Competition in the Canadian Mortgage Insurance Industry

by

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February 1985

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## 1. Introduction

The purpose of this brief report is to present alternatives open to the Government of Canada to encourage competition and the complementary beneficial results of an approved allocation of resources in the Canadian Mortgage Insurance industry. Preparing this document, I have read and analyzed several recent discussion papers prepared for the CMHC on the state of competition in this industry in Canada.including the industry's historical evolution and the various rationale for public sector intervention in the industry. (These documents are listed in the accompanying bibliography.) My understanding of the institutional facts on the organization, both present and historical, of this industry flow from these documents.

The basic tenets on performance in this industry relevant to my task that flow, almost uniformly, from these commission papers are as follows:

(i) there is a limited "market failure" defence, at least now, for the public provision of mortgage insurance

(ii) in fact, the burden of proof should now be strongly on those who advocate public provision of the product,

(iii) the historical record in Canada on the public provision of mortgage insurance indicates a subsidization by the public sector of both demanders of the product (those with mortgages in excess of 75% of the appraised value of properties) and the principal lending institutions of first mortgages.

(iv) this subsidized mortgage insurance has meant a reduced use by consumers of substitute arrangements such as a second or third mortgage; if, in addition to the removal of the public provision of mortgage insurance, the 75% rule was abandoned, then lending institutions may be able to self ensure against part, if not all, of the risk (reinsuring any residual).

(v) demographic forecasts call for a secular reduction in the demand for mortgage insurance over the next 15 or 20 years.

(vi) there is a committment on the part of CMHC to withdraw at least somewhat from this market in favor of private firms but to do so in a manner that promotes the orderly and stable growth of private firms in the market conditional on the nature of final demand.

With these institutional facts in mind, the principal focus in this report concerns market exit by CMHC in the face of privatization conditional on the forecast for reduced overall demand for the product. The key feature is the nature of the transition path between two equilibria - the first equilibrium representing the historical precedence where CMHC has provided public assistance through subsidized mortgage insurance with a reduced role for private firms (three firms that have merged into one firm whose sustainability is questionable at the moment); the second equilibrium involving no role or a limited role for the public sector and a market served by a limited number (possibly one or two) of firms in the private sector. In this setting, my purpose is to offer economic insight on the flexibility and mobility of resources both into and out of this industry. In the language of modern industrial organization, the question is whether this industry is a contestable market. In other words, are there barriers to the mobility of resources both into and out of this market? We now turn our attention to an evaluation of these features.

## 2. Contestability, Mobility and Exit

Issues on contestability in general have been surveyed in a competent fashion in the discussion paper prepared for CMHC by D.G. McFetridge. An alternative source is a survey paper by Michael Spence (1983). Contestability is simply a replacement for textbook competition in the face of economies of scale and scope. The heart of the theory is rapid entry and exit, sufficiently rapid that existing firms cannot change prices. In relative terms, prices are relatively fixed, capital is relatively mobile. The importance of this is that in a market that may sustain relatively few firms because of economies of scale and/or scope, potential competition has the power to discipline existing firms to behave competitively. (Remember that any economies have to be measured relative to the market.) In a general sense, most of the ideas of contestability appear familiar as the outgrowth of the conventional theory of competition. It is their rigorous development in a consistent analytical structure with a central focus on entry and exit (as opposed to a price taker assumption) that differentiates the modern product of contestability.

The relevance of these ideas for the industry in question, the mortgage insurance industry, is

(i) the ease of entry and exit with further privatization of the industry

(ii) the ability of the one existing firm and other potential firms to service the market efficiently in a period of transition characterized by the exit of publicly provided mortgage insurance (an incentive to enter the industry) and the decline in the demand for the product (an incentive to exit the industry). Would private firms as individual actors be capable of balancing these incentives to yield an orderly <u>market</u> transition to a new equilibrium?

(iii) during this transition and in the new equilibrium with a greater private participation, given the size of the market, an anticipated smaller market, the extent to which potential competition would discipline even a limited number of actual market participants to price efficiently.

What are the relevant empirical facts here and the general impediments to entry and exit? Most of the relevant empirical facts on the nature of both the product and the industry are contained in the discussion papers commissioned previously by CMHC. In particular, the papers by McFetridge and Pesando proved to be useful for me. We gain little knowledge on the equilibrium nature of this industry from its current state. It seems clear enough that the merger of three private firms into one which, given its current underwriting losses, may not survive is the outgrowth of several simultaneous events. To some extent, the questionable sustainability of the market can undoubtedly be attributed to the cyclical downturn in the Canadian residential housing market, in particular to the particularly adverse effects in the Alberta market. These problems were only exacerbated by the presence of a publicly subsidized product underwritten by the diversified portfolio of the Canadian government where price was sufficiently low not only to discourage entry but to weaken further the financial position of the one remaining firm. While this is a market equilibrium, it is not one which yields an insight about the nature of the industry nor the industry's ability to move quickly and orderly to a new private equilibrium. From the viewpoint of observable information on the market features of this industry, the prediction that if the current real price continued to prevail, the public sector would have a monopoly in this market is a shallow one indeed.

In order to garner information about the underlying production and marketing features of mortgage insurance, the CMHC would have to look at the experimental data thrown up by a market with minimal regulatory intervention. Insurance markets with zero regulatory intervention are non-existent. My understanding is that the U.S. mortgage insurance market is subject to the "usual" regulatory rules imposed upon U.S. insurance firms. These are principally state-controlled regulatory rules. I know that for life insurance, the most stringent rules are in force in New York State. Furthermore, firms that sell life insurance in New York State must meet the regulatory constraint for not only their New York State business but all of their insurance activity in the U.S. market. Life insurance firms in the U.S. market, therefore, may be divided into two groups - those that underwrite and sell life insurance in New York State and those that underwrite and sell insurance elsewhere. There is modest variation in the regulatory regimes in place in other U.S. states. The point is, however, that if the U.S. market is characterized by de minimis regulation then the data on the performance of U.S. mortgage insurance firms should contain the least contamination from regulatory and public sector intervention. The one other market that suggests itself as a logical experimental candidate is the Australian market. Here, it is my understanding that the move to privatization of this market is rather recent so that we may have a relatively limited number of observations under a regime of complete privatization.

Based on these observations, it would be possible to estimate production and distribution features for these two markets using the empirical techniques set out in Halpern and Mathewson (1975) and Kellner and Mathewson (1983). (Copies of these articles are attached.) In both of these studies, considerable detailed information was gleaned on the nature of the underlying production technology as well as additional information on certain organizational features such as profitability and the nature of long-run equilibrium.

It is important in this context to point out that based on these studies, neither the property/casualty insurance business nor the life insurance business demonstrated strong economies of scale or scope. Such findings are reinforced by the observation that there are many suppliers of these (possibly diverse) products in both of these markets. As McFetridge correctly points out, these results go a long way to suggesting a strong contestability feature to these insurance markets. Contestability in its pure form, however, is achieved only in the absence of any sunk entry costs. For example, long-run average costs curves may be downward-sloping over a modest range relative to the size of the market because of fixed initial costs. These costs need not be sunk. Thus U-shaped average cost curves (of the textbook variety) may prevail and the market may be still highly contestable. Even in the presence of output-invariant costs, entry may be relatively easy. For example, the fixed input may be rented rather than purchased if an entrant considers a short operational life in any market. This will not be the case if the fixed entry costs are sunk and irretrievable. For example, it is difficult to rent a brand name or to rent a reliable agency network for evaluating risk and distributing the insurance product. Such sunk costs move the market away from contestability.

Put differently, the presence of sunk costs not only makes entry more difficult but alters the exit decision. Ex ante before the sunk cost investments are made, the firm views the decision to enter the market as one of making a competitive rate of return on these fixed and sunk investments. Ex post, once the sunk investment has occurred, any firm will be driven from the market only if the price of the product is sufficiently low to fail to cover the short-run variable costs. Thus the entry and exit decisions are quite different. In the language of contestability theory, "hit and run" competition is no longer possible. This brings up the second potential area for research on the contestability of mortgage insurance markets by the CMHC. Is it possible to identify and measure those elements of the fixed set-up costs faced by firms that wish to enter this market that are sunk and irretrievable as opposed to subsequently saleable? These measurement issues could prove to be important for an understanding of entry and exit decisions into this industry with continued privatization.

In terms of the question posed to me in my contract, no public agency could make a non-contestable market, where the non-contestable features flows from the sunk nature of the fixed costs, ultimately contestable unless some agent (e.g., the government) were willing to bear the sunk costs and then rent the purchased facility out to potential entrants. While for some facilities in some industries such as rail lines for transportation (say), this would be possible; for others such as brand names and reliable agency systems in insurance, this would not be possible.

The other feature of exit mobility worthy of consideration is the extent to which current regulatory rules in force on private firms in Canada retard exit. One obvious feature of an insurance contract retards the ability of insurance firms to exit from the market. Typically, mortgage insurance contracts extend over the life of the mortgage. This could be five years or even longer. A firm making losses at any point of time cannot therefore simply abandon these liabilities. It may sell these liabilities together with the accompanying premium stream to another private insurer. Of course, if the insured events have unfolded in a manner that renders the present value of the premium stream uneconomic relative to the assumed liabilities, then the private firm would have to bribe the buyer to assume the liability. This would be difficult (impossible) if the selling firm were already bankrupt. This means that there may still be a continued role for the public sector in this regard. Alternatively, the private sector could be encouraged to co-insure or reinsure risk. As we pointed out above, this may be difficult when all firms face the same systematic pattern of risk.

This now brings us to the issue of the regulatory restriction which segregates assets and liabilities in insurance markets for mortgage insurance from other lines of insurance underwritten by the insurance firm. One research avenue open to the CMHC is to investigate the desirability of such a regulatory regime. Is it in the interest of the purchasers of other lines of insurance from these firms? Is it in the interest of the orderly development of mortgage insurance markets?

The final candidate for research concerns the potential role for public provision of some mortgage insurance with an enhanced role for private insurers. For example, it has been argued that the current increase in the premium rates by CMHC will result in an adverse selection process: Those individuals with superior housing assets will find these higher premiums sufficiently unattractive that they will seek out substitute arrangements. This would leave CMHC with higher premiums on a smaller set of contracts but a set of contracts that represent extreme risk. For example, the difference between a dense urban housing market and a rural market where various urban builders develop brand name capital with respect to quality may mean that CMHC is left with a portfolio of mortgage insurance contracts that are excessively rural and excessively tilted towards the high abandonment end of the scale. As a policy question, CMHC needs to ascertain whether this is a viable role for a public sector institution. If so, CMHC would be left with an economically unprofitable portfolio mortgage insurance contracts but one that was thought to be valuable for political as opposed to economic reasons.

## 3. Conclusions

My conjecture is that the mortgage insurance sub-industry in Canada is no different from either the property/casualty sub-industry or the life insurance sub-industry. There are likely limited economies of scale and limited economies of scope. Of course any statement about either of these has to be made relative to the size of the market. The forecasted change for the mortgage insurance market is one of a continued secular decline. This means that even modest economies may possibly loom large relative to a diminished demand for the product. Such issues can be validly ascertained only by estimating the underlying production, distribution and marketing technologies for this industry. The Canadian market offers little hope for useful experimental evidence because of the contamination of the data through the public subsidization of the publicly provided product in this market. My suggestion, therefore, is that an empirical investigation of the U.S. and possibly Australian markets be conducted to determine the underlying production parameters. The assumption would be that the organizational structure of a private market would be identical to the U.S. market so that these parameter estimates could be used to forecast the impact upon the Canadian market from continued privatization. Together with demand forecasts, this should enable CMHC to determine whether the market would be support a sufficiently large number of firms that's workable price competition would be guaranteed.

The next issue that needs to be assessed is whether the fixed set-up costs that all firms invariably incur when they enter the market are sunk or retrievable costs. The greater is the degree of "sunkenness", the less likely the market is contestable. The only way to render such a market contestable would be for some external agency to underwrite those investment costs and be prepared to hold sufficient capacity to rent it out to all who wish to enter (and then to exit) at prevailing prices in the market. Of course, the existence of such rentable capacity may be sufficient to discipline the actual firms in the marketplace to set competitive prices. In this case, the capacity would never have to be rented. Rather, the expense could be viewed as a necessary expense to yield a competitive result in the market.

Of course, when the capital is highly firm specific, the concept of rentable capital makes no sense. If it were determined that the entry costs into this industry are therefore items such as brand names and agency network costs, then no external agent could rent such a capital to potential entrants. In this case, there is no way to change a non-contestable market into a contestable market.

The final point is that the CMHC needs to recognize that its role in the mortgage insurance market may be one of a provider of a specialized service to extremely high risk borrowers. The justification for such an unprofitable role would have to be a political rather than an economic one.

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