

## ON INTERNATIONAL TRADE IN BANKING SERVICES

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In order to examine theories of domestic and international trade in banking, information is presented in this paper on the vast array of service charges banks levy on their customers, both resident and non-resident, and the complex of interest rates on deposits and loans that must be collected. Examination is also necessary of collection procedures of the various charges which central banks levy on banks, as well as interest rates paid on reserves, insurance premia on deposits and the like in order to test propositions that international trade in banking is a function of the various monetary policies followed by Monetary Authorities.

### INTRODUCTION

While there is no good measurement without theory, the measurement demands placed by National Accountants on theoretical constructs ensure there is no good theory without measurement. An analysis of the problems confronting theories of international trade in banking and the necessary measures is essential for three reasons drawn from Canadian experience but which pertain to many other countries as well. (i) Canada wishes to expand and improve measures of such international service flows because of the recent implementation of a Free Trade Agreement with the United States. (ii) New monetary instruments are being formulated and experimented with in Canada. It is not yet understood what effects they will have upon domestic and international banking. (iii) The banking industry in Canada is being "exempted" from the (possibly) forthcoming Canadian consumption value-added tax precisely because of the well-known, to National Accountants at least, reason that value added in banking cannot be meaningfully calculated.

What are the effects on the international competitiveness of Canadian and United States banks and the direction of the flow of international banking services between the two countries as they enter into a free trade arrangement if the two central banks (the Federal Reserve System and the Bank of Canada) use, for example, different instruments with respect to legal cash reserve requirements imposed on banks?

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National Accountants know that the "banking imputation" is needed because banks show negative current price value added when calculated in the standard way. When Canadian tax authorities attempted to implement a consumption value-added tax (CVAT), that tax was implementable for banks as long as reference was paid only to the service charge revenue of the banks on which the tax would be levied and intermediate inputs and capital goods proper purchases on which the tax would be refunded. It was recognized that the tax would have to apply as well to the difference between interest received by banks on loans and that paid by banks on deposits in order for both the portfolio and transactions services provided by the banks to be taxed.<sup>1</sup> The Canadian tax authorities sought, that is, to impose the tax on consumption value added in banking calculated in a manner employing the National Accountant's "imputation." An exemption was proposed on the export of the financial intermediation services because it was recognized that, without it, banking services would be increasingly imported. A CVAT on the "spread," particularly when a distinction had to be drawn between residents and non-residents, was not operational. It is not the resident/non-resident problem, however, it is recognition that the "spread" is not a satisfactory measure of banking services which rendered the CVAT not feasible.<sup>2</sup> This problem relates not just to Canada but for banking to all market economies engaged in value added taxation.

The basic argument of this paper is that international trade in banking will be determined, *inter alia*, by monetary policies of the various Central Banks and that we need new sets of statistics to test such arguments.

#### NATIONAL ACCOUNTING AND BANKING THEORY

The imputation used in National Accounting to "solve" the problem of negative value added in banking is based on the argument that banks and similar financial intermediaries do not fully price for their services and that the full value of such services may be estimated by adding the spread between interest received on loans and paid on deposits.<sup>3</sup> This leaves unanswered the question of why the "problem" arises. Theories of banking, both private and central, are being set out which, *inter alia*, predict the phenomenon of negative value added in banking (Rymes 1985, 1986 and 1989). The neoclassical or new monetary theoretical argument or legal restrictions monetary theory (Wallace, 1989) is that Central Banks (or, in general, Monetary Authorities), by requiring private banks to hold non-interest bearing reserves impose a tax (Goodfriend and Hargraves, 1987) on them which results in (i) banks paying lower interest rates on deposits than they charge on loans, (ii) the service charges falling below the costs to banks in

<sup>1</sup>See *Tax Reform 1987: Sales Tax Reform*, Department of Finance, Government of Canada, Ottawa, 18 June 1987. A distinction is drawn between non-financial goods and services and financial intermediation services of banks which are the transactions and portfolio services of banks.

<sup>2</sup>*The Goods and Services Tax*, Department of Finance, Government of Canada, Ottawa, 27 April 1989.

<sup>3</sup>If one embraces the well-known Ruggles-Sunga argument that banks lease money from depositors and lease money out to borrowers and that leased money should be treated like leased capital goods then the National Accounting imputation for banks makes sense. However, the Ruggles-Sunga argument does not seem to be based on any acceptable theoretical analysis.

providing transactions and portfolio services, and (iii) the overall level of prices being higher.<sup>4</sup> The last condition (crucial to the second) has the higher level of prices resulting in lower “real” value of banks’ deposits, the source of the usual neoclassical argument about the welfare losses associated with the failure of the Central Banks to pursue the so-called optimum money supply policies, i.e. taxing reserves by not paying competitive interest rates on them. The welfare losses appear in the form of banks not charging Pareto-efficient prices for their services. Thus, the problem which National Accountants have with negative value added in banking stems, in the neoclassical viewpoint, from the imposition of taxes on reserves by Central Banks and their associated failure to pursue welfare-maximizing monetary policies.<sup>5</sup>

Competitive banks, without such costly regulation by Central Banks, would pay the same competitive rates of interest on deposits as they earn on loans and would charge fully for the portfolio and transactions services they provide. Just as bond dealers charge for their services, even in some cases where they act not just as agents but as principals, banks would charge for arranging loans and for establishing and maintaining lines of credit for their borrowers.<sup>6</sup> Depositors who held bank deposits solely as an investment would earn the going rate of return and would be charged for the services in the form, say, of a maintenance charge. Banks would also charge fully for the transactions services provided to depositors in the form of debit and credit charges but the depositor would earn the competitive rates of interest on such transactions balances. Different service charges would be associated with the great diversity of transactions and portfolio services which competitive banks would provide. Banks already provide different kinds of bank deposits to deliver different proportions of transactions and portfolio services. All of this is the scenario which follows from application of the new monetary economics to the microeconomics of banking when it is assumed that the Central Banks, or, in general, the Monetary Authorities, do not tax the banks with the requirement that they hold non-interest bearing reserves. Thus, Central Banks are mere fifth wheels (Selgin, 1988) and the taxes and regulations associated with their unnecessary control over, and regulation of, banks merely results in the pricing distortions appearing as the National Accounting “problem.”

<sup>4</sup>Other predictions would be that banks, seeking to minimize such taxes, would tend (i) to provide internationally deposit business where reserve requirements are less onerous such as Euro-Deposits (Pecchioli, 1983; Bröker, 1989) and (ii) to provide domestically more of those deposits, and the services associated with such deposits, which require lower or even zero reserves (Ahmed, 1987).

<sup>5</sup>It is now widely recognized that such taxes are more general than standard income or consumption taxes. “Taxes on money, like taxes on banks, are taxes on both intermediate and final goods and it has been shown that optimal taxation does not entail taxing intermediate goods.” (See Kimbrough, 1986.)

<sup>6</sup>The phenomenon of “securitization” is a competitive force associated with banks engaging more and more in the brokerage business and which compels banks to charge competitively for the portfolio services they provide. A bank that loaned money, which borrowers might be required to hold ever so briefly at lower than market rates or were required to hold compensating balances, would soon find its borrowers ceasing to finance their activities through bank loans and increasingly through the bond and equity markets. A difference between banks and bond dealers is that bank deposits and banks also provide transactions services. Since the banks are already also providing portfolio services, attempts to limit banks by regulation solely to the provision of transaction services would seem doomed, in a competitive world, to failure.

Evidence in support of the neoclassical position would be that, with Monetary Authorities abandoning legal cash reserves and other regulations such as restrictions on interest rates paid on deposits, etc. the spread between interest on loans and on deposits should be narrowing. For all insured commercial banks in the U.S.A., Moore (1988, Table 2.6) reports, in billions of \$U.S.

	1950	1955	1960	1965	1970	1975	1980
Interest on loans	2	3	7	11	24	43	127
Interest on deposits	—	1	2	5	10	26	98
Ratio 1/2	6.7	5.3	3.8	2.2	2.3	1.7	1.3

while less convincing Ginarlis (1988, Table 3V) reports, in billions of sterling, for U.K. clearing banks

	1979	1981	1983	1985	1986
Interest received	12	23	26	30	30
Interest paid	7	17	18	22	21
Ratio 1/2	1.6	1.4	1.4	1.4	1.5

The Keynesian theory of central banking has Central Banks (in general, Monetary Authorities) providing the public good, stabilization of the nominal magnitudes of a monetary economy, taking the form of stabilizing the “real” value of bank deposits. The “real” value of bank deposits can change for two basic reasons. There can be unstable changes in the overall price level so that, in the event (say) of an unstable inflation, the “real” value of bank deposits, if the nominal value of bank deposits does not keep pace with the inflation, would decline. On the other hand, the nominal value of bank deposits, in the event of widespread bank failures, could fall and the “real” value of bank deposits would again decline unless the price level fell at the same rate as the nominal value of the bank deposits.<sup>7</sup> According to the Keynesian theory, Central Banks *may* have to stabilize both the price level and the nominal value of bank deposits. A criticism of such a view is that, if the Central Banks were, in fact able to stabilize the price level, an otherwise unregulated banking system would result in stable nominal value of deposits (Schwartz, 1987). The criticism *assumes* that the way in which the Monetary Authorities stabilize the price level depends upon the stabilization of nominal bank deposits (i.e. the money supply) in the first place, an argument which is based on the assumption (now empirically questionable) of stability in the demand for money. Even if the Central Bank were able to control the growth of some monetary aggregate, it does not follow that stable price levels as would

<sup>7</sup>A beginnings of the Keynesian theory is set out in Rymes, 1989. Other versions (Rymes, 1988 and forthcoming), draw on Keynes’s writings in his *Tract and Treatise on Money* and concentrate on the maintenance of a stable price level by the Central Bank. For a recent interpretation that Keynes believed that the major role for Central Banks was the provision of a *stable* monetary environment, see Meltzer, 1989 and for discussions on the services of money as a public good, see Laidler, 1988a, 1988b and 1989.

be consistent with zero inflation will *necessarily* result. Moreover, even if somehow the price level were stable, there is no *necessity* for the level of nominal bank deposits also to be stable. Unstable price levels may be associated with unstable banking systems, but it does not follow that stable price levels will necessarily be associated with stable banking systems. One may still have bank failures, leading not to old-fashioned flights into currency, but rather movements of wholesale and retail deposits from one set of deposit-taking institutions to others, leading to distrust and inefficient use of the transaction services (Hahn, 1987 and 1988) being provided by all banking institutions. Even deposit insurance, supposed to be insurance against loss of deposits associated with bank failure and therefore a device to obviate bank runs (Diamond and Dybvig, 1983), does not prevent such movement by depositors since knowledge of eventual partial or full compensation for any loss of deposits does not overcome the loss in the efficacy of transactions use of the deposits of the failed institutions. The lender of last resort function (Garcia and Plantz, 1988) of the Central Banks may preserve the stability of the nominal value of banks deposits. The lender of last resort function is the basic service which Central Banks or Monetary Authorities provide for the resolution of the problem of instability which *may* arise with respect to the nominal value of bank deposits. If the banks hold reserves with the Central Bank, then it would appear that the provision of the lender of last resort function to those banks which hold reserves with the Bank entails a non-pecuniary liquidity premium as part of the yield on such bank deposits obviating the necessity of paying interest on such deposits. Even if legal reserves were zero, it is the access to the Central Bank which matters. Keynes argued (Keynes, 1973, chapter 17, 226) there is nothing *ex post* to show in the way of measurable output for the liquidity premium—it meters the confidence which individuals and firms have in the value of money or bank deposits, i.e. those monetary arrangements by means of which transactions are executed, the value of such bank deposits being partly a function of the extent to which the banks have access to the lender of last resort service of the Central Bank. The provision of that service is a public good. The belief that the Central Bank will lend in the last resort to any solvent bank adds to the liquidity of all banks' deposits and would appear to be a function which cannot be performed by any private clearinghouse arrangements banks might establish.

#### NATIONAL ACCOUNTING, THEORY, INTERNATIONAL TRADE IN BANKING AND BANKING STATISTICS REQUIREMENTS

What are the implications of these two theories, one which treats Central Bank as some sort of unnecessary imperfection in competitive banking arrangements and the other which implies that Central Banks or Monetary Authorities have a central role in the indirect provision of transactions and portfolio services of competitive banks, for the determination of international trade in banking services and the data which must be assembled to record satisfactorily such trade?

The neoclassical position entails that the banking system experiencing less distortion from its Central Bank's policies would be an exporter of banking services. If we consider two countries, one in which the Central Bank imposes

non-interest bearing reserve requirements and the other in which the Central Bank either does not require such legal cash reserves or, if so, pays competitive rates of interest on them, then, if the lending rates are the same in the two countries, one would predict that in the first country, interest rates on deposits would be lower than in the second economy and that service charges in the first would not reflect the cost of the provision of such services. In the modern world of highly mobile capital movements, the assumption that banks would charge the same lending rate is not farfetched. Increasingly, it will be the case that internationally competitive banks will be obliged to pay the same rate of interest on deposits particularly so if there is a return to fixed exchange rates or a world in which competitive banks offer their international customers stability in the value of their deposits, both domestic and offshore, by devices such as interest and exchange swaps and so forth. If highly elastic interest rate international capital movements prevent banks in different countries paying different rates on similar deposits, then the neoclassical theory would be greatly strengthened. The banks subject to the reserve "taxes" would be at a disadvantage compared to their less-taxed counterparts. The first banks, to be equally profitable, would have to levy *higher* service charges and depositors in both countries which had to pay such higher prices for the transactions and portfolio services offered by the "taxed" banks would use relatively more of the services provided by the "untaxed" banks. Canadian banks—more precisely, those banks subject to the impending new regulations of the Bank of Canada—would become exporters of banking services *vis-à-vis* a country whose Central Bank was still "taxing" banks either by requiring them to hold non-interest bearing cash reserves or by engineering inflation. The Bank of Canada may be introducing a regime of zero legal cash reserves.<sup>8</sup> If legal cash reserve requirements may be extended in the U.S.A. beyond banks to near-banks, then, the Bank of Canada's instruments would give Canadian banks—those banks subject to the regulations of the Bank of Canada—a competitive edge over their American counterparts. However, the elimination of legal reserve requirements for banks was part of Canadian tax reform, a reform which included the application of the CVAT. We have seen that the CVAT will not be applied to banks in Canada because of the non-operationality of value added for banks, particularly those trading internationally. The non-application of the CVAT to banks means that banks and other similar financial institutions in Canada will not pay the reserve tax but will pay the taxes which "exemption" from the Goods and Services Tax entails. What the Bank of Canada giveth, the Department of Finance taketh away! Since the Americans are not contemplating a CVAT for banking, it is not clear when the policies of both the Bank of Canada and the Department of Finance are taken into account, exactly where the competitive advantage between Canadian and American banks will lie.

What, however, is significant is that, from the viewpoint of the new monetary theory of banking, the international competitiveness of banks will be a function

<sup>8</sup>Cf. Bank of Canada, "Discussion paper on the implementation of monetary policy in the absence of reserve requirements," 29 September 1987 and "Second discussion paper on the implementation of monetary policy in a system of zero reserve requirements," 2 February 1989. See also Longworth, 1989.

of monetary policy in the form of tax (and other) restrictions placed on banking.<sup>9</sup> On the other hand, the Keynesian theory of banking would suggest that countries will export banking services when the Central Banks of such countries have performed their lender of last resort functions so successfully that domestic and international borrowers and depositors have confidence in the banks which those Central Banks will themselves support. Those countries with well-developed Central Banks, acting to stabilize the “real” value of bank deposits, will be exporters of banking services.

It is sometimes argued that banks will carry non-market assets such as loans (though there are markets in bonds, secondary mortgages and even some markets in loans) because the banks acquire intimate not-easily obtainable marketable knowledge of their borrowing customers and that depositors share in such portfolio activity by holding claims against the banks in *fixed nominal* terms. While the problem of asymmetric information is important, the lender of last resort service of Central Banks, which is part of their service of stabilizing “real” bank deposits by ensuring their nominal value and the general level of prices both remain stable in order to make as efficient as possible the flow of transactions services produced by banks, is what leads to the situation where the banks are providers of services characterized by close contact between the banks and borrowers and depositors.<sup>10,11</sup>

#### CONCLUSION

For current account balance of payments purposes, data on the international flow of interest payments and receipts associated with bank loans and bank

<sup>9</sup>To predict which country would be a net exporter of banking services, traditional hypotheses such as the factor endowment argument associated with Heckscher-Ohlin-Samuelson trade theorems would seem to be of limited use. Even weak forms of them would appear to have little empirical content (Brecher and Choudhri, 1988), while strong forms are subject to fundamental capital theoretic difficulties. (See Steedman and Metcalfe, 1985.) It seems clear the impact of *monetary* regulatory conditions in trading countries would affect the international production and distribution of banking services. For a similar conclusion about non-monetary regulatory conditions and trade in services *in general*, see Ken Tucker and Mark Sundberg, 1988. Not only may the Tucker-Sundberg claim, however, be too general, but, in any event, when they try to assess the direct and indirect banking activity content of exports in an input-output context, it is precisely the problem of measuring the gross output of banks and distributing the intermediate portion of such gross output across all the other domestic industries which prevent them from testing any theorems about the direct and indirect banking content of measurable foreign trade.

<sup>10</sup>Some argue the cost of pricing their services leads banks to “bundle” services together which results in the National Accounting problem (Mamalakis, 1987) and that “unbundling” may result because use of computers lowers the cost of pricing such services and thus resolves the problem. This argument is part of the transactions cost approach to the theory of institutional form which does not seem to have any special application to the cost of pricing banking services compared to other services for which monitoring and metering costs exist.

<sup>11</sup>See Hill, 1977. The argument by Hill, 1987 that “. . . the constraints imposed on service production by the necessity of direct contact between producer and consumer, at the time production takes place, makes international trade uneconomic for most services” would seem *not* to apply to banking in the modern world. What does apply is Hill’s 1977 argument that can be restated to say that Central Banks produce the public good service of monetary stability and that private banks, with access to such Central Banks, produce indirectly that public good as well.

deposits are required. To a limited extent, we already have such information.<sup>12</sup> If the foregoing argument is correct, what one needs first is information on the service charges banks are levying on their borrowers and depositors both resident and non-resident in order to be in a position to test theories of the determination of international trade in banking services. Such information, particularly broken down between resident and non-resident, will not be easy to obtain.<sup>13</sup> The flow of transactions and portfolio services provided by banks, at the retail and wholesale levels, is vast and complex. Increasingly, as well, such services are provided in a manner which makes it difficult to distinguish between residents and non-residents. Is Canadian (or a nominee) paying a service charge for the use of an ATM (Automatic Teller machine) in the United States to obtain U.S. dollars from his Canadian dollar account held in a Canadian bank which operates the ATM network in collaboration with a U.S. bank making a domestic purchase of a service provided by the Canadian bank or importing a banking service provided by a U.S. bank?

If the foregoing neoclassical or Keynesian theories are worth examining, it will be necessary and even more demanding to obtain measures of the various services, and charges for them, provided the banks by the Central Bank.<sup>14</sup> The service charges levied by the banks on their borrowers and depositors constitutes the only satisfactory measure of the gross output of banks. There will be the usual measures of their primary inputs such as labour, intermediate inputs, gross rentals for computers and the like. However, one needs not only detailed information on the various interest rates but also, other charges banks face with respect to the Central Bank or, in general, the Monetary Authorities. One needs to know

<sup>12</sup>In Canada, such information is available in Statistics Canada, *The Canadian Balance of International Payments and International Investment Position: A Description of Sources and Methods*, Ministry of Supply and Services, Ottawa, 1981. See, in particular, the discussion on banks in "Interest and Dividends," 73-75 and "Other Services," where the problems of bank branch profits, expenses of branch operations and the international interest flows on deposit and loans are discussed.

Statistics Canada now collects commissions on international transactions in both new and existing bonds and equities and attempts to separate the service charges from interest rate "spreads" for bond dealers, a problem which will become more and more important for banks as they, extending their portfolio services under deregulation and competition, increasingly engage in brokerage and investment dealing activities. See Statistics Canada, *Canada's International Trade in Services, 1969 to 1984*, Minister of Supply and Services, Ottawa, 1986, and *1986 and 1987* Minister of Supply and Services, Ottawa, 1988, cf. "Other Financial Services."

To the extent that Statistics Canada would be able to record the flow of service charges paid (for example) by non-resident depositors to resident Canadian banks, Canada's Balance of Trade exports would be understated if the banking imputation, made in the rest of the accounting system, were not applied. Of course, the offsetting imputed "interest" flows would be an item in Canadian imports and the Balance on Current Account would be unaffected by the imputation.

<sup>13</sup>Some indication of how difficult it is in Canada to obtain *retail banking* service charge information is contained in Terrance J. Thomas, "Background Paper on Financial Service Charges in Canada," *The Standing Committee on Finance and Economic Affairs*, Research Branch of the Library of Parliament, Ottawa, 29 March 1988. The background paper does not deal with service charges paid by borrowers from banks nor does it deal exhaustively with the service charges paid by businesses acting as borrowers from and depositors with banks and similar financial intermediaries. (The Canadian Bankers Association supplied a list of 82 financial services supplied by banks to small businesses ranging from the provision of letters of credit, cheque reconciliation services, currency and coin supplied and deposited to foreign currency swaps, some of which are custom priced.)

<sup>14</sup>In the U.S.A., the Federal Reserves charges for services it renders to members of the System and even imputes net returns for private services it renders. See "Priced services," *Federal Reserve Bulletin*, LXXV, 540-547, August 1989.

the flow of services and various premia in connection with deposit insurance. One needs to know what charges, if any, the Central Bank levies for the clearing arrangements it provides for the banks. One needs to know the extent to which the Central Bank does or does not pay interest on reserves. In Canada, for instance, under the new regulations being proposed, while no legal reserves need be held, should a bank hold positive settlement balances with the Central Bank during any reserve calculation period, the bank will receive no interest on that deposit with the Central Bank. Lines of credit, however, will be established for the banks. One needs to know what costs, if any, will be charged the direct clearers by the Bank of Canada for the provision of that service. The Bank of Canada operates its monetary policy by operations of drawdown and redeposit of Government accounts with the banks and the Bank of Canada. One needs to know what service charges if any the banks levy against the Government deposits. This is complicated by the fact that the banks bid at auction for Government accounts in excess of monetary needs. One needs to know the interest rates which the banks are paying on such Government accounts. The charges and interest rates which are levied on transactions between the Central Bank and the banks are significant. Readily available information on them is sparse. Yet, such information is absolutely crucial if one is to begin an understanding of ways of testing the two theories of international trade in banking outlined in this paper.

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