THE ECONOMIC AND SOCIAL RESEARCH INSTITUTE

Institutional Aspects of Commercial and Central Banking in Ireland

> by JOHN HEIN

January, 1967.

Paper No. 36.

THE ECONOMIC AND SOCIAL RESEARCH INSTITUTE

COUNCIL 1966-67

- J. J. McElligott, M.A., Ll.D., President of the Institute.
- *G. O'BRIEN, D.LITT., LITT.D., Chairman of the Council.
- C. S. Andrews, B.Comm., D.Econ.sc., Chairman, Radio Telefís Éireann.
- T. J. BARRINGTON,
 Director, Institute of Public Administration.
- *J. P. BEDDY, D.ECON.SC., LL.D. (H.C.)
 Chairman and Managing Director, The Industrial Credit Company Ltd.
- R. D. C. BLACK, PH.D.,
 Professor, Department of Economics, The Queen's University, Belfast.
- *F. B. CHUBB, M.A., D.PHIL., Professor, Department of Political Science, Trinity College, Dublin.
- Very Rev. D. CREGAN, C.M., President, St. Patrick's Training College, Drumcondra, Dublin.
- REV. PETER DEMPSEY, O.F.M.CAP., M.A., PH.D., D.D., Professor, Department of Applied Psychology, University College, Cork.
- G. A. DUNCAN, S.F.T.C.D., Professor of Political Economy, Trinity College, Dublin.
- *W. A. HONOHAN, M.A., F.I.A., Secretary, Department of Social Welfare.
- *Rev. James Kavanagh, M.A., s.T.L., Professor, Department of Social Science, University College, Dublin.
- IVOR KENNY, M.A.,
 Director, Irish Management Institute.
- P. LYNCH, M.A., Chairman, Medico-Social Research Board.
- CHARLES McCarthy, B.L., Chairman, Human Sciences Committee.
- *M. D. McCarthy, M.A., Ph.D., Director of the Institute.
- G. A. MEAGHER, Chairman, An Foras Forbartha.
- *J. F. MEENAN, M.A., B.L.,
 Professor of Political Economy, University College, Dublin.
- C. K. MILL, B.A., D.SC., Director, The Industrial Credit Company Ltd.
- D. NEVIN, Assistant Secretary, Irish Congress of Trade Unions.
- REV. J. NEWMAN, M.A., D.PH., Professor of Sociology, St. Patrick's College, Maynooth.
- L. O'BUACHALLA, M.COMM.,
 Professor, Department of Economics, University College, Galway.
- TADHG Ó CEARBHAILL, Secretary, Department of Labour.
- REV. E. F. O'DOHERTY, M.A., B.D., PH.D.,
 Professor, Department of Logic and Psychology, University College, Dublin.
- D. P. O'MAHONY, M.A., PH.D., B.L., Professor, Department of Economics, University College, Cork.
- *W. J. L. RYAN, M.A., PH.D.,
 Professor of Industrial Economics, Trinity College, Dublin.
- J. C. TONGE,
 Federation of Irish Industries.
- T. WALSH, D.SC.,
 Director, An Foras Talúntais.
- *T. K. WHITAKER, M.SC. (ECON.), D.ECON.SC., Secretary, Department of Finance.
 - GERALD WILSON,
 Director, Bank of Ireland, Dublin.
 - *Members of Executive Committee.

Copies of this paper may be obtained from The Economic and Social Research Institute, 73 Lower Baggot Street, Dublin 2, price 5/- a copy.

Institutional Aspects of Commercial and Central Banking in Ireland

Contents

		Page
ı.	INTRODUCTION	1
2.	THE EXTERNAL ASSETS OF THE IRISH BANKS	
	The Divided Balance Sheets of the Irish Banks	2
	The Concept of Net External Assets	4
	External Assets and the Balance of Payments	5
	The Banks' Net "Foreign" and Net "Domestic" Position	5
3.	TRANSACTIONS BETWEEN THE IRISH BANKS AND THE CENTRAL BANK OF IRELAND	F
	External Assets as Vehicle for Transactions with the Central Bank	6
	Transactions with the Central Bank and the Balance of Payments	7
	The Buildup of the Banks' Central-Bank Balances	8
4.	THE CENTRAL BANK RATIO	
	External Assets and Central-Bank Balances as Base for Credit Creation	9
	Commercial Bank Reserve Requirements Abroad	II
	Principal Features of Reserve Requirements	11
	Section 50 of the Central Bank Act of 1942	13
	The Central Bank Ratio Reconsidered	13
5.	A MONEY MARKET FOR DUBLIN	
•	Major Features of Foreign Money Markets	15
	The Emergence of Money Markets in Commonwealth Countries	16
	Major Features of a Dublin Money Market	17
	A Modified Central Bank Ratio	17
	An Interbank Market	18
	A Special Money Market Institution	20
	Implications of a Dublin Money Market	20
6.	CONCLUDING REMARKS	22

Institutional Aspects of Commercial and Central Banking in Ireland

By JOHN HEIN

1. INTRODUCTION

To the uninitiated, the Irish banking system may appear to be no more than a special, albeit separate, branch of the banking system of the United Kingdom. He may be forgiven for this somewhat erroneous view since even the specialized literature often has treated the Irish banks as cousins, once removed, of the British banks. Thus, in the words of one author:

"The establishment of the Irish Free State in 1922 did not materially alter the position of the Irish banks, whose business extended over both the Free State and the Six Counties remaining in the United Kingdom. The Irish currency continued to be freely convertible, pound for pound, into British sterling, so that the Irish banks continued to regard their balances in London . . . as the ultimate basis of their credit. Despite the political changes of the period, that is to say, they continued to regard themselves—and still do—as essentially part of the British banking system."

And in a recent new edition of a book on banking in the British Commonwealth, it was decided "to omit the Republic of Ireland, not only because of its withdrawal from the Commonwealth even before the previous volume was published, but also because of the peculiarly close interlocking of its commercial banking system with that of the United Kingdom".²

Interlocking and similarities there may be, but these refer principally to banking activities and organization. Once one goes beyond these—and in particular to the rôle of the Central Bank of Ireland, the working arrangements between the Irish banks and the Central Bank, and various aspects of credit control—one soon uncovers enormous differences, not only between the Irish and the British systems, but also between current practices in Ireland and in other financially developed countries. This paper deals in part with some of these differences.

The paper may be said to owe its existence—at least indirectly—to the Irish bank dispute during the late spring and early summer of 1966. The writer had barely taken up his duties with The Economic Research Institute when the Irish banks closed their doors, not to reopen them until a full three months later. As a result, the writer was unable to undertake the task originally assigned to him, which was to have been an analysis of some practical problem of commercial banking in Ireland. Instead, he set to perusing the available literature on the Irish monetary and banking systems, with particular emphasis on the quarterly bulletins and annual reports of the Central Bank of Ireland for the past ten years. These various writings appeared to offer much food for thought, some of which is distilled in the chapters that follow.

The paper first examines certain institutional aspects of the Irish banking scene—the banks' external assets, their balances at the Central Bank, and the Central Bank Ratio. The approach is necessarily selective. But the author has turned the spotlight on several concepts that to him as an outsider appeared worthy of scrutiny and of which, moreover, no comprehensive treatment and exposition did exist. This analysis is followed by a discussion of some implications that the current arrangements between the Central Bank and the associated banks would seem to have for increasing the Central Bank's monetary control powers and for facilitating the domestic flow of short-term funds in general.

The line of approach taken in the paper, the views

² W. F. Crick, ed., Commonwealth Banking Systems (Oxford, 1965), p. ix.

¹ E. Nevin, Textbook of Economic Analysis—Irish Edition (London, 1963), p. 291.

² W. F. Crick, ed., Commonwealth Banking Systems (Oxford,

expressed, and the tentative conclusions reached are all the author's own. They do not therefore reflect the opinions of The Economic Research Institute or of the author's employer, the Federal Reserve Bank of New York. However, in the surveys of reserve

requirements abroad and of foreign money markets in Chapters 4 and 5, the author has drawn extensively on some published and unpublished work done by himself and others at the New York Federal Reserve Bank.

2. THE EXTERNAL ASSETS OF THE IRISH BANKS

From whatever direction and with whatever purpose in mind one approaches the study of Irish banking arrangements, institutions, or practices, one comes face to face before long with the Irish banks' foreign holdings or "external assets".3 These holdings generally are among the factors discussed in connection with bank liquidity, credit creation, and the scope for monetary policy in Ireland.

One of the earliest descriptions of the origin and nature of these assets is that given by the 1938 Banking Commission:

"The volume of trade and other transactions between Great Britain and Ireland is very large, and these transactions are normally settled by cheques on London or Dublin. . . . One result of this practice is . . . that the Irish banks are bound to maintain large sterling balances in London, and that they will continue to maintain such balances, whatever changes may be made in the domestic banking law of the Free State. The sterling assets of the Irish banks must, however, not be regarded merely as balances held for commercial and trading purposes, but as part of the permanent foreign investments of the country."4

More recent treatments include the following:

"The external assets of the commercial banks were accumulated largely during the first and second world wars when our external earnings, mainly from the export of agricultural commodities, far exceeded import payments. These naturally came into the commercial banking system as the commercial banks are concerned with providing means to finance trade."5

And, on a somewhat more sophisticated level:

"The possibility constantly exists that Ireland as a whole may at any time be buying more abroad than it is currently earning abroad through its exports.... Similarly, for any one of a number of reasons, Irish residents may want to transfer their assets from the Irish banking system into the British banking system or elsewhere. Consequently the Irish banks regard it as fundamental that a substantial proportion of their assets should be held in such a form as to meet any likely contingency of this sort at any time; the size of their net assets abroad is thus regarded as the fundamental determinant of the overall volume of liabilities they can safely incur in Ireland."6

These are all perfectly straightforward statements that could be made, with the appropriate modifications, for a number of other countries as well. What distinguishes the Irish banking system in this respect, however, is the fact that almost all Irish banks operate "under two flags", i.e. do business in two separate political entities, the Republic and Northern Ireland.7 Thus, while all of the banks' external assets or foreign holdings (as well as their foreign liabilities) are denominated in currencies other than the Irish pound, a substantial part of their foreign claims and almost all of their foreign liabilities reflect the activities of the system's branches in Northern Ireland.

The Divided Balance Sheets of the Irish Banks

This division of the Irish banks' field of operations between the Republic and Northern Ireland has led to the familiar breakdown of their balance sheets into "within the State" and "elsewhere".8 These two categories generally refer to the physical location of the particular asset or liability. On the assets side, cash and balances with banks are "segregated with reference to the place where the asset is actually held: currency in a bank till is accordingly attributed to the area in which the till is located and a balance with another bank to the place in which such bank

The terms "banks", "commercial banks", and "associated banks" will be used interchangeably throughout this paper to denote the eight banks associated with the Central Bank of Ireland under the Central Bank Act, 1942, and the

National City Bank Limited.

Commission of Inquiry into Banking, Currency and Credit, 1938 (hereafter referred to as "Banking Commission"),

Majority Report (Dublin, 1938), pp. 188-189.
F. Flanagan, "The Central Bank of Ireland", Administration, Spring 1965, p. 56.

⁶ Nevin, op. cit., p. 300.

⁷ The exceptions are the Royal Bank of Ireland and the National City Bank which confine their operations to the Republic. However, the Royal Bank has a branch in Great Britain (as does the Provincial Bank).

⁸ Arrangements for providing the data in this form were first made between the banks and the Currency Commission, and returns on this basis have been made systematically since the beginning of 1932. Cf. Banking Commission, op. cit., p. 98.

is situated." The same principle is followed with respect to bank premises. In the case of all earning assets—i.e. money at call, bills, loans and advances, and investments—the breakdown between "within the State" and "elsewhere" is governed "by the location of the person or body liable to meet the obligation concerned".10

On the liabilities side, the division of capital paid up, reserves, and undivided profits refers to banks incorporated in the Republic, on the one hand, and in Northern Ireland and Great Britain, on the other. Deposits similarly are divided according to whether they are held with banking offices in the Republic or in Northern Ireland and Great Britain. The data for notes in circulation are segregated "according to the jurisdiction to which the note issue appertains". 11 Thus, notes in circulation "within the State" relate to the Consolidated Bank Notes and old bank notes deemed to have been issued in the Free State which are still outstanding. (However, a considerable proportion of the relatively small amount recorded— £160,000 at the end of April 1966—has probably been lost or destroyed.) The notes "elsewhere", on the other hand, are those issued in Northern Ireland, one of the few areas of the world where the commercial banks still have the right to issue their own notes.12

While under the circumstances this manner of segregating and allocating the various items is perhaps the only feasible one for working purposes, it contrasts sharply with the practice of banks in other countries. Banks in the United States, for example, many of which have branches abroad, define their foreign claims and liabilities strictly as those vis-à-vis nonresidents. Thus, they will regard as external assets all advances made to nonresidents (including their own foreign branches) and similarly as external liabilities all deposits held with them by nonresidents (including their foreign branches). But the foreign operations of the branches themselves—i.e., both the investments made and the liabilities incurred by them abroad—do not affect the foreign position of the United States head office directly (although they will be included in the combined balance sheet for the bank as a whole). A similar case, which may be more analogous geographically to that of the Irish banks, is that of the Canadian banks. Many of these banks have branches in New York that are quite active in the New York money market. Yet the branches' claims on and liabilities to United States residents arising from their New York operations do not by themselves influence the external position of their Canadian

Banking Commission, Appendices, Addenda, etc., and Minority Reports, Appendix No. 11, p. 460.
 Ibid. 11 Ibid.
 Other such areas that come readily to mind are Scotland

and Hong Kong.

head offices; this position, on the other hand, will reflect all transactions between the head offices and the New York branches.

The quite different practice followed by the Irish banks in this respect can easily lead to some curious results. For instance, while the location of the debtor is said to determine the category in which a loan is recorded, it appears that it is rather the location of the branch making the loan that is decisive. Thus, a loan made by a Belfast banking office to a Belfast resident is regarded as a "foreign" loan and hence is entered under "elsewhere". But what if a Dublin bank makes a loan to a Dutch firm that is about to open a sales office in the Republic? In this (admittedly rare) case, the "person liable to meet the obligation" also is located abroad, but the loan most likely would not be considered a foreign claim. Again, the deposit account of a Belfast resident is regarded as a foreign liability and hence is regarded as "elsewhere". But what of the account that a German resident might maintain with a Dublin bank to make payments for the upkeep of property he has acquired in the Republic? This certainly is just as much a foreign liability of the particular bank; yet since the account is located in Dublin it probably would not be considered as due "elsewhere". As has been pointed out, in other countries these types of assets and liabilities would be the important ones in determining the banks' "foreign position".

It is also worth noting that at present some balance sheet items are treated differently in the official balance of payments than they are in the banks' aggregate return. Thus, while the deposit accounts of nonresidents with banks in the Republic apparently are not regarded as due "elsewhere", the net changes in such accounts ("bank deposits within the State of extern customers") are recorded under "other capital transactions" in the balance of payments. Moreover, for balance-of-payments purposes banks incorporated outside the State are in some respects considered nonresidents, since in the official balance-of-payments presentation "interest on deposits and expenses at branches in this State of banks incorporated elsewhere are taken as credit and income and profit of these banks on investment, loans, etc., in this country are debited".13 But this means that, while a deposit with a Dublin branch of a Northern-based bank is counted as a domestic liability in the banks' balance sheet, the interest received thereon is treated like income from foreign investment in the balance of payments.14 Conversely,

 ^{13 &}quot;Balance of International Payments", Irish Trade Journal and Statistical Bulletin, June 1952, p. 80.
 14 Cf. also the remark that Irish deposits in banks with headquarters outside the State should "be regarded as claims on British institutions and, therefore, counted as external assets". (A. Marsh, "Ireland's External Assets: Discussion", Journal of the Statistical and Social Inquiry Society of Ireland, 1948-49, p. 213.)

while a loan made by the same branch is classified as a domestic asset in the banking return, the interest paid thereon by the Dublin borrower is treated in the balance of payments like income paid on a foreign investment in the Republic.

The Concept of Net External Assets

Even greater conceptual difficulties are encountered when one comes to discuss the Irish banks' net external assets. The third of the passages quoted at the beginning of this chapter has already indicated the importance that is generally attached to this magnitude, which is considered the "fundamental determinant" of the banks' credit-creating potential. It is relatively easy to give a definition of the term. One of the earliest versions defines the banks' net external assets as "the amount of sterling holdings after deduction of liabilities which are required to be discharged in sterling".15 The Central Bank, in turn, has put it into more general language:

"The net external assets of the associated banks represent the excess of their total assets outside the State over their total liabilities outside the State, loans and advances being included in such assets."16

And according to an even more succinct definition the term "represents total external assets less external liabilities in Northern Ireland (sic)".17

The first difficulty that arises in connection with this term is the concept of "net" itself. This concept obviously is more meaningful when used in connection with a flow than with a stock, such as a "net loss" or a "net change" over a given period of time. This criticism was voiced many years ago by one commentator who declared:

"With certain modifications the word 'net' has objective validity, e.g. 'net emigration', which it is not clear that it possesses in the external asset context. . . . In the matter of external assets, there is the danger which is always present in greater or lesser degree in connection with statistics that we tend to concentrate on aspects for which statistics are available and forget that there are other aspects. The increase or decrease in external assets, net or gross, may be a good, bad or indifferent thing

but it is quite impossible to say until we possess a full statistical statement of capital."18

Another and more serious difficulty arises from the fact that the magnitude this concept purports to represent has tended to be taken as a basic indicator of the external position of the banking system and as such is being counted as part of the over-all external reserves of the country. But since the banks' net external assets simply denote the excess of their total foreign assets over their total foreign liabilities (as currently defined), it is clear that this net figure does by no means indicate the magnitude of external reserves available to make foreign payments, i.e. settle a potential payments deficit.

Yet this point seems to have been made only occasionally. Thus, in discussing the balance-ofpayments deficit of 1955 and the resulting fall in the banks' external holdings, the Central Bank commented:

"Here it must be pointed out that the banks' true capacity to sustain domestic credit cannot be estimated by reference to all the net external assets since a large part of such assets cannot be realised or called-in in the ordinary course of banking business (e.g. loans and advances, working cash and money at call, premises, etc.). In fact out of the total net external assets held by the Associated Banks in December last amounting to £85.7 million, only slightly more than one-half represented items available to meet drafts on banking resources."19

In a similar vein, the Central Bank wrote the following year that in any examination of the country's external assets, including those held by the private sector, "it is important . . . to distinguish between the reserves which are available to meet external payments deficits and other external assets which cannot be reckoned as monetary reserves".20 A simple computation for the end of 1965, comparable to that undertaken by the Central Bank for the end of 1955, would show that as against recorded net external assets of £89.3 million the Irish banks' short-term foreign position—on account of cash, money at call, bills, and advances; note circulation and current and deposit accounts—resulted in fact in net liabilities of £11.4 million.

Nevertheless, the fiction of equating the Irish banks' net external holdings with their true foreign

¹⁵ Banking Commission, Majority Report, pp. 100-101.
16 Central Bank of Ireland, Report for the Year ended 31st March, 1955, p. 24. The bank's annual reports will hereafter be cited as Report, followed by the year of publication.
17 Flanagan, op. cit., p. 57. All of the Irish banks' liabilities in Northern Ireland are of course "external" under the current

definition.

¹⁸ R. C. Geary, "Ireland's External Assets: Discussion",

op. cit., p. 215.

19 Central Bank of Ireland, Quarterly Statistical Bulletin, January 1956, p. 2. (This publication and its successor, the Central Bank's Quarterly Bulletin, will hereafter be referred to as Bulletin.).
20 Report, 1957, p. 29.

liquidity position has taken hold to such an extent that this figure is regularly reported to, and republished by, international institutions. Thus, the International Monetary Fund's monthly statistical bulletin, in its pages on Ireland, shows under the heading of "International Liquidity" a figure of \$250 million for the commercial banks at the end of 1965, which is the equivalent of the £89·3 million recorded for foreign assets (net) under the heading of "Commercial Banks".²¹

External Assets and the Balance of Payments

So long as the banks' net external assets continue to be regarded as representative of their true foreign position, there is the additional danger that too much significance may be attached to changes in these holdings as being indicative of balance-of-payments developments. It had been held in the past, for instance, that the divided balance sheet of the banks provided "very nearly a complete picture of the balance of payments as virtually all monetary transfers to and from Ireland are handled by them".22 The Central Bank similarly has concluded that, until recently at least, "it was possible, by studying the movements in the Associated Banks' net external assets and in external merchandise trade, to make reasonably accurate estimates of the combined effect of external capital flows and changes in 'invisible' external trade''.23

It is of course true that "normally the net external assets increase when the Republic's balance of payments on current account is favourable and decline when it is unfavourable" and also that, because of capital movements, "the extent to which the net external assets increase or decrease is rarely, if ever, the same as the surplus or deficit on current account".24 But it cannot be stressed strongly enough that the official balance of payments merely records the over-all change in the banks' net external assets as a single credit or debit entry labelled "banking transactions". It does not attempt to bring together and strike a balance between the various underlying inflows and outflows or, more important, to distinguish between "banking transactions" on current account, capital movements, or special transactions.

A case in point are the changes that took place in April 1966, when the banks' external assets and liabilities showed abrupt declines of £47.6 million and £52.1 million, respectively, with a resulting net

"gain" of £4.5 million. It was assumed at the time and confirmed subsequently by the Central Bank²⁵ that these changes reflected "almost entirely" the acquisition of the National Bank's Irish branches by the Bank of Ireland. In other words, the severing of its British connection by the National Bank brought about declines in the Irish banks' external assets and liabilities equivalent to the assets and liabilities of the National Bank's 32 offices—including its head office—in England and Wales. Conversely, with the new National Bank of Ireland now headquartered in the Republic, the Irish banks' combined capital "within the State" increased from £9.3 million in March to £18.8 million in April and their total reserves and undivided profits "within the State" from £8.6 million to £12.0 million. The changes in these two items alone thus accounted for over onehalf of the increase in the banks' domestic liabilities in April (see table).

	Assets	Liabilities	Net Position
External: March 1966	228.5	22417	J-02:8
April 1966 Domestic:	328·5 280·9	234·7 182·6	+98·3
March 1966	419.0	512·8 (495·0)*	-93.8
April 1966	439.1	537·4 (506·6)*	-98.3

^{*}Excluding capital and reserves.

But it would surely strain the imagination to suggest that under these special circumstances the £4.5 million improvement in the bank's net external assets could by itself be considered very meaningful as an indicator of balance-of-payments trends in general or of "banking transactions" in particular during the month. In fact, when the data are strongly influenced by special factors such as those of April 1966, it might be more appropriate to publish two sets of figures, with suitable explanations.

The Banks' Net "Foreign" and Net "Domestic" Position

The foregoing table reveals another noteworthy characteristic of the concept of net external assets—namely, that this particular magnitude is no more than a simple balancing item. Given that the banks publish a divided balance sheet and that over-all assets and liabilities—i.e., the sums of assets and liabilities "within the State" and "elsewhere"—must be equal, net external assets are merely an accounting identity that is balanced by an equivalent amount of "net domestic liabilities". In other words,

²¹ International Monetary Fund, International Financial Statistics, March 1966, p. 169.

²² B. Menton, "Theories of Adjustment of the Balance of Payments under Fixed Exchanges", Journal of the Statistical and Social Inquiry Society of Ireland, 1947–48, p. 39.

²³ Bulletin, May 1966, p. 8.

²⁴ D. O'Mahony, The Irish Economy (Cork, 1964), p. 77.

²⁵ Bulletin, August 1966, p. 66.

if we choose to label the banks' net external assets their "net foreign position", this position is exactly counterbalanced by their "net domestic position" bearing the opposite sign. And it follows that any change in the banks' net foreign position will—indeed, must—be accompanied by an equal and opposite change in their net domestic position. In April 1966, e.g. the banks' net foreign position "improved" and their net domestic position "deteriorated" by £4.5 million alike.

One author has described the nature of net external assets as a "balancing item" in the following way:

"A change in its magnitude can come about only when the Republic experiences an over-all external surplus or deficit, because it is only under these conditions that a change can occur in one side of the 'elsewhere' section of the balance sheet without affecting the other. Thus, other changes being equal, an over-all external surplus is accompanied by an increase in the assets 'elsewhere' and in the liabilities . . . 'within the State', but the liabilities 'elsewhere' remain unchanged. Hence there is an increase in the difference between the assets and liabilities 'elsewhere', i.e. in the net external assets. Similarly, an over-all external deficit is associated with a decrease in assets 'elsewhere' and of liabilities 'within the State' but does not affect liabilities 'elsewhere'. Consequently, there is a decline in net external assets."26

As a more general proposition it can be stated that an improvement in the banks' external position can come about, *ceteris paribus*, either through an increase in their foreign assets or a decrease in their foreign liabilities. And each of these changes can, in turn, have as its counterpart a deterioration of their domestic position that is reflected either on the assets or the liabilities side—through a decrease in domestic assets or an increase in domestic liabilities. Thus, there are four possible ways in which an improvement in the banks' external position can come about, as shown below.

	Assets		Liabi	lities
(T)	Domestic	Foreign	Domestic	Foreign
(2)	_	+		
(4)	-		+	_

Case (1) corresponds to the example given in the above passage—an external surplus that swells domestic liabilities as foreign receipts are repatriated. Case (2) illustrates the giving up of a domestic asset, such as cash or Exchequer Bills, in order to acquire a similar foreign asset. Case (3) would arise where the banks swapped an external liability against a domestic one-as when, e.g. a resident of the Republic transferred an account from a Belfast branch to a Dublin branch of his bank. And Case (4), perhaps the most hypothetical, illustrates the sale of a domestic asset (for foreign exchange) in order to liquidate an external liability. All four cases satisfy the criterion that, for a change in the banks' net foreign position to occur, one side of the "elsewhere" category must change without a change taking place in the other. A similar general model can be set up to illustrate the four possible ways in which the banks' net foreign position can deteriorate, with a corresponding improvement in their net domestic position.

3. TRANSACTIONS BETWEEN THE IRISH BANKS AND THE CENTRAL BANK OF IRELAND

The preceding discussion has omitted one important determinant of changes in the Irish banks' external assets, i.e. transactions between the banks and the Central Bank of Ireland. In most other financially developed countries transactions involving the commercial banks and the central bank either are strictly internal—as when they reflect discounting and open market operations—or simply arise from sales or purchases of foreign exchange by the banks to or from the central bank.

External Assets as Vehicle for Transactions with the Central Bank

In Ireland the situation is quite different. Given the history and background of the Irish pound, there is an intimate link between that currency and the British pound. As is well known, Irish legal tender is issued and redeemed by the Central Bank against sterling or sterling assets. This is largely a natural historical development since, when the Currency Commission was established in 1927 and even when the Central Bank opened its doors in 1943, the Irish banks held no assets apart from

²⁶ O'Mahony, op. cit., pp. 76-77.

sterling balances and British securities that could be exchanged for local currency. Even today there are relatively few Irish assets that could be so utilized. Accordingly, the basis on which the Irish pound continues to be issued has been called "the outcome of inescapable practical considerations".27 The process has been described by the Central Bank as follows:

"A rise in the amount of currency outstanding involves a transfer of external assets from the Associated Banks to the Central Bank in exchange for the currency issued. Accordingly, the Central Bank's liabilities . . . and external assets move up by the same amount. The Associated Banks, on the other hand, have now smaller net external assets and an increased stock of currency . . .; in their balance sheet, there is a substitution of domestic for external assets."28

However, while changes in currency outstanding may be the most important kind of transaction between the Central Bank and the commercial banks in terms of its effect on the banks' external holdings, there are several other types of such transactions that are conducted via, and hence affect the level of, the banks' external assets. In the past the Central Bank generally tended to discuss changes in its own external holdings by referring summarily to "changes in note and coin circulation, bankers' deposits . . . rediscounting operations, etc." and on occasion also provided a statement such as this: "The heavy demands upon the banks' external resources, due to the worsening in external trade and to the large intake of government securities caused by the lack of support for the recent national loan...".29 But the first general discussion of the vast scope of strictly domestic transactions that impinge equally on the external assets of the Central Bank and on those of the commercial banks was published only fairly recently. Thus, after sketching the general use of foreign-exchange holdings as a vehicle for foreign payments and receipts, one author noted:

"In addition to changes in the several categories of the monetary reserves resulting from developments in external payments and receipts, there are movements within the aggregate of these reserves due to internal transactions. Rediscounting of exchequer bills, which is of growing importance, represents a transfer of external assets from the Central Bank to the Associated Banks. A similar transfer takes place when the Minister for Finance draws on his balances at the Central Bank . . . because, as noted earlier, a commercial bank is the Government's banker. That increase in external reserves at the commercial banks is offset by a similar increase in the credit on the government current or deposit account."30

In addition the banks can in theory increase the balances they have been building up at the Central Bank (discussed below) by drawing on their external assets.

A complete summary of this mechanism has been given by the Central Bank in the following passage:

"At the moment, the net external assets of the Associated Banks are affected by the following transactions with the Central Bank:

- (a) changes in currency, that is notes and coin outstanding:
- (b) rediscounting of Exchequer Bills;
- (c) movements in the Associated Banks' balances with the Central Bank; and
- (d) operations on the account of the Minister for Finance with the Central Bank."31

Transactions with the Central Bank and the Balance of Payments

Any of these transactions between the Central Bank and the commercial banks will cause changes in the banks' external holdings, but-like the changes discussed in the preceding chapter-these again will not necessarily be indicative of equivalent changes in the country's balance of payments. Even though rediscounting and the buildup of the associated banks' balances with the Central Bank are comparatively recent developments, it was therefore quite correct for the Central Bank to find "the situation . . . more complicated"32 with respect to using changes in the banks' net external assets in connection with balance-of-payments estimates. One cannot but agree with the Central Bank's statement that "the net flow of funds to the Associated Banks from the Central Bank must be deducted from the change in the Associated Bank's net external assets in order to determine the influence of foreignaccount operations on their external reserves".33

Thus the Central Bank argues:

"If over any period the net flow of funds to the Associated Banks from the Central Bank

³⁰ J. S. Oslizlok, "Survey of Sources of Monetary Supplies in Ireland", Journal of the Statistical and Social Inquiry Society of Ireland, 1962-63, p. 112.

³¹ Bulletin, May 1966, p. 8,

⁸² *Ibid*. ⁸⁸ *Ibid*., p. 16.

²⁷ Ibid., p. 90. ²⁸ Bulletin, May 1966, p. 8.

²⁹ Report, 1956, pp. 40-41. Emphasis supplied.

amounts to, say, £5 million and the net external assets of the Associated Banks still fall by, say, £ 10 million, the effect of receipts and payments on foreign account in that period is a reduction in the Associated Banks' external reserves of £15 million."34

The converse example—and, in the light of the natural growth of the currency circulation, perhaps a more apt one-would be a flow from the banks to the Central Bank amounting to f, 10 million; a decline in the banks' net external assets of £5 million; and hence a £5 million gain by the banks from genuine "foreign-account" operations.

To the extent that such transactions between the Central Bank and the associated banks become more frequent and more complex, changes in the banks' net external assets will tend to reflect less and less true "banking transactions" in the balance-ofpayments sense, i.e. flows of short-term funds between residents and nonresidents. In the event, it becomes all the more meaningful as well as more realistic to focus on over-all reserve movements, by combining changes in the external holdings of the Central Bank with those in the net external assets of the commercial banks. This approach is being increasingly taken now, both by the Central Bank and other government agencies.35 Thus, in the Central Bank's example given above one would speak of an over-all reserve loss for the entire banking system of £15 million (Central Bank, -£5 million; associated banks, -£10 million) and in the second example of an over-all external gain of £5 million (Central Bank, +£10 million; associated banks, -£5 million). While the numerical result happens to be the same under either approach, it is of course the over-all change that is the more appropriate one for purposes of balance-of-payments analysis.

The Buildup of the Banks' Central-Bank Balances

As matters stand, however, transactions between the Central Bank and the associated banks are being settled partly via the banks' external assets and partly via their balances at the Central Bank.

The balances held by the associated banks with the Central Bank have been a noticeable quantity only since 1958 and have assumed real importance only since 1963. A brief sketch of the growth of these accounts has recently been given by the Central Bank.³⁶ Historically, the holding of balances by the commercial banks with the Central Bank can be traced back to World War II, when the banks

maintained small deposits at the Central Bank against the possibility that an emergency issue of notes might be required. But the practice of consciously keeping balances at the Central Bank is a much later development that is related, at least in its initial stages, to the interbank clearing rather than to the note-issue function of the Central Bank. Since November 1958 all clearings among the members of the Dublin Bankers' Clearing Committee at the central clearing in Dublin have been settled by cheque on the Central Bank of Ireland instead of on London agents as had been done up to then.³⁷ According to the Central Bank, the normal level of balances maintained for this purpose was about £3 million.38

At the same time—and partly in line with the greater influence and authority that the Central Bank was acquiring—the nature and purposes of these balances were beginning to change. Today these deposits no longer are serving merely as clearing balances, but are being maintained as a vehicle for the settlement of virtually all types of transactions that the associated banks engage in with the Central Bank. Hence, they have come to assume the function of liquid reserves for the banks. As mentioned, these transactions include the issue and redemption of currency, the rediscounting of Exchequer bills, and payments in connection with the Central Bank's activities as agent for the Minister for Finance. Thus,

"an increase in the Central Bank's rediscounting of Exchequer Bills is in practice carried out increasingly by crediting these balances rather than by a transfer of external assets. Also, the Associated Banks pay for currency issued from the Central Bank by drawing on these balances."39

Undoubtedly, the opposite also is true—i.e. that a repurchase of rediscounted Exchequer Bills or redemption of currency by the banks is increasingly being effected by debiting or crediting their balances, respectively.

As these transactions have gained in importance, the level of the banks' central-bank balances has risen from £4.3 million at the end of 1958 to £11.5 million at the end of 1963 and to as much as £33.8 million at the end of March 1966. As the Central Bank has pointed out, the maintenance of successively larger amounts in such balances "has

³⁶ Ibid.
36 Cf. Report, 1965, p. 29 and 1966, p. 9, and National Industrial Economic Council, Report on Economic Situation, 1965, Table 10, p. 63.

** Report, 1965, pp. 15-16.

³⁷ This clearing relates of course only to net debits and

transactions continue to be settled via balances held in London.

88 However, this figure is substantially above the amounts of £120,000 and £104,000 shown for March 1965 and 1966, respectively. Cf. Report, 1966, p. 56.

80 Bulletin, May 1966, p. 9.

been achieved on a voluntary basis", 40 through the cooperation of the associated banks. The holding of part of their short-term assets in this form has of course been made more attractive for the banks by a 1964 amendment to the Central Bank Act that permitted the Central Bank to pay interest on deposits held in its General Fund.

It seems hardly necessary to stress, as the Central Bank does, that any transactions between the banks and the Central Bank that are settled on the books of the latter "do not involve a flow of funds (external assets) between the Associated Banks and the Central Bank", 41 or that in the case of such a direct transfer "the net movement of funds (external assets) . . . is nil".42 Such transactions avoid therefore the statistical and interpretative complexities that arise when strictly domestic operations are settled via the banks' external assets. In fact, if these transactions were carried out entirely through debits and credits to the banks' central-bank balances, changes in the banks' external assets could then be ascribed exclusively to "foreign-account" operations.

There is further confusion created by some of the data that are published in this connection. Thus, while the Central Bank's holdings of rediscounted Exchequer bills and the currency circulation show drops of £1.0 million and £2.8 million, respectively, in the first quarter of 1966,43 the "movement of funds between the Associated Banks and the Central Bank" shows exactly the same amounts for these two items—i.e. a £1.0 million loss and a £2.8 million gain, respectively, for the banks.44 Since the table in question purports to indicate transfers of external assets to and from the Central Bank, one would therefore assume that, during the first quarter of 1966 at least, the reduction in rediscounting and the reflux of currency were effected entirely via the banks' external assets—even though this type of transaction reportedly was being "carried out increasingly" via the banks' central-bank balances.

Finally, one may question why the Central Bank makes a distinction between the "movement of funds" or the "flow of funds" between it and the banks and simple transfers effected on its books that is to say, between transactions effected via the banks' external assets, on the one hand, and shifts between the banks' central-bank balances and other central-bank accounts, on the other. The latter type of transaction can just as easily be considered a "movement" or "flow" of funds between the Central Bank and the banks and, as we shall see in the following chapter, is in fact equivalent to a transfer via external assets from the point of view of the banks' liquidity or "reserve" position as computed for purposes of credit policy.

4. THE CENTRAL BANK RATIO

The preceding two chapters have examined critically two specific aspects of the Irish banking scene—the banks' external assets and their centralbank balances. The discussion has raised a number of points concerning these concepts and their general applicability and has stressed certain of their shortcomings and weaknesses. But in this and the following chapter, these criticisms will be buried once more and both external assets (net) and central-bank balances will be taken as given.

External Assets and Central-Bank Balances as Base for Credit Creation

Both the net external assets and the centralbank balances of the Irish banks are important factors in the implementation of the Central Bank's credit policy since they constitute, in combination, the numerator of the "Central Bank Ratio". This ratio simply measures the banks' net external assets

plus their central-bank balances as a percentage of their total domestic deposit liabilities and, together with the 6 per cent credit ceiling, currently sets a limit to the banks' domestic credit creation.

With their external assets as the chief means of meeting their obligations, it is likely that the Irish banks have always kept an eye on the level of their external holdings. However, it is generally felt that until about 1955 these external assets were so large in relation to the banks' domestic deposit liabilities that there was no need for the banks to aim at maintaining any fixed relationship or ratio between the two.45 But when, as a result of an unprecedented payments deficit, the banks' external holdings fell by over £35 million (or by almost 30 per cent) that year, the banks resorted to substantial rediscounting at the Central Bank in order to replenish their sterling balances and began, as a group, to observe a ratio of about 30 per cent between their net external assets and their domestic deposit liabilities.

⁴⁰ Report, 1965, p. 16.
41 Bulletin, May 1966, p. 9.
42 Ibid., p. 10.
43 Ibid., p. 6.

⁴⁴ *Ibid.*, p. 17.
⁴⁵ Cf. O'Mahony, op. cit., p. 78, and Menton, op. cit., p. 32.

The first official discussion of this ratio came in mid-1958 when the Central Bank wrote:

"The ratio of net external assets of the banks to their total demand (sic) liabilities within the State has remained throughout 1956, 1957 and in the opening months of 1958 at about the minimum safe level, the banks having utilised all available liquid reserves for the purposes of internal credit."46

The remainder of 1958, however, the Central Bank noted subsequently, "was marked by a gradual improvement in . . . [the banks'] liquidity, as measured by the ratio of net external holdings to current and deposit accounts within the State".47 Such a ratio—albeit eventually at levels below those attained at the end of 1958 and during 1959continued to be observed informally by the banks throughout the first half of the 1960's.

A more comprehensive ratio that included the banks' central-bank balances as well was formally introduced as an instrument of official policy in May 1965. At that time, the Central Bank instructed the associated banks, as part of its advice regarding their lending policies, that:

"as a specific aim, the average level, over the year 1965 as a whole, of the ratio of the Associated Banks' net external assets together with deposits in the Central Bank to their liabilities in respect of current and deposit accounts within the State should not be lower than 22 per cent."48

The Central Bank also made it clear that the proposed average ratio of 22 per cent-which compared with an actual ratio of 19.9 per cent at the end of May -applied to the banks as a whole, i.e. to the aggregate balance sheet of the associated banks. In the past, variations in the ratio among individual banks apparently had been sufficiently great to induce the Central Bank to arrange with each bank an appropriate ratio "which would be consistent with the overall aim".49 To ensure that all banks should feel the same degree of restraint, the Central Bank accordingly decided that for 1965 as a whole the effective ratio for each individual bank should bear the same

relationship to its average ratio during January-⁴⁶ Report, 1958, p. 35. The view that a 30 per cent ratio constituted no more than a "minimum safe level" was reiterated in Department of Finance, Economic Development (Dublin, 1958), p. 28, even though fluctuations "within, say, 27–33 per cent might be regarded as normal".

⁴⁷ Bulletin. January 1950, p. 1.

48 Bulletin, January 1959, p. 1.
48 Bulletin, January 1966, p. 12. At the same time, statistics on the ratio and its various components, going back to 1953, were presented in Table VIII, p. 82. The term "Central Bank Ratio" itself first appeared in print in National Industrial Economic Council, op. cit., p. 13.

Bulletin, January 1966, p. 13.

March as 22 per cent bore to the aggregate ratio in that same period. As it turned out, the average aggregate ratio for the first quarter came to 23.6 per cent, so that individual banks all had to aim at a full-year ratio that was not less than 93.2 per cent of the ratio they had achieved during January-March.

Subsequently, the formula was amended and refined to take account of and offset the expansionary effects of the rediscounting of Exchequer bills by the banks. Since such rediscounting leads to an equivalent increase either in the banks' external assets or in their central-bank balances, and hence can be resorted to by the banks to make good a drop in their ratio, the Central Bank announced in August 1965 that rediscounted bills were to be deducted from the banks' combined net external assets and central-bank balances for the purpose of computing the ratio. At the same time, the Central Bank decided that, with this additional restraint introduced into the computation, it would be appropriate to lower the prescribed minimum ratio from 22 per cent to 20 per cent for the banks as a whole and correspondingly for individual institutions. Also, the new minimum was to be attained as of the end of March 1966, rather than as an average for the year 1965. When these decisions were transmitted to the banks, the ratio (on the old basis) stood at 21.5 per cent and on the new at 18.5 per cent. It was only through assistance by the Central Bank—which in October 1965 purchased from the banks £20 million of a special Government Funding Loan in exchange for rediscounted Exchequer bills and agreed not to deduct this particular amount in computing the ratio-that the banks were in fact enabled to attain more than a narrow margin in excess of the prescribed target (see table).

	"Old ratio" (per cent.)	Bills rediscounted (£000)	"New ratio" (per cent.)
1965: August	21·5	13,650	18·5
September	23·8	13,650	20·9
October	23·8	1.500	23·5
December	23·5	3.000	22·9
1966: March	24·7	2.000	24·2

All in all, it can be said that under a directive from the Central Bank the Irish banks have been observing a minimum reserve requirement with respect to their domestic deposit liabilities since May 1965, even though the characteristics of that requirement —its name, composition, and manner of computation-may differ from those generally encountered elsewhere. It is worth noting, moreover, that it proved possible to introduce this instrument of monetary control without making certain radical changes in the Irish banking system—such as, e.g.

a complete separation of the banks' operations within and outside the Republic—that some commentators had regarded as a necessary precondition for achieving any sort of domestic credit control.⁵⁰

Commercial Bank Reserve Requirements Abroad

In order to assess to what extent the Central Bank Ratio may be called a reserve requirement in the generally accepted sense of that term, it may be useful to survey briefly the way in which reserve requirements are currently used in major foreign countries.

Before 1930 only a few countries, mainly in Latin America, had legislation requiring commercial banks to maintain minimum ratios of cash to deposits, although elsewhere the banks frequently maintained similar ratios voluntarily. Reserve requirements were looked upon then almost exclusively as a means of ensuring that funds would be available, when needed, to meet withdrawals by depositors. It was not until the 1930's that commercial bank cash reserve requirements came to be regarded as a general monetary policy instrument. This new concept found expression in the granting of statutory authority to central banks to introduce and vary these requirements in accordance with their over-all monetary policies. In the United States, for example, the Federal Reserve System obtained, in limited form in 1933 and on a broader basis in 1935, the authority to alter the minimum ratios that had long been fixed by legislation. Elsewhere, similar authority was given to the central banks in Costa Rica, Mexico, and New Zealand in 1936, in Ecuador and Sweden in 1937, and in Venezuela in 1939.

Since the 1930's, the authority to establish and vary cash reserve requirements has become a common feature of central bank legislation. Such provisions were incorporated during the wartime and early postwar years in the monetary laws of many Asian and Latin American countries; the German central banking system likewise was given such statutory powers when it was reorganized in 1948.

In the past ten to twelve years, the trend toward variable cash reserve requirements has become quite pronounced. Among the financially developed countries, Austria, Canada, Japan, Norway, and the Union of South Africa introduced such requirements by statute, while in Australia and Belgium existing reserve arrangements were modified or replaced by variable cash reserve requirements. In Denmark, Finland, the Netherlands, and Switzerland, such requirements were put into effect under gentlemen's agreements negotiated between the central bank and

the commercial and other banks. In Great Britain where there are no requirements established either by law or formal agreement, 51 the Bank of England under its general powers requested the banks on several occasions to place "special deposits" with it. In many of the financially less developed countries, too, provisions for variable reserve requirements have either been incorporated into existing statutes or included in new central bank legislation in recent years.

At the end of 1965, variable cash reserve requirements were in force in about fifty countries around the world, either by statute or by formal agreement between the monetary authorities and the commercial banks. In addition, in a number of countries where central banks have recently been established—including Cambodia, Cyprus, Lebanon, Nepal, and the Sudan—the authorities had the statutory power to introduce and vary minimum cash ratios for the commercial banks.

Principal Features of Reserve Requirements

In most countries, the authority to impose and vary (as well as abolish) reserve requirements is given to the central bank. However, the central bank does not always have the sole power in this regard; in some countries it must submit a proposed change to the finance ministry for approval, as in New Zealand and South Africa, or to the government which then must ratify the change, as in Norway. In countries where reserve requirements have been established under gentlemen's agreements, as in the Netherlands and Switzerland, the commercial banks in principle participate in these policy decisions with the central bank, although it is the latter which recommends and determines the ratios. In Great Britain, the "special deposits" have been imposed under a Bank of England directive, after consultation between that institution and the Chancellor of the Exchequer.

Reserve requirements most commonly are applied to commercial banks as defined by general banking law. However, a few countries, including Germany, Italy, Japan, the Netherlands, South Africa (under 1964 legislation), and Switzerland, impose reserve requirements on certain financial institutions besides the commercial banks, in order to control the allocation of their loans and investments and thereby influence the total credit volume. In Germany, such requirements extend to all institutions that accept deposits, including the postal giro system, the savings banks, and industrial and agricultural credit cooperatives; in the Netherlands they cover the postal giro system and the two central institutions

⁵⁰ Cf. M. J. Gibson, "An Amended Irish Monetary System", Journal of the Statistical and Social Inquiry Society of Ireland, 1956–57, p. 151 et seq., and "Ireland's Evolving Central Bank," Banker, July 1960, p. 460.

⁵¹ However, the London clearing banks informally observe a fixed 8 per cent cash ratio as part of a more comprehensive liquidity ratio, currently at 28 per cent.

of the agricultural credit banks; in Italy they apply to savings banks and rural and artisan banks; and in Japan to the larger savings banks and savings and loan associations.

There are a few countries in which cash reserve requirements are differentiated according to the location of a bank. In the United States, there is a dual (until July 1962 triple) geographical classification of banks for purposes of reserve requirements, with banks in New York and Chicago, the principal financial centres, obliged to observe higher ratios than those in the rest of the country. In Germany, banks located in cities in which there is an office or branch of the central bank are subject to higher reserve ratios than banks in other places. Under the special deposits scheme in Great Britain, the London clearing banks have been subject to higher ratios than the Scottish banks, and in some Latin American countries higher ratios have at times been in effect for banks in the capital city or district than for those in the rest of the country.

In addition, both Germany and Japan provide for different reserve ratios according to the size of an institution's deposit liabilities; in Germany, there are now four size classes which, together with the geographical breakdown, make for a total of eight reserve classifications. Differential treatment of banks by size also prevails in the Netherlands (where an initial absolute amount of each bank's deposit is exempt from, and a further amount is subject only to half, the requirement), and in Norway (where there are two categories of banks, according to the size of their own reserves). The ultimate in differentiation among banks was achieved under the former special accounts system in Australia, where a separate reserve ratio could in effect be imposed for each individual bank; however, the ratios generally tended to be uniform for all the major commercial banks.

In order to make reserve requirements a more precise means of credit control, different ratios are generally set for different categories of deposit liabilities. One fairly widespread distinction, characteristic of about half of the existing requirements, is that of applying higher minimum ratios against demand deposits (current accounts) than against time and savings deposits (deposit accounts). This form of differentiation originated at a time when reserve requirements were regarded primarily as a safeguard of the banks' solvency and was based on the general banking principle that more liquid assets should be held against the more liquid liabilities. However, a distinction between demand and time deposits also is a convenient way of relating reserves to the turnover of deposits, which is usually higher for demand than for time deposits. In addition, institutions such as savings banks that have a large

percentage of time deposits traditionally have invested in less liquid assets and extended longer-term credits. Since these institutions usually have observed a lower liquidity ratio than commercial banks, the imposition of lower reserve requirements against time deposits tended to disrupt customary banking practices less than enforcement of a uniform requirement.

In most countries, required reserves must consist entirely of deposits with the central bank, although others (including the United States) permit the inclusion of vault cash (till money). ⁵² Some countries also permit the banks to count as part of their legal reserves deposits with the postal savings bank (Austria) or with the postal giro system (Belgium). In general, no interest is paid on balances kept with the central bank under these requirements. The more important exceptions include Australia and the special deposits in Great Britain (as well as Italy, where the banks receive interest on the central-bank balances they hold as part of their required liquidity ratios).

The range within which reserve requirements have been applied has usually been related to the purpose that reserves were intended to serve. In the case of the legal reserves introduced in the 1930's to assure sound banking practices fixed ratios were generally established. By contrast, postwar statutes have almost always provided for variable requirements. However, in the majority of countries the permissible range of variation is limited, depending in part on the structure of the banking system and on the potential fluctuations in its cash base. While the minimum may be as low as zero, as in Austria, Germany and the Netherlands,53 the permissible maximum may be no higher than 10-15 per cent, as in the case of Austria, Canada, the Netherlands, and Japan. Other central bank statutes provide for a substantially wider range, such as a maximum of 25 per cent in Norway, 30 per cent in Germany, and 50 per cent in a number of Asian and Latin American countries. No maximum is specified in some countries, including Australia, New Zealand, Pakistan, and Venezuela, and supplementary cash reserve requirements against increases in deposits may, as a rule, be set as high as 100 per cent. Requirements actually in force likewise vary greatly. Thus, in the summer of 1966 such require-

United States, than under branch banking.

53 In the Netherlands, the ratio has actually been zero (i.e. suspended) since September 1963. While the requirements originally were lifted to ease the money market at the time of large tax payments, they have remained suspended so as not to tighten bank liquidity and thereby encourage short-term inflows.

⁵² The argument favouring the inclusion of vault cash generally has been that banks located far from a branch of the central bank must keep a higher proportion of their assets in the form of cash. But this problem would seem to be more serious under a unit banking system, such as exists in the United States, than under branch banking.

ments were as low as 2 per cent in the United Kingdom and as high as 40 per cent in Paraguay.

Section 50 of the Central Bank Act of 1942

To complete this survey of the actual and potential use of reserve requirements around the world, it is only fair to recall that the Central Bank of Ireland does in fact have the power to call for compulsory deposits from the banks, under specifically defined circumstances. Section 50 of the Central Bank Act authorizes the Central Bank to require such deposits of any licensed banker:

"whenever after a specified date the assets held by him within the State fall below a specified proportion in relation to his liabilities within the State, and to maintain such deposit so long as such assets are below the said specified proportion."⁵⁴

The clause also authorizes the Central Bank to prescribe different ratios for different banks and, moreover, to levy a fine not exceeding £100 per day for failure to comply.

The admitted aim of this provision—which has never been invoked-was to induce the banks to expand domestic credit whenever the Central Bank deemed such an expansion desirable. Indeed, the Explanatory Notes accompanying the introduction of the Central Bank Bill stated expressly that these powers were intended to be exercised so as to lead to a repatriation of some of the banks' external assets for investment within the State. However, no rules were laid down to guide the Central Bank in fixing the compulsory deposit, nor did the legislation indicate the desirable proportion which assets within the State should bear in relation to domestic liabilities. The main difficulty of deciding on such a ratio and on the manner of computing it arose of course from the fact that the banks conduct part of their business—and hence hold part of their external assets-in Northern Ireland, so that implementation of this provision at a time when the banks' central-bank balances were negligible or nil would have caused them considerable inconvenience and even loss.

As was readily recognized at the time, the provision did not confer upon the Central Bank any degree of credit control, but merely the power to stimulate the expansion of credit—an undertaking unlikely to succeed in the absence of willing borrowers. 55 It was perhaps for this reason that the language of the provision was left as vague as it is. Nor, in the

words of one contemporary commentator, "could the Central Bank look for enlightenment in this matter to the experience of other institutions elsewhere for the simple reason that no provision at all resembling the section is to be found in the statutes of any other Central Bank in the world".56

The statutes of the Central Bank of Ireland still are unique in this respect even today. The only provisions to be found elsewhere that in any way resemble Section 50 are in the form of selective reserve requirements, designed to encourage bank credit to specific sectors that the authorities wish to stimulate. Thus, some developing countries have included among reserve-eligible assets bank loans for preferred purposes or have exempted from reserve requirements banks that hold prescribed percentages of their portfolios in preferred types of loans and investments. More generally, however, reserve requirements have been intended as an instrument of restraint and hence have been used to curb rather than encourage bank lending. Almost the exact opposite of Section 50 is found in a number of countries where reserve ratios have been imposed against increases in domestic bank loans, usually over the average of a past period or over a specified rate of growth. While there are several variations of this technique, its general aim is to slow the expansion of bank lending by requiring additional reserves of those banks that are expanding their loans. The technique thus has the advantage of striking directly at credit expansion without necessitating elaborate or sudden changes in the existing pattern of reserve requirements.

The Central Bank Ratio Reconsidered

With the new Central Bank Ratio, however, the Central Bank of Ireland can be said to have acquired a reserve requirement that in most respects possesses the characteristics of similar requirements currently in force elsewhere. The ratio has been imposed and subsequently altered under a directive of the Central Bank; it applies to all commercial banks alike; it relates to their deposit liabilities; and, as in Australia and Great Britain, the banks earn interest on their balances with the central bank.

Where the ratio appears to differ most markedly from the practice elsewhere is in the form in which the compulsory reserves must be held. As we have seen, in most countries such reserves must consist entirely of deposits with the central bank, plus in several instances vault cash (till money) and certain other balances. But it can easily be argued that since in Ireland the banks' external assets serve in effect as the basis for their credit creation, these assets are therefore equivalent to central-bank

⁵⁴ Central Bank Act, 1942 (No. 22 of 1942), Section 50. ⁵⁵ Cf. L. Hooper, "The Central Bank in Eire", Journal of the Institute of Bankers in Ireland, July 1943, pp. 126–127, and C. M. Ryan, "The Central Bank in Eire", ibid., October 1943, pp. 170–171.

⁵⁶ G. O'Brien, "The Irish Central Bank Bill", Studies, March 1942, p. 15.

balances. Indeed, as was discussed in Chapter 3, with the usual transactions between the banks and the Central Bank now being carried out indiscriminately either via the banks' external holdings or via their balances with the Central Bank, both types of assets have become largely interchangeable. The inclusion of the external assets in the numerator of the ratio was therefore quite logical. In fact, there seems to be no cogent reason why the banks' vault cash could not have been similarly included, since such cash possesses the same degree of liquidity as central-bank balances and a higher degree of liquidity than some of the external assets that are now counted. Moreover, among the external assets vault cash held by branches in Northern Ireland would seem to be included automatically.

One interesting feature of the Central Bank Ratio not encountered in reserve requirements elsewhere is the deduction of rediscounted Exchequer bills, the rationale for which was given above. Other central banks generally have of course a more active and a more refined discount policy by which they can discourage the banks from replenishing their reserves via the discount window. 57

Two particular features of the Central Bank Ratio, one minor and one major, call for further comment. The first is its name. To the unsophisticated layman, and even to the more knowledgeable expert, this label is not likely to suggest the idea of a reserve requirement. Does "Central Bank" refer to the fact that the ratio was conceived and imposed by the Central Bank? So it was in numerous other countries that are using a much simpler designation.

⁵⁷It might be noted that in the United States the banks' borrowings from the Reserve Banks are deducted from their excess reserves (i.e. those over and above required levels) in computing the magnitude known as "free reserves".

Or does it allude to the fact that the ratio includes and can be partly met through the holding of balances with the Central Bank? But this is precisely the norm for such requirements elsewhere; in Ireland, such balances in fact constitute no more than one-fifth of the numerator.

It is equally difficult to account for the fact that deposit accounts, i.e. longer-term liabilities, were not made subject to a lower reserve ratio, if they were to be covered at all. Granted that adoption of the ratio was intended to freeze a specific proportion of the banks' domestic resources, it is hard to visualize the relatively slower-moving deposit accounts as backing for short-term credits. This must be true even in Ireland where such accounts furnish a much larger proportion of the commercial banks' total resources than in other countries with separate and more highly developed savings institutions (or "near-banks"). This view would seem to be supported by the statement that deposit accounts with Irish banks, "although technically a short-term liability, are in fact largely long-term savings".58 Moreover, since what are formally short-term credits are known to be used to finance to a large extent medium-term expenditure or even permanent investment in plant and equipment, "the . . . large deposit accounts at the banks . . . require a correspondingly lower liquidity".59 It is also worth noting that in one of its earliest references to a ratio being observed (at that time informally) by the banks, the Central Bank spoke, as quoted earlier in this chapter, of "the ratio of net external assets of the banks to their total demand liabilities within the State".60

5. A MONEY MARKET FOR DUBLIN

In a recent survey of the Irish banking system, one writer remarked that the broadening of monetary controls in Ireland would "largely depend on the development of a domestic liquidity base for the commercial banks."61 But he also found that, with the banks beginning to hold larger balances at the Central Bank, there was "an expectation of more active exercise of central banking influence . . . while on the other hand, the money market, although still narrow, is growing, thus extending the scope of monetary policy".62 Various developments in 1966

do indeed suggest that active consideration is being given to the possibility of setting up some sort of market for short-term loans in Dublin.

This chapter will examine whether the basis for a short-term money market in Ireland exists and in what form such a market might be most likely to evolve. The discussion will dispense with a detailed definition and description of a money market in general—apart from noting that such a market may basically be defined as a centre for organized dealings in monetary assets that provides the liquidity needed by lenders and at the same time satisfies the shortterm requirements of borrowers. Nor will the discussion deal with certain conditions that distinguish

⁵⁸ J. S. Oslizlok, "Our Currency and Banking System", Journal of the Institute of Bankers in Ireland, October 1963, p. 277.
⁵⁹ *Ibid.*, p. 270.
⁶⁰ *Report*, 1958, p. 35. Emphasis supplied.

⁶¹ Oslizlok, "Our Currency and Banking System", op. cit. p. 280. 62 *Ibid.*, p. 281.

mature financial centres and that need to be met for a money market of some kind to function, since the Irish financial system appears to satisfy most of these. 63 But it will be useful, as an illustration of the kind of money market arrangements that are feasible, to review the structure of money markets in countries other than the United States and the United Kingdom, with special emphasis on the recent emergence of such markets in several Commonwealth countries. While the national settings may differ, the essential characteristics, as distinct from the precise institutional forms, generally have a wider applicability in other environments as well.

Major Features of Foreign Money Markets

Outside of the United States and the United Kingdom, whose money markets are acknowledged to be the most highly developed ones, organized money markets exist in a number of countries, although these vary widely in size, complexity, types of participants, and the kinds of instruments used. Some markets function with intermediaries, such as dealers (discount houses) or brokers, while others operate without them. Some deal primarily in a single kind of instrument, such as call money; others in several instruments, such as call money, Treasury bills and/or other short-term government securities, and various kinds of private paper. As would be expected, however, in all these markets the commercial banks are the main participants, while the central banks are the lenders of last resort, with varying responsibilities for regulating over-all market conditions.

several European countries-including Germany, Sweden and Switzerland—money market transactions are largely confined to interbank loans, usually on a day-to-day or a call basis. These loan markets are essentially similar to the so-called Federal funds market in the United States in that they involve dealings in balances held at the central bank, although with a few exceptions-notably Germany—interest rates in these markets are much less sensitive than in the United States. In Germany, in addition, insurance companies and certain other nonbank investors are also on occasion important lenders in this market. Interbank borrowing also takes place elsewhere in Europe, as well as in some non-European countries (e.g., Japan, New Zealand, and Pakistan); such dealings generally occur directly between the banks, although in Japan and Pakistan the loans may also be made through brokers.

Somewhat broader markets, in which inter-

mediaries generally play an important rôle, exist in a number of other countries. But even in these markets, call loans or their equivalent as a rôle form the core of operations. In Belgium and South Africa. the intermediaries are semiofficial institutions. The Belgian Rediscount and Guarantee Institute borrows call money from banks to finance its holdings of bankers' acceptances; on occasion it also borrows call money from, or lends call money to, various semipublic institutions. The South African National Finance Corporation (discussed more fully below) accepts money at call, mainly from nonbank investors, financial and other corporations, but also the banks, and invests it primarily in short-term government securities. In Germany, a special institution (Privatdiskont A.G.) was founded in 1959 by the "big three" commercial banks, together with a number of other banks, to act as sole dealer in and generally "make" a market in bankers' acceptances. In addition, by providing the required third signature, this institution makes such instruments eligible for rediscounting at the central bank.

In Canada, France, and the Netherlands, and to some extent also in Australia and New Zealand, money markets resemble the London market, even though they are narrower and their institutional arrangements are different. While these markets vary greatly in breadth, they hinge on the operations of dealer-intermediaries that can be compared to those of the London discount houses. These intermediaries, which generally operate also in other financial markets, carry portfolios of short-term securities (mainly government securities) and help to make markets in them; they finance their portfolios through short-term loans obtained largely from the banks, usually at rates below those earned on the securities they carry. While the commercial banks in these countries—in contrast to those in the United Kingdom—can borrow directly from the central bank, the dealer-intermediaries also have access to central bank credit, in the form of advances in the Netherlands, of repurchase agreements in Canada, and of both in Australia, France, and New Zealand. The money market loans generally are secured loans, although in France repurchase agreements (so-called "en pension" operations) predominate, while in Canada such agreements are important in the case of short-term funds obtained by dealers from non-bank investors. Not only are these loans an increasingly important outlet for the temporarily surplus funds of such investors in these countries, but they also are a source of short-term funds for other borrowers, such as the banks in France and the local authorities in the Netherlands.

Short-term government securities are the most important instruments traded in these markets and are held for the most part by banks and dealers;

⁶³ For such a discussion, see, e.g. J. S. G. Wilson, "The Structure of Money Markets", Banca Nazionale del Lavoro, Quarterly Review, March 1961, and "The New Money Markets", Lloyds Bank Review, April 1962.

holdings by other investors are also significant, although the extent of such nonbank holdings varies from country to country. Most prominent among these securities are Treasury bills, which are issued at regular tenders in Canada (weekly), France (three times a month), and Belgium and Italy (monthly) and at irregular intervals in the Netherlands.64 Other government securities traded in these markets include short-term bonds in Canada and paper with a maximum original maturity of three and five years, respectively, in Australia and the Netherlands. The smaller markets in paper of borrowers other than the Treasury include markets in bankers' acceptances in France and the Netherlands; in other commercial or trade paper (including finance company paper) in Canada and France; in paper of local authorities in the Netherlands; in three-month deposit certificates issued to the banks by the central bank (Denmark); and in medium-term bank debentures ("bons de caisse") that are close to maturity (Switzerland).

The Emergence of Money Markets in Commonwealth **Countries**

From the point of view of the Irish financial system, the greatest interest attaches to the emergence, often through official assistance, of short-term money markets in five Commonwealth countries-Australia, Canada, New Zealand, Rhodesia, and South Africa⁶⁵—in the past ten to fifteen years. Of these markets it has been said:

"If imitation is the sincerest form of flattery, then London can derive satisfaction from the fact that in each of five Commonwealth countries where banking, monetary policy and technique have reached an advanced stage of development an organized short-term money market has been established. This is not to say that any attempt has been made to set up an exact replica of the London system; in each country the arrangements have been shaped by the local circumstances, including the structure of the banking system and the ways and means of financing government operations."66

⁶⁴The tender method for issuing Treasury bills is also used in Ceylon, Egypt, India, Pakistan, and Thailand, while issues at fixed rates, either on tap or an irregular basis, are made in Burma, Denmark, Norway, Sweden, Switzerland, and South Africa. In all these countries, however, Treasury bill markets are very small or nonexistent, the bills ordinarily being held to

(or close to) maturity by the original purchasers.

68 Although South Africa is no longer a member of the Commonwealth, it may be so considered for purposes of this discussion. Not only is the South African banking system made up largely of Commonwealth institutions, but the country itself is an important member of the sterling area.

••W. F. Crick, "The Frame vork of Inter-Relations", in

Crick, ed., op. cit., p 49.

In all five countries the establishment of an organized money market may be said to date from its official recognition by the central bank, through the introduction of arrangements making that bank's lending facilities available to approved institutions or dealers. In two of the five countries-Rhodesia and South Africa-where genuine money markets had emerged by the late 1950's, this was achieved by the establishment of new financial institutions in the form of discount and acceptance houses. In the other three-Canada (1953), Australia (1959), and New Zealand (1962)—the result was brought about by the formal recognition and the regulated development of short-term dealings that were already under way. This new type of business, largely undertaken by government securities dealers, was regularized when the central bank saw in its ordered development an opportunity for strengthening its own conduct of monetary policy. In South Africa and Rhodesia there was the additional consideration that the provision of local money market facilities would encourage the local use of liquid funds which customarily would have been transferred to London for short-term investment. In Rhodesia the introduction of regular tenders for Treasury bills was an integral part of the creation of a money market, while in Australia the government adapted and altered its form of borrowing in such a way as to facilitate the growth of the market.

In the context of Ireland it may be helpful to examine the experience of South Africa in somewhat more detail. In that country, a semiofficial intermediary—the National Finance Corporation—was founded in 1949 for the express purpose of helping develop a local money market. The corporation, which is in part publicly owned and controlled, operates with a central bank guarantee of its liquidity. By accepting deposits at call and investing most of its funds in short-term government securities, it was soon able to offer some of the advantages of a money market. First, it enabled the government to repay its substantial borrowings from the central bank, thus reducing the amount of outstanding central bank credit; secondly, it helped strengthen official reserves since some funds customarily placed in London were now repatriated and invested in the new facilities; and thirdly, it offered the banks and other financial institutions the opportunity of earning interest on their excess holdings of cash. The need for the Corporation's facilities was attested by the fact that within ten days of its establishment its deposits already amounted to £17 million equivalent.

The successful operations of the National Finance Corporation eventually encouraged the further expansion of money market facilities by private interests. Thus, in late 1955 Union Acceptances was set up by a mining concern to develop an acceptance, discounting, and underwriting business. Two years later the firm's acceptance and call money operations were transferred to a separate new company, the Discount House of South Africa, modelled after the London discount houses. Subsequently, three more merchant banks, which at first also discounted their own acceptances, entered the field. In 1961, however, they too divorced this activity from their main business, transferring it to a separate discount house-the National Discount House of South Africa—founded by them jointly. After the establishment of a further merchant bank towards the end of 1963, two discount houses and five merchant banks were operating in the money market, in addition to the National Finance Corporation itself. In view of the importance of these developments to the national economy, further amendments were made to financial legislation so as to allow and encourage the banks and other financial institutions to place call money with these private organisations.

Major Features of a Dublin Money Market

It will not be suggested here that a short-term money market for Ireland should be (or indeed could be) of the same complexity or as sophisticated as some of the other markets just described. A country's money market is naturally a product of its local institutions, and the fact that certain markets have grown up in a particular fashion does not imply that others necessarily must do the same. But the foregoing survey can serve to indicate certain individual characteristics and elements that might form the foundation on which an indigenous money market might be erected in this country.

The discussion will suggest four steps in the evolution of such a market. First, modification of the Central Bank Ratio to the effect that part of the ratio be met through the holding of balances with the Central Bank; second, the emergence of an "interbank market" dealing in central-bank balances; third, establishment of a special money market institution to form the core of such a market; and fourth, the eventual broadening of the activities of this institution to encompass dealings in other short-term assets as well.

A Modified Central Bank Ratio. It is clear that the introduction and application of the Central Bank Ratio have provided a more formal and better defined liquidity base for the Irish banks. Since the banks now are officially instructed to observe a stipulated ratio between their net external assets and their central-bank balances, on the one hand, and their domestic deposit liabilities, on the other, the level of these assets and balances has assumed greater significance than before.

If the Central Bank were given the authority to require the banks—or, alternately, under a "gentlemen's agreement" were able to induce them-to hold with it a specified proportion of the "reserves" now required under the Central Bank Ratio, the banks would be obliged to transfer to the Central Bank some of their present sterling holdings. Moreover, under such an arrangement part of any sterling amounts subsequently acquired by the banks from Irish residents would likewise be absorbed by an addition to the banks' central-bank balances; the actual proportion to be transferred would depend both on the over-all and on the "domestic" ratio in effect at the time. However, any such transfers to the Central Bank-whether under the initial adjustment or from subsequent sterling gains-would merely affect the distribution of external assets between the Central Bank and the commercial banks, but would leave the country's total foreign-exchange reserves unchanged. This would be an important consideration at a time like the present, when the Irish government has resorted extensively to foreign borrowing and when the country's international credit standing consequently is crucial.

Such transfers would not seem to affect or disturb existing statutory arrangements relating to the Central Bank's Legal Tender Note Fund and its General Fund. As shown below, these shifts would simply increase the Central Bank's external assets and its deposit liabilities to the associated banks pari passu. Nor would such transfers need to disturb or alter the Irish banks' relationships with their London correspondents who would continue to collect and pay cheques or other instruments drawn on Irish banks. And if an Irish bank's working balance with its correspondent temporarily fell below the traditional or desired level, it could always be replenished by a transfer from the Central Bank's balances at the Bank of England, with the offsetting transactions being made at home. (These would be the opposite of those shown above.) It would in fact be an important feature of the proposed arrangement that, once the necessary transfers from sterling balances into central-bank balances had taken place. these latter balances would be fully covered by sterling assets. In exchange for the earnings lost on the sterling surrendered in the process, the banks would receive the same rate of interest as they are receiving currently on their central-bank balances. Alternately, the Central Bank might decide to pass

Associate	ed Banks	Central Banl	k (General Fund)
	+Central bank balances -Sterling assets	+Banks' deposits	+Sterling assets

on to the banks the interest earned on the sterling assets it had thus acquired.

In terms of the actual magnitudes involved, such transfers would not have to be excessively large. 67 Let us assume, e.g. that the banks were asked to hold half of the prescribed ratio with the Central Bank. To attain such a domestic component of 50 per cent of the ratio at the end of March 1966, the banks would have had to "give up" £26.5 million of external assets.68 At that time, their total external assets amounted to £328.5 million, of which £92.5 million—or three-and-a-half times the amount to be transferred—consisted of such highly liquid assets as balances with London agents and other banks, money at call and short notice, and Exchequer bills. At the end of April, when central-bank balances had risen markedly, observance of a 50 per cent domestic ratio would have required transfer of £21.5 million in external assets, out of a total of £280.9 million, as shown in the accompanying table. The table also indicates the amounts to be transferred if the domestic component had been set at 75 or 100 per cent of the current over-all ratio of 20 per cent of domestic deposit liabilities.

Since the amounts the banks have to hold under the Central Bank Ratio are "frozen" anyhow for all intents and purposes, it would seem to make little difference to the banks if a stipulated proportion of that ratio had to be met in the form of central-bank balances—provided of course that the Central Bank made sure that in so doing the banks did not incur any loss of earnings. To the extent that the banks' central-bank balances continue to grow at a more rapid pace than their deposit liabilities—as they have in recent years—the need to transfer external assets to attain any given domestic component would naturally diminish correspondingly.

An Interbank Market. In the survey of the Irish banking system, cited at the outset of this chapter, it was noted that:

"the Irish banks have continued to use London as their call money market in much the same

67 Nor would they involve a cumbersome revaluation of all of the banks' assets, such as is envisaged in Gibson, "An Amended Irish Monetary System", op. cit., p. 154 et seq.
68 This computation is based on data from the banks' March

way as they had done before the setting-up of an independent Irish State. This is largely a matter of long-established tradition . . . which stands in the way of development of a money market in Ireland. It may be noted, for instance, that there is no pooling of, or active trading in, the individual banks' working balances, which are in effect call loans. Likewise the banks do not trade with each other or with non-bank operators in Ireland in British Treasury or Irish Exchequer bills."69

This situation might indeed be changed if the Irish banks were made to meet part of the Central Bank Ratio through holdings of balances at the Central Bank. The survey, earlier in this chapter, of the major features of foreign money markets has indicated that in a number of countries that do not boast of highly complex money markets short-term transactions are as a rule confined to interbank loans, involving mainly dealings in central-bank balances. These dealings arise as individual banks attempt to even out their positions vis-à-vis the central bank, by acquiring or providing such balances to make good temporary short-falls or invest temporary excess holdings. At present, the total of the Irish banks' net external assets and central-bank balances is of course sufficiently large, relative to the prescribed Central Bank Ratio, that there is little likelihood of any one bank's falling short, even momentarily, of the required amount. However, if the ratio were amended to call for a specified proportion of reserves to be held in central-bank balances, temporary short-falls and excesses in this domestic component might arise for individual banks.

The most developed interbank market abroad—albeit within the framework of a broader and quite diversified money market structure—is the Federal funds market in the United States, the nation-wide market for commercial bank balances at the Federal Reserve Banks. This market is one for which London has no precise parallel, the nearest to it being the bidding by the discount houses for their marginal funds before they resort to the discount window ("the front door") of the Bank of England and also the recently emerged interbank market in sterling

⁶⁹ Oslizlok, op. cit., p. 280.

		Current and deposit accounts adjusted (£ million)	Of which 20 per cent.	Central-bank balances, net (£ million)	Transfer 50%	for domestic 75% (£ million	component of
March 1966	•••	472·2	94 · 4	20·7	26·5	50·1	73.7
April 1966		484·2	96·8	26·9	21·5	45·7	69.9

⁶⁸ This computation is based on data from the banks' March 29 return. On the basis of the Central Bank's balance sheet for March 31, which shows £33.8 million in bank balances and no holdings of rediscounted Exchequer bills, the banks would have had to transfer only £13.4 million.

that provides facilities for lending and borrowing of resident sterling deposits among some of the large overseas and foreign banks. A distinguishing feature of Federal funds-and one which has largely accounted for their increasing use as a short-term money market medium—is their immediate availability. In contrast to clearing balances, which are credited to a bank's account at a Federal Reserve Bank only after one business day, banks acquiring Federal funds from other banks receive an immediate credit. Transactions in the Federal funds market in effect consist of the borrowing and lending of these balances, for one business day, at a specified rate of interest.⁷⁰ One Wall Street brokerage firm has been prominent in centralizing transactions and more or less making the price, and the big banks both deal directly with each other and act as brokers for their correspondents.

It might be countered that foreign experience with interbank markets—and the example of the Federal funds market in the United States in particular—are hardly applicable to Irish conditions, since (1) such a market is undoubtedly of greater value under a unit banking system such as exists in the United States, and (2) the actual amounts traded in other countries are larger than would be feasible in Ireland.

In answer to the first objection, it might be pointed out that in another country with a highly developed branch banking system—i.e. West Germany there is an active interbank market that is extremely sensitive in terms of interest rates. The bulk of transactions in this market consists of one-day dealings in central-bank balances ("day-to-day money") among the banks, which thus ensure themselves that they have "no loose money lying around" between the monthly settlement dates for their reserve requirements.71 The day-to-day money rate constitutes the key short-term interest rate and the interbank market therefore serves as the chief barometer of credit conditions in Germany. A further similarity between the Irish and German financial systems is the complete absence of a market in Treasury bills72 (which may account to a large extent for the development and flourishing of the interbank market in Germany).

As regards the size of individual transactions in interbank markets, a recent study reveals the

increasing participation by smaller banks in the Federal funds market in the United States.⁷³ This study—of nearly 400 member banks in the Second Federal Reserve District—showed that in 1965 even banks with deposits of less than \$5 million (£1.8 million equivalent) participated in this market. For this particular group of banks, lending ("sales") of Federal funds ranged between \$50,000 and \$400,000 (£18,000 and £144,000) per transaction and borrowing ("purchases") between \$150,000 and \$750,000 (£54,000 and £270,000) per transaction; the median was \$225,000 (£80,000) for both categories.

In elaborating on their decisions to adjust their reserve positions through Federal funds transactions, most of the smaller banks felt that purchases and sales of Treasury bills and similar instruments were inappropriate for putting idle resources to work for short periods or for making up temporary reserve deficiencies. The reluctance to purchase or sell bills for short-term reserve adjustments was based primarily on the inconvenience to the smaller banks of trading in these instruments, and some also expressed concern over transfer costs and possible losses resulting from declines in market prices.

It must not be overlooked of course that Federal funds trading by these smaller banks and the relatively small magnitudes involved are made possible only by the existence of the much larger Federal funds market itself, which is supported by the activities of the big money market banks and in which transactions in units of $1 \text{ million } (f_{357,000})$ or more are the norm. Nevertheless, if these amounts are scaled down to take account of the size of the Irish banking system relative to that of the United States, there would seem to be no reason why, under an amended Central Bank Ratio, a similar, even if somewhat less active, interbank market in centralbank balances might not be feasible in Ireland. At the end of 1965, the deposit liabilities of the eight associated banks ranged from £35 million to £130 million; in April 1966, the banks' combined reserve obligations under the Central Bank Ratio amounted to almost f,100 million; and their total "excess" reserves-i.e. holdings of net external assets and central-bank balances over and above the required 20 per cent—amounted to £28 million. Since we know that variations in the actual ratio among individual banks have been substantial, there must be sufficient scope for dealings among banks, even if only within a range comparable to that of the transactions by the smaller banks in the United States.

⁷⁰ In market terminology such transactions are generally referred to as "purchases" and "sales" of Federal funds.

⁷¹ In Germany, the prescribed ratios have to be met on one day towards the end of each month, against the average of the banks' deposit liabilities on the 23rd and 30th of the previous month and the 7th and 15th of the current month.

⁷² In Germany, short-term government debt is dealt in mainly between the central bank and the commercial banks, at the initiative of the latter. The rates on such paper are altered periodically by the central bank to reflect changes in credit conditions or in monetary policy.

^{78 &}quot;Second District 'Country' Member Banks and the Federal Funds Market", Federal Reserve Bank of New York, Monthly Review, May 1966.

A Special Money Market Institution. If an interbank market in central-bank balances were to emerge in Dublin, it might be most convenientand certainly more efficient—if a separate institution were to function as the focus of and, in general, "make" such a market. The National Finance Corporation of South Africa, albeit with the appropriate modifications to take account of the Irish environment, might well serve as a model in this respect. When the Corporation was first launched, many commentators were decidedly critical of its proposed rôle. It was regarded very much as an adjunct of the Reserve Bank of South Africa (which in a sense it was) and there was also the tendency to consider it as little more than a vehicle for attracting surplus short-term funds for the purpose of financing government expenditures. However, this proved too oversimplified an interpretation of the Corporation's rôle, and its establishment might more properly be regarded as a valuable experiment that broke new ground and eventually pointed the way to the development of a genuine domestic money market. As has been shown, the successful operations of the Corporation especially encouraged private enterprise to take the plunge in subsequently expanding money market facilities. With a substantial number of merchant banks already active in Dublin, the ground would seem to be well prepared in this respect here.

It is not intended to suggest in detail the precise feature, organization, or backing that such a specialized institution would possess in Ireland. But it is clear that, in the initial stages, such an institution would serve as a broker for the banks' excess reserves in which it would make a market. Soon its activities might be expanded to accept short-term funds from other institutional investors, such as the insurance companies and large business corporations. These funds might then be invested in short-term government securities, a process that eventually would replace the periodic issuing of Exchequer bills to the associated banks and hence might tend to funnel genuine savings to the government much more directly and to a much larger extent than is the case now. Indeed, the existence of such an institution with a range of activities as just outlined and a diversified group of suppliers of short-term funds to draw on could prevent another episode like that of the autumn of 1965, when the Central Bank had to come to the assistance of the associated banks so that the latter could accommodate the government's extra borrowing needs!

In fact, as commercial bills and bank acceptances at present are not widely used in Ireland, Exchequer paper of varying maturities initially would have to constitute the main stock-in-trade of any such money market institution. But this might only be beneficial as it might lead to some trading in outstanding paper and again curtail the present rather rigid rôle of the banks in dealing in Exchequer bills with the public. A market in such bills, supported and smoothed by the new institution, would enable investors to acquire bills at a going rate at any time between the regular monthly tenders (instead of having to purchase them on tap from the Department of Finance at the previous tender's rate), as well as to liquidate such bills, again at a going rate (instead of having to discount them with the banks at a rate based on the Central Bank's current rediscount rate). Eventually, a specialized money market institution might also be able to provide a limited market for various types of private paper.

In short, such an institution, dealing at first in interbank funds and soon branching out into accepting call money and investing it in short-term government debt, would add a new dimension and a new degree of flexibility to the Irish financial system.

Implications of a Dublin Money Market

A broadening of the Irish financial mechanism, as outlined in the preceding section, would have some major implications—one kind strictly in terms of domestic monetary management and the other in terms of the link of the Irish financial system with London. The considerations on the domestic side naturally apply, *mutatis mutandis*, to any developing money market in general.

A well-functioning money market of the kind suggested for Ireland has important advantages not only for a country's commercial banks, but also for other financial institutions, businesses, and individuals, as well as for the economy as a whole. For the banks, such a market makes possible a rapid and relatively inexpensive evening-out of their reserve position (i.e. their required reserves), by helping to match among them the excesses and deficiencies of reserves that reflect shifts in deposits from one bank to another in the normal course of business. Such a market also enables the banks to employ part of their reserves in income-earning assets and, by assuring the liquidity of such secondary reserves, permits the banks to operate on a narrower margin of nonearning assets. A developed money market, such as might eventually evolve in Dublin, provides, moreover, a convenient outlet for short-term investment at home of the surplus funds of corporations and other nonbank investors, over and above the cash balances maintained on deposit with the banks. Such a market may in the end also tend to encourage greater short-term borrowing by firms and others in the form of marketable instruments such as bankers' acceptances, commercial paper, and finance company paper.

The full development of a money market of any kind depends ultimately on the existence of a central bank (or similar authority) capable and willing to act as true "lender of last resort". Unless specified securities are eligible for discounting (or as collateral for a loan) by the central bank, no asset other than cash can be considered truly liquid in the sense of being marketable without risk of substantial loss. But just as the presence of "lender of last resort" can greatly assist in the development of a money market-and in Ireland the basis for this certainly exists—the operations of a developed money market can make a major contribution to the effectiveness of monetary policy. Such a market provides a sensitive barometer of monetary conditions generally and thus is a natural point of contact between the central bank and the financial sectors of the economy.

Since an efficient money market operates for the most part with a relatively narrow margin of excess bank reserves, the need to resort to central bank credit is likely to arise more frequently in the normal course of fluctuations in money payments. The central bank's discount rate thus acquires a more positive influence on commercial bank lending policies—regardless of whether use of the discount window is made by the commercial banks themselves, as in Ireland, or is limited to intermediaries, such as the discount houses in the United Kingdom. At the same time, because the commercial banks can rely on the market as a "buffer" for the adjustment of their positions, the central bank becomes truly a tender of last resort and excessive injections of central bank credit can be avoided. In these circumstances, the effects of any credit control measures taken by the authorities are more likely to work their way through the entire financial structure and thus to influence over-all economic activity. On the whole, this is likely to permit smoother adjustment of the banks' positions and to encourage the emergence of a more flexible interest-rate structure. Furthermore, in such a setting major policy changes can often be implemented with less publicity than attends direct action, and public criticism of and opposition to a shift in policy are therefore less likely to be aroused.

Finally, a money market in which all suppliers and users of liquid funds can participate actively will necessarily provide facilities in which the government's own short-term financing requirements can be met more efficiently. The existence of such a market reduces the need for direct central bank credit to the government and thus minimises what—in other countries at least—historically has been the most serious cause of undesirable expansion in bank reserves and the money supply. A developed money market can also help accommodate short-term swings in the government's borrowing requirements

without the risk of creating sharp changes in commercial bank liquidity, such as would make the banks extremely short of liquid assets at one time and unduly liquid at another.

The preceding views and considerations are all built on the assumption that some sort of money market does develop in Dublin and that the Irish banks consequently will relinquish to some degree their current involvement and participation in the London money market. But the payment of interest (at what must be a competitive rate) on the banks' balances by the Central Bank and the resulting rapid growth of these balances may be seen as initial steps in this direction. It would be wrong, however, to infer that the existence of an active local market, with the attendant strengthening of the power of the national monetary authorities, needs to sever former operational links with London decisively. The experience of some of the Commonwealth countries that in the recent past have set up their own domestic money markets bears out this contention.

Although the establishment of stronger and more evident local monetary sovereignty may make the links with London both less rigid and less automatic than heretofore and the facilities of a local market may encourage a larger amount of funds to remain "at home", there are some important factors that tend to limit this process from going too far. One may reside in the domestic financial structure itself, such as a relative shortage of instruments for shortterm investment, particularly short-term government paper; another may reflect prevailing financial practices, such as a heavy reliance on externally provided trade credits. Another limiting element may be the composition and direction of a country's foreign trade: if that trade is predominantly with the United Kingdom (or other sterling area countries), there tends to be an underlying strength in the London connection that is likely to survive any establishment of more comprehensive short-term facilities at home.

One final consideration relates to the possible trend in domestic interest rates vis-à-vis rates in London once a domestic short-term market has become operative. For distant Commonwealth countries, it might be supposed that the development of a local money market would lead to a closer association of local with London interest rates and a finer response to rate changes in London. It could be argued that so long as liquid funds that accrue domestically are habitually transferred to London, local interest rates would be largely immune to fluctuations there; but that, once alternative investment opportunities opened up at home, comparative interest rate levels would become an important element in any such decision. It has been found,

however, that the scope for such decisions may often be limited—by such factors as domestic reserve requirements, some direct controls over short-term capital movements, and perhaps even the actual costs of remitting the funds. For some of the "outlying" sterling area countries at least, there is therefore little evidence to suggest that the development of a local money market has led to an active arbitraging of short-term funds between the two centres.

The link between Irish and London interest rates has of course been one of the most prominent features of the Irish financial scene; it is, in fact, "no more than a recognition of the intimate economic and monetary association between the two countries" and of the virtually complete freedom of movement of funds between them. As a rule, Irish interest rates generally have changed in the same direction as rates in the United Kingdom, although not always by the same amount and in recent years usually by only one half the amount. After the reduction in the British bank rate from 7 per cent to 6 per cent in June 1965, Irish interest

74 Oslizlok, op. cit., p. 275.

rates even remained unchanged, while the increases in the Irish banks' lending and deposit rates in August 1966 were believed to have been more a reflection of the rising trend of interest rates in Western Europe and North America in general than a direct consequence of the boost in the British bank rate in July.

There thus has been an obvious attempt in recent years to break with the tradition of duplicating in the Republic the fluctuations in British interest rates and to achieve a domestic interest rate pattern that is more attuned to and more consistent with the requirements of the domestic economy. If anything, this attempt would be bolstered by the development of a local market, which would bring with it a diversification of outlets for short-term funds and hence would make it possible for the key rates—i.e. the banks' lending and deposit rates-to be related more closely to other domestic rates rather than to those across the Channel. Any moves in this direction could only be welcomed—especially at the present juncture when official policy in Ireland is aimed at expansion of credit and economic activity, while the British government is administering its most massive dose of deflation and retrenchment since the war.

6. CONCLUDING REMARKS

This paper has examined various institutional aspects of commercial and central banking in Ireland and in the process has raised a number of points and voiced a number of criticisms. The various chapters have covered the banks' external assets, their central-bank balances, the so-called Central Bank Ratio, and the possibility of using a modified version of that ratio as the basis for developing a short-term money market in Ireland. At times, the discussion of these topics may have raised more questions than it has actually answered. But it was the writer's intention to focus attention on current practices and to invite controversy rather than to suggest firm and rigid solutions. Nothing that is said or advocated in this paper therefore lays any claim to finality; it is merely submitted for consideration by the Irish financial authorities and the members of the Irish financial community. There are in fact a number of other subjects in this general area that invite open discussion along similar lines in order that their implications may be explored more fully. These include—to name only two of the more obvious ones -the whole problem of banking "under two flags", with two different interest-rate structures and two clearings for the Northern and Republican branches of the same bank, and the sensitive issue of the

largest commercial bank continuing to function as the government's banker.

No one can deny that the whole environment of banking and monetary policy, in Ireland as well as elsewhere, has undergone radical changes in the recent past. These changes have been particularly pronounced in Ireland, where various attempts have been made to improve the functioning of the monetary mechanism, to extend the availability of financial facilities, and to ensure greater independence for Irish financial institutions. Evidence of these developments—which perhaps are but different facets of the same phenomenon-are the growing power and authority of the Central Bank; the increasing cooperation and consultation between the Central Bank and the associated banks, both as a group and individually; the launching, under the auspices of the Bank of Ireland, of a new merchant bank which is to offer a comprehensive range of services and also will aim at developing some local money market facilities; and the merger of the Munster and Leinster Bank, the Provincial Bank, and the Royal Bank, which has assured that domestic control of these banks will be retained. There thus is an unmistakable air of change and progress stirring on the Irish financial scene and a willingness

to test new ideas and broaden the range and efficiency of existing facilities.

In this new atmosphere any alterations in existing institutional practices, such as those suggested in this paper, would undoubtedly contribute towards a smoother performance of the entire financial apparatus, facilitate the process of monetary and

credit control, and thereby assist the development of the Irish economy. But in working in this direction, it will behave all concerned to heed the official advice that "generally . . . evolution rather than revolution should be the guiding principle."⁷⁵

⁷⁵ Department of Finance, op. cit., p. 30.

THE ECONOMIC AND SOCIAL RESEARCH INSTITUTE

Reprint Series:

1	Commentary	ΩИ	"Europe's	Future	in	Figures"	R	\mathbf{C}	Geary
	Commentary	on	Luiopes	1 mme	u	T'IZUI ES	1/.	·-	U Cal V

- 2. Forms of Engel Functions C. E. V. Leser
- 3. The Cost Structure of British Manufacturing, 1948-61 E. T. Nevin
- 4. The Life of Capital Assets: An Empirical Approach E. T. Nevin
- 5. Estimation of Quasi-linear Trend and Seasonal Variation
 C. E. V. Leser
- 6. The Pattern of Personal Expenditure in Ireland C. E. V. Leser
- 7. Some Remarks about Relations between Stochastic Variables:
 A Discussion Document R. C. Geary
- 8. Towards An Input-Output Decision Model for Ireland R. C. Geary
- 9. Do-It-Yourself Economics of the Firm; First Draft of a Statistical Scheme R. C. Geary
- 10. Recent Demographic Developments in Ireland C. E. V. Leser
- 11. The Average Critical Value Method for Adjudging Relative Efficiency of Statistical Tests in Time Series Regression Analysis R. C. Geary
- 12. A Note on Residual Heterovariance and Estimation Efficiency in Regression R. C. Geary
- 13. Direct Estimation of Seasonal Variation C. E. V. Leser

THE ECONOMIC AND SOCIAL RESEARC	H INSTITUTE
Publication Series:	
1. The Ownership of Personal Property in Ireland	Edward Nevin
2. Short Term Economic Forecasting and its Applic	ation in Ireland
	Alfred Kuehn
3. The Irish Tariff and The E.E.C.: A Factual Surv	
A Damend Delationaline for Indian	Edward Nevin
4. Demand Relationships for Ireland	C. E. V. Leser
5. Local Government Finance in Ireland: A Prelim	David Walker
6. Prospects of the Irish Economy in 1962	Alfred Kuehn
7. The Irish Woollen and Worsted Industry, 1940	
in Statistical Method	R. C. Geary
8. The Allocation of Public Funds for Social Devel	
	David Walker
9. The Irish Price Level: A Comparative Study	Edward Nevin
10. Inland Transport in Ireland: A Factual Survey	D. J. Reynolds
11. Public Debt and Economic Development	Edward Nevin
12. Wages in Ireland, 1946-62	Edward Nevin
13. Road Transport: The Problems and Prospects in	Ireland
•	D. J. Reynolds
14. Imports and Economic Growth in Ireland, 1947-	-61
16 77 7 1 7 1 1000 11000	C. E. V. Leser
15. The Irish Economy in 1962 and 1963	C. E. V. Leser
16. Irish County Incomes in 1960 E. A. Attwood	
17. The Capital Stock of Irish Industry	Edward Nevin
18. Local Government Finance and County Incomes	
19. Industrial Relations in Ireland: The Background	David O'Mahony
20. Social Security in Ireland and Western Europe	Javid O Manony
P.	R. Kaim-Caudle
21. The Irish Economy in 1963 and 1964	C. E. V. Leser
22. The Cost Structure of Irish Industry, 1950-60	Edward Nevin
23. A Further Analysis of Irish Household Budget	Data, 1951-1952
	C. É. V. Leser
24. Economic Aspects of Industrial Relations I	David O'Mahony
25. Psychological Barriers to Economic Achieveme	
26. Seasonality in Irish Economic Statistics	C. E. V. Leser
27. The Irish Economy in 1964 and 1965	C. E. V. Leser
	O. D. V. DOSCI
28. Housing in Ireland; Some Economic Aspects	R. Kaim-Caudle
29. A Statistical Study of Wages, Prices and Employ	
Manufacturing Sector	. St.J. OHerlihy
30. Fuel and Power in Ireland: Part I. Energy Con.	
	J. L. Booth
31. Determinants of Wage Inflation in Ireland	Keith Cowling
32. Regional Employment Patterns in the Republic	of Ire land
	T. J. Baker
33. The Irish Economy in 1966 The Staff of The Economic and Social R	ecearch Institute
34. Fuel and Power in Ireland: Part II. Electricity a	J. L. Booth
35. Fuel and Power in Ireland: Part III. Internation	
Aspects of Energy Consumption	ial and Temporal
	J. L. Booth
	J. L. Booth
36. Institutional Aspects of Commercial and Centra in Ireland	J. L. Booth