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CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES CSC 29 / CCEM 29

EXERCISE/EXERCICE NEW HORIZONS

THE CANADIAN DEFENCE INDUSTRIAL BASE

By /par LCol A. Meinzinger

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ABSTRACT

Canada requires a vibrant domestic Defence Industrial Base (DIB) in order to provide for future security requirements and to contribute to the economic well being of our nation. Implicit within this argument is that a political-military and economic benefit is derived from a strong DIB. These two rationale for a vibrant DIB can be linked directly to overall national power. Given the need for a domestic defence industry capacity, it follows that in order to better manage the Canadian DIB, government must ensure that a comprehensive defence industrial policy is developed. This policy must provide the necessary direction and policy instruments to sustain the Canadian defence industry. These instruments must include the requirements for the following; a balanced defence industrial policy vision, improving international market access and promoting industry innovation through government led R&D programs.

Defence has always been the Cinderella of Canadian government policy and, except in wartime when all the pumpkins have been hurriedly converted into golden carriages (or tanks), Cinderella has remained in the scullery.¹

Over the past 12 months, the issue of defence spending has gained significant attention within the public forum. While this debate is often framed in terms of either the opportunity cost to other federal programs or our relative standing with United States (U.S.) and NATO allies, very little attention is paid to the impact of this spending on the Canadian Defence Industrial Base (CDIB). Not too long ago, the 1994 White Paper articulated clearly the linkage between defence policy and domestic industry, noting that in "today's world, multi-purpose, combat capable forces require the support of a technologically sophisticated industrial base to be effective."² The White Paper also highlighted the positive relationship between defence Research and Development (R&D) and procurement with the growth of the high technology sector and commercial spin-offs.³ Thus, it was recognized that any reduction in defence spending would have a negative impact upon the CDIB. The White Paper concluded that both the Department of National Defence (DND) and the Government of Canada must work closely with defence industry in order to "maintain essential defence industrial capability...(and) to foster defence conversion, overall industrial growth, and the international competitiveness of Canadian firms consistent with our international trade agreements."4

Although the importance of the CDIB was explicitly outlined within the White Paper, very little has been done by the government in terms of nurturing its development.⁵ This point has been stressed by a number of Canadian defence industry advocates and agencies. The Prime Minister's recent statement, that the call for increased defence spending is simply the veiled voice of industry lobby groups, is reflective of the government's apathetic approach to industrial base policy.⁶ Consequently, devoid of any formal government DIB policy, this key sector of the

economy has been left to its own devices. Even at the strategic military level, it appears DND is content to allow competitive market forces to shape and define our future DIB structure.

Australian industry is a vital component of Defence capability...through its role in the national support base. So a strong industry base benefits Defence. We must take a strategic approach to our defence industry base, and not regard its capabilities as simply a by-product of procurement decisions.⁷

As portrayed in the above quote, the Canadian laissez-faire approach to the DIB runs counter to that of Australia. In a recent comprehensive government report on transforming the U.S. DIB, the Department of Defense noted that "it is the challenge of today's policymakers to help shape an industrial base that will supply 21st century warriors as effectively as it has prior generations of American men and women in uniform."⁸ Hence, in line with the position of other allied nations, it will be argued that Canada requires a vibrant domestic DIB in order to provide for future security requirements and to contribute to the economic well being of our nation. As such, government must ensure that a comprehensive defence industrial policy is developed, one which provides the necessary direction and policy instruments to sustain our defence industry.

Prior to developing the arguments in support of a vibrant domestic DIB, a working definition of an industrial base will be provided in order to frame the discussion. Addressed from a Canadian context, the key political-military and economic rationale for a healthy DIB will be outlined. In order to better gauge the CDIB political-military rationale, it is essential to first examine the evolving Canadian-U.S. relationship. The subsequent analysis of the economic rationale for a CDIB will necessitate an overview of both the size and complexion of the Canadian defence industry along with a theoretical review of the nature of the defence industry. Lastly, in advocating the need for the issuance of a coherent defence industrial policy, a number of key policy instruments will be detailed. These instruments will include the requirements for

the following; a balanced defence industrial policy vision, improving international market access and promoting industry innovation through government led R&D programs.

As noted above, the government has not placed much emphasis upon the CDIB. The vacuum of "scholarly"⁹debate on the CDIB, noted by Haglund (1988) fifteen years ago, persists today. It would seem that the lack of an appreciation for the importance of this vital domestic capability is best reflected in the extant requirement for a national level defence industrial policy. Reflecting upon the CDIB issue, Treddenick (1988) has suggested that the entire subject remains somewhat "hazy."¹⁰ To a large degree, this haze is related to the lack of a universally accepted DIB definition. For instance, Haglund (1988) suggests that a DIB reflects "a state's ability to generate and sustain the industrial capability required for amassing military power in the modern industrialized era."¹¹ More elaborate U.S. definitions view the DIB as:

The combination of people, institutions, technological know-how, and facilities used to design, develop, manufacture, and maintain the weapons and supporting defense equipment needed to meet U.S. national security objectives. The base consists of three broad components: a research and development component, a production component, and a maintenance and repair component.¹²

From the above two definitions, therefore, a DIB is best viewed as that component of a national economy which provides the resources and services necessary to support the security needs of a country, during both peace and war.¹³ The latter of these two scenarios requires that the DIB retain a capability to ramp-up and surge output.¹⁴ As an embedded component within our national economy the defence industry forms the backbone of the DIB capability. The two key rationales that support a vibrant national DIB are political-military and economic in nature. Each of this rationale will be examined in turn from a Canadian perspective.

From the aforementioned working definition of a DIB, it is evident that the readiness capacity derived from this structure is an essential element of military power. This dimension of

the DIB is referred to commonly as defence industrial preparedness, an issue closely tied to mobilization planning. Such planning involves ensuring a nation's access to appropriate war stocks and ability to replenish them in a timely manner.¹⁵ A nation unable to support defence commitments with the necessary war-fighting resources, capabilities and support structures will be viewed to have limited military power.¹⁶ Given that military power is but one component of national power, it is evident that, a DIB may be viewed as an essential enabler within this equation. Thus, a healthy DIB contributes directly to a nation's sovereignty and security. This theoretical relationship is most easily understood within the extreme U.S. example where the political-military power linkage remains fundamental to their approach to DIB nurturing. The sheer magnitude of the U.S. DIB, sometimes referred to as the Military Industrial Complex, contributes significantly to the deterrent element of their military power. Recent U.S. government studies have reinforced the need to develop accurately the future path of the defence industry across the full spectrum of security capabilities in order to ensure that their position as a global super-power is not compromised.¹⁷ Consequently, this focus necessitates that proper signals and guidance are provided to the defence industry in the form of a coherent and engaged defence industrial policy.

Notwithstanding the importance of a DIB to national power, it is important to explore this rationale within the context of the current geopolitical realities facing Canada. Formerly, Canada has leveraged her military capacity as a junior partner within a bi-lateral relationship with the U.S. In line with the theories of military alliances, membership has yielded a political-military benefit far in excess of cost.¹⁸ Given Canada's traditional multi-lateralist approach to defence, it is essential that the direct correlation between military preparedness and military and national power be well understood. The recent rebuke by the American ambassador to Canada for the

lack of support to Operation Iraqi Freedom suggests that our ability to free ride militarily may have some upper limits.¹⁹ By extension, it is evident that our political maneuverability with the U.S. may indeed be correlated to our maintenance of an appreciable defence capacity. While defining this level will always remain subjective, it is important to underscore the increased expectations emanating from the U.S. in terms of the Canadian military standing. Though some will argue that Canada must maintain a sovereign independent security strategy, the economic reality facing Canada is that we derive a preponderance of our prosperity as a consequence of access to the American market.²⁰ With ninety per cent of national trade flowing to the U.S., Canada can ill afford to alienate herself from the U.S.²¹ The implication of Mr. Cellucci's recent comment that "security will trump trade"²² is that our military preparedness is closely tied to Canadian national power at large.

A related geopolitical reality facing Canadian defence industrial preparedness is the degree of importance of the U.S. market to the health of our DIB. This market is critical in generating export revenue along with providing domestic defence producers the required technological inputs for production.²³ Thus, access to this market is critical to the long-term viability of many Canadian companies. Traditionally, Canadian firms have experienced a privileged status within the U.S. market under the International Traffic in Arms Regulations (ITARs) exemption.²⁴ This exemption allows U.S. companies to export defence goods to Canada without the need for an export permit. As a consequence of perceived U.S. technology violations by Canada, in April 1999, the U.S. unilaterally removed the Canadian ITARs exemption, thereby creating significant barriers for Canadian companies to import defence goods.²⁵ These alleged violations involved breaches of certain technology security agreements, including the movement of technology into foreign hands. Although elements of the exemption have been re-instated, a

protectionist perspective continues to cultivate within the U.S. As Boezer (1997) has argued, strengthened U.S. views on the strategic requirement to maintain an absolute technological superiority may lead to further trade barriers associated with defence technology.²⁶ Obviously, this trend will impact negatively upon the CDIB. Currently, companies are finding it more difficult to conduct business with the U.S., in some cases, electing to move operations to the U.S. in order to improve production efficiency. In addressing this issue from a Canadian perspective, one journalist has lamented that, "the good old days are likely to be over."²⁷

In view of the ever-changing relationship with the U.S., it is clear that a strong domestic DIB provides a degree of assured support to DND and government. Unpredictable trade relations with the U.S. suggest that a degree of DIB independence is essential in order to ensure military preparedness is not left vulnerable to external factors. While the geopolitical realities facing Canada today may necessitate a broader defence commitment within our bi-lateral relationship with the U.S., the Canadian government must manage this arrangement in order to define the degree of defence industrial independence required.²⁸

Beyond this compelling political-military rationale for the maintenance of a strong defence industrial base, economic motives also serve to support its existence. As economic power also contributes to overall national power, a strong domestic DIB can contribute significantly to the economic well being of a national economy. Lobby groups such as the Canadian Defence Industries Association (CDIA) and Aerospace Industries Association of Canada (AIAC) often base their platforms upon the positive macro-economic effects generated by the domestic defence industry.²⁹ In order to assess properly the impact of the Canadian defence industry upon our broader economy, it is essential to first consider the scope and size of this market sector.

Unlike other allied industrial bases, the CDIB is comprised of medium to small sized firms with annual sales under \$100 million.³⁰ There are approximately 1500 firms within the DIB, which generate over \$100,000 annually from defence related sales.³¹ Although scattered throughout the country, the majority of these firms are concentrated within eastern Canada.³² A defining characteristic of the CDIB is that it is not capable of providing the full spectrum of defence goods and services to the CF. While not a large economic component of our economy in terms of gross domestic product, it is important to note that the CDIB has evolved a great deal since the end of WWII.³³ Over these years, the DIB has experienced closer cooperation and integration into the U.S. defence market. As well, it has shifted away from the design and manufacture of major defence platforms to sub-system and component production and system design and integration.³⁴ Over the last decade, structural concentration in the industry through mergers, acquisitions and take-overs has resulted in fewer and fewer pure defence companies within the market place. As structural adjustment has occurred without any government oversight, this phenomenon has been referred to appropriately as "Defence Industrial Darwinism³⁵ With fewer defence firms within the market place, larger companies now dominate the industry with defence production often occupying only one component of a larger operation. Because of this transition away from smaller firms, foreign ownership in the industry has remained high relative to other economic sectors. Given this abbreviated snapshot of the CDIB, why is a vibrant CDIB of significance to the economic power base of this country?

In hopes of providing greater awareness as to the economic benefits of a robust CDIB, the CDIA publishes an annual statistical overview of the domestic defence industry.³⁶ As displayed at Figure 1, over the last five years, this sector has shown tremendous revenue growth both domestically and internationally, totaling over \$ 7 billion in aggregate. Additionally, the defence industry has displayed impressive growth in employment levels. As of 2000, 57,000 jobs were supported by the domestic defence industry.³⁷ Thus, it is evident that a vibrant DIB contributes to the economic strength of Canada through the provision of employment and income. There are also a host of less obvious but equally significant economic benefits prevalent as a consequence of maintaining a healthy domestic DIB. For instance, indigenous production negates the requirement to be a net importer of defence goods, a situation, which would serve to impact negatively our balance of payments.³⁸ Defence industry also contributes significantly to the "technological competence"³⁹ of non-defence sectors of the economy through innovation spin-offs. Lastly, a strong DIB can serve to stimulate and "foster regional economic development."⁴⁰

Market Segment	1996	1998	2000	% Change 98-00
Domestic	\$3,758,251	\$3,210524	\$4,081,613	+22.6
U.S. Defence	\$ 996,322	\$1,067,125	\$1,253,633	+17.5
Rest-of-World	\$ 797,814	\$ 850,815	\$1,494,492	+75.6
Total Defence	\$5,552,388	\$5,128,465	\$6,968,775	+35.9

Figure 1: Defence Revenues by Market Segment⁴¹

The economic strength of the Canadian defence industry is best exemplified by recent business activity generated within this sector. Some of the largest defence contracts in Canadian history have been awarded to domestic firms, including the Light Armoured Vehicle by General Motors Defence and the British training contract by CAE.⁴² Further example of this economic competitiveness was displayed in March of this year, when CMC Electronics Inc. won a \$110 million contract to provide avionics upgrades to U.S. Army helicopters.⁴³ Notwithstanding the strong economic performance figures and business successes outlined, there are a litany of challenges currently facing the defence industry, challenges which may serve to erode the competitiveness, size and industrial base capacity provided by the domestic defence industry. These critical challenges include: a reduction in DND spending, a disproportionate dependence on the U.S. market and an aging defence industry workforce.⁴⁴ While it is beyond the scope of this paper to analyze these challenges in detail, it is imperative that government gains a thorough appreciation for the current defence industry landscape. In doing so, it is essential that government ensure the establishment of a coherent defence industrial policy to ensure the long-term viability of our DIB.

Prior to addressing the key policy instruments required of a defence industrial policy, it is imperative first to understand the nature of the defence goods market. Like all free enterprise markets, a buying and a selling component are required in order to establish equilibrium market conditions. However, in the case of the defence industry, the government is often the sole buyer in the defence goods market place.⁴⁵ The supply-side of the defence goods market is comprised of various companies, distinctive by their product type, sizes and ownership arrangement. Of course, this monopsony, or sole buyer, market may be enlarged should domestic producers export products abroad to other purchasers. In many cases, a pre-condition for success in these competitive international markets is the domestic purchase of the defence goods, as domestic purchase provides potential buyers a degree of product confidence.⁴⁶ Unlike a purely competitive market place, where balanced buying and selling forces abound, in the monopsony defence market, government's buying power provides a compelling market force. This influence invariably defines and shapes the DIB. Typically, this governmental market force will be driven by the previously discussed political-military and economic rationale, frequently electing to

weigh the latter issue above the former.⁴⁷ As the overriding market force within the DIB, government influence may also involve: determining the degree to which the national market will be opened for bids by foreign firms, the provision of funding to companies in financial trouble and overseeing industry mergers and restructuring.⁴⁸

Failure to recognize the special "monopsony" relationship between buyer and seller perpetuates the assumption that "natural" forces will sort things out spontaneously in a manner compatible with U.S. security and industrial interests...We can no longer hope that the "invisible hand" of the market place should determine our defense industrial posture.⁴⁹

In view of the importance of a country's defence industrial requirements coupled with its monopsony purchasing position, it is evident that this market is fundamentally different from that of a purely competitive commercial goods market. Nonetheless, in contrast to the above quote, the Canadian government continues to prescribe to an "invisible hand" approach to the defence industry. This viewpoint contends that market forces must shape the defence industry and that government interference simply results in bureaucratic inefficiencies.⁵⁰ In a recent interview with Janes Defense Weekly, the Assistant Deputy Minister (ADM) Material for DND stated that "competition is in the best interests of DND and the taxpayer" and that "the best way to ensure that our companies are successful... is by allowing U.S. companies up here."⁵¹ This approach to the CDIB has not been well received within the defence industry who purport that defence industrial capacity must be viewed through the lens of national security.⁵² In highlighting concerns over the absence of a government DIB policy, the president of the CDIA has suggested that the government of Canada has "adopted an ad-hoc approach, emphasizing competition and making decisions on a case-by-case basis."⁵³ Statements such as these, although viewed by some as somewhat self-serving, do underscore the fundamental responsibility of government to

influence the DIB when social benefits far out weigh the inefficiencies resulting from market intervention.⁵⁴ Government must ensure that the equilibrium market solution is in the best interest of society at large.

It is worth contrasting the Canadian laissez-faire approach to defence industrial planning to that of other western countries of comparable size. The United Kingdom and Australia, for instance, prescribe a more active role in domestic DIB issues. The recent issuing of defence industrial policy directives from these governments highlights the critical importance they place upon domestic defence industrial capacity.⁵⁵ While both of the aforementioned countries acknowledge the importance of market forces, it is understood that "there is no explicit market mechanism which assures defense companies will always act in a manner which protects…national security interests."⁵⁶ As such, robust defence industry policies are seen as critical enablers to the establishment and maintenance of a healthy DIB, one that remains in lock step with the strategic security requirements of the nation. In the case of the United Kingdom, clear guidelines are established detailing when intervention into the marketplace is necessary in order to preserve DIB capacity.⁵⁷ Australia and the United Kingdom have also adopted strategic approaches to defence industry policy in an attempt to provide vision and definition to longer-term security requirements.

In addition to formalized defence industrial policies, other western countries have also established organizational structures to support the health and well being of their domestic DIB. For instance, within Australia, the Defence and Industry Advisory Council "provides advice to Government on strategic matters related to achieving sustainable industrial support to ADF capabilities."⁵⁸ The Council "oversees the activities of a network of fora considering capability development, industry policy, export, contracting and Commercial Support Program issues."⁵⁹ Surprisingly, no single office in Canada can claim a similar responsibility. Instead, a number of disparate government offices are involved in the web of defence industry issues. Acknowledging this structural incoherence, one writer notes correctly that "jurisdiction of planners is limited and at times overlapping; political attention is short...and the problem, objectives, and solutions are disaggregated into multi-level and interdepartmental responsibilities."⁶⁰ Undoubtedly, in order that a coherent, top-down approach to defence industrial policy is affected, a streamlined organizational structure must be viewed as a priority. The first Interdepartmental Defence Industrial Steering Group meeting held in early 2002 is perhaps an early indicator that government may be moving towards the establishment of a more bona fide and structured approach to CDIB issues.⁶¹

In a recent policy statement, the government of Australia acknowledged that, "Australia now needs a Defence industry policy with a strong 'strategic' focus to support our broader Strategic Policy and create the climate for the new relationship that is necessary between Defence and industry in Australia."⁶² As suggested by Edgar (1995), a policy is essential to "moderate the forces of industrial Darwinism."⁶³ As a consequence of the 1998 Auditor General's report on capital acquisition, the Standing Committee on National Defence and Veterans Affairs (SCONDVA) conducted hearings with the key defence stakeholders, issuing thirty-eight recommendations to government.⁶⁴ As a result, many of these recommendations have increased the pressure upon government to develop an over-arching Canadian defence industrial policy. While government has traditionally treated the DIB based upon economic over political-military rationale, this policy must adopt a balanced approach between these sometimes competing imperatives.⁶⁵ The last portion of this paper will address three policy instruments which are deemed essential in the formation of a government CDIB policy. These critical

instruments include; a clearly stated strategic vision, the need to support international market access and the need to encourage defence industrial innovation.

All government policies must be grounded in a well-defined strategic vision. In the context of a Canadian defence industrial policy, this vision must acknowledge the critical link between defence industry and national security. It was highlighted previously that this vision would provide defence industry with the appropriate guidance and direction, necessary to execute future strategic planning. As a result of the stated demands placed upon the defence industry, government, as a monopsony, must seek a closer partnership and openness with industry in order to better align long-term strategic military and economic requirements with defence industrial capacity. In seeking to optimize the social benefit to Canadian citizens, government must manage a transparent relationship with industry, ensuring a balance is maintained with competitive market forces. SCONDVA has recommended, a "defence industry advisory board at the level of the Defence Management Committee" would facilitate cooperation as would inviting industry to provide comment on draft procurement documents such as statements of requirements and requests for proposals.⁶⁶ Regardless of initiatives undertaken, a clear defence industrial policy vision statement will ensure industry is well ensconced within security policy.

The second key defence industrial policy element involves exploiting industry's access to foreign markets.⁶⁷ It was stated previously that the most "striking characteristic"⁶⁸ of the CDIB is its heavy dependence upon the external market place. The limited size of the domestic defence budget necessitates that industry seek international opportunities in order to grow capital and exploit economies of scale. The health of our domestic DIB is therefore dependent upon international supply and demand conditions. Since it is unrealistic to assume all defence

requirements can be met by indigenous production, access to defence imports is critical in complementing the CDIB. Earlier mention was made that our relationship with the U.S. is central to the discussion of international defence industry relations. To the greatest extent possible, the defence industrial policy must acknowledge the uniqueness of this relationship and ensure Canadian policy is harmonized and complementary to that of the U.S.⁶⁹ Failure to do so may result in renewed trade protectionism, which will invariably lead to negative national security implications. Because of the recently announced increases in the U.S. defence budget, it would seem this fundamental component of market demand may well serve to sustain Canadian defence companies should access to this market remain open.⁷⁰

Furthermore, this market access policy instrument must support free and more flexible access to other international markets by improving the flow of defence goods across borders. Supporting the exploitation of the broader international market will serve to offset dependency upon U.S. defence industry and protect the long-term economic viability of the CDIB.⁷¹

The last critical defence industrial policy instrument that must be adopted by government involves encouraging innovation within industry. Through innovation, government will derive significant benefits across both the political-military and economic power base. As Leggat (1995) has outlined, the industrial innovative process is affected by a number of controllable and uncontrollable factors.⁷² Examples of controllable factors include capital, creative people and R&D, while the uncontrollable factors include the state of the economy, tariff barriers and taxation policies.⁷³ These factors, when combined, can either stimulate or dissuade the innovative process. Obviously, the assessment of these factors implies a degree of risk for a corporation, who must make an objective assessment of the environment in deciding to commit resources to innovation. Aggressive market leaders will tend to accept greater risk and commit

resources to R&D, thereby creating innovative products and processes and most importantly, enhanced profits.⁷⁴

Owing to the nature of the innovative process, a defence industrial policy that supports increased R&D in key capability areas is a necessary condition for innovation in the industry. This innovation will serve to foster economic competitiveness within the DIB, leading to increased opportunities within the international market place. The development of innovative processes and products will also generate technological spin-offs to the civilian industrial sector. In addressing the importance of R&D, the recently released U.K. defence industrial policy refers to this form of investment as the "critical factor in the future prosperity of the defence industry."⁷⁵ Recognizing that investment dollars are scare, government must direct R&D resources towards areas, which are both deemed essential to future military capability requirements and "commercially advantageous.⁷⁶

While it is beyond the scope of this paper to examine critically all R&D programs impacting upon the DIB, one central program stands out given its potential impact within the defence industry. Created in 1996, the Technology Partnerships Canada (TPC) program provides government capital to Canadian industry in hopes of increasing economic growth, jobs, wealth and sustainable development within Canada.⁷⁷ Since the defence sector accounts for a staggering fifteen percent of all R&D spending in Canada, the TPC program has established an aerospace and defence industry program component.⁷⁸ In joining with private industry, TPC provides capital in order to drive innovation through early stage R&D. This program serves to reduce some of the front-end risk facing a company by fronting early R&D money. Resultant leveraging of resources aims to increase the technology base within Canada, while simultaneously providing opportunities for small and mid sized defence companies.⁷⁹ Recently,

\$39 million was committed to CAE for R&D investment in a new distributive simulation project.⁸⁰ In line with the TPC mandate, this funding will be repaid in total should R&D lead to a profitable business endeavour.

The TPC program must remain a critical component of Canada's defence industrial policy as it has the potential to boost significantly the innovative process within industry. However, as indicated by AIAC, the program requires a minor in order to optimize its impact.⁸¹ For instance, the application process must become more streamlined in order to expedite the approval process.⁸² This will ensure R&D resources flow into industry in a timely manner. Program funding must be significantly increased in order to broaden the access to resources. Companies that have shown success should be given automatically access to additional R&D funding envelopes. The repay formula should be re-examined with a view to creating financial incentive to those companies that generate significant spin-off benefits to commercial industry.⁸³ Certainly, this program has a vast potential to stimulate innovative forces within the defence industry. In one of the few DIB surveys related to R&D, defence industry favoured overwhelmingly this form of government stimulus.⁸⁴

The opening citation to this paper suggests that government has traditionally remained unengaged in defence issues. Like Cinderella within the fabled tale, defence policy matters have remained out of the limelight, the CDIB serving as a case in point. Although the 1994 White Paper did acknowledge the relationship between defence and industry, the government has not entrenched this "fourth pillar" within a comprehensive defence industrial policy.

While a host of factors support the argument in favour of a robust CDIB, the primary rationales are political-military and economic in nature. In both cases, a healthy DIB serves as an enabler to augmenting these fundamental national power components. In the case of the political-

military rationale, a healthy domestic DIB provides government a level of assured support. The nature of the Canadian geopolitical context, however, makes it is essential that this rationale be balanced with the reality that Canada is a junior partner within a bilateral security arrangement with the U.S.. Recent focus on security issues has created a number of new dynamics for this relationship, which must be properly managed. While perhaps more tangible in nature, the economic rationale for a vibrant DIB is equally compelling. As argued, the CDIB bestows a number of macro-economic benefits upon the national economy. These positive benefits contribute significantly to the health of the national economy.

Given the significant influence government has within the defence market place coupled with their social responsibility to manage domestic security requirements properly, a defence industrial policy is an imperative. It has been shown that little concrete action has been undertaken by government to date. In part, this aversion to solidifying a more defined policy framework is founded in the notion that competition in the market place is sacrosanct. However, as Deutch (2001) has rightfully acknowledged the "public objective is to assure a defense industrial base that meets our security needs – market criteria are a means to this end but not an end in themselves."⁸⁵ Thus, government must act to provide the required oversight and direction to the CDIB. A supporting policy is essential and must as a minimum include: a clearly stated strategic vision, promotion of international market access and stimulus for defence industrial innovation. As Canada requires a vibrant DIB in order to provide for its future security requirements and contribute to the economic well being of our nation, this defence industrial policy is a necessary condition in sustaining this key industry.

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