

## Canadian Bank Mergers, the Public Interest and Public Policy \*

The Canadian banking system is highly concentrated. This is partially due to normal market attrition, but more significantly is the result of a protracted series of mergers (see Appendix Table 1).<sup>1</sup> Since all bank mergers have to be approved by the Federal government, the fundamental public policy question is why the government allowed the mergers and so assisted the concentration process.

Historically, the reason most frequently given by government spokesmen was to guard against failure.<sup>2</sup> While this may once have had some validity, the fact remains that there has been no failure since the Home Bank in 1923, and no hint of serious financial difficulty, at least since World War II. Yet there have been three mergers since 1955: the Toronto-Dominion amalgamation in 1955, Imperial's acquisition of Barclays in 1956, and the Commerce-Imperial merger in 1961.<sup>3</sup> Why, then, were these mergers allowed?

The answer presumably is that the mergers conformed to the guidelines specified in the Bank Act. But, the only guidelines in the Act are administrative ones specifying responsibility for the decision. Evaluative criteria are absent. The closest we ever get to

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<sup>1</sup> Between 1867 and 1965: 38 bank charters lapsed without use; 35 banks operated but were later absorbed by other banks; 5 operated but later amalgamated; 26 operated but were later placed in liquidation. In 1970, with the addition of the newly chartered Bank of British Columbia, 9 banks operated. See *Proceedings of the Standing Committee on Finance, Trade and Economic Affairs. Decennial Revision of the Bank Acts, 1966-1967*, p. 2179 (hereafter shortened to *Proceedings of the Gray Committee*).

<sup>2</sup> See, B. H. BECKHART, "Fewer and Largest Banks", in E. P. NEUFELD, *Money and Banking in Canada* (Toronto: McClelland and Stewart, 1964), pp. 200-201.

<sup>3</sup> Excluded from this list is the acquisition of the Mercantile Bank by the First National City Bank of New York in 1963. The acquisition from Dutch interests did not fall within the merger provisions of the Bank Act (Sections 100 to 102) prior to the 1967 amendments. See, *Proceedings of the Gray Committee*, pp. 1350, 1392-1395, 2500.

an evaluative criterion is the blanket comment by the appropriate Minister of Finance that the mergers were "in the public interest".<sup>4</sup> But no attempt has ever been made by the government to specify what constitutes the "public interest", let alone justify the ministers' assertions.

The purpose of this paper is to attempt to determine whether the mergers which have taken place since 1955 have been in the "public interest". The conclusion is that, on the basis of the available evidence, they have not. The reasons for this conclusion constitute the body of this paper. It is organized into four parts: part I, a specification of the appropriate "public interest" criteria; part II and part III, the application of the criteria to the mergers in question; and finally, part IV, conclusions and policy implications.

### Part I. Mergers, Economic Welfare and the Public Interest

What constitutes the "public interest?" Given the absence of criteria in the Bank Act and the doubtful relevance of the Combines Act,<sup>5</sup> the logical way to proceed is to specify that a merger is in the public interest if its social benefits outweigh social costs. Generally, social benefits would comprise the increases in economic efficiency affected by the merger, while social costs would be made up of the increases in market power.<sup>6</sup>

Conceptually, assessment of costs and benefits in resource allocation terms is based on the measurement of relevant areas under

4 With respect to the Toronto-Dominion merger the Minister declared "it is in the public interest to permit the amalgamation", *Press Release*, Nov. 1954; Imperial-Barclays, "the amalgamation would be in the interest of the Canadian public", *Press Release*, Oct. 1955; and Commerce-Imperial, "I have satisfied myself that the public interest will be served in this amalgamation", *Commons Debates*, Feb. 3, 1961, p. 1747.

But neither the banks concerned nor the Department of Finance would release to the authors any information relevant to the mergers. Therefore, we have no basis to judge the "official" definition of the "public interest".

5 The Combines Act applies primarily to the "non service" sector. Therefore, as the output of the banking industry is a "service" this probably precludes investigation of banking mergers under the present Act. If it were applicable it should be noted that there is a considerable jurisprudence on the term "public interest". Curiously enough, despite the statements of the Ministers in *Ibid.*, the term does not appear in the merger sections of the Bank Act.

6 See, A. BEACHAM and J. C. H. JONES, "Merger Criteria and Policy in Great Britain and Canada", *Journal of Industrial Economics*, Vol. XIX, April 1971, pp. 97, 103-104.

the demand curve after the merger has taken place.<sup>7</sup> Consider the partial equilibrium model in Figure I which shows all possible welfare results. The equality of P and AC indicates that the firms are at a pre-merger competitive equilibrium. After the merger, the price and average cost may change.

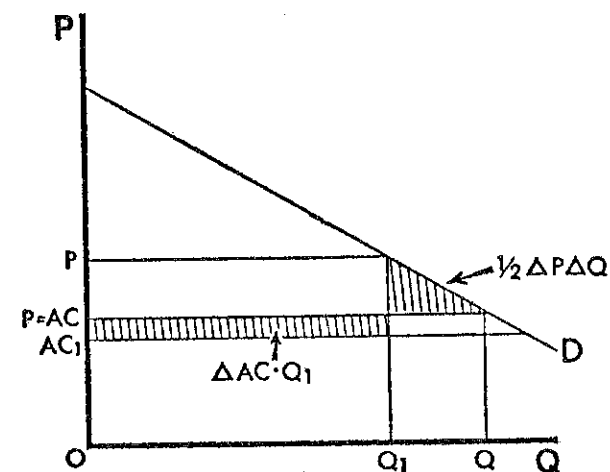


Figure 1

If P rises (as an expression of increased market power) Q has to fall and the welfare loss is represented by the triangle  $\frac{1}{2} \Delta P \Delta Q$ , which measures the amount of consumers surplus eliminated by the increase in price and decrease in quantity. If AC falls, the welfare gain is represented by the rectangle  $\Delta AC Q_1$ , which is the gain resulting from the utilization of economies of scale. If these changes occur simultaneously, and if there are no effects on income distribution, the social stability of the system or the efficiency of other sectors of the economy, the merger would be welfare increasing if  $\Delta AC Q_1 > \frac{1}{2} \Delta P \Delta Q$  and welfare decreasing if the inequality sign goes the other way. Should  $\Delta AC Q_1 = \frac{1}{2} \Delta P \Delta Q$  then the welfare effects are neutral.<sup>8</sup>

Attempting to translate this analysis into practice generates a number of qualifications and problems, two of which are basic.

7 This paragraph follows, O.E. WILLIAMSON, "Economics as an Antitrust Defense", *American Economic Review*, Vol. LVIII, March 1968, pp. 21-22. See also, M.E. DE PRANO and J. B. NUGENT, "Comment", and WILLIAMSON's "Reply", in *American Economic Review*, Vol. LIX, Dec. 1969.

8 It is obvious, from the diagram, that whether welfare gain exceeds welfare loss depends on the reduction in cost, the increase in price and the elasticity of demand ( $\mu$ ). To account

First, how is the inequality estimated? Second, is the market power-scale economies criterion exhaustive, or are there other criteria which should enter into the welfare calculation?

With regard to the first problem, the basic difficulty with estimating the inequality is that there is no simple method of calculating the dimensions of market power and hence predicting the outcome of any merger. Given the usual assumptions, value theory, *per se*, only helps if a merger shifts a market situation from perfect competition to monopoly. In oligopoly, the situation we are concerned with in Canadian banking, no prediction is possible unless we adopt some extreme, and probably unjustifiable, quantitative measure.<sup>9</sup>

Operationally, we can get around this problem by defining a merger to be welfare increasing (social benefits > social costs) if it results in no *unreasonable* market power. Market power is defined as a situation in which a firm, (or *firms*) can behave *persistently* in a manner different from that which a competitive market would impose on firms facing otherwise similar costs and demand conditions. This criterion has three caveats.

First, the emphasis on the word *firms* points up that market power may be held by the individual firm or jointly by the *group*, and in oligopolistic situations the analysis of joint market power is vital. Since, in oligopoly the market power of any member of the group is a function of the actions of all other members, the crucial issue is whether rivals behave so as to limit each other's power or whether they act so as to maintain market power exercised jointly by all. Presumably, the greater the symmetry of behaviour the closer the group approaches joint profit maximization, and hence the greater the degree of joint market power.<sup>10</sup> Therefore,

for all these factors explicitly, we can rewrite the inequality as  $\frac{\Delta AC}{AC} > \frac{1}{2} \frac{P}{AC} \left( \frac{\Delta P}{P} \right)^2$

This expression now contains the fraction  $\frac{P}{AC}$  which Williamson has called "an index of pre-merger market power". Its relevance to a general discussion on merger policy is simply that, the greater  $\frac{P}{AC}$ , the more difficult it will be to obtain net welfare gains from mergers, because the larger the index of market power the greater will have to be the economies of scale realized through merger to overcome the dead-weight loss of a price rise.

<sup>9</sup> See BEAGHAM and JONES, *op. cit.*, pp. 98-102 for a discussion of economic theory, mergers, market power and efficiency.

<sup>10</sup> See CARL KAYSEN and D.F. TURNER, *Antitrust Policy: An Economic and Legal Analysis* (Cambridge: Harvard University Press, 1959), pp. 104-105.

the ultimate question is what impact does a merger have on the structural and behavioural prerequisites for joint profit maximization. Should symmetry be increased, joint market power is increased.

Second, even if market power is increased it is not *unreasonable*, however, if the merger produces significant "real" (non-pecuniary) economies which are passed on to the consumer in concrete form. Third, the word *persistently* emphasizes that it is the long-run impact of the merger rather than any temporary change which is of paramount importance. Thus, market power is *unreasonable* if it achieves a degree of permanence which is unlikely to be destroyed by the dynamic forces inherent in any market and therefore must be eradicated by public policy measures.

The analytical task therefore is to assess the permanent impact of the mergers on market power and economies of scale. This is the approach we will follow in assessing the impact of the bank mergers.

The question of whether additional criteria should enter into the welfare calculation is a more intractable problem. However, because of the nature of the banking industry we will add two benefit criteria. The first is a version of the "failing company doctrine": due to the possible external effects of bank failure, merger may be preferred to liquidation. This is the traditional rationale for Canadian bank mergers. The second considers the implication of mergers for monetary policy. Potentially this benefit is of considerable importance and its inclusion can be justified as follows.

Since the chartered banking system is the prime channel of monetary policy, structural change caused by merger could either hinder or promote the discretionary action of the central bank. Increased market power could stall monetary policy by, for instance, increasing the length of reaction lags. Alternatively, increased market power could also promote the efficiency of monetary policy: presumably a monopoly chartered bank (the ultimate in market power) could be policed so closely as to virtually eliminate lags. It is conceivable, therefore, that undesirable resource allocation effects usually associated with unreasonable market power could be offset if the efficacy and efficiency of monetary policy is improved.

Therefore, in summary we can conclude that bank mergers are in the "public interest" if their social benefits outweigh their

social costs. This entails not only assessing changes in market power and efficiency (Part II), but also considering the impact of the mergers on monetary policy (Part III).

## Part II. Mergers and Unreasonable Market Power

### I. MERGERS AND SOCIAL COSTS

The analytical procedure we follow in this section is that indicated by our criterion: determination of the degree of market power existing prior to the merger and assessment of the post merger impact on market power and scale economies. First, however, we must determine the relevant market.

#### (i) *The Market*

Although it is not completely free of ambiguities the definition of the market adopted here is "chartered banking". Thus, we consider output as relatively homogeneous between banks but the degree of substitutability between bank output and that of "non-bank financial intermediaries" to be imperfect.

There are a number of ways of attempting to determine the product market, none of which is wholly satisfactory. The rationale for the above distinction is the assumption that, *ceteris paribus*, the degree of substitution can be indicated by the bank's reactions to the price changes of supposedly substitute products. Thus, the more independent is bank price behaviour, vis-à-vis that of the non-bank financial institutions (the greater the difference in the pattern of bank price change, or the slower the reaction of banks to non-bank price change), then the lower the degree of product substitutability.<sup>11</sup>

On this basis there is a clear distinction between chartered

<sup>11</sup> There is no completely satisfactory way to determine cross elasticity. The approach here is the pragmatic one Alhadeff has stressed, "can the behaviour of a given banking market be explained more satisfactorily by including or excluding non bank substitutes". See "Monopolistic Competition and Banking Markets", in KUBNER (ed.) *Monopolistic Competition Theory: Studies in Impact* (Wiley: New York, 1966), p. 363. Conceptually, the analysis of price reactions is based on G.W. STOCKING and W.F. MUELLER, "The Cellophane Case and the New Competition", *American Economic Review*, Vol. XLV (1955).

banks and all other financial institutions. On the one hand, for the period covered by the mergers, the identifiable price behaviour of all chartered banks is identical, irrespective of bank size (see Tables II, III and IV below). This behaviour was dictated by price fixing agreements from which there was little deviation [see (ii) below].

On the other hand, since bank behaviour appears to be relatively independent of other financial intermediaries, it appears that the degree of substitutability between bank and non-bank output is low. This suggests that banks have either successfully differentiated most of their multi products (on a price or some other basis), and therefore would not react to changes in non-bank behaviour; or else they could not because of cost or regulatory restraints.<sup>12</sup> Either way the lack of reaction indicates low product substitutability which in turn suggests that effective competition from non-bank substitutes is limited.<sup>13</sup>

<sup>12</sup> If we consider a chartered bank a multi-product firm then non-bank intermediaries appear to provide potential substitutes for many output items. Although little price data exists, it was possible to consider four types of price behaviour for the period covered by the mergers (1954-1961): rates on commercial loans, rates on personal loans, savings deposit rates, and service charges. Unless otherwise stated all references in this footnote are to the *Report of the Royal Commission on Banking and Finance* (Ottawa: Queen's Printer, 1962).

*Commercial loans.* During the period not only were bank rates the lowest but the official 6 per cent ceiling limited price reactions. Therefore, it appears as if no effective substitutes existed, due to price differentiation.

*Personal loans.* The rates ranged as high as 11½ per cent but once again this appears to be a price differentiated market. A number of alternative sources of supply existed (sales finance co.'s, retailers, etc.), but in almost all instances non-bank rates were significantly higher and in many cases banks served as a source for the non-bank intermediary's funds (pp. 203-204).

*Savings Deposits.* These rates show very little correlation with those of the non-bank savings institutions. Bank rates were lower than those of other institutions, consequently they lost ground particularly to the trust companies (pp. 119-120). Bank rates for the period were 2 per cent in 1954, 2½ per cent 3Q of 1956, 2¾ per cent 1Q 1957, unchanged until 3Q 1962. Trust rates were not only greater but the differential increased (p. 185) a pattern not matched by the banks. The banks did not react probably because they could not (perhaps the commercial loan ceiling), or they thought product differentiation ("safety"; the "department store" concept) insulated them. *Service Charges.* Bank charges were generally higher than non-banks and there was little bank reaction to changes. Bank service charges: in 1954 6c, 1955 8c, 2Q 1956 10c and remained so until 1969.

Thus, in total, for those price items which can be identified banks rarely reacted to non-bank price changes suggesting that they did not consider the degree of substitution as very great.

<sup>13</sup> This case is strengthened if we adopt either of two other output definitions in contrast to *ibid.* First, if a bank is considered a single product firm (access to one output

Given this market definition, the impact of the mergers is a function of the degree of pre-existing market power and the effect the mergers have on this power.

### (ii) Mergers and Market Power

Prior to the mergers it is evident that considerable joint market power existed. This is not merely an inference drawn from oligopolistic structural characteristics (a relatively homogeneous product, small numbers, [see Table 1] blockaded entry<sup>14</sup>) but is clear from the high degree of co-ordination of price behaviour. Price competition has been a rare occurrence. Prices were apparently set on a joint profit maximizing basis nationally with little individual deviation (see Tables II, III and IV): rates were fixed on deposits, minimum rates charged on most types of loans (in addition to fixing the prime rate) were established by common schedules, service charges were uniformly fixed and "no raiding" pacts were common.<sup>15</sup> The result was that competitive options in this industry were reduced to the product differentiation variety of which branch location was the most important.<sup>16</sup>

implying access to all others: the "department store", or "uniqueness in diversity" approach), then, since no financial intermediary provides the entire range of output items comparable to a chartered bank, chartered banking can be considered a separate market. See ALHADDEF, *op. cit.*, p. 363 and for a discussion of the multi product versus single product approach in the context of the *Philadelphia-Girard* decision see, *Studies in Banking Competition and the Banking Structure* (Washington, D.C.: U.S. Gov. Printing Office, 1966), pp. 3-96.

Second, all financial intermediaries take savings and transform them into earning assets (loans and securities). From the point of view of this definition of output the competition banks face is determined by the competition of non-bank intermediaries for the same earning asset. If the asset mix of banks and non-banks is substantially different (which it is, see the relevant chapters in *ibid.*) then chartered banking may be considered a separate market. See, J.A. GALBRAITH, *The Economics of Banking Operations* (Montreal: McGill University Press, 1962), p. 142.

14 The prime entry barrier is the necessity of obtaining a charter. The difficulty of this process is illustrated in, SENATE OF CANADA, *Proceedings of the Standing Committee on Banking and Commerce*, 1964 (hereafter referred to as *Proceedings of the Hayden Committee*) on the charter applications of the Bank of Western Canada, Bank of British Columbia, and the Laurentide Bank of Canada.

15 *Report of the Porter Commission*, pp. 127-128.

16 The banks also stress "specialized" knowledge, the judgement of branch managers, and "Christmas Clubs". See, *Submission of the Canadian Bankers Association to the Royal Commission on Banking and Finance*, 1962, pp. 82-84. The *Porter Commission* appeared to think that there were an excessive number of branches in Canada, *op. cit.*, pp. 120-121.

TABLE I\*

PERCENTAGE SHARE OF ASSETS BY BANK FOR SELECTED  
YEARS, 1953-1969

Bank	Year			
	1953	1955	1960	1970
Bank of Nova Scotia . . . . .	9.09	9.23	11.82	13.76
Bank of Montreal . . . . .	22.40	22.44	20.68	18.87
Royal Bank of Canada . . . . .	27.01	26.38	25.12	24.50
Bank of Toronto . . . . .	5.33			
Dominion Bank . . . . .	4.84			
Toronto-Dominion Bank <sup>1</sup> . . . . .		9.93	10.80	11.73
Bank of Commerce . . . . .	18.35	18.43	18.31	
Imperial Bank . . . . .	5.74	6.19	6.04	
Imperial Bank of Commerce <sup>2</sup> . . . . .				23.88
Banque Canadienne Nationale . . . . .	4.89	4.97	4.58	4.12
Banque Provinciale du Canada . . . . .	1.99	2.00	2.16	2.35
Mercantile Bank . . . . .	—	.09	.04	.41
Barclay's Bank <sup>3</sup> . . . . .	.34	.34		
Bank of British Columbia . . . . .				.26

\* Source: *Canada Gazette*.

<sup>1</sup> Formed by the merger of the Bank of Toronto and the Dominion Bank in 1955.

<sup>2</sup> Formed by the merger of the Bank of Commerce and the Imperial Bank in 1961.

<sup>3</sup> Absorbed by the Imperial Bank in 1956.

Given this non-competitive behaviour, the question is, did the mergers do anything to discourage the banks from pursuing the same oligopolistic policies? Assuming that structure has some influence on behaviour *a priori* the answer would be no. That is, the reduction in the number of banks tightens oligopolistic structure (see Table 1) so that at the very best we would expect a continuation of the same anti competitive practices, and at worst a more frequent repetition of actions hostile to community welfare. There is no absolute proof that the mergers were actually followed by more restrictive practices on the part of the banks, but we can show that the mergers did facilitate the continuation of collusive price policies that were already violating any known principle of economic welfare. The result is that joint market power is increased.

The determination of service charges, the prime rate on loans, and the rate on savings deposits, illustrate this contention.

(a) *Service Charges*

Table II shows service charges on selected accounts for the period 1946-1971. These charges were set overtly by all banks acting in concert. After the mergers this practice continued culminating in a 33 per cent increase in 1971. This is clearly

TABLE II  
SERVICE CHARGES ON SELECTED ACCOUNTS, ALL BANKS, 1946-1971

Date	Type of Account	Rate
August 1946 . . . . .	Current	.05c
November 1948 . . . . .	Current	.06c
May 1954 . . . . .	Current	.08c
October 1956 . . . . .	Current	.10c
1957 . . . . .	Personal Chequing	.11c
July 1967 . . . . .	Current	.15c
April 1971 . . . . .	Current	.20c
April 1971 . . . . .	Personal Chequing	.14c

illustrated by the following exchange that took place during a press conference given by W. Earl McLaughlin, President of the Royal Bank of Canada.<sup>17</sup>

Q. Did you know that the Bank of Nova Scotia was raising its charges on cheques the same time you were to do so last April?

A. Of course we did.

Q. Then there was an agreement?

A. Yes.

Obviously practices have not changed.<sup>18</sup>

<sup>17</sup> *The Vancouver Province*, June 11, 1971, p. 13.

<sup>18</sup> It should be emphasized that this was not illegal as the 1967 amendment to the Bank Act only covered rate fixing [see (b) below]. The service charge is covered by the draft new Competition Act, pp. 104-105 which proposed a further amendment to the Bank Act. In addition to Personal Chequing Accounts and Current Accounts shown in Table II, in April 1971 the banks also raised: the per item charge of 15 cents for accepting payments by customers (utilities, oil companies, etc.) to 20 cents; and the charge for night deposit facilities by 25 per cent.

(b) *Prime Rate*

Table III shows the changes in the prime rate since 1900. Given the evidence of the Porter Commission, and the pricing pattern displayed prior to 1955, it is clear that until 1967 the rates were set on the same cartel basis. Certainly the mergers did not decrease the oligopolistic behaviour of the banks. All they appear to have accomplished was to make overt agreements more easily enforceable.

The revision of the Bank Act in 1967 introduced a provision (section 1938) making it illegal for banks to fix rates. The result has been that the timing of the prime rate changes varies from bank to bank, the lengths of the lag measuring from a few days to a few weeks (see Table III). On the face of it, the lack of uniformity in timing (relative to the pre-1967 pattern), could lead to the conclusion that competition determines the rate charged on prime loans. However, surely it would be naive to believe that the single enactment of a law would so drastically change fundamental price policies that are inevitably the outcome of decisions made in an environment that precludes independent action: every bank makes policies fully aware of the repercussions on other banks and their reactions in response to every change in policy.

This would appear to be substantiated by the bankers belief that independent rate setting is impossible. They have argued, prior to 1967, that since all banks offer a virtually identical range of services, are equally efficient, and have costs which are "relatively the same", uniform rates are "inevitable": "the bank which is willing to operate at the rate most favourable to its customers sets the pattern for all others; no one bank or group of banks could long continue to exact terms less favourable than any one bank or a minority of banks was prepared to offer".<sup>19</sup> Although how the "one bank or a minority of banks" learn, in the complete absence of price competition, what the "rate most favourable to its customers" would be is conjecture.

Similarly, when section 138 was proposed the banks did not feel that it would cause a drastic change in bank behaviour. The attitude of the President of the Canadian Bankers Association was that, regardless of legislation, the structural characteristics of the

<sup>19</sup> *Submission by the Canadian Bankers Association*, p. 81.

TABLE III\*

## CHARTERED BANK PRIME LOAN RATE CHANGES, 1900-1970\*

Date	Chartered Banks	Rate
1900-1935	All Banks . . . . .	6-6½
1935	All Banks . . . . .	5½-7
1936	All Banks . . . . .	5-6
January 1945	All Banks . . . . .	5½-6
January 1, 1949	All Banks . . . . .	4½-5½
April 23, 1956	All Banks . . . . .	5
August 20, 1956	All Banks . . . . .	5¾
October 22, 1956	All Banks . . . . .	5¾
August 26, 1957	All Banks . . . . .	5¾
December 2, 1957	All Banks . . . . .	5½
February 17, 1958	All Banks . . . . .	5¾
March 9, 1959	All Banks . . . . .	5½
April 27, 1959	All Banks . . . . .	5¾
June 1, 1961	All Banks . . . . .	5½
July 3, 1962	All Banks . . . . .	6
November 16, 1962	All Banks . . . . .	5¾
December 8-14, 1965	All Banks . . . . .	6
April 1, 1967	Bank of Montreal . . . . .	5¾
April 5, 1967	Canadian Imperial Bank of Commerce . . . . .	5¾
May 1, 1967 <sup>1</sup>	Royal Bank of Canada . . . . .	5¾
October 11, 1967	Royal Bank of Canada . . . . .	6
October 23, 1967	Canadian Imperial Bank of Commerce . . . . .	6
November 22, 1967	Bank of Montreal . . . . .	6
November 22, 1967	Canadian Imperial Bank of Commerce . . . . .	6½
December 5, 1967	Royal Bank of Canada, Bank of Nova Scotia, Banque Provinciale du Canada . . . . .	6½
January 2, 1968	Bank of Montreal . . . . .	6½
February 1-10, 1968	Bank of Montreal . . . . .	6¾
February 15-19, 1968	All Banks except Bank of Montreal . . . . .	7
March 15, 1968	Bank of Montreal . . . . .	7¼
May 6, 1968	Toronto-Dominion . . . . .	7¼
May 14, 1968	Royal Bank of Canada, Bank of Nova Scotia, Canadian Imperial Bank of Commerce . . . . .	7¼
May 18, 1968	Banque Canadienne Nationale . . . . .	7¼

\* Source: Bank of Canada.

<sup>1</sup> On this date, under Section 138 of the Bank Act of 1967, Chartered Banks can no longer fix loan and deposit rates in concert.

Continued: TABLE III

Date	Chartered Banks	Rate
July 29, 1968	Royal Bank of Canada, Toronto-Dominion, Bank of Nova Scotia, Canadian Imperial Bank of Commerce, Bank of Montreal . . . . .	7
August 1, 1968	Banque Provinciale du Canada . . . . .	7
September 1, 1968	Bank of Montreal . . . . .	6¾
September 3, 1968	Royal Bank of Canada, Toronto-Dominion, Bank of Nova Scotia, Bank of British Columbia, Canadian Imperial Bank of Commerce, Banque Canadienne Nationale . . . . .	6¾
January 20, 1969	Canadian Imperial Bank of Commerce, Bank of Nova Scotia, Toronto-Dominion, Royal Bank of Canada, Bank of British Columbia, Bank Pro- vinciale du Canada, Banque Canadienne Natio- nale . . . . .	7
February 1, 1969	Bank of Montreal . . . . .	7
March 24, 1969	All Banks except Royal Bank of Canada and Canadian Imperial Bank of Commerce . . . . .	7½
March 27, 1969	Royal Bank of Canada . . . . .	7½
March 28, 1969	Canadian Imperial Bank of Canada . . . . .	7½
June 9, 1969	Toronto-Dominion . . . . .	7¾
June 16, 1969	Royal Bank of Canada, Bank of Montreal, Bank of Nova Scotia, Banque Canadienne Nationale . . . . .	8
June 16, 1969	Toronto-Dominion . . . . .	8¼
July 1, 1969	Canadian Imperial Bank of Commerce, Bank of Montreal, Royal Bank of Canada, Toronto- Dominion, Bank of Nova Scotia and Mercantile Bank . . . . .	8½
July 1, 1970	All Banks . . . . .	8
November 1, 1970	All Banks except Bank of British Columbia . . . . .	7½
November 1, 1970	Bank of British Columbia . . . . .	7¼
January 8, 1971	All Banks except Bank of British Columbia and Banque Canadienne Nationale . . . . .	7
January 8, 1971	Bank of British Columbia . . . . .	6¾
January 13, 1971	Banque Canadienne Nationale . . . . .	7
February 16, 1971	Toronto-Dominion . . . . .	6¾
February 24, 1971	All Banks . . . . .	6½
October 20, 1971	All Banks except Mercantile and Bank of British Columbia . . . . .	6¼
October 26, 1971	Canadian Imperial Bank of Commerce, Bank of Montreal, Bank of Nova Scotia, Banque Cana- dienne Nationale and Bank Provinciale du Canada . . . . .	6
October 27, 1971	Royal Bank of Canada, Toronto-Dominion and Bank of British Columbia . . . . .	6

banking industry will still determine the price: "...under the new act agreement would be barred... but it is inevitable that lending rates and general rates on deposits will be certainly very close to identical..."<sup>20</sup> Prices are identical in pure competition and they are identical in pure oligopolies. The difference lies in the determination of prices. It seems reasonably clear that the enactment of one law did not turn the banking industry from a tight oligopoly into a competitive industry.

The one deviant is the Bank of British Columbia which has recently kept its prime rate slightly below all other banks (see Table III). The apparent reason for this departure from the "national" pattern is that the new bank has been operating strictly as a "regional".<sup>21</sup> This is an illustration of what new entry could conceivably do and it is a pity that the Porter Commission recommendations with regard to increasing the number of banks were ignored by the government.

### (c) Savings Deposit Rates

Table IV shows savings deposit rates. The setting of this price requires little additional comment. Until 1968 the rates on deposits were set jointly by the banks. Since 1969, there has been a slight discrepancy in the timing of rate changes by different banks. However, this does not indicate that competition has taken over the banking industry. Indeed the following questions may be raised. Is an industry that is still allowed to fix service charges as a "legal" cartel likely to behave like a competitive industry in the determination of other prices? When the industry representatives meet, openly, to enact an increase in service charges, is it reasonable to assume that they avoid discussion of other price policies which have traditionally been overtly established?

To sum up. The mergers by tightening the oligopolistic structure of the banking system made co-ordination of behaviour that much easier and so increased joint market power. Such power appears permanent in the sense that barring any unforeseeable structural change increasing competition depends on government intervention. However, government intervention thus far appears at best to

<sup>20</sup> Evidence of S. T. Paton in *Proceedings of the Gray Committee*, p. 316.

<sup>21</sup> See, "A new bank challenges Canada's Giants", *Business Week*, Sept. 18, 1971, pp. 37-38.

TABLE IV\*

#### CHARTERED BANK PERSONAL SAVINGS DEPOSITS (CHEQUING AND NON-CHEQUING<sup>1</sup> ACCOUNTS) INTEREST RATE CHANGES, 1900-1971<sup>2</sup>

Date	Chartered Banks	Rate
1900-1933	All Banks . . . . .	3
May 1, 1933	All Banks . . . . .	2½
November 1, 1934	All Banks . . . . .	2
June 1, 1936	All Banks . . . . .	1½
December 1, 1953	All Banks . . . . .	2
August 1, 1956	All Banks . . . . .	2¼
September 15, 1956	All Banks . . . . .	2½
February 1, 1957	All Banks . . . . .	2¾
July 1, 1962	All Banks . . . . .	3
April 1967 <sup>2</sup>	All Banks (non-chequing savings accounts) . . . . .	4½
April 1967	All Banks (chequing-savings accounts) . . . . .	3
February 21, 1968	All Banks (non-chequing savings accounts) . . . . .	5
January 17, 1969	All Banks (non-chequing savings accounts) . . . . .	5¼
April 1, 1969	All Banks (non-chequing savings accounts) . . . . .	5½
June 1, 1969	Canadian Imperial Bank of Commerce, Bank of Montreal, Bank of British Columbia (non-chequing savings accounts) . . . . .	6
June 1, 1969	Bank of Montreal (chequing-savings accounts) . . . . .	3½
July 1, 1969	Toronto-Dominion (non-chequing savings accounts) . . . . .	6½
July 1, 1969	Toronto-Dominion (chequing-savings accounts) . . . . .	3½
July 1, 1969	Canadian Imperial Bank of Commerce, Royal Bank of Canada, Bank of Montreal, Bank of Nova Scotia and Mercantile Bank (non-chequing savings accounts) . . . . .	6½
July 1, 1969	Bank of British Columbia (non-chequing savings accounts) . . . . .	6¼
July 1, 1970	All Banks (non-chequing savings accounts) . . . . .	6
November 1, 1970	All Banks except Bank of British Columbia (non-chequing savings accounts) . . . . .	5½
November 1, 1970	Bank of British Columbia . . . . .	5¾
November 1, 1970	All Banks (chequing-savings accounts) . . . . .	3½
January 8, 1971	All Banks except Bank of British Columbia and Banque Canadienne Nationale (non-chequing savings accounts) . . . . .	5

\* Source: Bank of Canada.

<sup>1</sup> Non-chequing accounts were introduced by the Chartered Banks following the revisions of the Bank Act effective May 1, 1967.

<sup>2</sup> Under Section 138 of the Bank Act of 1967, Chartered Banks can no longer fix loan and deposit rates in concert.



Continued: TABLE IV

Date	Chartered Banks	Rate
January 8, 1971	Bank of British Columbia (non-chequing savings accounts)	5¼
January 13, 1971	Banque Canadienne Nationale (non-chequing savings accounts)	5
February 16, 1971	Toronto-Dominion (non-chequing savings accounts)	4¾
February 24, 1971	All Banks except Bank of British Columbia (non-chequing savings accounts)	4½
February 24, 1971	Bank of British Columbia (non-chequing savings accounts)	4¾
October 26, 1971	Canadian Imperial Bank of Commerce, Bank of Montreal, Bank of Nova Scotia and Banque Provinciale du Canada (non-chequing savings accounts)	4
October 27, 1971	Royal Bank of Canada and Toronto-Dominion (non-chequing savings accounts)	4
October 27, 1971	Bank of British Columbia (non-chequing savings accounts)	4¾

have resulted in the substitution of one type of co-ordination for another and consequently leaves much to be desired. This is perhaps not so odd when it is considered that the Minister of Finance in approving the Commerce-Imperial merger said "the banking community is one of the most highly competitive segments of Canadian business".<sup>22</sup>

2. MERGERS AND SOCIAL BENEFITS

What economic benefits come from the mergers? Potentially, they are of two varieties: scale economies, and a particular version of the "failing company" doctrine.

(i) Scale Economies

The banks have never argued that scale economies exist. They have stated that costs are "relatively the same" which suggests constant returns. If this is correct, it would indicate that the mergers would be unlikely to give rise to economies of scale.

<sup>22</sup> *Commons Debates*, Feb. 3, 1961, p. 1747.

There are a number of ways of estimating scale economies, most of which have limited applicability in this industry due to conceptual and/or data problems. However, with the data available we have produced the following estimates using two different statistical methods: direct cost estimation; and a production function with a scale parameter.<sup>23</sup>

First, since no cost figures were available before 1967, inferences as to the existence of scale economies cannot be drawn on a cost basis immediately before or after the mergers. However, if the available data is a fair representation of the pattern of cost conditions over the entire period then it appears that scale economies are absent. Using loans and securities as the definition of output "average total cost" figures (ratio of expenses to loans and securities) for all individual banks and for groups for 1969 are reproduced in Table V (all other years conform to the same general pattern).

TABLE V\*  
RATIO OF TOTAL EXPENSES TO LOANS AND SECURITIES  
ALL BANKS 1969

Banks Ranked by Output	Individual Banks	Grouped Banks
	per cent	per cent
Royal Bank . . . . .	7.68	7.78
Canadian Imperial Bank of Commerce . .	7.49	
Bank of Montreal . . . . .	8.13	
Bank of Nova Scotia . . . . .	8.27	8.30
Toronto-Dominion Bank . . . . .	8.34	
Banque Canadienne . . . . .	7.10	7.12
Banque Provinciale du Canada . . . . .	7.13	
Mercantile Bank . . . . .	8.65	
Bank of British Columbia . . . . .	5.30	

\* SOURCE: *Financial Post Survey of Industrials; Annual Reports* of the Chartered Banks.

Excluding the newly chartered Bank of British Columbia, it is apparent that cost falls sharply from the Mercantile but then the curve more or less bottoms out. Excluding the Mercantile, the smallest bank (which is one tenth the size of the largest) is at no cost disadvantage vis-à-vis the large banks.

<sup>23</sup> These estimates, techniques, and definitions are explained more fully in JONES and LAUDADIO, "Economies of Scale in Canadian Banking" (mimeo).

PRODUCTION FUNCTION,  $Y_t = \beta_0 D_t^{\beta_1} K_t^{\beta_2} L_t^{\beta_3}$   
CROSS SECTION DATA, 1955-69

TABLE VI

Year & Month	$(\beta_1 + \beta_2 + \beta_3)$	t of Sum	R <sup>2</sup>
1969/10	.66878	- 3.89302	.99457
1968/10	.78605	- 2.71081	.99239
1967/10	1.00592	.079885	.99059
1966/10	.94442	- 1.77532	.99589
1965/10	.98704	- .25785	.99370
1964/10	.79528	-26.32866	.99976
1963/10	.88617	- 3.59531	.98746
1962/10	.82772	-31.97233	.99980
1961/10	.81684	- 5.60912	.99924
1960/10	.88425	- 6.34839	.99793
1959/10	.87528	-13.82130	.99870
1958/10	.87000	-33.92772	.99970
1957/10	1.00073	.056290	.99673
1956/10	1.00026	.0089172	.98820
1955/10	.960440	- 2.64322	.99570

PRODUCTION FUNCTION,  $Y_t = \beta_0 D_t^{\beta_1} K_t^{\beta_2}$   
CROSS SECTION DATA, 1955-69

TABLE VII

Year & Month	$(\beta_1 + \beta_2)$	t of Sum	R <sup>2</sup>
1969/10	.87661	- 8.76476	.9915
1968/10	.897020	- 6.69676	.99030
1967/10	.94449	- 3.72865	.99534
1966/10	.98598	- .68232	.99367
1965/10	1.099139	4.72968	.99817
1964/10	.85304	-11.80709	.99309
1963/10	.810699	- 9.23409	.98893
1962/10	.76811	-14.51550	.9880
1961/10	.712609	-17.54725	.98475
1960/10	.85448	-17.66990	.995709
1959/10	.89975	- 4.76957	.97579
1958/10	1.013806	2.16062	.99786
1957/10	1.02263	1.55450	.99366
1956/10	.97535	- 1.61961	.99574
1955/10	.98318	- 1.33019	.99608

The second method involves constructing a production function with a scale parameter and fitting it for the period 1953-69 which does cover the period of the mergers. The cost curve derived above was made up of, annual cost of property, interest on savings deposits, and wages and salaries. This implies a production function  $Y = \Phi(D, K, L)$ , where Y is defined as "loans and securities", K is capital, L is labour, and D is a "money" input composed of savings and notice deposits plus paid up capital. The distinguishing feature of this production function is the inclusion of the "money input", and the functional distinction drawn between savings and demand deposits.

The "money input" is justified on the basis that the unique function of a bank is to transform deposits (a raw material) into loans and securities. The distinction between savings and demand deposits is made on the grounds that demand deposits are primarily reflections on the liabilities side of the balance sheet of items comprising loans and securities. Thus, when a bank makes a loan, the asset side of the balance sheet increases by the amount of the loan and simultaneously demand deposits increase on the liabilities side by the same amount. In contrast, savings deposits raise the liabilities side of the balance sheet and the holdings of cash on the asset side which can be used to make loans or increase holdings of securities.

An unconstrained Cobb-Douglas function with a scale parameter of the form,  $Y_t = \beta_0 D_t^{\beta_1} K_t^{\beta_2} L_t^{\beta_3}$  was fitted to cross section data using ordinary least squares techniques. In addition, because labour data was so poor a two variable model  $Y_t = \beta_0 D_t^{\beta_1} K_t^{\beta_2}$  was also estimated.<sup>24</sup> The results are shown in Tables VI and VII. In all instances the sum of the elasticities (the key variable establishing-returns to scale) is either significantly less than one or insignificantly different from one, indicating that scale economies appear non-existent.<sup>25</sup> These results are consistent with the flat portion of the cost curve and indicate that at the very most constant costs prevail. This

<sup>24</sup> Y, all loans and securities in Canadian currency excluding day to day loans; D, personal savings and notice deposits plus paid up capital; K, bank premises at cost less amounts written off (Source, *Canada Gazette*, 1954-69 for all banks); L, estimated from various sources.

<sup>25</sup> If  $\sum_{i=1}^n \beta_i > 1$ ,  $< 1$ ,  $= 1$ , increasing, decreasing and constant returns respectively prevail.

conclusion is also consistent with the bank's expression that costs are "relatively the same". The inference, of course, is that the mergers did not give rise to scale economies. Hence the benefits derived from the mergers would not be of the "social" variety.

### (ii) *Failure*

The traditional argument in favour of bank mergers is that they may forestall failure. There is, however, considerable confusion over the costs of bank failure. The real social costs of bank failure are those associated with the runs, panics, and the impact on a country's monetary system, *not* depositor losses. The latter problem can be solved by insurance schemes, the former cannot. Therefore, if merger could halt the "external" effects of individual bank failure, then there may be some social justification for merger.

In the three mergers since 1954, the threat of failure or insolvency was never a serious consideration.<sup>26</sup> Overall, each bank was in a healthy financial position. And in any event, neither of the two possible variants of the failure argument, one concerning geographical concentration of banking facilities, and the other, concerning asset over-specialization, appear relevant to these mergers.

The geographical concentration argument runs as follows: if a potential cause of failure is over-concentration in a particular geographical section of the country, then expansion of branches over a wider geographical area would reduce the probability of failure. Therefore, in this instance, merger might confer social benefits. Similarly, if there are banks whose assets are seriously mismatched due to over-specialization, merger might rectify the problem of both banks and promote the public interest.

While these arguments might have some historical validity, in the present context, they just do not apply. Although, the portfolio data is not broken down finely enough to allow extensive comparison, (this is particularly true of loans) from what does exist the concentration of assets argument does not appear to be pertinent. With the branching argument the data is more accessible and the conclusion clearer. From Table VIII it is apparent that: with the Toronto-Dominion merger, both banks were weak in the

<sup>26</sup> See the evidence of C. F. ELDERKIN, Inspector General of Banks, in *Proceedings of the Hayden Committee*, March 18, 1964, p. 13.

Maritimes (Toronto had one branch, Dominion had four), but were almost equally spread out through the rest of the country; with the Imperial-Commerce amalgamation, each bank had branches throughout the country, though Imperial was relatively the weaker of the two in the Maritimes; while the Imperial-Barclays merger did very little for spreading branches (Barclays only had four). Obviously, the "failure" arguments do not contribute significantly to any social benefits associated with the mergers.

In conclusion we can say that on the one hand the mergers increased joint market power and imposed social costs. On the other hand it appears that no scale economies were forthcoming and the "failure" argument does not apply: social benefits were non-existent. Hence in terms of our micro criterion the public interest was not served by the mergers because the net welfare effect was to increase social costs. Does the addition of the monetary policy variable change this conclusion?

### Part III. Mergers, Market Power and Monetary Policy

With monetary policy the question to be answered is: does the structure of the banking system make any difference to the implementation of monetary policy? The answer is not immediately obvious. At the extremes of monopoly and perfect competition the answer is presumably simple: a commercial banking monopoly could be regulated so as to cancel out any lag between central bank action and commercial bank response;<sup>27</sup> with a perfectly competitive structure central bank action would automatically evoke an immediate response. However, whenever an existing oligopoly situation is intensified — as it was by the mergers under consideration — there is no simple answer. Presumably it depends not only on the structure of the banking system but also on the "tool" and the willingness of the authorities to use alternative tools. That is, the structure of the banking system may render tools relatively ineffective but as long as there are other effective instruments available this should not be too great a drawback to monetary policy.

<sup>27</sup> See H. G. JOHNSON, "Observations on the Bank Merger Proposals", *The Bankers Magazine*, Vol. CCVI, 1968, p. 137.

## GEOGRAPHICAL DISTRIBUTION OF DOMESTIC BRANCHES

## OF INDIVIDUAL CHARTERED BANKS, 1953, 1955 AND 1960

TABLE VIII \*

Chartered Banks	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1953 <sup>1</sup>												
Bank of Montreal . . . . .	9	1	16	14	115	193	28	35	51	70	2	534
Bank of Nova Scotia . . . . .	18	8	41	36	31	145	9	24	29	37	—	378
Bank of Toronto . . . . .	—	—	1	—	25	138	15	25	17	18	—	239
Provincial Bank of Canada . . . . .	—	1	—	11	124	12	—	—	—	—	—	148
Canadian Bank of Commerce . . . . .	4	6	20	9	75	257	37	48	57	80	3	596
Royal Bank of Canada . . . . .	9	4	63	22	93	232	58	75	55	66	2	679
Dominion Bank . . . . .	—	—	1	3	16	120	14	5	11	11	—	181
Banque Canadienne Nationale . . . . .	—	—	—	—	232	12	4	—	—	—	—	248
Imperial Bank of Canada . . . . .	—	—	1	1	13	129	9	25	31	18	1	228
Barclays Bank (Canada) . . . . .	—	—	—	—	2	1	—	—	—	1	—	4
Mercantile Bank of Canada . . . . .	—	—	—	—	1	—	—	—	—	—	—	1
Totals . . . . .	40	20	143	96	727	1,239	174	237	251	301	8	3,236
1955 <sup>2</sup>												
Bank of Montreal . . . . .	15	1	18	17	127	244	30	41	74	93	2	662
Bank of Nova Scotia . . . . .	21	9	44	37	38	178	12	28	37	48	—	452
Toronto-Dominion Bank . . . . .	—	—	1	3	42	280	30	41	74	93	2	452
Provincial Bank of Canada . . . . .	—	3	—	18	304	23	—	—	—	—	—	348
Canadian Bank of Commerce . . . . .	5	6	21	10	91	310	41	53	66	101	3	707
Royal Bank of Canada . . . . .	11	5	67	23	106	274	60	79	63	88	2	778
Banque Canadienne Nationale . . . . .	—	—	—	—	553	19	4	—	—	—	—	576
Imperial Bank of Canada . . . . .	—	—	1	1	15	153	10	26	35	19	1	261
Barclays Bank (Canada) . . . . .	—	—	—	—	3	2	—	—	—	2	—	7
Mercantile Bank of Canada . . . . .	—	—	—	—	1	1	—	—	—	1	—	3
Totals . . . . .	52	24	152	109	1,280	1,484	187	261	307	382	8	4,246
1960 <sup>2</sup>												
Bank of Montreal . . . . .	19	2	25	17	160	308	44	52	91	119	5	842
Bank of Nova Scotia . . . . .	29	8	49	38	46	232	16	31	46	65	—	560
Banque Canadienne Nationale . . . . .	—	—	—	—	573	19	4	—	—	—	—	596
Banque Provinciale du Canada . . . . .	—	3	—	18	313	23	—	—	—	—	—	357
Canadian Bank of Commerce . . . . .	6	8	24	11	123	361	49	57	83	141	6	869
Imperial Bank of Canada . . . . .	1	—	1	2	24	191	13	30	47	33	1	343
Mercantile Bank of Canada . . . . .	—	—	—	—	1	1	—	—	—	1	—	3
Royal Bank of Canada . . . . .	16	5	71	22	128	329	70	86	81	104	5	917
Toronto-Dominion Bank . . . . .	—	1	3	5	59	321	38	40	46	51	—	564
Totals . . . . .	71	27	173	113	1,427	1,785	234	296	394	514	17	5,051

\* Canada Year Book, various editions.

<sup>1</sup> Excludes 696 sub agencies in Canada for receiving deposits.<sup>2</sup> Includes sub agencies (in 1955, 708 and in 1960, 756) in Canada for receiving deposits.

For example, changes in the *Bank rate* are relatively ineffective as a policy instrument because the chartered banks do not borrow from the Bank of Canada and no fixed relationship exists between Bank rate and commercial rates as in Great Britain. In addition, its efficacy as a "signal" depends on the ability of the central authorities to make other instruments bite. The crucial point is that the Canadian chartered banks are strong enough to carry out policies which virtually keep them out of the reach of the lending powers of the central bank. Doubtless, if banks were numerous and less powerful they would not be able to maintain sufficient liquidity under all circumstances. Smaller banks would have to rely occasionally on the lending powers of the central bank thereby increasing the potentiality of the Bank rate as a monetary weapon. In these circumstances, if there is to be reliance on improving the efficacy of the Bank rate as an operative weapon, the central bank authorities should favour a policy of reducing concentration in the commercial banking sector. Therefore, they should not favour creating a smaller number of oligopolists and consequently should oppose the mergers.

Changing the *reserve requirements* has likewise been ineffective. Until 1954 it was fixed, but its daily method of calculation forced the banks to actually keep a reserve far above the legal requirement. This is some measure of the extent to which the banks were able to take a "liquid margin", preserve their independence and still make money. From 1954 to 1967 the reserve requirement was in principle variable but the central authorities chose not to vary it. Presumably because other weapons were more effective. However, if an attempt were to be made to make the requirement more effective it would seem reasonable to want banks working as close to the requirement as possible. This is likely to be met *a priori* by a larger number of banks and therefore once again constitutes a case against concentration by merger.

With *open market operations* the presumption is that small numbers of banks make such operations that much more difficult. In the traditional explanation of the mechanism of open market operations, the market result is to change chartered bank reserves so forcing a change in lending policies (quantity of loans and interest rates) of the banks. If the banks are profit maximizers, and if they disagree with the policies of the central bank, they will try to resist the change by limiting the impact of those policies.

*A priori* it seems reasonable that large powerful banks, with large liquid reserves and free of debt, would be better able to resist than smaller banks who often exercise their borrowing privilege and whose liquid-reserves are usually just adequate. Certainly the Canadian banks ability to resist central bank operations in the mid 1950's led to the introduction of the secondary reserve requirement the purpose of which was to stop them "running off" their liquid assets. Therefore, once again it appears that the effectiveness of open market operations would be improved by an anti-merger policy.

Thus far, the case for a more oligopolistic banking structure being a positive aid to monetary policy is quite weak. However, with *moral suasion* a more concentrated banking structure may in fact be an advantage and in Canada moral suasion is probably the prime instrument of monetary policy.<sup>28</sup> Moral suasion necessitates contact between the central bank authorities and the chartered banks and where the number of banks is small this is obviously much easier. Therefore, if moral suasion is a function of the number of banks then concentration by merger may improve the effectiveness of moral suasion as a discretionary tool.

However, this raises four further issues. First, although the smaller the number of banks, the easier it should be to get moral suasion to work, what the *critical* number of banks must be is conjecture. For instance, did the reduction in the number of banks, from 9 to 7 (discounting Barclays for the moment) really improve the ability of the Bank of Canada to make moral suasion work?

Second, the above argument only makes a strong case for a concentrated banking structure when moral suasion is the prime

<sup>28</sup> As defined by the Bank of Canada moral suasion refers to "a wide range of possible initiatives by the central bank designed to enlist the co-operation of commercial banks or of other financial organizations in pursuit of some objective of financial policy". More specifically, "the term is used to mean efforts by the central bank to achieve, through suggestion, discussion and persuasion, specific changes — sometimes temporary — in policies or practices of private financial organizations". *Submissions by the Bank of Canada to the Royal Commission on Banking and Finance*, May 31, 1962, pp. 37-38.

A partial list of successful specific initiatives is as follows: limit on government security holdings of chartered banks to 90 per cent of Canadian personal savings deposits (1946); limits on term loans (1948, 1951, 1955, 1958, 1959), limits on loans (1951); minimum liquid asset ratio (1955-67); limit of lending to consumer finance companies (1956); accommodation to U.S. subsidiaries switching because of guidelines (1965); agreement on maximum rates on term deposits (1967); ceiling on "swaps" (1969). See, *Evidence of the Governor Before the Royal Commission on Bank and Finance* (Ottawa: Bank of Canada, May 1964), pp. 53-54, and various *Annual Reports of the Bank of Canada*.

instrument of monetary policy. However, there is no reason to believe that moral suasion is the best or most efficient monetary instrument. Indeed, it could be argued that moral suasion was originally used because the small number of banks made other instruments ineffective, while its continued use has been due to banking becoming even more powerful and so rendering alternative instruments even more ineffective. Thus, the choice of instrument is partially determined by the market power of the banking system (vis-à-vis the central bank) rather than solely by any notion the Bank of Canada may have of the superiority or otherwise of alternative monetary weapons.

Clearly, a case can be made for this hypothesis. Consider the following sequence. In the 1940's the banks' ability to retain a reserve-ratio considerably in excess of the legal reserve requirement minimized the effectiveness of monetary policy. While in the 1950's their willingness and ability to run off their liquid assets again rendered traditional monetary action (aside from moral suasion initiatives) ineffective. Thus, in 1961 the Governor of the Bank of Canada conceded that its cash management policies have little impact on the chartered banks' lending policies.<sup>29</sup> In the 1960's, if the Bank has not turned monetary policy over completely to the banks, then it has at least placed itself in a position where the only pressure it can bring to bear on the banking system is of an increasingly subtle nature.

That is, apparently the Bank of Canada bases its discretionary action on: signals generated by nominal interest rates and their predicted impact on "credit conditions"; and the desire to minimize the cost of, and maintain a stable market for, government debt.<sup>30</sup> One result is that the money market is now shared almost entirely by the banks and the Bank of Canada. While this may have minimized the cost of new issues it has also resulted in the Bank having to generate sufficient reserves for the banking system to absorb the debt. Hence, "the Bank" appears to "validate the chartered bank decisions regarding the level of deposit liabilities" and "thus a policy of maintaining interest rates at a given stable

<sup>29</sup> "Chartered bank lending policies appear to be rather insensitive to cash management except when the banks regard their holdings of liquid assets and government bonds as being close to minimum levels". *Ibid.*, p. 9.

<sup>30</sup> T. J. COURCHENE, "Recent Canadian Monetary Policy: An Appraisal", *Journal of Money Credit and Banking*, Vol. II, 1970, pp. 40-41.

level requires that the Bank accede to chartered bank reserve needs and implies that the supply of money will be demand determined".<sup>31</sup> Therefore, if one believes that monetary policy is initially transmitted by changing the money supply, then the chartered banking system determines monetary policy.

The Bank of Canada's version of the way monetary policy works is to concentrate on the asset side of the banks' balance sheet, specifically attempting to alter the liquidity of bank assets and thus influence loan behaviour. This means, "if the Bank of Canada wishes to pursue a restrictive policy it goes about it in a very *indirect* manner by engaging in reserve management that serves to reduce bank liquidity in order to make it in the chartered banks *own* interest to pursue restraint".<sup>32</sup> Which again may be some gauge of the power of the banking system. However, what it does for monetary policy is even more interesting. In the future monetary policy means either: changing the liquid asset ratio (as in 1969), engaging in a diluted ("bills only") form of open market operations (because of the necessity of maintaining a stable money market), shifting government deposits (a form of moral suasion becoming increasingly important), or other unspecified forms of moral suasion (agreement on maximum interest to be paid on term deposits in 1967, ceiling on swap deposits in 1969, etc.).

In this context moral suasion will probably be even more important in the future. Therefore, if it is the most effective means of monetary policy then perhaps there is a case for allowing concentrations by merger providing that "number" of banks is a crucial minimum condition for moral suasion. But if moral suasion is merely "forced" on the central bank by the market power of the banking system, then surely the logical argument is for either complete "nationalization" (the monopoly solution), some form of public utility regulation, or an attempt to reduce the market power of the banks perhaps by encouraging entry.

Third, the choice of instrument is a function not only of the market power of the banking system but also of the willingness of the monetary authorities to use alternative instruments. Acheson and Chant have advanced the hypothesis that the Bank uses moral suasion because this instrument is the one which best allows it to

<sup>31</sup> *Ibid.*, pp. 41 and 44.

<sup>32</sup> *Ibid.*, p. 42.

maximize its own private utility function.<sup>33</sup> That is, one of the Bank's goals as a government bureau is self preservation. To maximize its chances of survival it will use those tools which provide it with the greatest immunity from critical investigation. This implies a preference for covert rather than overt tools. Hence, the use of moral suasion.

If this is correct it provides an explanation of why the Bank might actively *encourage* concentration in the commercial banking system. However, this cannot be considered to be in the "public interest" when all that increased concentration does is to perhaps improve the moral suasion mechanism merely for the purpose of aiding the Bank of Canada to maximize its own (as distinct from the "public") self interest. At the same time increased concentration may stunt the effectiveness of alternative instruments.

Finally, we have assumed thus far that moral suasion is effective primarily because all the examples we have is where moral suasion worked. This does not necessarily mean that the banking system has always acceded to the Bank's requests. Moral suasion must imply that if the Bank's wishes are not carried out the Bank has other means of forcing the banking system to comply.<sup>34</sup> However, given the current state and operation of monetary policy one wonders what is the implicit cost the banking system extracts from the central authorities for letting moral suasion work? Is it for example central bank validation of commercial banks demand for reserves? If so, monetary policy ceases to be a discretionary weapon.

In summary, we can say that from the point of view of the traditional monetary tools, open market operations, the reserve requirement, and the bank rate, the case for increased concentration

<sup>33</sup> K. ACHESON and J. CHANT, "The Bank of Canada: A Study in Bureaucracy" (mimeo), paper presented at the annual meetings of the Canadian Economics Association, June 1970.

<sup>34</sup> The Bank of Canada has never commented on its power vis-à-vis the banks. However, in a similar merger situation, with a similar banking system, with similar methods of control and with similar bank behaviour characteristics, the Governor of the Bank of England "conceded that the combined bank that would be created by the mergers would be more powerful than any banks in the past had been and that if it ever had a chairman who did not like co-operating with the authorities it could be tiresome. But the banks are realistic and they know the powers that the Treasury and the Bank have... Indeed, for practical purposes there would be advantages for the Bank in having only three large banks to deal with". See, Monopolies Commission, *Barclays Bank Ltd., Lloyds Bank Ltd., and Martin's Bank Ltd.; A Report on the Proposed Merger* (London: H.M.S.O., 1968), p. 41. One wonders if the Bank of Canada believes the same thing.

through merger is very weak. Only with moral suasion is there a case but even here it is highly debatable. And here the social costs appear to substantially outweigh the social benefits.

#### Part IV. Conclusion

In summary, we can conclude that the mergers did not produce sufficient social benefits to offset the social costs associated with increased market power. The net effect of the mergers was not welfare increasing and therefore they were not in the public interest.

This conclusion, of course, runs counter to that of the governments which allowed the mergers to be consummated. The interesting question is why this should be so? Although we do not have any firm evidence we can speculate that the cause of the difference potentially lies in two areas. First, the criteria adopted in this paper to assess the public interest may be different from the criteria applied by government. Second, the criteria may be the same in both instances but either the evidence adduced was different or else it was interpreted differently.

Taking the question of differing criteria first, we are hard pressed to produce criteria which differ significantly from the ones we have adopted. The micro criteria adopted in Part II are those which are usually applied in evaluation of mergers. The criterion in Part III is unique to the banking industry. Therefore, we cannot believe that any objective criteria adopted by the government could be seriously different from the ones we have applied.

Thus, the differences in conclusion must emanate from differences in evidence or interpretation. Perhaps, for example, there are significant scale economies in this industry. If there are then the welfare calculation would obviously be different. However, the banks public statements suggest otherwise, empirical evidence is against it, and if it is true it raises some disturbing questions about the level of bank prices since the smaller, less efficient banks charge the same prices as the large banks.

With regard to interpretation there are two possibilities. On the one hand, the government may regard the diminution of competition as irrelevant because the banks are a regulated industry. But government regulation has never imposed restrictions on service charges or interest rates paid on deposits; and the ceiling on loan

rates, which has now been lifted, was seldom an effective ceiling. If competition is not allowed to determine these prices, we know that they will be fixed by the banks acting as a cartel. The alternative to competition is not in the public interest.

On the other hand, the government may regard increased concentration in banking as necessary for the optimum working of moral suasion. If this were the case, it raises a number of important issues for monetary policy, and for policies designed to promote better resource allocation.

Such speculations, of course, do not provide a satisfactory answer. What they do emphasize is the extraordinary lack of information in this area. The government never in any sense justified its decisions in allowing the mergers to proceed. From the public policy point of view it is hardly good enough to say the mergers were in the public interest but make no attempt to specify the criteria involved in reaching this verdict.

J. C. H. JONES and L. LAUDADIO

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## APPENDIX

TABLE I\*

### BANK MERGERS<sup>1</sup> IN CANADA 1867-1971

Operating Bank, 1971 (Date of Charter)	Banks Amalgamated and Date <sup>2</sup>	Banks Absorbed and Date <sup>2</sup>
Bank of Montreal (1822)		Exchange Bank of Yarmouth (1903) Peoples Bank of Halifax (1905) Peoples Bank of New Brunswick (1907) The Bank of British North America (1918) The Merchants Bank of Canada (1922)  Commercial Bank of Canada (1868) <sup>3</sup> The Molsons Bank (1925)
Bank of Nova Scotia (1832)		Union Bank of Prince Edward Island (1883) Bank of New Brunswick (1913)  The Summerside Bank (1901) <sup>3</sup> The Metropolitan Bank (1914) The Bank of Ottawa (1919)
Toronto-Dominion Bank (1955)	Bank of Toronto (1955) Dominion Bank (1955)	
Canadian-Imperial Bank of Commerce (1961)	Canadian Bank of Commerce (1961)  Imperial Bank of Canada (1961) Barclays Bank (Canada) (1956)	The Gore Bank (1870) The Bank of British Columbia (1900) Halifax Banking Company (1903) Merchants Bank of Prince Edward Island (1909)  Eastern Townships Bank (1912) Bank of Hamilton (1923) The Standard Bank of Canada (1928)  Western Bank of Canada (1909) <sup>3</sup> The Sterling Bank of Canada (1924) <sup>3</sup> Niagara District Bank (1875) The Weyburn Security Bank (1931)



Operating Bank, 1971 (Date of Charter)	Banks Amalgamated and Date <sup>2</sup>	Banks Absorbed and Date <sup>2</sup>
Royal Bank of Canada  Banque Canadienne <sup>4</sup> Nationale (1873)  La Banque Provinciale du Canada (1861)  Mercantile Bank of Canada (1953)  Bank of British Columbia (1967)		The Union Bank of Halifax (1910) The Commercial Bank of Windsor (1902) <sup>3</sup> The Traders Bank of Canada (1912) The Quebec Bank (1917) The Northern Crown Bank (1918) The Crown Bank of Canada (1908) <sup>3</sup> Union Bank of Canada (1925) United Empire Bank (1911) <sup>3</sup>  La Banque Nationale (1924)

\* *Proceedings of The Standing Committee on Finance, Trade and Economic Affairs, Decennial Revision of the Bank Acts*, Vol. II, 1966-67, pp. 2179-2181.

<sup>1</sup> In addition to the mergers shown in the table: in 1876 the Consolidated Bank of Canada, which failed in 1879, absorbed the City Bank and Royal Canadian Bank; the Home Bank of Canada, which failed in 1923, absorbed La Banque Internationale du Canada in 1913.

<sup>2</sup> Since 1900 the dates are those of the authorizing Order in Council.

<sup>3</sup> Previously absorbed by prior bank in listing.

<sup>4</sup> Changed to its present name from Banque d'Hochelaga in 1924.

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