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Communiqué

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High Canadian bank profits the result of cost efficiency, securities businesses, foreign operations, says C.D. Howe Institute study

Canada's major banks are among the most profitable in the world, says a C.D. Howe Institute Commentary released today. The study concludes that the banks derive their high earnings from cost efficiency, solid revenues in traditional banking activities, and much higher revenues in the 1990s from securities businesses and foreign operations. In fact, the study says, in 1996 and 1997 almost half the earnings of some major Canadian banks were from foreign operations, and earnings from nontraditional lines of business were almost as high as from traditional banking operations.

The study, *Money in the Bank: Comparing Bank Profits in Canada and Abroad*, was written by R. Todd Smith, Professor of Economics at the University of Alberta, and is the latest in a special series of C.D. Howe Institute publications called "The Banking Papers."

The major banks in Canada and other mainly English-speaking countries are the most profitable in the developed world, Smith notes, and in recent years the major Canadian, US, and British banks have enjoyed record profits.

Smith observes that the profitability of Canadian banks does not arise from large spreads between interest rates charged to (prime) borrowers and those paid on time deposits. For most of the 1990s, these spreads have been lower in Canada than in any other major industrialized country. Smith cautions, however, that with the data that are available, it is not possible to assess the competitiveness of interest rates on other types of deposits or on loans that are not granted at the prime rate. In addition, whereas deposit service charges at US banks have been stable in the 1990s, they have fallen sharply at Canadian banks.

Smith also notes that, despite frequent suggestions that Canadian banks may be reaping high profits by charging uncompetitive prices for the financial services they provide, deposit service charges are, in fact, much lower in Canada than in the United States — although they are higher than in many European countries.

The study concludes that there does not appear to be any relationship between a bank's profitability and its equity capital, either in Canada or in other countries. That makes one ques-

tion the argument heard in Canada and other countries that bank mergers are necessary to sustain bank profitability, Smith says. It is also noteworthy that, in most countries where banks have for many years been able to carry on a wider variety of businesses than they can in Canada, they are not especially profitable.

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Communiqué

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Selon une étude de l'Institut C.D. Howe, les bénéfices élevés des banques canadiennes sont imputables à la rentabilité et aux activités dans le domaine des valeurs mobilières et à l'étranger

Les principales banques canadiennes figurent parmi celles dont la rentabilité est la plus élevée dans le monde, affirme un Commentaire de l'Institut C.D. Howe publié aujourd'hui. L'étude conclut que l'on peut attribuer le résultat net élevé des banques à la rentabilité, à une performance solide des activités bancaires traditionnelles et à une hausse considérable, au cours des années 90, des recettes des activités liées aux valeurs mobilières et aux bureaux à l'étranger. En fait, indique l'étude, près de la moitié des bénéfices de certaines des grandes banques canadiennes était imputable, en 1996 et en 1997, aux activités menées à l'étranger, tandis que le résultat net des secteurs non traditionnels était presque aussi élevé que celui des activités traditionnelles.

Intitulée *Money in the Bank: Comparing Bank Profits in Canada and Abroad (De l'argent à la banque : comparaison des bénéfices des banques au Canada et l'étranger),* l'étude est rédigée par R. Todd Smith, professeur d'économie à l'Université de l'Alberta. Elle représente le tout dernier volet de la série de documents de l'Institut C.D. Howe intitulée « Les cahiers bancaires ».

Selon l'auteur, les principales banques canadiennes et celles de pays à prédominance anglophone produisent les bénéfices les plus élevés des pays développés; en fait, au cours des dernières années, les principales banques canadiennes, américaines et britanniques ont produit des bénéfices records.

M. Smith note que la rentabilité des banques canadiennes ne résulte pas de l'écart entre les taux d'intérêt perçus auprès des emprunteurs de premier ordre et ceux qui sont versés sur les dépôts à terme. En fait, cet écart a été plus faible au Canada que dans tout autre grand pays industrialisé durant la majeure partie des années 90. L'auteur prévient cependant que compte tenu des données qui sont disponibles, il est impossible d'établir la compétitivité des taux d'intérêt versés sur d'autres types de dépôt ou perçus sur les emprunts qui ne sont pas assortis du taux préférentiel. D'autre part, alors que les frais d'administration des comptes des banques américaines sont restés stables tout au long de la décennie, ceux des banques canadiennes ont accusé une baisse appréciable.

En dépit des maintes suggestions à l'effet que les banques canadiennes réalisent des bénéfices élevés en percevant des prix non concurrentiels sur les services financiers offerts, les frais d'administration sont en fait inférieurs au Canada à ce qu'ils sont aux États-Unis, souligne l'auteur, bien qu'ils soient plus élevés que ceux de nombreux pays européens.

En conclusion, l'étude indique qu'il ne semble pas y avoir de rapport entre la rentabilité d'une banque et ses capitaux propres, que ce soit au Canada ou ailleurs. Par conséquent, affirme l'auteur, ceci met en doute l'argument entendu au Canada et dans d'autres pays selon lequel le fusionnement des banques est nécessaire pour assurer leur rentabilité. Il importe également de noter que dans la plupart des pays où les banques mènent depuis plus longtemps que les banques canadiennes des activités plus diversifiées, celles-ci ne produisent pas des bénéfices particulièrement élevés.

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Money in the Bank:

Comparing Bank Profits in Canada and Abroad

by

R. Todd Smith

Since the early 1980s, the major Canadian banks have become more profitable and, together with the major banks in the other mainly English-speaking countries, they are among the most profitable in the developed world. In fact, in recent years the major banks in Canada, the United States, and the United Kingdom have had record profits.

The sources of the profitability of Canadian banks are cost efficiency, solid revenues in traditional banking activities, and much higher revenues in the 1990s from securities businesses and foreign markets. In 1996 and 1997, almost half the earnings of some major Canadian banks were from foreign operations, and earnings from nontraditional lines of business were almost as high as from traditional banking operations.

There is little evidence that the profitability of Canadian banks is due to large spreads between interest rates charged to (prime) borrowers and those paid on time deposits. In fact, for most of the 1990s these spreads have been lower in Canada than in any other major industrialized country. The available data do not, however, allow one to assess the competitiveness of interest rates on other types of deposits and on loans that are not granted at the prime rate. Notably, deposit service charges are much lower in Canada than in the United States, although they are higher than in many European countries.

There does not appear to be any relationship between a bank's profitability and its equity capital, either in Canada or in other developed countries. It is also noteworthy that, in most countries where they have been able to carry on a wide variety of businesses for many years, banks are not especially profitable.

Main Findings of the Commentary

- From 1981 to 1995, the Canadian banking system was among the three most profitable of 16 developed countries.
- The most profitable banks in the developed world during the 1990s have been those in the mainly English-speaking countries — the United States, the United Kingdom, Canada, New Zealand, and Australia.
- In 1996 and 1997, Canadian banks made record profits; so did the major banks in the United Kingdom and the United States.
- Canadian subsidiaries of foreign banks have not been very profitable in the 1980s and 1990s.
- The profitability of Canadian banks is due to a combination of cost efficiency, solid revenues in traditional banking activities, and much higher revenues in the 1990s from expansion into new lines of business and into foreign markets.
- Deposit service charges as a percentage of total bank deposits are about half as high at Canadian banks as at their US counterparts, but they are considerably higher than those at many European banks. Since 1993, service charges have fallen sharply in Canada.
- The spread between the prime loan rate and time deposit rates in Canada has been the lowest in the Group-of-Seven countries for most of the 1990s. It is not possible from the available data to assess spreads based on other deposit rates or on loan rates charged to non-prime borrowers.
- There is no obvious relationship between a bank's profitability and its equity capital.
- In most countries where they have long been allowed to engage in many different kinds of business, banks are not particularly profitable.
- When profitability is measured by return on assets, US banks were more profitable than Canadian banks from 1981 to 1995; when it is measured by return on equity, Canadian banks were more profitable.
- In 1996 and 1997, when Canadian bank profits were at record levels, earnings were almost as high from foreign as from domestic operations, and new lines of business accounted for almost as much income as traditional banking operations.

A longstanding concern of some Canadians is that the banking industry in this country is dominated by a handful of large banks. With just five or six of them, the argument goes, the banks may be reaping high profits by charging uncompetitive prices for the financial services they provide. This argument has been around for a long time, but it has been stoked recently by a string of record profits by the major banks and by two recently discarded merger proposals.

As is often the case with complicated policy issues, it has become increasingly difficult to differentiate facts from fiction in the debate about policy toward the major banks. One way of clarifying the debate is to determine whether there is any evidence that the major banks have market power. That is very difficult to do, however, because there are so many financial services markets, each dependent on geographic location and the type of financial service. So, for example, the market for commercial loans to large corporations may have very different characteristics than the market for personal loans in a small town with only one bank.

This *Commentary* does not deal directly with the competitiveness of markets for financial services in Canada. Instead, it examines bank profitability with the aim of determining whether Canadian banks have been unusually profitable and what their sources of profitability have been. Of course, the trick is to define what level of profitability is "unusual." That is typically done by comparing historical rates of bank profitability in Canada with those in other developed countries, and in this paper the group includes all the major developed countries and most of the smaller ones. These banking systems vary greatly: some (as in Canada) are concentrated, others have thousands of banks, and some have "universal" banks (often large) that have long offered a wide range of financial services, as the major Canadian banks now do.

The measures of profitability used in much of the media commentary on the profitability of the major Canadian banks are not very informative. That each of the five largest Canadian banks has posted profits of more than $1 billion in the past few years tells us little, because these banks are very large in relation both to firms in many other Canadian industries and to many banks in other countries. In the United States, for example, where there are about 9,000 banks, the average bank will have a much smaller profit in dollar terms but could, in principle, be fundamentally more profitable than a large Canadian bank when differences in bank size are accounted for. To illustrate, if Canada were to have roughly the same number of banks per resident as the United States does, the major Canadian banks would have to be split up into about 900 smaller ones. If each of these smaller banks booked profits of, say, $8 million, they would be more profitable, on a size-adjusted basis, than the major Canadian banks were in 1998.

This *Commentary* studies indicators of bank profitability that take bank size into account. The analysis does not shed light directly on the relative competitiveness of financial services markets in different countries, but it does illuminate an important element of that wider debate by putting the profitability of Canadian banks into perspective and highlighting the sources of Canadian bank profits. In turn, this information is useful for thinking about more difficult issues, such as the competitiveness of markets for financial services in Canada and appropriate policy toward the major banks.

The *Commentary* has two main findings. First, the major Canadian banks have generally improved their profitability since the early 1980s and, with their counterparts in the other mainly English-speaking countries, are among the most profitable banks in the developed world. Second, the profitability of Canadian banks derives from a combination of historically solid revenues in traditional banking ac-

tivities, sharply increased revenues in the 1990s from expansion into new lines of business and foreign markets, and the fact that Canadian banks are reasonably cost efficient in the range of business lines in which they are currently involved. During the record-setting years of 1996 and 1997, earnings from foreign operations alone accounted for almost half of some of the major banks' total earnings, and income from nontraditional lines of business was almost as important as income from traditional banking operations.

At a somewhat deeper level of analysis, there is little evidence that the major Canadian banks have achieved their relatively high rate of profitability as a result of large spreads between loan and deposit rates. This finding must be qualified, however, by the fact that it is based on the analysis of prime loan rates and time deposit rates. Spreads between other deposit and loan rates — for which cross-country data are not available — could yield different conclusions. Moreover, although deposit service charges have been a significant source of income for Canadian banks in recent years, they are low compared with those of US banks (but higher than those of many European banks).

The *Commentary* proceeds as follows. In the first section, I discuss my approach to assessing bank profitability and describe the sources of data on bank profitability in different countries. In the second section, I consider the profitability of Canadian banks in both a historical and an international context. In the third section, I delve more deeply into bank profitability to identify its sources in Canada and other countries. In the final section, I offer some concluding remarks.

Measuring Bank Profitability

The Business of Banking

Banks are like any other business enterprise in that they combine factors of production to produce an output demanded by households and other firms. The distinguishing characteristic of banking is that banks are simply a conduit, or intermediary, in the flow of financial resources in the economy. Just as the profitability of a retailer depends on the spread between wholesale and retail prices, the profitability of banks hinges on their being able to charge more for the financial services they provide than they must pay for the financial services they use to fund their activities.

The traditional core business of banks is asset transformation: banks accept short-term deposits from households and firms that value the liquidity of bank deposits, and lend these funds to households and firms that require generally longer-term financing. The profitability of this activity therefore hinges on the spread between loan and deposit rates. Any bank that expects to stay in business must charge higher rates for loans than it pays on its deposits — that is, it must earn a positive "spread." This is not as straightforward as it sounds, however, because of the mismatch between the maturities of loans and deposits. If interest rates unexpectedly increase — as happened in Canada in the early 1990s, for example — a bank will earn less on outstanding loans and its profitability will diminish.

In Canada and most other developed countries, the business of banking has become quite a bit more sophisticated than accepting deposits and issuing loans; in fact, banks have greatly expanded the menu of financial services they offer. This has happened because technological advances have made it easier for financial institutions to unbundle and repackage financial risks and because deregulation of markets for financial services has permitted banks to enter the businesses of fund management, securities brokerage, investment banking, trust and custodial services, and markets for insurance products.[1] In Canada, the most significant remaining restrictions on the chartered banks are that they may not use their

branch networks or consumer databases to target insurance sales, and that they may not offer lease financing for car purchases. Some remaining restrictions on Canadian banks may be lifted in the next round of revisions to the *Bank Act*.

Measures of Bank Profitability

The conventional definition in accounting income statements of after-tax profit, or "net income," of a banking institution is

net income = (net interest income) + (other income) – (operating expenses) – (provisions) – (income taxes).

The sum of net interest income and other operating income is referred to as the bank's gross income, and the sum of the last three items in this definition is total costs.

"Net interest income" (often simply called "spread income"), defined as interest income less interest expenses, historically has been the mainstay of commercial banking.

"Other income" captures income from some traditional banking activities, such as fees on loans and deposits, as well as income from nontraditional banking activities (insurance, fund management, brokerage fees, investment banking, trust services, and so forth).

The main components of "operating expenses" are staff costs, rent and building expenses, supplies, and non-income taxes.

"Provisions" is an accounting device by which a bank's actual and prospective losses on its assets are "provided for" out of current income by setting aside funds to cover these losses — that is, a mechanism for writing down the book value of assets to reflect their market value.

The final expense item, "income taxes," usually does not include the non-income taxes that banks pay, which are included in operating expenses.

Although the first and third components on the right side of the definition are the usual ones associated with banking revenues and costs, some of the others have become more important as banks have begun to offer more financial services. Indeed, net interest income and operating expenses are reasonably stable, and the large swings in bank profitability that often occur at business cycle frequencies are due to large movements in other operating income and loan-loss provisions.

As already noted, it is not particularly informative to treat the net income of a bank or a banking industry as a measure of profitability. To make meaningful comparisons of profitability, differences in the sizes of banks and banking industries must be taken into consideration. There are two conventional measures of bank profitability: return on assets (ROA) and return on equity (ROE) (see Box 1). These measures simply divide before-tax or after-tax profit by the bank's total assets (ROA) or total equity capital (ROE). Usually, the denominator in these measures is "average assets" or "average equity," which is an average of bank assets or equity over the relevant reporting period. These measures are widely used by the major international credit-rating agencies, by bank analysts and investors, and by financial supervisors and regulators. In this paper, I attempt to put the profitability of Canadian banks into perspective by applying these conventional profitability measures to banks in a variety of countries.

Before turning to this analysis, I should say a word about how accounting principles affect profitability measures, since cross-country and historical analyses of bank profitability can be hindered by the differences in the accounting principles followed at various times and in different countries. The more important problems here are related to the revaluation of assets across time, the classification of income from banks' securities positions, and regulations for provisioning against impaired loans.

Box 1: *ROA versus ROE as a Measure of Bank Profitability*

Return on equity and return on assets are usually considered to be complementary indicators of bank profitability. There are at least two reasons, however, to think that ROE is superior.

First, if (as in this *Commentary*) one is interested in comparing bank profitability across countries, then cross-country differences in inflation ought to be accounted for in profitability indicators. It is straightforward to adjust ROE for inflation, but ROA is usually not adjusted for inflation because, unlike ROE, the return on assets does not correspond to the market rate of return on a financial asset. Since the total assets of banks and banking industries are many times larger than their equity capital, adjusting ROA for inflation usually produces a negative ROA. The fact that ROA is not adjusted for inflation can yield high ROA measures in countries with high inflation. For instance, countries that had relatively higher inflation in the 1980s (such as Spain, Sweden, Italy, and Finland) had respectable-looking ROAs, but inflation-adjusted ROE measures for these countries were low (often negative).

The second reason that ROE may be a better profitability indicator than ROA is particularly relevant to Canadian banks. In recent years especially, ROA has become less reliable as an indicator of profitability because of the effect of the increased securities markets activities of the major Canadian banks. Since 1997, for example, the balance sheets of Canadian banks have shown gross unrealized gains and losses on derivatives, rather than simply their net position. This has caused their (reported) balance sheets to grow significantly larger. Similarly, the securities subsidiaries of the major banks have large matched-repo books (that is, similar amounts of repurchase and reverse repurchase agreements), causing their balance sheets to balloon by as much as 25 percent (Fitch-IBCA Inc. 1997).

An example of the first difficulty is that, in Germany and Japan, banks are permitted to carry assets at historic cost for long periods of time, whereas in Canada, the United States, and the United Kingdom, asset values are generally "marked to market" in bank accounting statements. This implies that, in countries with rigid historic cost-accounting systems, banks' revaluation gains or losses on investments (particularly securities holdings) do not show up in reported net income until the banks choose to realize them. Consequently, the reported profitability measures understate actual net income in some years and overstate it in others.

Regarding the classification of income from securities holdings, the problem is that this type of income is recorded as net interest income in some countries and as other operating income in other countries. In Canada before 1997, for example, gains and losses on securities were recorded as net interest income; since 1997, they have been recorded as other operating income (in line with current US practice). Although this problem is not important for studying ROA or ROE across countries or periods, since profit should be identical under both reporting methods, it can be important when one studies the components of profit.

Japan offers an example of the third difficulty. There, the reported magnitude of bad loans has been widely viewed for several years as significantly understated. The reason is that, under Japanese accounting rules, banks have considerable leeway in recognizing losses or potential losses on loans. Sooner or later, of course, losses must show up in net income; the only question is when. The main consequence for an examination of profitability is that, for some period of time, provisions can be much lower and reported net income much higher for banks that operate under such a system than for banks that operate in a country with stricter loan classification and provisioning rules. This is why banking experts have suggested that Japan adopt a US-style loan classification system, including rigid rules for classifying as-

sets (performing, substandard, doubtful, and so on) and associated rules for provisioning against bad loans.

Although differences in accounting principles and reporting requirements cause difficulties in *any* study of bank profitability, either within or across countries, in this paper I reduce such difficulties in two ways. First, I look at average bank profitability over nearly two decades, thereby reducing many of the problems that arise when banks can choose when to report some types of income or expenses. Second, I use two sources of bank profitability data that are intended to be fairly comparable across countries. The first source is a cross-country database maintained by the Organisation for Economic Co-operation and Development (OECD), constructed from data supplied by national authorities in OECD countries according to a common reporting format. The second source is a database of individual bank annual reports maintained by Fitch-IBCA Ltd., the world's largest bank credit rating agency.

The Profitability of Banks across Countries

My analysis of the profitability of Canadian banks compared with that of banks in other countries involves three steps. First, I study the relative profitability of banking industries in a wide range of developed countries during the 1981–95 period. I then narrow the focus to the profitability of large banking institutions in the major developed countries since 1990. Finally, I consider whether equity market returns on bank stocks agree with the conclusions from the cross-country analysis of bank profitability.

The Profitability of Banking Industries

I begin by considering after-tax ROA and ROE (adjusted for inflation) for banking systems in 16 developed countries during the 1981–95 period.[2] By either of these measures, the Canadian banking system ranked among the three most profitable during the entire 15-year period and in two of the three five-year subperiods (see Tables 1 and 2, which show the three most profitable banking systems in bold-face type). Only in the 1990–95 period was the Canadian system not among the top three most profitable (although it did rank in the top five) — a period marked by sharp increases in Canadian short-term interest rates and a difficult economic environment. It is also noteworthy that, compared with those of other countries, the Canadian banking system appears to show a more distinct trend toward improved profitability, or at least toward consistently strong profitability.[3]

In contrast to the record of domestic banks, the profitability of Canadian subsidiaries of foreign banks has been lackluster. Part of the explanation is that, over the 1982–95 period, these subsidiaries had about 50 percent more equity capital (relative to assets) than domestic banks. The *Bank Act* requires foreign banks to establish separately capitalized subsidiaries in Canada rather than the generally less costly alternative of establishing Canadian branches. The cost of this requirement has been a major complaint of foreign banks that have sought to enter the Canadian market.

Beyond this, a host of accounting factors matter greatly for the reported profitability of subsidiaries of foreign banks. Specifically, while the profitability measures I study in this paper are based on consolidated accounting statements — that is, accounting statements that include both the domestic and foreign activities of banks — the profitability measures for Canadian subsidiaries of foreign banks capture only the accounts of the subsidiaries. Such unconsolidated accounting statements can be manipulated by shifting income between the subsidiary and the parent.

Table 1: ***After-Tax Return on Assets of Banks in Selected OECD Countries, 1981–95***

	1981–85	1986–90	1991–95	Overall
	(average annual percentage return)			
Australia	—	**0.63**	0.54	—
Belgium	0.19	0.20	0.21	0.20
Canada[a]				
Domestic	**0.52**	**0.63**	0.59	**0.59**
Foreign	0.36	0.30	–0.09	0.18
Finland	0.33	0.37	–1.29	–0.20
France[b]	—	0.20	–0.02	—
Germany	0.27	0.33	0.31	0.30
Italy[c]	0.47	0.56	0.24	0.41
Japan	0.22	0.25	0.01	0.16
Netherlands[d]	—	0.59	0.46	—
New Zealand[e]	—	0.57	**0.72**	—
Norway	**0.59**	–0.21	–0.64	–0.09
Spain	0.48	**0.88**	0.57	**0.64**
Sweden	0.22	0.33	**0.83**	0.46
Switzerland	0.47	0.49	0.44	0.47
United Kingdom[c]	0.51	0.44	0.48	0.47
United States	**0.69**	0.47	**0.99**	**0.72**
Average	0.41	0.41	0.25	0.33
Average for English-speaking countries	0.57	0.55	0.66	0.59

Notes: The bold-face entries indicate the three most profitable banking systems in each period. Return is defined as net income divided by average assets. For Canada and Australia, the data are for fiscal years (ending October 31 of the same year and June 30 of the following year, respectively). For Canada, "domestic" refers to all domestic commercial banks; "foreign" includes Canadian subsidiaries of foreign commercial banks.

[a] First date is 1982.

[b] First date is 1988.

[c] First date is 1984.

[d] First date is 1987.

[e] First date 1990.

Source: OECD 1997.

The US banking system, which is often used as a benchmark for comparing the profitability of Canadian banks, has on the whole been more profitable than the Canadian system by the ROA measure, but Canadian banks have been more profitable by the ROE measure. To a considerable extent, the difference is due to the fact that, over the 1982–95 period, US banks had 31 percent more equity capital (as a percentage of average assets) than Canadian banks did. Indeed, the 16 banking systems considered here had an average of 11 percent more equity capital than Canadian banks did over the study period. A possible reason for this is the capital taxes that are imposed on Canadian banks. In the United States, in contrast, only a few states have capital taxes, and among the other Group-of-Seven (G-7) countries, only Germany had a national capital tax (now abolished).[4]

Two other implications of the cross-country profitability measures of banking systems are noteworthy. First, most countries that have allowed banks to engage in a wide variety of business activities for a long time (such as Germany, Switzerland, the Netherlands, and Japan) — in many cases even permitting banks to hold large equity stakes in nonfinancial firms — do not appear to have produced particularly profitable banks. Arguably, one reason unrestrictive banking licenses in these countries have not led to high profitability is that their securities markets historically have been small and underdeveloped (see, for example, Smith 1995). Consequently, banks in these countries have not produced significant profit from fund management and securities market business.

Second, the most profitable banking systems in the developed world have generally been those in the predominantly English-speaking countries, their greater profitability being particularly apparent within the G-7. Two main arguments have been put forward to explain this phenomenon. First, as Dewenter and Hess (1998) argue, legal systems in the English-speaking countries — particularly shareholders' rights — promote the maximization of ROE by bank managers; in contrast, other countries' legal systems provide much weaker incentives for banks to maximize ROE.

Table 2: *After-Tax Return on Equity of Banks in Selected OECD Countries, 1981–95*

	1981–85	1986–90	1991–95	Overall
	(average annual percentage return)			
Australia	—	1.02	2.76	—
Belgium	–0.30	4.64	4.47	2.94
Canada[a]				
Domestic	**6.64**	**7.59**	8.39	**7.60**
Foreign	–1.32	–0.51	–3.46	–1.79
Finland	–3.92	0.45	–25.20	–9.56
France[b]	—	5.13	–2.65	—
Germany	2.63	5.70	2.21	3.51
Italy[c]	–3.38	1.54	–2.31	–0.88
Japan	**6.55**	**8.34**	–1.02	4.62
Netherlands[d]	—	**12.93**	8.37	—
New Zealand[e]	—	2.24	**12.74**	—
Norway	4.41	–12.40	–36.11	–14.70
Spain	–6.15	3.20	0.41	–0.85
Sweden	–4.49	–1.00	**11.18**	1.90
Switzerland	3.54	5.21	3.61	4.12
United Kingdom[c]	**6.32**	2.56	8.52	**5.67**
United States	6.06	3.54	**9.94**	**6.51**
Average	1.28	2.95	0.11	0.70
Average for English-speaking countries	6.34	3.39	8.47	6.60

Notes: The bold-face entries indicate the three most profitable banking systems in each period. Return is defined as net income divided by average capital and reserves, less the annual rate of inflation.

[a] First date is 1982.

[b] First date is 1988.

[c] First date is 1984.

[d] First date is 1987.

[e] First date is 1990.

Sources: Bank data: OECD 1997; inflation rates: IMF 1998a.

Second and related,

> the structure of the banking system [in continental Europe and Japan] and, in particular, the advantages that certain types of institutions may have because of different regulatory regimes, subsidies, or ownership structures that place less emphasis on returns to capital. (International Monetary Fund 1997, 148.)

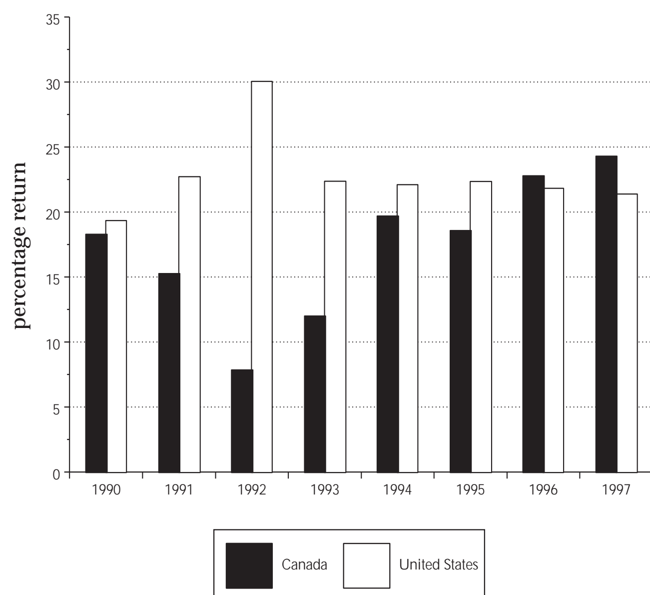
It has been widely suggested, for example, that the Japanese government historically has encouraged banks in that country not to view the maximization of ROE as their main objective. In Europe, too, widespread government or mutual ownership of banks may have downplayed the maximization of ROE as a goal, leading to the lower profitability (on average) of the banking industries in those countries. Some of the major government-owned banks in Germany, for example, have interest rate margins that are half those of the major private banks, with a correspondingly low ROE (ibid.). Privately owned banks in some major European countries have complained to the European Commission on Competition that government-owned banks are unfairly subsidized and thus are able to compete more aggressively at the expense of the private banks.

The Profitability of Major Banks

The emphasis above was on the overall profitability of banking industries. In countries that have concentrated banking systems, this measure of profitability is dominated by large banks, but in countries that have many banks, the profitability of the entire banking system is a mixture of the profitability of larger banks and many smaller banking institutions. This is important for the several G-7 countries with many small banking institutions that often have no economies of scope or scale and thus little franchise value. One could therefore make the case that a fair international comparison of the profitability of Canadian banks ought to involve just the larger banking institutions in each country.

A good place to begin is to compare the profitability of the major Canadian and US banks by considering before-tax ROE (adjusted for inflation) for the six largest banks in Canada and the 20 largest banks in the United States during the 1990s (after-tax ROE yields

Figure 1: ***Before-Tax Real Return on Equity for Major US and Canadian Banks, 1990–97***



Note: Data for US banks are for the 20 largest: Chase Manhattan, Citicorp, Nationsbank, J.P. Morgan, BankAmerica, First Union, Bankers Trust, Banc One, NBD Bancorp, Wells Fargo, Norwest, Fleet Financial Group, PNC, US Bancorp, Keycorp, Wachovia, Baybanks, Bank of New York, First Interstate, and Suntrust Bank. Data for Canadian banks are for the six largest: Bank of Montreal, Bank of Nova Scotia, CIBC, National Bank of Canada, Royal Bank of Canada, and Toronto Dominion Bank.

Source: Author's calculations, based on Fitch-IBCA Ltd. (1998) and International Monetary Fund (1998a).

exactly the same conclusions). As before, this profitability measure is calculated by aggregating balance sheets and income statements across banks; it is thus a weighted-average profitability indicator. (A narrower focus on the five largest Canadian banks — that is, omitting the National Bank of Canada — has no effect on the conclusions;[5] similarly, a somewhat smaller group of large US banks also has no significant effect.)

Two main conclusions emerge from this comparison (see Figure 1). First, the greater depth of the early 1990s' recession in Canada and the steep rise in Canadian short-term interest rates relative to long-term rates is clearly reflected in the much greater profitability of the major US banks during the 1990–95 period. (Recall that this was the only five-year period since 1980 in which the Canadian banking system did not rank among the three most profitable.)

Second, Canadian banks have been more profitable than their US counterparts since the mid-1990s. As Fitch-IBCA Ltd. (1997, 1) notes:

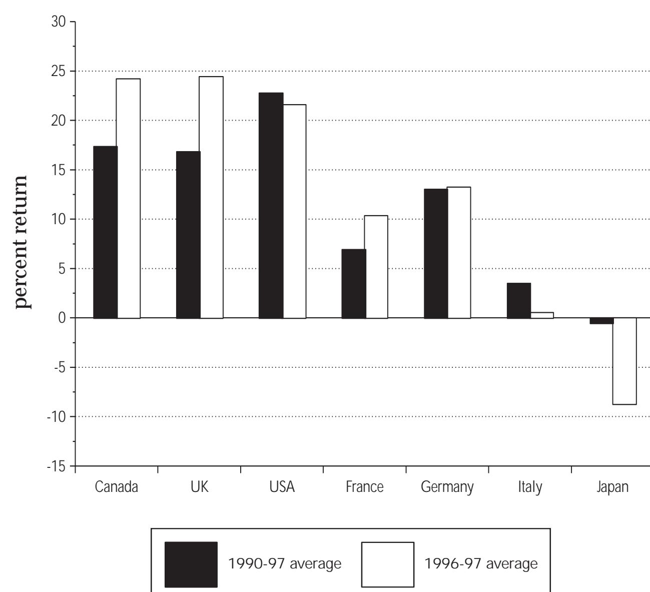
> Canadian banks have typically been lambasted by the press and politicians as being excessively profitable at the expense of Canadian citizens. In 1996, Royal Bank, CIBC, Bank of Montreal and Bank of Nova Scotia each reported earnings in excess of C$1 [billion], and Toronto Dominion was just below that mark....In the past, the Canadian banks could often point to the higher profitability of the [major] US banks, but the Canadian banks were among the most profitable in the developed world in 1996 and this enviable position may worsen [sic] in 1997.

The profitability of the major Canadian banks did in fact increase further in 1997. In 1998, however, less favorable conditions in international securities markets caused their net income to fall by about 6 percent (to just above $7 billion for the six largest banks) from the 1997 record.

A comparison of before-tax ROE for the major banks in the G-7 countries as a whole suggests three conclusions (see Figure 2; after-tax ROE yields the same conclusions). First, in the 1990s, banks in the predominantly English-speaking countries were much more profitable than those in other G-7 countries. Second, on average, US banks were more profitable than British or Canadian banks during the 1990–97 period, but fell behind them in 1996 and 1997 — years in which major Canadian, US, and British banks saw record profits.

Third and not surprisingly, Japanese banks have been the least profitable of any G-7 country in recent years. In aggregate, they reported

Figure 2: *Before-Tax Real Return on Equity of Major Banks in the G-7 Countries, 1990–97*



Note: The major banks in each of the G-7 countries are as follows:

Canada: Bank of Montreal, Bank of Nova Scotia, CIBC, National Bank of Canada, Royal Bank of Canada, and Toronto Dominion Bank.

United Kingdom: Barclays Bank, National Westminster Bank, Abbey National Bank, Lloyds Bank, and Midland Bank.

United States: Chase Manhattan, Citicorp, Nationsbank, J.P. Morgan, BankAmerica, First Union, Bankers Trust, Banc One, NBD Bancorp, Wells Fargo, Norwest, Fleet Financial Group, PNC, US Bancorp, Keycorp, Wachovia, Baybanks, Bank of New York, First Interstate, and Suntrust Bank.

France: Crédit Agricole, Société Générale. Banque Nationale de Paris, Crédit Lyonnais, Banque Paribas, Compagnie Financière de CIC et de l'Union Européenne, and Crédit Commercial de France.

Germany: Deutsche Bank, Dresdner Bank, Commerzbank, Bayerische Vereinsbank, and Bayerische Hypotheken- und Wechsel-Bank.

Italy: Instituto Bancario San Paolo di Torino, CARIPLO, BCI, BNL, Credito Italiano, Banca monte dei Oaschi di Sienna, and Banca di Roma.

Japan: The 19 largest banks (9 city banks, 3 long-term credit banks, and 7 trust banks).

Source: Author's calculations, based on Fitch-IBCA Ltd. (1998) and International Monetary Fund (1998a).

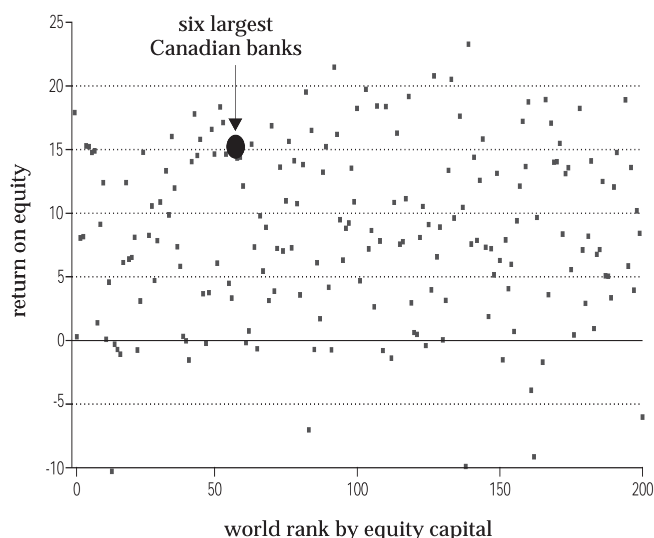
losses every year from 1993 to 1997, and the size of the losses increased steadily over the period, largely as a result of continued weakness in Japan's commercial real estate market and a deepening recession. However, the losses also reflect Japanese accounting regulations. As already noted, the formal accounts of Japanese banks have been slow to recognize the true magnitude of nonperforming loans, so that, from the perspective of measuring their profitability, Japanese banks have consistently overstated their reported net income throughout the 1990s, the consequences of which are slowly showing up in higher provisions and falling net income.

Finally, expanding the analysis to compare ROE for the 200 largest banks in the world (in terms of equity capital) in 1997, the most recent year for which data are available, reveals two noteworthy observations (see Figure 3). First, the six largest Canadian banks clearly ranked near the top of the profitability table, with the weighted average of the six coming in at thirty-fifth. The Bank of Nova Scotia, the best-performing Canadian bank, ranked twenty-second, with the others placing as follows: Royal Bank of Canada (25), CIBC (43), Bank of Montreal (44), Toronto Dominion Bank (49), and National Bank of Canada (70). Second, ***there appears to be no obvious relationship between bank equity capital and profitability***,[6] an interesting observation in view of the justification that has been offered for bank mergers both in Canada and elsewhere that more capital is essential for the continued growth of bank earnings.

Bank Profitability and Stock Market Returns

The main conclusion from the cross-country analysis of bank profitability is that banks in the English-speaking countries are the most profitable in the developed world. This fact has not gone unnoticed by investors, for bank stocks in those countries have far outpaced the overall stock market, with

Figure 3: *Profitability versus Equity Capital of the World's Largest Banks*



Note: Return on equity is defined as after-tax profits divided by average equity in 1997 minus the inflation rate as measured by the consumer price index. World rank is defined in terms of equity capital (in US dollars). For presentation purposes, the four highest and four lowest in terms of ROE were dropped. The solid circle corresponds to the weighted average of the six largest Canadian banks, where the weights correspond to equity capital.

Source: Euromoney 1998; International Monetary Fund 1998b.

British and Canadian banks producing stock returns twice as high as the overall market (Figure 4).[7] This observation is consistent with Booth's (1996) finding that banking has been one of the most profitable sectors of the Canadian economy.

A problem with comparing stock returns is that it does not take into account the riskiness of bank stocks relative to the overall stock market. In principle, if returns on bank stocks are adjusted for risk, to put them on the same risk basis as the overall market, then the ratio of risk-adjusted returns on bank stocks to returns on the overall market (times 100) should be close to 100. In fact, while this ratio moves a considerable distance toward the predicted level in the United Kingdom and the United States, it is hardly affected in Canada (Figure 4). The explanation of this phenomenon is that, over the past decade, investing in Canadian bank stocks has been about as risky as investing in the overall stock market, yet bank stocks have returned fully twice as much as the overall market. In sum, whereas the higher profitability of banks in Canada, the United States, and the United Kingdom is reflected in the better-than-average stock market performance of bank stocks, only Canadian and (to a lesser degree) British bank stocks appear to have outperformed the market on a risk-adjusted basis.

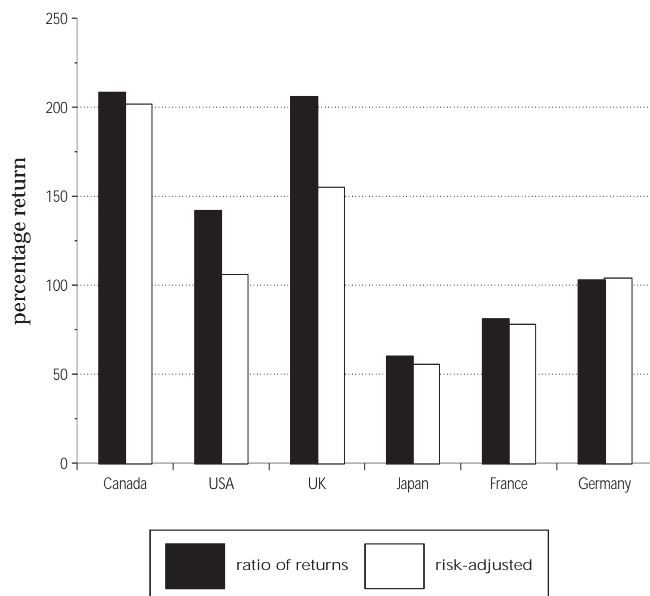
Explaining Bank Profitability

What explains the relatively high profitability of banks in Canada, the United States, and the United Kingdom? The expression for profitability discussed above provides a natural framework for thinking about this question. Recall that a bank's profit is defined as net interest income plus other operating income less three types of expenses associated with banking: operating expenses, provisions for losses on the bank's assets, and income taxes. In this section, I attempt to determine the extent to which each of these components of net income accounts for the cross-country differences in bank profitability. I first examine these components of bank profitability for banking systems in 16 developed countries, and then narrow the focus to major banks in the G-7 countries, with emphasis on the major Canadian banks.

The Banking Industries

In examining the five components of net income for the banking systems in 16 developed countries, my first conclusion is that the more profitable banking industries do not appear to enjoy lower income taxes. In fact, income tax paid by banks (as a percentage of bank assets) has been significantly higher in the English-

Figure 4: *Returns on Bank Stocks as a Percentage of Overall Stock Market Returns, G-7 Countries, 1988–98*



Notes: Data are returns on bank indexes divided by returns on stock indexes times 100. The risk-adjusted data were computed by dividing the raw returns by the bank index betas estimated with monthly data over the sample period.

For France, the sample period begins January 1991; all others begin January 1988. All series end June 1998.

The indexes used are: TSE 300 and Financial Services Sub-Index (Canada); S&P 500 and S&P Center Banks Index (United States); FTSE 350 and FTSE Banks Index (United Kingdom); CDAX and CDAX Commercial Banks Index (Germany); SBF 250 Index and SBF Financial Services Index (France); TOPIX and TOPIX Banks index (Japan).

Source: Bloomberg Financial Markets.

speaking countries (see Table 3). Second, lower provisions also do not appear to have assisted bank profitability in these countries. As discussed above, this finding must be interpreted with care because the English-speaking countries have stricter guidelines than many other developed countries both for classifying non-performing loans and for writing down the value of these assets through provisions.

Bank profitability in the English-speaking countries as a group also cannot be attributed to lower operating expenses. During the 1991–95 period, banks in 16 developed countries averaged operating expenses of 2.5 percent of assets; they were 2.7 percent of assets for Canadian banks, 3.8 percent for US banks, and 2.9 percent for British banks. It is also noteworthy that operating expenses of US and Canadian banks have increased since the 1980s.

At the same time, it is important to recognize that operating expenses are not always a good indicator of the efficiency of banks. The reason is that high operating expenses are common for banks engaged in business lines that, although possibly strong revenue producers, are relatively more costly to operate. For instance, banks that have extensive operations related to securities markets generally have higher operating expenses. As discussed below, this is a likely reason for the higher-than-average operating expenses of the large banks in the English-speaking countries.[8]

A final observation regarding operating expenses is that, while those of Canadian banks are not on average lower than those of banks in other developed countries, they are substantially lower than those of their counterparts in the other English-speaking countries. During the 1985–95 period, Canadian banks had operating expenses 18 percent lower on average than those of banks in the other four English-speaking countries, and 23 percent lower than those of US and British banks combined. Moreover, as noted previously, capital taxes are a significant component of operating costs for Canadian banks, but not for banks in other countries.

The next factors to consider are the two revenue components of net income. The main reason banks in the English-speaking countries are relatively more profitable — other than in Canada, where low operating expenses play a supporting role — is that both net interest income and other operating income are higher in those countries than elsewhere. The difference between the two groups of coun-

Table 3: *Components of Net Income for Banking Industries, Selected OECD Countries, 1986–95*

	Net Interest Income		Other Income		Operating Expenses		Provisions		Income Taxes	
	1986–90	1991–95	1986–90	1991–95	1986–90	1991–95	1986–90	1991–95	1986–90	1991–95
	(annual average as a percentage of average assets)									
Australia	2.83	2.49	1.88	1.83	–3.16	–2.82	–0.47	–0.67	–0.44	–0.29
Belgium	1.63	1.37	0.44	0.46	–1.40	–1.26	–0.36	–0.26	–0.11	–0.10
Canada										
Domestic	2.99	2.89	1.18	1.39	–2.46	–2.71	–0.71	–0.65	–0.36	–0.33
Foreign	1.76	1.78	0.87	1.47	–1.61	–2.22	–0.44	–1.08	–0.28	–0.05
Finland	1.50	1.31	1.93	1.45	–2.65	–4.04	–0.30	–0.02	–0.10	–0.02
France[a]	1.75	1.04	0.50	0.90	–1.71	–1.45	–0.26	–0.46	–0.08	–0.05
Germany	2.23	2.14	1.06	0.89	–2.17	–1.95	–0.44	–0.56	–0.36	–0.23
Italy	3.36	3.01	1.05	0.85	–2.77	–2.54	–0.64	–0.71	–0.45	–0.38
Japan	1.11	1.28	0.34	0.04	–0.90	–0.94	–0.04	–0.24	–0.27	–0.13
Netherlands[b]	2.29	1.83	0.82	0.82	–2.09	–1.78	–0.23	–0.23	–0.17	–0.19
New Zealand[c]	3.18	2.86	1.82	1.71	–3.67	–3.23	–0.55	–0.24	–0.21	–0.39
Norway	2.76	2.77	1.21	1.07	–2.75	–2.67	–1.38	–1.76	–0.06	–0.05
Spain	3.92	3.07	1.01	1.08	–2.97	–2.47	–0.70	–0.86	–0.37	–0.25
Sweden	2.35	2.45	1.00	1.66	–1.98	–4.29	–0.77	–1.29	–0.27	–0.28
Switzerland	1.36	1.56	1.34	1.67	–1.53	–1.70	–0.52	–0.96	–0.17	–0.12
United Kingdom[c]	3.14	2.54	1.87	1.89	–3.26	–2.86	–0.99	–0.81	–0.32	–0.28
United States	3.47	3.79	1.57	2.05	–3.38	–3.79	–0.94	–0.57	–0.25	–0.49
Average	2.45	2.25	1.17	1.25	–2.38	–2.51	–0.57	–0.51	–0.25	–0.21
Average for English-speaking countries	3.12	2.91	1.66	1.78	–3.19	–3.08	–0.73	–0.59	–0.32	–0.35

Notes: Operating expenses, provisions, and taxes are multiplied by –1 for presentation purposes. For Canada and Australia, the data are for fiscal years (ending October 31 of the same year and June 30 of the following year, respectively). For Canada, “domestic” refers to all domestic commercial banks; “foreign” includes Canadian subsidiaries of foreign commercial banks.

[a] First date is 1988.

[b] First date is 1987.

[c] First date is 1990.

Source: OECD 1997.

tries is particularly striking when one looks just at other operating income.

Banks in the English-speaking countries have developed considerably more diversified sources of income than have banks in most other countries. Although Canadian banks still lag considerably behind US and British banks in that diversity, they have made substantial progress in the 1990s, as discussed below. They have developed their income bases by introducing fees (such as credit and deposit service charges) on traditional banking activities and, much more important, by taking advantage of revisions to the *Bank Act* in the late 1980s and early 1990s that permitted them to engage in investment management, securities market activities, trust business, and (to a lesser degree) insurance.

To understand bank profitability in Canada, it is important to recognize the interplay between two factors. First, during the 1980s, Canadian bank profitability was largely determined by solid earnings from traditional banking operations in an environment in which

opportunities for developing new sources of income were limited. Second, although this traditional source of income has come under increasing pressure in the 1990s, the major banks have managed to improve their profitability significantly by expanding into new lines of business without substantially increasing their operating costs (as a percentage of assets). As will become clear later, Canadian banks have diversified their income sources considerably in the past few years, without significantly affecting their relative cost advantage over banks in other countries with relatively profitable banks. The combination of Canadian banks' relatively high cost efficiency within the English-speaking countries and their significant progress in diversifying income sources is responsible for their rising profitability in the 1990s.

Major Banks in the G-7 Countries

The above explanation for cross-country differences in banking system profitability is even more apparent when one looks at the major banks in the G-7 countries (Table 4).

On the revenue side, note first that banks in the English-speaking countries have higher net interest income (as a percentage of assets) than those in other G-7 countries. To investigate the source of these differences, one can look, for example, at the spread between a benchmark bank loan interest rate (in Canada, this is called the "prime rate") and a benchmark time deposit rate (such as the 90-day deposit rate). Yet, as Figure 5 illustrates, net interest income of British, US, and Canadian banks does not appear to be driven by large spreads between loan and time deposit rates. If anything, such spreads tend to be lower in the English-speaking countries than in the G-7 countries as a whole; indeed, loan deposit spreads in Canada have been the lowest in the G-7 for most of the 1990s.

Although interest-bearing deposits as a share of total deposits have generally increased in many countries, a large portion of bank deposits historically have been non-interest-bearing demand deposits. Can loan deposit spreads using this (zero) deposit rate thus help to explain the higher-than-average net interest income of Canadian banks? The evidence suggests that it can (Figure 6). Note, however, that this observation simply reflects the relatively high overall level of interest rates in Canada historically — it has little or nothing to do with the competitiveness of the Canadian banking system because, by definition, the deposit rate underlying these "spreads" is zero in all countries.

It is important to recognize that my finding that the spread between prime loan rates and 90-day deposit rates is not large in Canada compared with other countries does not contain any information about the competitiveness of interest rates on other types of deposits or loans granted to nonprime borrowers. Examining spreads between interest rates paid on ordinary savings accounts, for example, and those charged on nonprime personal and business loans could yield different conclusions. The available data do not permit a more extensive investigation of spreads, and thus the reader should keep in mind the limits to the conclusions that are drawn from the analysis above.

Next, note that non-interest sources of income have clearly been a principal driving force of the higher profitability of banks in the English-speaking countries in the 1990s, with banks in the United States, the United Kingdom, and Canada having substantially higher levels of such income than those in other G-7 countries. In Canada, for example, net interest income of the major banks fell from almost 80 percent of their gross income in the early 1980s to just over 50 percent by 1997 (OECD 1997) (see Figure 7). This sharp increase in the relative importance of "other income," par-

Table 4: *Components of Net Income of Major Banks in the G-7 Countries, 1990–97*

	Net Interest Income	Other Income	Operating Expenses	Provisions	Income Taxes
			(annual average as a percentage of average assets)		
			A. 1990–97		
Canada	2.84	1.45	–2.66	–0.51	–0.40
France	1.75	0.95	–2.00	–0.52	–0.12
Germany	1.64	0.83	–1.68	–0.15	–0.23
Italy	2.41	1.08	–2.58	–0.51	–0.25
Japan	1.00	0.56	–0.95	–0.74	–0.05
United Kingdom	2.53	1.49	–2.84	–0.19	–0.31
United States	3.36	2.69	–3.89	–0.45	–0.58
Average	2.22	1.29	–2.37	–0.44	–0.28
Average for English-speaking countries	2.91	1.88	–3.13	–0.38	–0.43
			B. 1996–97		
Canada	2.39	1.63	–2.52	–0.21	–0.46
France	1.42	1.11	–1.88	–0.34	–0.13
Germany	1.30	0.90	–1.56	–0.16	–0.17
Italy	2.25	1.18	–2.59	–0.67	–0.21
Japan	1.17	0.82	–1.16	–1.22	0.07
United Kingdom	2.09	1.38	–2.38	–0.19	–0.36
United States	3.34	2.55	–3.70	–0.39	–0.68
Average	1.99	1.37	–2.26	–0.45	–0.28
Average for English-speaking countries	2.61	1.85	–2.87	–0.26	–0.50

Notes: The last three columns reduce profitability and thus are multiplied by –1 for presentation purposes. The sum of the columns is not equal to ROA because nonoperating adjustments are excluded. For Germany, provisions are for 1994–97 rather than 1990–97.

Sources: Author's calculations, based on Fitch-IBCA Ltd. (1998) and International Monetary Fund (1998a).

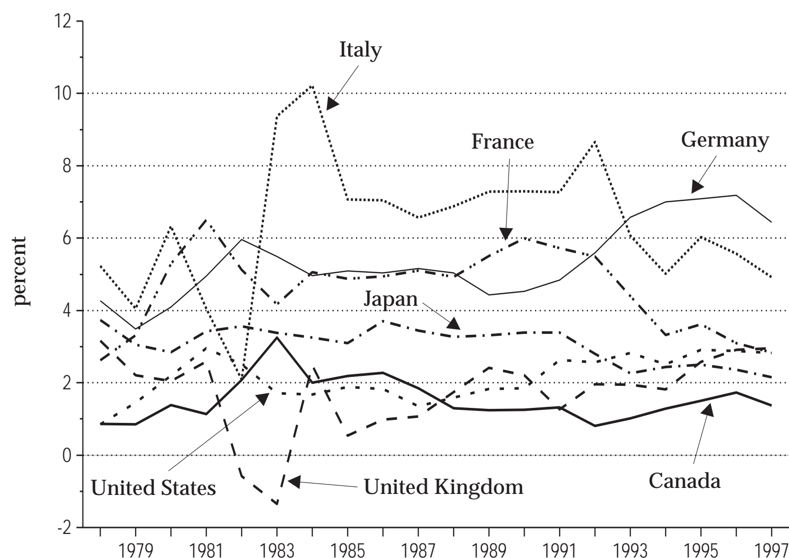
ticularly since the beginning of the 1990s, coincides with important changes to the *Bank Act* that permitted banks to enter other financial services markets. In the past year or two, the major Canadian banks have begun reporting their earnings on a "line-of-business" basis. Although it is difficult to make comparisons between banks on this basis because categories of business are not defined uniformly, current figures do depict a marked diversification of income sources for Canadian banks (Table 5).

Finally, while the major Canadian banks still lag behind their US counterparts in the importance of "other income" to their operations, they make up for much of this shortfall through their greater cost efficiency. In fact, in the 1990s, the 20 largest US banks have incurred operating expenses that, on average, are 50 percent higher than those of the Canadian banks. In sum, the relatively high profitability of Canadian banks in the 1990s can be explained by their steady improvement in developing new sources of income without compromising their relative cost efficiency.

Recent Trends in Components of Canadian Banks' Revenues

Although it is difficult to overstate the importance of *growth* in income from nontraditional

Figure 5: ***Spreads between Loan Rates and 90-Day Deposit Rates, G-7 Countries, 1978–97***



Note: The loan rates underlying these spreads are representative rates (usually prime loan rates); the deposit rates are usually 90-day CD rates.

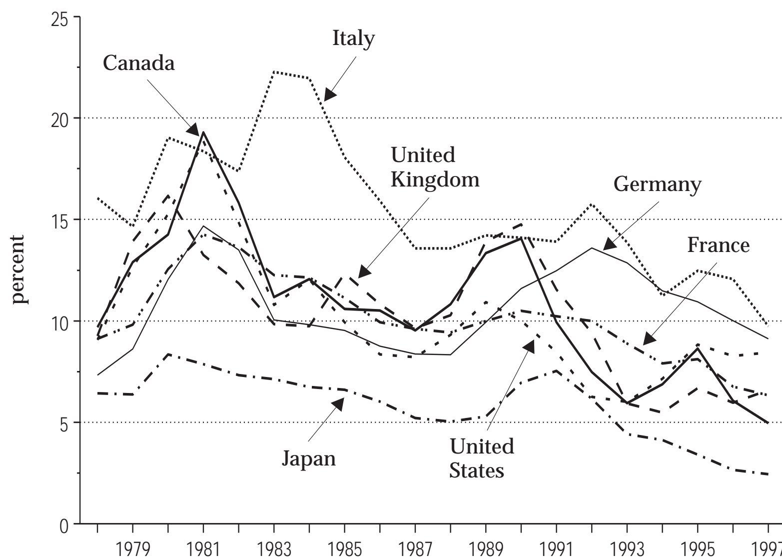
Source: International Monetary Fund 1998a, series 601 and 60p.

banking business for Canadian bank profitability in the 1990s, income from the traditional practice of accepting deposits and extending loans remains the main source of income of banks in all countries. In Canada, net interest income has risen every year since the early 1980s, except for a small decrease in 1990, and its annual rate of growth has averaged about 8 percent.

In the 1990s, however, the profitability of Canadian banks has been hampered by a steady decrease in the ratio of net interest income to average bank assets. This might be interpreted loosely as a steady decline in the average spread between the interest cost of liabilities and interest income on assets. This spread peaked at 3.2 percent in 1989, and by 1997 had fallen a full percentage point to 2.2 percent. Net interest margins this low have not been seen since the early 1980s, when short-term interest rates rose sharply and unpredictably and economic conditions were poor.

At least four reasons have been suggested for the narrowing of net interest margins at Canadian banks in the 1990s. First, more competition in lending markets in tandem with the continuing shift by individuals away from lower-yielding bank deposits toward higher-yielding time deposits and mutual funds has resulted in an ever-narrower spread between the average cost of deposits and average lending rates. Second and related is that, of necessity, the banks are shifting from low-cost retail deposits toward higher-cost liabilities. Third, the banks' increased holdings

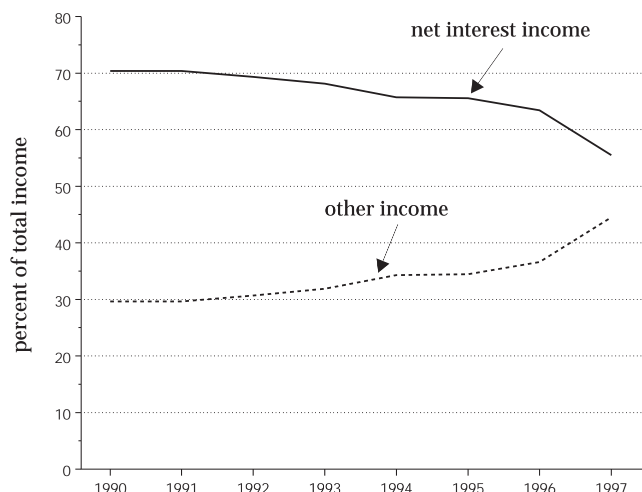
Figure 6: ***Spreads between Loan Rates and Non-Interest-Bearing Deposits, G-7 Countries, 1978–97***



Note: Spreads are exactly equal to the loan rates.

Source: International Monetary Fund 1998a, series 601 and 60p.

Figure 7: *Income Sources of the Major Canadian Banks, 1990–97*



Note: The data are for the six largest banks: Bank of Montreal, Bank of Nova Scotia, CIBC, National Bank of Canada, Royal Bank of Canada, and Toronto Dominion Bank.

Source: Fitch-IBCA Ltd. 1998.

of relatively low-margin securities have depressed net interest margins. Fourth, the banks' acquisitions of trust companies earlier in the 1990s worked to reduce average bank margins since the trusts had more lower-margin business than the banks. Many major banks in the G-7 countries have responded to financial sector deregulation by expanding into other, often costlier, lines of business (in most other, non-English-speaking countries, banks have been much less aggressive in doing so). In Canada, the major banks have expanded aggressively into trust, insurance, securities brokerage, and fund management. In the United Kingdom, banks responded to the "Big Bang" deregulation in the mid-1980s by acquiring firms in other segments of the financial industry. All of the major British banks acquired one or more securities firms; more recently, they have begun to develop insurance products. In the United States, although regulatory restrictions make acquisitions of securities firms by banks more difficult than in Canada or the United Kingdom, in 1987 US banks acquired the right to undertake securities trading through subsidiaries set up under section 20 of that country's banking legislation. Moreover, recent legal decisions overruling state limits on insurance activities by banks have boosted US banks' ability to sell insurance.

Table 5: *Contributions of Lines of Business to the Net Income of Major Canadian Banks, 1997*

Bank of Montreal	Royal Bank of Canada	Toronto Dominion Bank	CIBC	Bank of Nova Scotia
		(as a percentage of total net 1997 income)		
Personal and commercial financial services (42)	Personal and commercial financial services (61)	Personal and commercial financial services (42)	Personal and commercial financial services (54)	Canadian retail and commercial services (34)
Global treasury (32)	Corporate and investment banking (20)	Corporate banking (31)	CIBC world markets (45)	Corporate banking (24)
Investment banking (11)	Wealth management (14)	Investment banking (16)	Other (net) (1)	Investment banking (26)
Harris Bank (subsidiary) (14)	Other (net) (5)	Wealth management (10)		Other (net) (16)
Other (net) (1)		Other (net) (1)		

Source: Fitch-IBCA Ltd. 1992–98, various issues.

Table 6: *Components of Non-Interest Income for Major Canadian Banks,[a] 1993–97*

	1993	1994	1995	1996	1997
	(as a percentage of non-interest income)				
Securities related	50.7	48.8	45.0	50.6	56.5
Deposit fees	20.6	18.6	18.8	16.4	13.8
Other	28.6	32.6	36.1	33.0	29.7

Notes: The figures correspond to averages across banks. Data were not available for all banks in all years.

[a] Data are for the six largest Canadian banks: Bank of Montreal, Bank of Nova Scotia, CIBC, National Bank of Canada, Royal Bank of Canada, and Toronto Dominion Bank.

Source: Fitch-IBCA Ltd. 1992–98, various issues.

In Canada, much of the growth in the banks' nontraditional sources of income has come from income related to securities markets (including fund management income), rather than deposit service charges (see Table 6). Nonetheless, income from service charges on personal and business deposits has been significant, totaling about $2.85 billion in 1997 for the six largest banks, or slightly more than 7 percent of their gross income (net interest income plus other income). Moreover, deposit fees are an extremely stable source of income, unlike securities-market-related activities, income from which tends to be highly variable.

Deposit service charges are a hotly debated issue in Canada. Some vocal critics have suggested that the high level of such charges clearly underscores the market power of the major Canadian banks. The best way of assessing the competitiveness of service charges would be to study the price that consumers and firms pay for various standardized deposit and payment services, including payment fees, cheque fees, interest payments on deposit balances, as well as less tangible issues such as the quality of the payment systems and branch services. Unfortunately, the available data do not permit such a comparison, although it is possible to shed light on the claim that deposit fees are high in Canada simply by comparing them with those charged by banks in other countries.

As shown in Table 7, it appears that, as a percentage of total bank deposits, service charges at Canadian banks, although they are considerably higher than those in many European countries, are only about half as high as those in the United States (Standard and Poor's 1999). Moreover, service charges (averaged over the 1995–97 period) vary considerably among Canadian banks, ranging from a high of 0.44 percent of deposits at the Royal Bank of Canada to a low of 0.28 percent at the Toronto Dominion Bank. In addition, service charges at Canadian banks have fallen quite sharply since 1993 — an apparent spinoff of competition among the banks — while they have increased at US banks.

Where possible, the evidence presented here is based on consolidated accounting statements — that is, both domestic and foreign sources of income and costs are included in the analysis. Unfortunately, although the statements

Table 7: *Deposit Service Charges at Major Canadian and US Banks, 1992–97*

	1992	1993	1994	1995	1996	1997
	(as a percentage of total deposits)					
US banks	0.56	0.62	0.62	0.61	0.64	0.63
Canadian banks	0.45	0.40	0.39	0.36	0.36	0.32
	(as a percentage of non-interest income)					
US banks	25.5	25.5	26.9	24.8	25.7	24.4
Canadian banks	26.7	24.7	21.6	21.3	19.0	13.9

Notes: Data for US banks are for a cross-section of 27 major regional banks and banks with significant international scope: Wells Fargo, Union BanCal, Signet, PNC Bancorp, NBD Bancorp, Mercantile Bancorp, Marine Midland, KeyCorp, Fleet Financial Group, Huntington National Bank, First Interstate, First Fidelity, Crestar, Corestates, Baybanks, Barnett Banks, Chase Manhattan, Citicorp, Nationsbank, BankAmerica, First Union, Banc One, Norwest, U.S. Bancorp, Suntrust Banks, Wachovia, and Bank of New York. Data for Canadian banks are for the six largest: Bank of Montreal, Bank of Nova Scotia, CIBC, National Bank of Canada, Royal Bank of Canada, and Toronto Dominion Bank.

Sources: Fitch-IBCA Ltd. 1992–98, various issues; and annual reports.

often do not contain enough information to enable one to determine the separate contributions of the banks' domestic and foreign operations to overall profitablity,[9] their foreign operations clearly account for an increasing share of earnings. Fitch-IBCA Ltd. reports foreign earnings in 1997 as more than 50 percent for the Bank of Montreal, about 30 percent for the Royal Bank of Canada, 32 percent for the Toronto Dominion Bank, and 40 percent for the Bank of Nova Scotia (no figures are provided for the CIBC or the National Bank).[10] Note, however, that most of the major Canadian banks' earnings from foreign operations are concentrated in securities-related businesses, which, as noted above, are a highly volatile source of revenue.

Conclusion

Much of the discussion in Canada about the apparently high profit levels of the major banks relates those profits to this country's concentrated financial system — implying or asserting that these levels are a result of the market power of the major banks. I have not tried to ascertain whether or not these banks in fact have market power; rather, I have tackled the more modest agenda of determining the profitability of Canadian banks and the sources of their profits.

Cross-country bank accounting data and conventional measures of bank profitability suggest that banks in the English-speaking countries are the most profitable in the developed world. Bank analysts often hold up the major British and US banks as the benchmarks against which to compare profitability among major banking institutions and, indeed, they have posted record profits in recent years. However, the major Canadian banks have been no less profitable than this peer group.

The explanation for these comparatively high rates of bank profitability in Canada has two components. First, Canadian bank profitability historically has been based on solid earnings from traditional banking operations at a time when the law did not give the banks much opportunity to develop new sources of income. Second, although this traditional source of income has come under increasing pressure in the 1990s, the major Canadian banks have managed to improve their profitability significantly by implementing deposit service charges and, much more important, by expanding into new, often costly lines of business, *without* substantially decreasing their cost efficiency. The Canadian banks' expansion into securities-related businesses and foreign markets combined with their relatively high cost efficiency are the main reasons they have enjoyed record-setting profits in recent years.

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Notes

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1 Historically, the Canadian banking industry was divided into "four pillars": banking, trust, insurance, and securities activities. In mid-1987, Canadian banks were permitted to acquire securities dealers, and revisions to the *Bank Act* in mid-1992 permitted Schedule I Canadian banks to engage in trust business, investment management, and the underwriting of insurance.

2 The coverage of banking institutions by the OECD data is broad, and includes either all banking institutions or all commercial banks. For Canada in 1995, "domestic" includes 11 chartered banks and "foreign" includes 50 subsidiaries of foreign commercial banks.

3 The inflation adjustment to the ROE figures has no bearing on this conclusion — nominal ROE figures yield the same conclusions.

4 I thank Mark Weseluck of the Canadian Bankers' Association for the information on capital taxes of banks.

5 Over the 1990–97 period, the average ROE for the six largest Canadian banks is within 0.05 of a percentage point of ROE for the five largest banks. ROA is within 0.005 of a percentage point, and the net interest margin is within 0.02 of a percentage point.

6 Equity capital ranged from the US$1.6 billion of Natexis, a French bank, to the almost US$31 billion of HSBC Holdings (Hong Kong and Shanghai Banking Corporation).

7 Data were unavailable for Italy. In Canada, the "Big Six" banks account for 75 percent of the Toronto Stock Exchange (TSE) Financial Services Index. The conclusions are not affected by using the TSE Banks and Trusts Index (which includes only the seven largest banks).

8 Italian banks provide a well-known example of high operating costs due simply to inefficiency: despite having expense ratios similar to Canadian banks, Italian banks have nowhere near the same range of business activities.

9 Since the 1980 revision of the *Bank Act*, Canadian banks have been required to report consolidated statements.

10 Of course, some "foreign" income could represent business with Canadian customers but booked at a foreign branch of a Canadian bank.

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