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SMALL FIRMS, GLOBALIZATION,
AND CANADIAN PUBLIC POLICY

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INTRODUCTION

This paper is about the importance of small firms to Canada's standing in the global economy, and whether current government policies towards assisting exports by small firms are appropriate.

Canada, on the threshold of the twenty first century, is part of a single global economy. Canadians' knowledge of events and opportunities in other countries has never before been as deep and as immediately available. This knowledge has favoured a rapid and dynamic growth in international trade and international financial flows. Nations have never been so dependent on each other's rational behaviour.

As Canada's economy becomes more interconnected with global trade and investment patterns, small and medium sized enterprises (SMEs) are increasingly becoming important pillars of the economies of Canada and its major trading partners. Smaller firms in the 1990s increased their share in exports and in outward foreign direct investment in the OECD countries and in many Asian countries (Source: OECD, 1996).

This is not by chance. SMEs are likely to become more important as Canada's economy becomes more integrated into the global economy because globalization is itself a process of entrepreneurial discovery. Firms that succeed in the global market must be innovative and able to hold on to the profit opportunities their innovations open. These are the same attributes a successful SME needs anywhere.

Large established multinational firms are often poor places in which to launch radical innovations. Most large multinational firms are bureaucratic and hierarchical. They have grown large and successful using the techniques and routines they developed over decades, and they are deeply conservative. Employees or managers with ideas about radical innovations are unlikely to gain much support within such firms. And if, against all odds, they succeed in launching a successful

radical innovation, it belongs to the multinational firm, not to the innovators. Although large multinationals can be active innovators in refining, improving, or extending existing technologies, they seem poorly equipped to carry radically new ideas into the economy.

Consequently, people with radical innovations often establish their own companies. This lets them control the innovation as it develops, and most importantly, gives the innovators clear property rights over the innovation they create.

But this brings another set of problems. Small firms often have difficulty raising capital, handling rapid growth, and accessing world markets. The access issue is especially important because quick access to large markets is often critical to the financial viability of a radically new product.

Currently, if a small firm owns an innovation and is having difficulty bringing it to foreign markets, it can apply to the Export Development Corporation for financial assistance such as trade credit arrangements and default insurance. This may not be the best approach. Large established multinational firms, regardless of what industry they are in, are experienced at applying ideas born in one country to operations in another. Thus, small firms with innovations and large multinational firms might combine forces, using the multinational's experience at transferring technology and other ideas to foreign markets in order to bring the SME's innovation onto the world stage.

In short, we argue that globalization is changing the landscape of competition. Previously integrated firms spin off divisions and become networks of related firms competing consciously or unconsciously together, as a team against other teams. Large firms become central coordinators of networks. In this light, even small firms without valuable innovations can potentially be important supporting firms for a network

of firms' global competitiveness.
Organizations like the Export Development

Corporation (EDC) need to understand this evolution and change with it.

GLOBALIZATION IS A PROCESS OF CREATIVE DESTRUCTION

Creative destruction is the term economists of the Austrian School use to describe the ultimate engine of growth in a market economy. According to the Austrian School, firms compete to create new technology, new products, and new uses for old products. The first successful innovator grows rapidly and takes customers away from rivals that failed to innovate, ultimately destroying those firms. Hence the term "creative destruction".

Empirical and theoretical work in economics now overwhelmingly supports the view that creative destruction is responsible for economic growth in successful, high-income economies. Creative destruction was first proposed in 1929 by Joseph Schumpeter as an explanation for the rapid technological advances of the early twentieth century. Theories of the "knowledge-based economy", "endogenous growth", "the end of work", and many other descriptions of the "new economy" are all variants of this idea. Economists are not exactly sure which variant of creative destruction is right, but we are virtually certain that one of them is.

Creative destruction and globalization are intimately connected. The modern business world is characterized by globalization, by which we mean international connectivity of markets and the interdependence of national economies. This means a Canadian firm's competitors are to be found throughout the world, not just in Canada. For example, a French magazine printed in Belgium on Canadian paper might contain ads for electronic appliances designed in Japan, made in Taiwan, insured in Hong Kong and marketed by a British multinational retailer using American cartoon characters to attract the reader's attention.

Most observers agree that three factors drive this globalization of business. Disagreement usually comes when the topic

turns to whether these developments and the ensuing globalization are good, bad, or ethically neutral.

The first factor that underlies globalization is the explosive growth in technology to connect people and locations. Better information processing and communications technology create a better awareness of international economic opportunities. It also lets companies divide their production processes more. For example, a software designer in Canada can hire computer programmers in India to test software. Despite the fact that the Canadian designer communicates with the Indian programmers only by e-mail, it is possible to maintain detailed direction, feedback, and real time interaction.

The second driving force behind the globalization of business is the steady dismantling of the trade barriers the world erected during the Great Depression of the 1930s. Although free trade remains a political sore spot for Canadian leftists, NAFTA is undoubtedly a boon for small, innovative Canadian companies. Morck and Yeung (1991, 1993), in a statistical study of large US firms, find that a dollar of R&D adds more value in a firm with access to large and rich foreign markets than in a firm whose operations are restricted to the US. This makes sense because financial success for an innovator often hinges critically on the size of his market. An innovation that costs a million dollars generates ten times as much profit if it can be sold into the US market than if it is restricted to Canada because there are ten times as many potential customers in the US. Canada's recent governments have wisely supported liberalized trade, just as other smaller countries are joining regional trade liberalization organizations like the EU, Mercosur, and APEA. Canada's support for the WTO also shows an understanding of the

importance of market access for Canadian innovators.

The third motive force pushing the globalization of business is the widespread economic restructuring and liberalization that followed the fall of socialism in Russia and eastern Europe. These hitherto closed areas, as they cure their economies of the economic and ethical stains of socialism, become new markets and magnets for investment. As socialism crumbled in the former Warsaw pact countries, Soviet aid to developing economies evaporated and socialism quickly lost its appeal there. Finally, as the true nature of Soviet socialism became evident, social democrats, who sought a middle way between it and capitalism, lost credibility. Why follow a "middle way" between qualified economic success and unmitigated economic disaster? The beginning of the third millennium is marked by the emergence of a globally unified liberal economy.

The economies of globalization raise questions about how international trade and investment affect a country's wage levels and interest rates. For example, there is now a vast literature on whether trade or technological development explains the diverging earnings of people with high and low human capital. Also emerging is a literature on whether technology diffusion associated with international investment hurts or helps developed countries' economic welfare. While these discussions of globalization are interesting and insightful, a different angle is more fruitful for understanding the role of small firms in a global economy. Our proposal is that globalization is a process of creative destruction on a global scale.

Let us visualize the globalization process first based on the business opportunities that exist at a given time. Imagine the world cut into disconnected nations, perhaps due to formidable natural and artificial barriers to information, trade and investment flows. Let the world change, with isolated localities now physically connected and artificial barriers to information flow, trade and investment struck down. The old world, where each locality

produced everything its people consumed, no longer makes sense. Agricultural production should become concentrated in places with the best climates and soils. High technology should become focused where skilled people and capital are most readily available. These and other specialized areas should trade with each other, and the world's total production of food, high tech gizmos, and everything else too, increases. Economists call these shifts in the sites of production "structural adjustments". Workers with particular skills migrate to where the return they earn for their skills is highest, and people direct their savings to countries where it earns the best return.

The shift from the old to the new world is not automatic. It relies on the discovery and the appropriation of profit opportunities. Entrepreneurial firms seek opportunities for profit as doing business across borders becomes possible. They find that some of their local goods and services have unexpected value in other locations, and they capture these "international expansion" opportunities by growing and exporting. In the process, international trade and investment increases, productivity rises, wages, prices and interest rates change, consumption patterns adjust, and the old world fades as the new world steps forth. A vigorous process of entrepreneurial discovery on a global scale drives the globalization of business.

The entrepreneurial discovery process, however, is not limited to finding and seizing existing but hidden opportunities. Entrepreneurial discovery is also about innovation, and earning profits from it. Innovation here means not just new products, technologies and production processes. Innovation also includes finding cheaper ways to produce existing products, better marketing techniques, and more efficient organization of activities ranging from design, sourcing, manufacturing, and marketing, to the management of inventory, finance, human resources, and information processing.

Global information flows and access to global markets are important for creative

destruction. First, global market access gives innovators bigger potential markets and, therefore, bigger returns than they could earn in any single nation state. Since innovation is more profitable, we see more of it. Second, practice makes perfect. Firms learn over time to better spot and capture international economic opportunities. In the global economy, firms that fail to learn quickly lose their markets and investors. Third, rapid information flows and easy cross-border business make the world economy more competitive. Prices are lower for consumers, and innovators' profits peter out faster as other innovators displace them. Product cycle

time shortens and discontinuous changes are more frequent. Overall, globalization leads to a faster pace of creative destruction.

In this dynamic world of global entrepreneurial discovery, two features definitely stand out. The first is the widespread effort to innovate and bring innovations to the global marketplace. Second, this global context of the wider and deeper competitive pressure changes the organization of business activities. Competitive pressure makes firms scan globally for more efficient ways to organize themselves. As a result, the landscape of competition changes.

THE INTERNATIONALIZATION OF INNOVATION

In this section, we argue that getting the most out of innovations is easiest if large multinationals and small firms work together.

MULTINATIONALS CONDUCTING ENTREPRENEURIAL DISCOVERY

Why are some firms multinationals? The simple answer is that firms become multinationals because they see and capture profitable international investment opportunities. This is a poor explanation, for local firms usually have a "home court advantage" over outsiders. Indigenous firms know more about the local legal and regulatory environment and have established relationships with local supporting businesses, governments, and customers. If this were the full story, multinationals would be big money losers.

For a multinational to compete at all, it needs an advantage of its own to offset local firms' home court advantage. A wealth of empirical evidence suggests that the "edge" multinationals use is usually unique technology, marketing advantages, or other skills that indigenous firms simply do not have.¹

The next question is why multinationals actually have to set up operations in many countries. Why do they not just use arm's-length contracts like licensing agreements that let their technology to local firms in return for royalties? That way, the multinational would not have to spent money to overcome its local competitors' home court advantage.

The answer is that setting up reasonable arm's-length arrangements is harder than it looks. It is impossible to license "soft skills" like training, decision-making, etc. Firms with unique technology are always afraid of intellectual piracy, reverse engineered knock-offs, and the like. Firms with valuable brand names worry about shoddy goods the licensee might market under its logo, diminishing the value of its brand name. These are reasonable fears, and drive many firms to extreme lengths to protect their intellectual property rights.

If arm's-length contracts are problematic, why don't the firms just export into foreign markets? The problem here is that this works only for some goods. Many high-technology goods, like software and hardware, are packages that include both the good itself and a promise of service and technical assistance. These require people *in situ* in the foreign market. And even when the goods being exported are not of this type, shipping across

¹ See Morck and Yeung (1991, 1993) for their evidence and a summary of earlier work.

most international borders still causes delays, inspection hassles, and adds to costs. Tax complications often arise. And if a cross-border deal goes sour, dealing with foreign laws and courts can be expensive and difficult.

The solution the most innovative firms of the twentieth century developed to all these problems is the "multinational firm". These firms can quickly introduce an innovation in many countries simultaneously, greatly magnifying the innovation's return. Most importantly, they can do this without losing control over their intellectual property.² According to this theory, by their very nature multinational firms are vehicles for internationalizing Schumpeterian creative destruction.³

The evidence strongly supports this theory of multinational firms. Morck and Yeung (1991) show that a multinational firm's share value rises with the number of countries in which it has subsidiaries, but only if it devotes substantial resources to R&D or advertising. The share values of multinationals that spend little on R&D and advertising actually decline as the number of countries in which it has subsidiaries rises. Morck and Yeung (1993) show that making a foreign acquisition increases share value of a US firm only if it has spent substantial funds on R&D or advertising in recent years. Otherwise, making a foreign acquisition reduces its share value.

This means that most successful, established multinationals were once innovators themselves. Once established, multinationals have a threefold advantage in creating and marketing further innovations. First, their past success often leaves them with abundant financial resources for developing and commercializing other innovations. Second, multinational firms can watch for innovations throughout the world, and for the profit opportunities an innovation in one

country might have in another. Third, multinationals are already present in many foreign markets, so they have eroded local firms' home court advantage to some extent at least. These advantages let a multinational quickly implement viable innovations on a global scale at relatively low risk and cost.

SMALL FIRMS AS RADICAL INNOVATORS

Really radical innovations tend to come from small firms, not large established firms.⁴ Yet the continuous development of radical innovations, ideas that build new industries or share old ones, probably underlies most of the 20th century's economic growth. Personal computers, not better typewriters, created millions of jobs in the 1980s and 1990s.

Innovations arise only when property rights are properly protected. Acs *et al.* (1997) argue that an innovator in a large company only has very limited property rights protection. The innovation generally belongs to the corporation, not the employee who invented it. This creates a tendency to free ride on others' innovative efforts in a large company. Some large firms try to alleviate these problems with incentive contracts. But this can put yesterday's successful innovators and today's at loggerheads. A radical innovation, like the personal computer, can jeopardize the on-going profits from past innovations, like mainframe computers. If yesterday's innovators manage the firm in question, they may actually discourage or suppress the radical innovations. Betz (1997) argues that this is precisely why IBM missed the PC revolution in the 1980s. In contrast, innovators running their own small firms are in control, have clear property rights over their innovations, and get rich from pushing radical innovations forward.

Almeida and Kogut (1997) argue further that small firms' approaches to innovation is different from that of large firms. They point out that SMEs have fewer resources than large firms, and therefore rely more on local networks for important inputs to their

² This view of why firms become multinationals was originally proposed by Caves (1996).

³ See Schumpeter (1934).

⁴ See Almeida and Kogut (1997). Acs *et al.* (1997) provide further evidence on this point.

innovation processes. They use patent citation data to show that start-up firms in the semiconductor industry, compared to large established firms, innovate in less 'crowded' areas (i.e. those with fewer patent applications), and cite neighbouring firms' patents more.

Because of these advantages, SMEs are often better than established multinationals at creating radical innovations.

SMALL AND LARGE FIRMS AS SYMBIOTIC PARTNERS IN GLOBAL COMPETITION

International entrepreneurial success requires not just the discovery of a valuable innovation. It also requires that the innovation be introduced successfully into world markets, and that the innovator get at least a large part of the profits.

SMEs have limited resources compared to multinationals, and are at a disadvantage when it comes to internationalizing their innovations. Acs, Morck, Shaver, and Yeung (1997) suggest that SMEs and established multinationals often have symbiotic relationships that bring the SMEs' innovations to world markets quickly and to their mutual profit.

An SME's innovation and a multinational's assets and capabilities are often "complements" (in economists' jargon). That is, each can add value to what the other already has. The small firm has a valuable innovation, and the multinational has conduits to markets all over the world. The small firm can sell its product to the multinational and let that firm worry about dealing with foreign laws, customs, and customers.

The SME can expand its operations dramatically, producing for the entire global market, without doing any export business directly and without establishing any subsidiaries of its own in foreign markets. The SME gets the profits from globalizing its innovation without the costs of building its own marketing operations in foreign countries. Instead it pays the multinational to use its existing conduits into foreign markets.

There are many examples of small firms using large firms' global access to internationalize their market reach. Games-Casseres (1997) reports cases that small electronic firms form alliances with large firms to increase their capability to exploit their niches on grander scales. Many garment factories in developing countries benefit from such intermediated internationalization. A high-profile Canadian example of "intermediated internationalization" is Ballard Power's relationships with the world's largest automakers. Ballard developed a new fuel cell technology that makes non-polluting cars "almost" economically viable. Rather than develop, commercialize and sell its product into global markets on its own, Ballard is establishing relationships with Ford and Daimler-Chrysler.

As long as the multinational's "cut" is less than the SME's expected cost of bringing its product to global markets itself, the SME does better by sitting at home and growing. Small Canadian firms with innovations have the most bargaining power in negotiating such deals with established multinationals if there are many multinationals from which to choose. If the Canadian innovator has a monopoly over its technology, but several multinationals would be equally good at providing conduits to world markets, the Canadian innovator can dictate terms for whatever arrangement best suits it.

It is important to note that the nationality of the multinational matters less than the available number of multinationals. Canadian SMEs have more bargaining power if they can choose between two US-based multinationals as conduits to world markets than if they must deal with only one Canadian-based multinational. Given this, Canada's current policy of openness to foreign-based multinationals can be seen as potentially beneficial to Canadian SMEs.

Global competition is intense and increasing. Large established firms are increasingly on the lookout for more efficient partners everywhere in the world. To meet this demand, multinationals are becoming increasingly efficient conduits for bringing

innovations from one country to markets in others. This means an innovative Canadian SME can quickly wrest markets all over the world from the firms that now control them if it has a clearly better or cheaper product. But it also means an under-performing small firm (or sub-unit of a large firm) in Canada can quickly lose its customers to another more innovative small firm in a country on the other side of the world. Globalization increases both the returns and risks for small firms.

In summary, large and small firms are playing complementary roles in creating innovations and bringing them to global markets. Multinational firms are set up to internationalize innovations--that is what they do. Small firms are often better at creating innovations, especially truly radical ones. Small firms' innovations and large firms' market access are often complementary. By working together, they can exploit real synergies to globalize the market for the innovation and to enhance each other's profits.

DIRECT VS. INDIRECT ACCESS TO FOREIGN MARKETS

R&D and other expenses related to innovation are mainly up-front costs. Once these are paid, a bigger scale of operations translates into greater profits. The critical aspect of globalization for SMEs is that they can magnify the returns on their innovations if they sell into world markets, rather than just the Canadian market. The developments discussed above mean that in today's global economy a Canadian SME has two options to enter foreign markets: intermediated and direct entry.

An intermediated entry occurs when a Canadian SME sells its product to an established multinational operating in its domestic market. The multinational then either resells the product abroad or uses it in a product it markets abroad. An example of the latter is a car marketed by a US automaker using an innovative Canadian-made auto part. The important point is that, either way, the Canadian part maker can achieve the scale of operations the global market allows by just selling to the multinational automaker in Canada (or NAFTA).

A direct entry means either exporting into the foreign market or establishing a subsidiary there. Direct entry preserves the SME's property rights over its innovation and therefore its return on its innovation, but raises the SME's costs. Intermediated entry keeps the costs low but requires the SME to split its profits with the multinational intermediary.

Which makes the most sense? The answer differs for different firms selling different sorts of products. The answer also differs over time as technological changes alter the trade-offs in this decision.

COSTS AND BENEFITS

Direct entry into a foreign market, either by exporting or by setting up a presence *in situ* in the form of a subsidiary, is costly. Foreign buyers who do not pay their bills are often difficult to chase down. Extending trade credit to buyers can be more difficult if they are located abroad. Performance and bid guarantees can be harder to cover when doing business abroad. Foreign investment can be subject to political and other forms of risk that are not usually factors in domestic investment decisions. The mandate of the Export Development Corporation (EDC) is to help Canadian firms meet these costs.

Intermediated entry involves the Canadian SME selling to an existing multinational firm, which then takes the product to global markets, either directly or as an input to a final product it sells globally. As long as the multinational can do this at a cost below the cost the SME would have to pay to enter global markets directly, intermediated entry should be preferred.

For example, suppose an SME in Canada has developed an innovative auto part that should add \$1,000 to the value of a car containing it, and that it cost no more to make than the replaced part. Suppose the SME finds that it would cost an average of \$500 per part to ship the parts to auto plants all over the world. The SME does not dare set up subsidiaries to manufacture the part abroad for fear of losing control of the technology to intellectual pirates. The SME's unit profit from direct entry into global markets is \$500 per part.

Now suppose the SME just sells the parts directly to automakers that are already operating in Canada (or NAFTA). Suppose it costs them \$100 per part to ship the parts to their assembly plants worldwide. The multinationals will therefore pay no more

than \$900 extra per part, rather than \$1,000. Since \$900 is better than \$500, the SME opts for intermediated globalization.

THE IMPORTANCE OF BARGAINING POWER

The price the multinationals pay could be anywhere between \$501 and \$900 per part. If the SME has more bargaining power than the multinationals, the agreed price will be closer to \$900. If the multinationals have more bargaining power, the price will be closer to \$501. The SME's bargaining power is greatest when it alone knows how to make the part (or it has solid patents) and when there are many multinationals with whom it might do business. The SME can sit back and consider rival bids from the multinationals. The multinational's bargaining power is greatest

when it is the only plausible conduit between the Canadian SME and world markets. If only one multinational is present in the SME's domestic market, it can offer \$501 knowing that no higher bids will appear. In economist's jargon, the monopoly multinational is "extracting a rent" (i.e. unearned income) from the SME of \$399 per part. Of the \$1,000 value the part adds to a car, the multinational gets \$499 and the SME \$501. The multinational's distribution costs are \$100 per unit so its rent is \$399. The SME's \$501 per unit is its return on its innovation.

PUBLIC POLICY

Canada currently assists SMEs that export directly into foreign markets through the Export Development Corporation (EDC), a federal crown corporation. Although the EDC's purpose is to promote exports in general, it emphasizes its increasing support for Canadian SMEs. In 1998, more than 85 per cent of EDC's customers were SMEs (firms with sales of C\$25 million or less). The EDC provides Canadian exporters with insurance and their buyers abroad with financing. Do such policies make sense in the world described in the preceding sections of this paper?

WHAT THE EXPORT DEVELOPMENT CORPORATION DOES

The EDC's insurance policies protect Canadian exporters against various losses due to commercial and political risks. EDC insurance services include: short-term and medium-term credit insurance; bid/performance-related insurance and guarantees; surety bond support; equipment (political risk) insurance; and foreign investment insurance. The risks covered include buyer insolvency, default on payments, repudiation of goods, contract termination, foreign exchange conversion or transfer payment difficulties, war, revolution or insurrection preventing payment,

cancellation of government import or export permits, wrongful calls on bid/performance letters of guarantee, and inability to repatriate capital or equipment due to political problems. In 1998, the EDC paid out just under C\$50 million in insurance claims.

The EDC's financing products "enable Canadian exporters to provide their customers with flexible medium- or long-term financing." These products include: lines of credit with foreign banks or agencies worldwide; protocols; note purchase arrangements; direct buyer loans; long-term pre-shipment financing; leveraged lease financing; and project risk financing packages.

In the 1990s, private insurance companies assumed increasingly important positions in the export credit insurance market in North America and the world. These private firms offered an increased range of products, scope of coverage, and level of efficiency. They have taken significant market share from the EDC.

Other private sector firms, such as factors and banks, provide many of the financial services in other countries that the EDC provides in Canada. Although Canada has an active factor industry, Canadian banks have apparently not entered the export financing business to the extent that banks in many European countries have. This may reflect the

equity cross-ownership of banks and other firms in Europe, but this is unlikely to be the whole story.

In practice, the most important products provided by the EDC for SMEs appear to be the following: insurance that covers up to 90% of a loss if a foreign buyer doesn't pay, and loans to foreign buyers of Canadian capital goods. In the latter, the EDC pays the Canadian exporter directly and then collects from the foreign buyer.

MARKET FAILURES IN FINANCIAL SERVICES AND INSURANCE

The operations of financial firms, and of insurance companies in particular, are known to be influenced by economic distortions that arise when the two parties to a transaction have different information about the real value of the goods or services being exchanged. In the context of the EDC, the two most important distortions are called "adverse selection" and "moral hazard".

Adverse selection problems occur when only sick people buy medical insurance and when only financially imprudent people seek loans. If SMEs only seek EDC insurance when exporting to buyers they know to be untrustworthy, the EDC's claims rise and so must its insurance premiums. As the premiums rise, exporters restrict obtaining EDC insurance or financing to deals with buyers they know to be very, very untrustworthy. The claims rise further and the premiums do too.

Financial and insurance companies try to limit adverse selection problems by charging risk premiums on policies or loans. This works only if they can evaluate risk well. Financial and insurance companies generally must accept that some degree of adverse selection is inevitable and build these costs into their price schedules.

Moral hazard problems occur when having insurance makes people less careful. If SMEs who have EDC insurance or financial backing grow careless about screening deals for untrustworthy buyers, this raises the EDC's insurance and financing costs. Moral hazard ranges along a spectrum from

carelessness through negligence and recklessness to outright fraud. The last might involve a scam where a bogus Canadian exporter and bogus US importer set up a paper trail of successful deals with EDC backing and then, based on their past performance, obtain EDC financing for a much bigger deal. They take the money and run to a tax haven. Insurance companies try to limit moral hazard problems by using deductibles or co-payments. The problem with these is that, if they are large enough to seriously cut into moral hazard behaviour, they are often so large that they no longer provide adequate insurance. Again, private sector insurance and financial firms try to prevent moral hazard problems from getting out of hand, but usually accept that some degree of moral hazard is unavoidable.

Once these problems get started, they tend to grow as more and more people discover the trick. Private-sector firms are usually quick to adjust their operations to limit moral hazard and adverse selection problems. Public agencies have been slower. The government deposit insurance provided to US savings and loan banks is a recent example of a case where these twin problems grew to enormous proportions. The virtual collapse of the US government's Pension Benefit Guaranty Corporation is another.

Moral hazard and adverse selection problems make financial institutions and insurance companies wary of businesses with no track records or spotty track records. Thus, SMEs often find themselves unable to obtain financial backing and insurance at reasonable rates. It is this market failure that the EDC is charged with correcting.

THE EDC AS A SOLUTION TO MARKET FAILURE IN FINANCIAL SERVICES AND INSURANCE

The EDC can attack this problem in two ways.

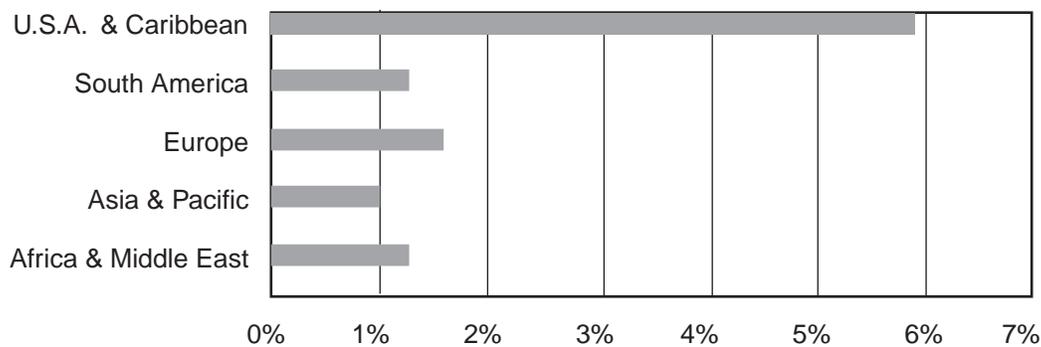
One plan of attack the EDC might use would be to explicitly provide insurance and financial support at attractive rates for firms that, because of adverse selection and moral hazard fears, cannot obtain these services

from private-sector providers. This approach is certainly feasible, but it is a strategy that explicitly aims to lose money. If the government feels that losing money to adverse selection and moral hazard problems is an acceptable cost to bear in order to make financial services and insurance more accessible to SMEs, this strategy is appropriate. This is a political decision, not an economic one.

It is important to note that the EDC cannot be expected to rectify market failure problems unless it is allowed to lose money consistently. If the business in question could be done profitably, or even just without losing money, the market would not have failed and the EDC's presence would be unnecessary.

Figure 1 shows the value of EDC claims paid out as a fraction of its business in each geographic area. The claims and business values for the USA and Caribbean are mainly for deals in the US market. The amazingly high risk associated with EDC-backed activity in the US certainly suggests that it might be following a strategy of accepting higher levels of adverse selection and moral hazard problems than private-sector financial and insurance companies could absorb, at least in that market. Certainly, that the EDC describes the US as “the riskiest market for Canadian exporters” is worthy of further investigation if this is not a deliberate policy. The United States is not usually listed among high-risk markets like sub-Saharan Africa and the Middle East.

Figure 1. EDC Claims paid as Percentage of Total Business, Geographic Breakdown



Based on claims and business activity data, by geographical region, as listed on EDC's website.

A second option the EDC might follow would be to gather better information about its clients than private sector insurers or financial institutions could obtain. Using this data, it could charge more appropriate risk premiums, deductibles, and co-payments, and in this way defeat the adverse selection and moral hazard problems that caused the market to fail.

To apply this approach in Canada would be impractical. First, an arm of the government assembling financial and psychological profiles of citizens would raise very serious civil liberty issues. Second, insurance and financial

services companies already have a great deal of information about their customers and potential customers. It is hard to see how the EDC could obtain better data.

A more politically acceptable approach might be for the EDC to use the sovereign power and political clout of the Canadian government to find and beggar defaulting buyers in foreign countries. It is conceivable that a government agency might be better at this than the private sector equivalent, a “vulture capital fund”. Legal talent and political sway, not police work or espionage, might be the critical element here.

MARKET FAILURES NEED TO BE CHECKED REGULARLY

Market conditions change as technology changes, legal institutions evolve, and political environments shift. What was unquestionably a serious market failure twenty or ten years ago may now have become a trivial matter. Telephone service in 1970 was a natural monopoly. The idea of two sets of wires running side by side to every house in Canada so that two phone companies could compete for everyone's business was rightly seen as absurd. The solution to this market failure was to have a monopoly phone company subject to rigorous government regulation. Today, with cell phones, direct to satellite phones, and internet telephony, the telephone business is one of the most competitive industries in the economy.

Do the market failures that justified the EDC remain pressing? Let us review the sorts of problems the EDC is expected to remedy. Direct entry into a foreign market, either by exporting or by setting up a presence on the ground in the form of a subsidiary, is costly. Foreign buyers who do not pay their bills are often difficult to chase down. Extending trade credit to buyers can be more difficult if they are located abroad. Performance and bid guarantees can be harder to cover when doing business abroad. Foreign investment can be subject to political and other forms of risk that are not usually factors in domestic investment decisions. The mandate of the EDC is to help Canadian firms meet these costs.

As financial markets develop, these costs of direct entry are changing, and private-sector alternatives to the EDC are increasingly available. An active market now exists for non-performing accounts receivable in the United States and other countries, where so-called "vulture capital funds" that specialize in dealing with claims against bankrupt firms and deadbeats in general, buy up these claims and then pursue them. As their banking operations grow more global, Canada's banks should become more able to extend credit to buyers abroad, either on their own or in concert with the buyer's bank. Performance

insurance and foreign investment insurance are areas of growing interest for private insurance companies.

These trends do not necessarily mean the EDC is no longer needed, but it may soon face the choice of either joining the private sector or redirecting its activities towards areas where private initiatives are less viable. Candidates might be foreign legal assistance; the provision of information about foreign regulations, markets and institutions; information dissemination and clearinghouse activities.

THE COST OF THE MEDICINE

It is a cliché in economics that correcting market failure invariably distorts other parts of the economy. When public policy makers are contemplating intervening to correct one problem, economists are increasingly persistent in reminding them to consider what further problems might ensue from solving the first one.

What economic distortions does the EDC cause? If the EDC is competing with private firms rather than treading where they dare not set foot, it may be harming the private financial and insurance industries. If it is providing financial backing for export and FDI deals that would not have happened otherwise, the distortion is more complicated.

We argued above that Canadian SMEs can enter foreign markets either directly, by exporting into them or establishing subsidiaries there, or via an existing multinational--in what we called intermediated entry.

The EDC's activities are generally aimed at subsidizing direct entry by Canadian firms into foreign markets. This may not be helpful to Canada's overall economic growth if multinationals would have facilitated intermediated entry by these firms into global markets anyway. An argument can be made that helping Canadian firms access foreign markets lets them operate at large enough scales that innovation becomes more profitable for them. But if the EDC is merely subsidizing direct entry at the expense of intermediated entry into foreign markets, its

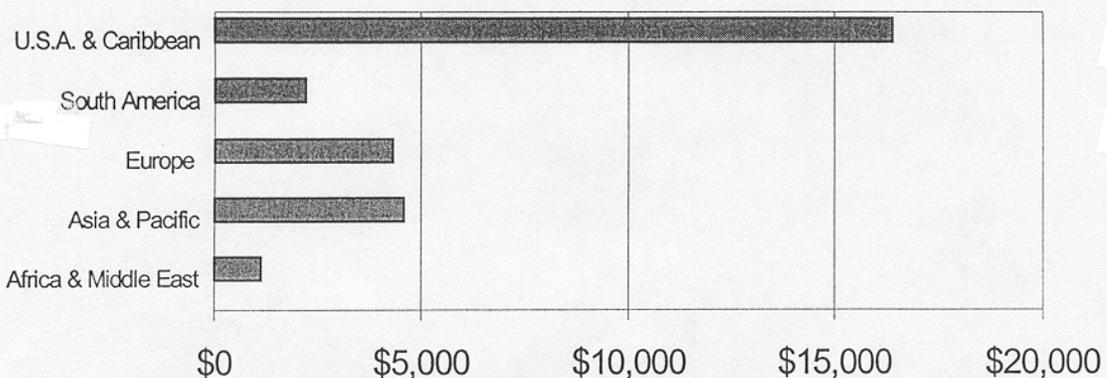
activities are of little overall value. Indeed, the availability of EDC support may even keep Canadian SMEs from looking for ways to use multinationals as intermediaries when this would actually be the most profitable way to enter foreign markets.

If the EDC is distorting Canadian firms' behaviour towards greater use of direct entry into foreign markets and less use of intermediated entry, it is actually encouraging waste. It is wasteful for an SME to develop its own in-house expertise in how to do business in each foreign market when that expertise already exists in established multinationals and can be purchased more cheaply by giving the multinational a cut of the SME's profits.

As Figure 2 shows, most of the EDC's activity has focused on assisting Canadian

firms in exporting to other countries in North America. Again, this appears to be mainly to the United States. The United States, because of its geographical proximity to Canada, is a natural market for Canadian firms. By entering the US market directly, Canadian firms can achieve the scale of operations needed to render innovations more profitable, and this can spur economic growth and productivity gains. Entering the US market might also connect Canadian SMEs to US-based multinationals that do little business in Canada, but that would serve as good conduits for intermediated entry into other world markets.

Figure 2. The Value of EDC-backed Activity (in Millions), Geographic Breakdown



As listed on EDC's website

But this natural economic draw of the US market should render EDC assistance in reaching that market unnecessary. The high *ex-post* risk of EDC-backed ventures into the US market illustrated in Figure 1 suggests that the EDC may be overly tolerant of adverse selection and moral hazard problems in that market. The concentration of EDC backed activities in the US market illustrated in Figure 2 shows that there is ample scope for scaling back EDC support on that front.

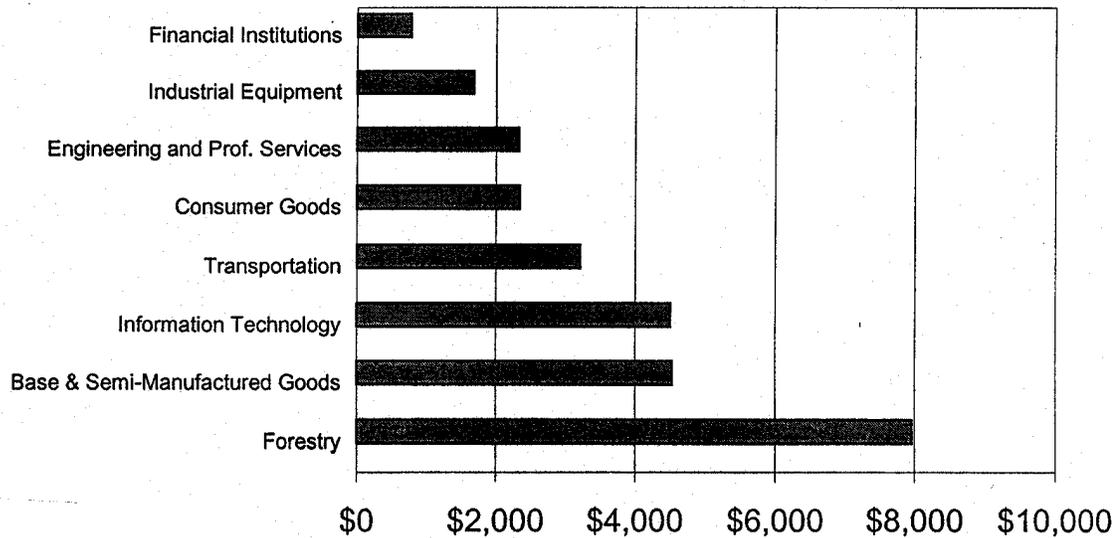
Finally, the distribution of EDC support across industries may distort the economy.

The firms that should benefit most from access to global markets are those in industries where the pace of innovation is rapid. We know that fast access to large markets is the key to making an innovation pay for itself quickly. Therefore, it would make sense if the EDC were mainly assisting firms with demonstrably valuable innovations to enter foreign markets. Failing this, one might expect EDC assistance to focus on industries where a larger scale of operations associated with global market access might induce future innovations.

Table 3 breaks EDC activities down by industry. Note that EDC assistance is concentrated in forestry activity, with base and semi-manufactures materials second. Although information technology, engineering, and industrial equipment all obtain EDC assistance, the primacy of raw materials activity is confusing. It would be

comforting if the forestry sector were developing new technology and needed export assistance to gain a large market share quickly to pay for the R&D costs. Unfortunately, the EDC provides little information on this point, leaving open the interpretation that it provides subsidies to politically connected, low-tech industries.

Table 3. EDC-backed Activity (in Millions), Industrial Sector Breakdown



As listed on EDC's website

WHAT ROLE SHOULD THE EDC HAVE IN THE NEW ECONOMY?

The EDC can probably find ways to limit its moral hazard exposure, to filter out scams, and to continue in business in its present form. The more basic problem is, should it do so?

Exporters who benefit from EDC insurance or financing arrangements should be expected to argue that this support was essential to their successful penetration of foreign markets. This may doubtless be true in many cases. The problem is that this may not necessarily be a good thing.

An export deal here or there is nice for the exporter, but may do little to advance the firm into global markets if its optimal strategy is

what we above called "intermediated internationalization". By assisting small Canadian firms in entering foreign markets directly, the EDC may be impeding the natural use of intermediated entry via existing multinationals' operations.

Certainly, if the Canadian firm is a truly radical innovator, with an innovation that is hard to protect against intellectual theft, it might have trouble using multinationals as conduits. It might also have trouble getting bank financing, and might be forced to use venture capital finance. But how open is the EDC to bankrolling ideas that, at first, seem offbeat. Given the "moral hazard" and "adverse selection" problems alluded to

above, it should probably not be terribly

welcoming in such cases.

CONCLUSION

We have argued that small firms are important parts of the global economy even if they do not export directly and have no foreign subsidiaries. We see globalization as a process of entrepreneurial discovery. The process involves creating innovations, discovering profitable applications of the innovations across borders, and capturing the profits that follow. The process is invigorated by technological progress in communications, by general economic liberalization, and by the liberalization of international trade and investment flows.

Because of better property rights protection, innovators often prefer to start their own firms. Thus, radical innovations often show up in SMEs. Due to their more limited resources, smaller firms also tend to search for innovations in less crowded areas of research. This also leads SMEs to find disproportionately more radical innovations.

In contrast, large multinational firms may be poor at creating radical innovations, but often possess well-developed channels for moving products from one country to another.

These differences mean that SMEs and large multinationals can have a synergistic relationship in globalization. Smaller firms' profits from their innovations can sometimes be higher if they use established multinationals as conduits to foreign markets and so avoid the cost of "going global" alone. In turn, intermediating small firms' worthy innovations increase established multinationals' competitiveness and profits.

Small and large firms can play complementary roles in the process of entrepreneurial discovery in the global economy.

Canada's Export Development Corporation subsidizes firms that are entering foreign markets directly. If many of these firms could have reached world markets using a multinational as an intermediary, the EDC's efforts in this area may be wasted. To the extent that shifting firms towards direct entry into foreign markets and away from intermediated entry would advance Canadian public policy, the EDC is probably a success.

The EDC also provides insurance and financial backing to Canadian firms that wish to enter foreign markets directly but that cannot obtain these services from the private sector at as attractive rates. Private sector firms in these lines of business screen their customers to filter out adverse selection problems and moral hazard problems, which cause markets to fail to some extent in these industries. It is implausible that the EDC can screen its customers better than private firms can. The EDC is therefore presumably accepting a higher burden of adverse selection and moral hazard related costs than are private sector firms. If so, the EDC cannot be expected to make money, or even to operate on a break-even basis. If the EDC were operated on a break-even or better bottom line in perpetuity, it could not back deals a private-sector firm would reject.

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