	37.21	-0.34	91.28	-28.55
2003-04	16.87	25.02	-7.53	87.54	39.96

Source: Compiled from RBI Data *excluding euro issues

Loan Deployment

The disintermediation in the other major activity of bank viz. loan deployment due to the growth of other intermediaries and avenues of finance for the economy can be studied from the table-3. The major impact in this context can be studied by looking at the growth of capital market including the resources mobilised through euro issues, flow of foreign direct investment (FDI) and loan disbursed by other financial institutions. Besides there are other several instruments through which disintermediation can be visualised. Issue of commercial papers, short-term deposits mobilised by companies, loan disbursed by NBFCs and others are also making a dent into the loan portfolio of banks.

Table 3: Resource deployment Annual Growth rates (in %)

Year	Loan by Banks	Primary market mobilisation	Inflow of FDI Fls	Loan by other
1997-98	16.41	13.40	32.00	
1998-99	13.81	42.89	-21.65	
1999-00	23.11	20.36	-9.85	7.85
2000-01	16.56	8.21	97.11	15.86
2001-02	11.42	-5.09	58.86	-13.11
2002-03	26.57	1.13	-22.87	-55.80
2003-04	14.77	-7.63	-4.74	-9.76

Source: Compiled from RBI data

Overall Impact on Financial Parameters

The disintermediation impact on the deposit mobilisation and loan disbursal has a direct bearing on the financial parameters of banks. The interest income from loan and interest expenditure on deposits and the net spread between these two would provide the necessary clue. In recent years there is disclosure of classification in interest income and interest expenditure by RBI, which is presented in the Table-4. The net interest spread earned from the primary activities of the bank shows a sordid picture of the banking in India. However, the impact is well ameliorated by the income from investment. It is found from Table-5 that over the years banks have diverted major share of the resources mobilised to investment portfolio. This is considered as a negative shift of banking strategy. This greater reliance on investment at the cost of loan assets is conceptually against the very spirit of the banking principles. Unless arrested early could bring a crisis.

Table 4: Interest spread on primary activities of Banks

Year	Interest income on loan (Rs. Cr.)	Interest expenditure on Deposits (Rs. Cr.)	Net interest income (Rs. Cr.)	Total Assets (Rs. Cr.)	Interest income as % of Total Assets	Interest expenditure are % of Total Assets	Net interest income as % of Total Assets	Net interest spread (total) as % of total Assets*
2000-01	55403.6	71775.7	-16372.1	1295405	4.28	5.54	-1.26	2.72
2001-02	59346.2	80570	-21223.8	1535513	3.86	5.25	-1.38	2.85
2002-03	68570.1	82642.6	-14072.5	1699197	4.04	4.86	-0.83	2.77
2003-04	70050.9	77605.6	-7554.7	1975020	3.55	3.93	-0.38	2.86

Source: Compiled from RBI * Include interest income from loan and investment

Table 5: Investment portfolio of commercial banks

Year	Investment as % of Total Assets	Loan as % of Total Assets
1997-98	34.19	40.75
1998-99	35.72	38.84
1999-00	37.27	39.94
2000-01	37.96	40.59
2001-02	38.30	42.05
2002-03	40.83	43.53
2003-04	40.61	43.75

Source: Compiled from RBI data

Conclusion

The phenomenon of disintermediation has occurred throughout the world, in both developed as well as developing economies, somewhere early and somewhere later. Capital market has also gone through changes, with government and corporations opting for direct market borrowings and investors diversifying their portfolio internationally; thus leading to reduction of banks share in global stock. Study has been made in almost all the economies where disintermediation affected the banking sector.

Several studies has been made in USA context which is market based economy, to see the effects on banks due to new investment options that came up due to development of pension funds, mutual funds, finance companies in market. Studies have been conducted there for the early period effect of disintermediation till the current period effect. Similar studies have been made in European countries as well as Latin American to see the different forms of disintermediation and the effect they have in their economies. Even in countries like Germany and Japan which are bank-based, study has been made to see if there has been any shift in investment pattern and the effect that it made on banks.

So far as the Indian financial service sector is concerned, the observations made in this paper clearly bring out the growing evidence of diversification in the options available to the investors for parking their savings in different instruments. In this process bank's deposit mobilisation has got a jolt, possibly in future more pressure will be found on this activity. Small scale savings and insurance products are making an inroad into the domain of bank deposits. On the other side, Indian corporate and individuals have found many other options for garnering the desired fund for fulfilling their need of resources and simultaneously the loan portfolio of the bank has been affected. The income from this portfolio is not even sufficient to meet the interest expenditure arising out of deposit, indicating a shortfall in the generation of adequate income from the primary activities. This has warranted a strategic shift in the banking focus areas. Banks have found to be increasingly investing in Govt. securities to get an assured rate of return, rather than investing in loan portfolio. This provides a clear indication of disintermediation in banking industry and in the financial service sector as well.

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