

CANADIAN MANUFACTURERS & EXPORTERS

MANUFACTURING OUR FUTURE:

LEVERAGING MANUFACTURING FOR LONG-TERM CANADIAN PROSPERITY

JUNE 2020

ABOUT CANADIAN MANUFACTURERS & EXPORTERS

Since 1871, we have made a difference for Canada's manufacturing and exporting communities. Fighting for their future. Saving them money. Helping manufacturers grow. The association directly represents more than 2,500 leading companies nationwide. More than 85 per cent of CME's members are small and mediumsized enterprises. As Canada's leading business network, CME, through various initiatives including the establishment of the Canadian Manufacturing Coalition, touches more than 100,000 companies from coast to coast, engaged in manufacturing, global business, and service-related industries. CME's membership network accounts for an estimated 82 per cent of total manufacturing production and 90 per cent of Canada's exports.

CME-MEC.CA

CONTENTS

EXECUTIVE SUMMARY	4
RESPOND: SHORT TERM IMPERATIVES	6
MANAGING EXISTING BUSINESS SUPPORT PROGRAMS	8
IMPLEMENTING CONSUMER SPENDING INCENTIVES	9
RECOVER: MEDIUM TERM ACTIONS	10
MANUFACTURED RIGHT HERE	10
LEVERAGING GOVERNMENT PROCUREMENT	12
BOOSTING BUSINESS INVESTMENT PRODUCTIVITY	13
PROSPER: A CANADIAN MANUFACTURING STRATEGY	14
DRIVE INVESTMENT	15
LEVERAGING AREAS OF COMPETETIVE STRENGTH FOR CANADA'S ADVANTAGE	18
AN INTEGRATED GLOBAL STRATEGY	20
CONCLUSIONS AND NEXT STEPS	23
SUMMARY RECOMMENDATIONS	24

EXECUTIVE SUMMARY

By any measure, manufacturing is critical to Canada. The country's 90,000 manufacturers directly generate over 10 per cent of the country's GDP and nearly two-thirds of its merchandise exports. Including direct and indirect impacts, the sector's footprint amounts to nearly 30 per cent of Canada's economic activity. More importantly, the sector directly employs 1.7 million Canadians and supports their families and communities through stable, high skill, high wage jobs, and supports over 3 million more through its massive integrated supply chain that touches all parts of the economy.

For many, the essential role that manufacturing plays in Canada was lost until most recently. Since the middle of March 2O2O, the spotlight has been turned on manufacturing as most of Canada and the world shut down large parts of their economies to contain the COVID-19 virus. While much of Canada's economic activity stopped, most manufacturers continued to operate. Many manufacturers ramped up or shifted production in response to the crisis to make more food, personal protective equipment, and other health care products. But because firms have also had to contend with implementing physical distancing measures and weaker than normal demand, the industry's overall production has still declined sharply.

Now, rather than asking what is made in Canada, the question has become: why are more things not made in Canada and how can we reverse this trend? Before jumping to answer this question, it is critical to understand how Canada got into this current state and map an effective course out of the current crisis. Canadian Manufacturers & Exporters (CME) and members of the Canadian Manufacturing Coalition (CMC) surveyed members in May 2020. The primary finding of this Manufacturing Business Conditions Survey was grim: some two-thirds of manufacturers have witnessed a significant drop in output greater than 25 per cent. More concerning was that the same percentage expect this decline in activity to continue over at least the next three to six months.

While these short- and medium-term implications of COVID-19 are deeply concerning, it must be understood that this current weakness is built on the back of longer-term negative trends in Canadian manufacturing. For years, CME had cautioned governments about sluggish manufacturing activity in Canada and have been working on implementing solutions with them. Output and exports of Canada's manufactured goods have grown at much slower rates than in other developed countries, and this is largely due to a steady decline in manufacturing investment that started in the early 2000s. In recent years, Canada has ranked near the bottom across the Organization for Economic Cooperation and Development (OECD) when it comes to growth in machinery and equipment investment and in productivity. Moreover, imports have grown at a much faster pace than exports since 2000, which has resulted in the trade balance turning from a consistent surplus to a chronic deficit. Over the past five years, Canada's overall trade deficit has averaged \$23 billion annually, and a much larger \$85 billion per year when excluding energy products. All this points to an overall decline in global competitiveness for Canada's economy and manufacturing sector.

This long-term erosion of our industrial competitiveness directly impacts the ability of manufacturers to respond to the current crisis or any future crises. As such, while public attention is now being focused on ensuring Canada is better prepared for the next crisis, it is critical that the actions taken for the manufacturing sector allow it to both survive in the short term and prosper long-term.

To achieve this, governments must work with industry to implement a three-phase recovery and growth strategy. This three-phase strategy should mirror the following steps to allow Canada to grow out of the short-term collapse and into long-term prosperity:

- Respond: Governments must continue to refine and expand support programs to ensure stability in the sector and introduce consumer spending incentives to drive demand for manufactured goods.
- Recover: Additional actions will be needed over the course of the next year to stabilize the economic recovery and increase focus on domestic capacity and capabilities. This must include improving government procurement, supporting business investment, and launching a "Made in Canada" campaign.
- Prosper: Strategic long-term growth will come through a modern industrial strategy that focuses on strengthening Canada's business competitiveness. Focus must be placed on addressing historical challenges, including reducing the cost of doing business, improving regional value-chains, and leveraging our natural assets for economic development at home and abroad.

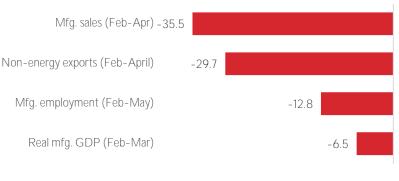
These three phases are not mutually exclusive, nor should they be implemented as such. Implementing these recommended actions will help create the necessary foundation for a resilient, flexible, and innovative manufacturing sector that will help lead to prosperity for all Canadians. In addition, this strategy must not just stop at historical complaints of business. Rather it must also focus on fundamental reforms to Canada's approach to innovation and economic development by capitalizing on shifting societal needs for local manufacturing, the strategic opportunity to leverage health care and technology, and the long-term global opportunities in many of Canada's areas of historic strengths.

RESPOND: SHORT TERM IMPERATIVES

Since the beginning of the COVID-19 crisis, Canada's economy has been hit hard with significant strains on both supply and demand. Over March and April, which encompassed just the first six weeks of the crisis, manufacturing sales and non-energy exports dropped by 35.5 per cent and 29.7 per cent, respectively, with both indicators shattering their previous record declines in April. Moreover, manufacturing employment was down 222,500 in May compared with February and actual hours worked, a good proxy for future output, fell over 21 per cent over the same period.

To make matters worse, the sector was already on shaky ground heading into the pandemic, due to supply chain disruptions caused by both the coronavirus outbreak in China and the CN rail blockades in early 2020, a trade war-induced decline in global trade in 2019, and, before that, years of stagnant investment. In fact, in 2018, manufacturing investment in Canada was 17.3 per cent below 2000 levels. As a comparison, manufacturing investment in the US was 27.4 per cent higher in 2018 than in 2000. Reversing declining manufacturing investment in Canada remains one of CME's most pressing concerns when engaging with governments.

IMPACT OF COVID-19 TO-DATE Canada (per cent change)



Sources: CME: Statistics Canada

WEAK MANUFACTURING INVESTMENT

Real non-resdiential investment (2000=100)



Sources: CME: Statistics Canada; US Bureau of Economic Analysis

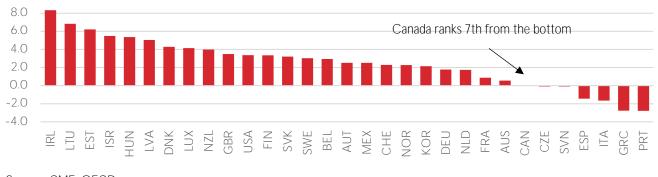
Moreover, Canada's overall investment performance ranks poorly against its international peers. Since 2010, Canada has posted the seventh weakest growth in machinery, equipment, and structures investment among a group of 31 OECD countries.

Without doubt, the economic and human impact of COVID-19 has been immense, though without strong government intervention, it could have been much worse. Seeing the sudden economic decline in countries that were hit with the virus early, CME and our allied associations in the CMC immediately called for measures focused on supporting business liquidity. Such measures would enable companies to maintain some level of production and minimize layoffs, significantly boosting the chances of a faster economic recovery.

Thankfully, the response of governments was swift and meaningful by every historical and international comparison. All levels of government responded with a range of supports, including deferrals of taxes, electricity bills, and workers' compensation premiums, along with delays in the implementation of new regulations and the introduction of simplified reporting requirements. Most notably, the federal government stepped up to create the Canada Emergency Wage Subsidy (CEWS), which is expected to cost \$55.6 billion over 2020-21, to help keep Canadians on payrolls rather than Employment Insurance (EI). While the response of governments has been impressive to date, this crisis is expected to continue for manufacturers for the foreseeable future. In the recent Manufacturing Business Outlook survey of manufacturers across Canada, 65 per cent of respondents expected their sales and output over to remain below normal for at least the next 3 to 6 months. Among this group, 70 per cent expected the drop to be greater than 25 per cent. This grim assessment makes sense. Demand for key manufactured products is expected to remain weak until consumers get more comfortable opening their wallets. At the same time, the manufacturing business cycle has a three to six-month lead time between sales, production, and delivery, meaning that the production that has occurred since the virus hit has been based on orders that were earned in the fall and winter months. Unfortunately, new orders, a key forward looking indicator, posted double-digit declines in both March and April, boding ill for future production.

As a result of this weak manufacturing outlook, governments must both effectively manage the existing support programs and spur domestic consumer spending to drive demand for manufactured goods to stimulate the recovery.





Sources: CME; OECD.

10.0

MANAGING EXISTING BUSINESS SUPPORT PROGRAMS

With the sharp decline in economic activity at the start of the COVID-19 crisis, it is no surprise that 84 per cent of respondents in the Manufacturing Business Outlook survey said they had taken advantage of at least one federal government support program. Measures such as wage subsidies, tax deferrals, and delays in regulatory changes by governments of all stripes across Canada have helped stabilize our industry. According to the survey, nearly 55 per cent of manufacturers have either applied for or are receiving the CEWs, making it the most popular government support program among manufacturers. This was followed by tax remittance deferrals, which are being used by 30 per cent of respondents. However, this high level of use and support does not mean program improvements cannot be made nor that businesses want to continue these supports indefinitely.

One of the federal government's highest priority items must be to manage the CEWS program and to fix outstanding issues and provide clear, transparent guidelines on its transition. With the current program design, additional changes are still required to fill gaps for companies, including relaxing the qualifying criteria around selling to arm's length entities and allowing non-share purchase acquisitions to qualify. In addition, there are many other rules that limit access, and ongoing problems with how the CEWS interacts with other vital programs, such as Work Share. The result is that a significant number of companies who need the program cannot access it, which blunts the public and economic benefits of the entire initiative.

Outside of these technical issues, the biggest outstanding issue is the transition away from the program. The extension of the program until the end of August 2020 was a necessary step in the transition, but it cannot be the last extension given that economic conditions are expected to remain weak. A longerterm and phased transition must be carefully implemented to ensure companies who require support do not fall off the "revenue cliff" (established at a 30 per cent decline in revenue) and that further harm is not done that undermines the recovery.

RECOMMENDATIONS FOR AN EFFECTIVE TRANSITION OFF THE CEWS

- Between June and August 29, begin to lower the qualifying revenue decline threshold (for those who currently get the subsidy) back down towards the initial 15 per cent test.
- Between August 29, 2020 to January 1, 2021 (and beyond if necessary), introduce a declining subsidy for companies based on time and revenue improvements so that there is a gradual elimination of the subsidy; and,
- Institute an automatic and ongoing review mechanism dependent upon economic conditions over the next several months.

While the CEWS is the most important measure for the manufacturing sector in response to COVID-19, many others are being used, and several of these also require enhancements to improve their effectiveness. Based on feedback from members, current gaps in support programs can be addressed by:

- Establishing a rapid arbitration process for companies where there are disagreements in program qualification.
- Expanding access to the Canada Commercial Rent Assistance (CCRA) program by making the funds available directly to renters and covering larger companies and rent.
- Introducing support programs to help companies offset the costs of protective barriers, additional PPE, and training of their staff on new guidelines and protocols.

- Extending deadlines of all required defined benefit pension contributions and freezing contribution levels at pre-crisis levels for at least three years (only for provinces that have already have not implemented these changes).
- Phasing out the Canadian Emergency Relief Benefit (CERB) to encourage a return to work for those who can safely go back to regular employment. Where return to work is not possible, individuals should be transitioned onto regular EI benefits, assuming that the criteria for accessing EI is temporarily expanded so that more unemployed could use the program.
- Offering fiscal support to municipalities so that they can provide additional tax relief and liquidity support to industry.

IMPLEMENTING CONSUMER SPENDING INCENTIVES

The most critical step for getting manufacturers and the economy rebooted is to stimulate demand for durable goods. While business and government spending activities are important, domestic consumer spending is the most immediate and impactful measure that can be taken to boost economic activity in the short term.

In Canada, some 55 per cent of economic activity is generated by household spending. Last year, household final consumer expenditure totalled \$1.18 trillion. Of that, \$526 billion was spent on goods. However, much of this spending has stopped in recent weeks as unemployment levels jumped, many stores closed due to government restrictions, and overall confidence collapsed. Manufacturers rely heavily on consumer spending for their domestic sales. The clearest example comes from the automotive industry. The economic shutdown has resulted in an unprecedented decline in car usage. The weak demand for car, gas and car repairs means companies in those related industries must slash production, which in turn results in layoffs, scaled back investment plans, reduced orders to suppliers, and eventually, shrinking government revenues.

There are a variety of measures that governments should examine and implement to boost consumer spending. The first step is obviously to control the health risk and provide confidence to Canadians. Increased testing, better tracing, and positive public messaging from officials are critical. At the same time, loosening of social and economic restrictions must continue, and governments must clearly define and publish these plans to revive confidence. As part of this reopening, governments must find an effective balance between protecting the health and economic future of Canadians.

Beyond the reopening plan, there will need to be much more aggressive actions taken by government targeted at consumers to get them to increase spending, especially on larger, more expensive items. We recommend the following to boost demand for durable manufactured goods:

- Targeted incentives for larger consumer items with broader domestic manufacturing supply chain implications. Cash for Clunkers for vehicle purchases and home renovation tax credits have both been used in the past in Canada and should be reimplemented.
- A three-month sales tax holiday to spur consumer and business spending, especially on more expensive goods. The cost would vary by jurisdiction due to different tax rates and depend on what goods were included. If all Canadian jurisdictions and goods were included, this measure would cost governments roughly \$27 billion over the three-month holiday period.

These incentives should be designed in a way that not only boost consumer spending, but also lift domestic manufacturing output

RECOVER: MEDIUM TERM ACTIONS

Improving consumer confidence and spending is vital to spurring an economic recovery over the near term, but other segments of the economy will need to take the reins to help drive economic activity over the medium term. As the economy begins to recover, consumers will begin to regain confidence, and industry and government will move beyond dealing with the immediate health and economic crisis. At this point, medium term transition measures along with the foundations of the longer-term strategy should begin to be laid out.

To support medium term growth, government and business spending must be encouraged and prioritized. Government spending on goods and services and on capital projects account for about one-quarter of Canadian GDP, while business investment spending is responsible for some 17 per cent of economic activity. Encouraging business investment and boosting government infrastructure spending would not only have immediate payoffs by stimulating near-term economic activity, but they would also generate long term benefits by improving Canada's productive capacity, productivity, and competitiveness.

Underlying all these areas must be the introduction of a "Manufactured Right Here/Buy Canada" program to promote domestic manufacturing.

MANUFACTURED RIGHT HERE

Governments must begin to shift focus to expanding sales of Canadian-made products at home and abroad through a "Made in Canada" campaign. This "Manufactured Right Here" strategy should not be viewed as trade restrictive, but rather aimed at providing access to better information for consumers when making their purchasing decisions. This strategy should focus on business, consumer, trade, government, and students, in the following way:

MODERNIZE MADE IN CANADA LABELING RULES

In the early 2000s, "Made in Canada" rules were tightened to limit use of the term to only those products that had 51 per cent domestic content. "Product of Canada" rules are even more strict at 98 per cent. But because global manufacturing supply chains have become so integrated, especially within North America, the vast majority of products assembled in Canada are excluded from being labeled "Made in Canada." Manufacturers stopped using the label, and consumers stopped looking for it, assuming nothing was made in Canada anymore. Strangely enough, many Canadian products cannot be labeled "Made in Canada" for domestic consumption but must be labeled as such for export purposes. As such, "Made in Canada" rules must be modernized to match Canada's integrated manufacturing and global trade realities so that products that undergo final substantial transformation in Canadian factories qualify as domestically produced.

INTRODUCE A MAPL-LIKE SYSTEM TO PROMOTE CANADIAN CONTENT IN MANUFACTURING

In the music recording industry, the Canadian government uses four elements to qualify songs as being Canadian: Music, Artist, Performance, Lyrics (MAPL). This system is designed to increase exposure of Canadian artists to Canadian audiences. A similar system should be introduced for Canadian manufactured goods that covers the main elements of manufacturing and defines the Canadian contribution to a finished product: research, design, engineering, and assembly. This type of branding could be standardized across companies who wish to promote the level of Canadian content in their products.

INCREASE DIRECT CONSUMER PROMOTION OF CANADIAN-MADE GOODS

Across Canada, many provinces run promotional campaigns celebrating domestic agriculture production, such as *Good Things Grow.* A similar campaign should be created to celebrate and draw awareness to Canadian manufactured goods called *Manufactured Right Here*, which has successfully been run in Newfoundland and Labrador for decades. This campaign would be directed at retail establishments to raise consumer awareness of Canadian-made goods. The government should set up a web portal where companies can register their products and their level of Canadian content based on the "MAPL-like" system described above.

INCREASE BUSINESS-TO-BUSINESS (B2B) CONNECTIONS

Similar to consumer promotion, Canadian companies are eager to buy from other Canadian manufacturers, but it is often difficult for buyers and sellers to find each other. To facilitate B2B connections, CME and other associations typically conduct this matchmaking manually through informal means. However, digital matchmaking tools are available and should be expanded. Through a *Manufactured Right Here* portal, companies could submit their products and capabilities or identify the products or capabilities they require, and automated matchmaking could occur. This could be done at either a local or national level.

LEVERAGE LOCAL CONTENT PROCUREMENT

Procurement can drive domestic manufacturing capacity, investment, and innovation. That said, the government should not use a restrictive "Buy Canada" approach that blocks international inputs. Such policies are difficult in small economies like Canada with limited purchasing power because they can badly distort contract costs and can lead to unnecessary trade friction. Rather, procurement policies should incorporate domestic content provisions that reward bidders for leveraging domestic content by improving their bid scores. Such schemes are successfully used in Europe and in California, and they could be used as models for Canada.

EXPAND OPEN DOORS PROGRAMS FOR YOUTH

Across Canada, governments should launch or expand *Open Doors* programs for students. These programs take students in grades 7 – 9 and showcase local manufacturing and products. They not only create awareness about what goods are made in Canada, but they also promote careers in the industry, which is essential for attracting the next generation of workers.

INCREASE TRADE PROMOTION

While domestic efforts are important, with a small domestic economy, export sales are critical for sustaining and growing domestic manufacturing. Canadian-made goods have a strong global reputation for being of high quality and safe, and its long past time for Canada to leverage this reputation. Canadian companies should be encouraged to display the maple leaf on their products, the government should expand promotion of Canadian goods through trade shows and other events, and new branding should be created similar to international tourism efforts that showcase Canadian capabilities through our embassies and consulates around the world.

LEVERAGING GOVERNMENT PROCUREMENT

The Canadian manufacturing sector's response to the coronavirus outbreak, especially the ability to supply critical PPE to the nation, has received much praise and attention. The public and political conversation appears focused on developing exclusive domestic supply chains to manufacture and supply PPE through government procurement channels. While this enthusiasm for improved procurement should be applauded, it is very narrow in scope and threatens to overlook an even bigger opportunity for both government and industry.

Rather than being focused just on procuring goods for the crisis we are in today, Canada must implement broad changes to procurement policies and strategies so that we are more nimble and able to take on future, and different, challenges. These strategies should aim to boost innovation and investment in manufacturing and streamline government processes to get the maximum value for Canadians through procurement. In addition, Canada must take a broader view of emergency response and build domestic strength in multiple areas necessary for responding to a variety of potential security threats. We recommend a government procurement strategy that includes the following elements:

CONDUCT A FULL MAPPING OF CANADA'S DOMESTIC MANUFACTURING CAPABILITIES AND CAPACITIES

The challenge in the current crisis in supplying PPE domestically was more a limitation on understanding what was needed by government, how companies could get final products tested, and most critically, which companies could make the various subcomponents that were required for each product. Without understanding what Canada makes, it is difficult to understand how to make goods needed for future crises.

IMPROVE TRANSPARENCY BY CREATING AND PUBLISHING LONG-TERM PURCHASING GUIDELINES

These guidelines set out total quantities and specifications over multiple years. This will enable domestic industry, especially smaller firms, to better engage in procurement processes and develop their own long-term business and investment strategies based on government demands.

PURCHASE BASED ON SOCIETAL (ECONOMIC AND SECURITY) VALUE TO CANADA RATHER THAN ON PRICE ALONE.

The current short-term focus on price (rather than value) and the decentralized procurement approach undermines the true value of leveraging government procurement for strategic and economic purposes. This is most critical for goods that embody more advanced technology, are high value added, or are deemed vital to national security. Along with PPE, this would include goods in areas such as food, energy, physical and digital infrastructure, water, transportation equipment, and defence.

Priority should be given to infrastructure projects that are both shovel-ready and supportive of long-term economic growth, especially those that facilitate trade and industrial development.

INVEST IN INDUSTRIAL PARKS TO SUPPORT IMMEDIATE PLANT CONSTRUCTION AND SAFEGUARD THOSE LANDS AS EMPLOYMENT LANDS.

Too often when companies are considering investing in Canada, their options are often limited to just a few locations, some of which are unserviced or require rezoning. This results in unnecessary investment delays and places additional cost burdens on business.

IMPROVE CANADA'S DIGITAL BROADBAND INFRASTRUCTURE

Changing work environments and the needs of modern advanced manufacturing results in changing broadband needs. For years it has been evident that Canada's digital infrastructure is inadequate for modern economic and societal needs, and this crisis has only reinforced these realities. For modern advanced manufacturing, which will increasingly need access to technologies for communications, sharing data, and managing operations, Canada's current capacities are simply insufficient.

BOOSTING INVESTMENT AND PRODUCTIVITY

Finally, governments can play an important role in encouraging business investment through tax and investment support programs.

We recommend that government take the following actions immediately:

• Recapitalize existing investment support programs, such as the federal Strategic Innovation Fund

(SIF) to encourage capital spending and streamline and speed application processes to provide business certainty.

- Relaunch investment support grant programs for smaller firms. A road map for success already exists: the SMART programs that followed the 2008-09 financial crisis, which were formed through a partnership between the Ontario and federal governments (via FedDev Ontario) and CME, were recognized for successfully accomplishing their objectives.
- Fund productivity training in manufacturing including those that encourage lean process and energy efficiency improvements, similar to those already managed through the Atlantic Canada Opportunities Agency (ACOA) and CME.
- Expand government-funded programs aimed at technology awareness and assessments, environmental performance, and other investment and productivity enhancing activities.
- Provide additional financing options to business by reinstating the Canadian Secured Credit Facility to backstop asset-based lenders who serve SME clients and finance the bulk of vehicle and machinery and equipment purchases in Canada.

PROSPER: A CANADIAN MANUFACTURING STRATEGY

Canada has a prosperity gap that leaves Canadians less well off than our closet allies, friends, and neighbours. In short, based on average GDP per person, a Canadian earns roughly 22 per cent less than an American, with some provincial earnings less than 60 per cent of their southern neighbour's. This prosperity gap has widened over time because of Canada's relatively poorer economic performance, attributable to weaker business investment, productivity growth, and competitiveness.

Given that manufacturing's total economic footprint amounts to almost 30 per cent of all economic activity in Canada, with 1 in 4 Canadians employed directly or indirectly by the sector, growth in manufacturing is central to improving the prosperity of all Canadians. It is why CME and our colleagues in the CMC have long called for a nationally coordinated manufacturing strategy to drive investment in the sector to increase output and value-added exports. With renewed attention on the sector, hopes have been raised that a growth and prosperity strategy is achievable.

This strategy, if designed and implemented correctly, will not only boost Canada's prosperity but also address other societal challenges and create new opportunities. To start, strengthening domestic manufacturing capacities and improving the business climate will allow Canada to become a hub for global trade, finally fulfilling the underlying objectives of the many free trade agreements that the country has signed over the past decade. Next, increased investment will make companies more competitive, but also more efficient and environmentally friendly as new technologies

EXISITING MANUFACTURING STRATEGIES

In 2016, CME and the CMC conducted its *Industrie 2030* work that established a goal of doubling manufacturing output and value-added exports by 2030. This study and its recommendations were adopted in whole by the Parliament of Canada's Standing Committee on Industry report on manufacturing in 2017.

Following this, CME released several reports that together created a road map designed to achieve the strategy's goals. These reports include:

- Stalled Trade: Gearing up Canada's Exporters (2018)
- Restoring Canada's Advantage (tax strategy 2018)
- We're Hiring (human capital strategy 2019)
- Industry 4.0 Canada's Digital Future in Manufacturing (technology strategy 2019)

Many of the recommendations outlined in these reports were adopted by Canada's Economic Advisory Councils at Innovation, Science, and Economic Development (ISED) and by Global Affairs Canada global trade strategy. Likewise, many provincial governments across the country have accepted these earlier strategies and reports to develop their own regional manufacturing strategies and have begun implementing parts of them. reduce their environmental footprint, even while increasing output. Finally, by reshoring production to Canada, we can play a leading role in reducing global emissions as domestic industry typically produces goods much more efficiently under stricter environmental regulations.

Despite the recognition of the sector's significant challenges, the general agreement on the approach to be taken, and actions by many levels of government, little has changed in Canada. This in part is because the government agenda is not focused enough on outcomes and actions. This is what needs to change.

Shortly after the COVID-19 crisis hit, and the search for domestic manufacturing capacity to make critical goods for the response began, considerable public concern was expressed about the ability of the sector to respond. For many this realization caused an immediate reaction to create a new industrial strategy for Canada. This increased attention on the need for a new industrial strategy is welcomed.

CME is calling for Canada to develop and implement a three-pronged, interlinked, advanced manufacturing strategy that targets investment in the manufacturing sector, leverages our domestic advantages, and takes advantage of the current changes in sentiments toward globalization.

The success of this strategy should be concretely measured by the most important yardsticks – the level of foreign and domestic investment in the sector and of Canada's value-added manufacturing exports. And of course, the strategy must address the goal of improving the resiliency of the sector to respond to whatever crisis may emerge in the future.

DRIVE INVESTMENT

Boosting investment to improve Canada's industrial competitiveness is essential. As noted earlier, Canada has fallen behind globally in business investment attraction from both foreign and domestic sources. This can be directly measured in Canada's continuing sluggish productivity growth and the loss of global market share in manufacturing output and trade. Canada's investment strategy must focus on the root causes of industrial competitiveness: lowering the cost of doing business, increasing technology adoption, and addressing skills gaps.

LOWER DOMESTIC MANUFACTURING COSTS

Canada is a high-cost manufacturing jurisdiction, and that will not change. Still, governments have placed extraordinary burdens on manufacturing in Canada that manufacturers in other jurisdictions do not face. Additional costs for production do two fundamental things. This forces manufacturers to charge higher prices for the goods they produce, making them less attractive to potential buyers. And it also lowers profits, making it more difficult for these companies to reinvest in their products, processes, and people.

CME and others have researched, written, and advocated extensively on the need to ensure Canada's manufacturing sector is cost competitive.

As detailed in previous CME reports, governments need to take the following actions:

 Conduct a full review and reform of Canada's tax regime and related programs (such as the Scientific Research and Experimental Development tax credit system). The goal must be both to reduce the tax burden through the corporate, payroll, and property tax systems, and change system incentives to reward growth, rather than company size.

- Modernize, simplify, and harmonize Canada's regulatory system. Instead of focusing on growing their business, companies spend too much time and effort struggling to navigate Canada's complex regulatory regimes. Government must harmonize regulations across Canada and within North America, view and implement regulations through both an environmental and a competitiveness lens, and address investment approval processes for machinery and equipment, facility construction, and major projects. Most importantly, governments must rely on evidence, science, and seek guidance from industry experts on impacts of regulations to avoid unintended consequences. For example, the recent proposals to ban the manufacture of plastic, zinc, and copper in Canada by labeling them all as toxic would have massive negative consequences for manufacturing in Canada, all the while not achieving stated objectives. These proposals must be terminated.
- Improve energy supply and lower costs. Energy is a major cost component in most manufacturing operations, and in many cases the third largest cost after materials and labour. In many locations, a stable supply of energy remains a problem leading to brownouts, causing plants to cease operations and in some cases completely reboot, meaning lost production and increased costs. Energy costs are not a universal challenge across the country, but in several of the larger manufacturing provinces they have become massive impediments to production and investment. In Ontario, an average manufacturer faces an electricity bill that can be as much as 75 per cent higher than those of its competitors in many US states.

INCREASE TECHNOLOGY ADOPTION AND CREATION

Investing in capital equipment and adopting the latest technologies is critical to improve global competitiveness for manufacturers. New technologies allow for higher rates of efficiency, lower operating costs, improved energy and environmental performance, and allow for greater flexibility to match changing consumer demands. Globally, the race for securing capital for manufacturing is fierce. Not only do companies compete against each other for market share and new sales that drive investment, subsidiaries of multinational corporations compete internally against each other for investment dollars. Canada must have globally competitive and effective investment support programs to strengthen the sector, improve its resiliency, and productivity.

Traditionally, Canada has relied on a series of investment support mechanisms to accomplish these goals. Historically, programs like Technology Partnerships Canada (TPC) were used. TPC was innovative in that it supported capital investment and research and development spending by directly funding the scale up and commercialization of new technologies. Payback was provided through a royalty system on sales, meaning the government shared in the commercial success of the products. There have also been also a range of sector-specific programs that targeted strategic sectors in the country such as automotive or aerospace.

More recently, Canadian governments have looked at direct investment supports for specific projects and tied the investment to broad employment and output levels. Sector programs have largely been abandoned. And companies must also be aligned with broader societal objectives, such as developing new environmental technologies. The current Strategic Innovation Fund (SIF) fits into this mould. Both approaches have their merits and industry has supported both over time. CME has called for an expansion of the SIF as a short-term measure as part of the recovery plan to navigate out of the current crisis.

However, these programs have come under public scrutiny regarding their effectiveness in creating jobs and growing economic activity. To answer these criticisms, ever tighter controls have been placed on applications and approvals. This has caused significant delays and uncertainty in approvals. It is not uncommon for companies to wait 18 months and then be rejected for a project proposal. In addition, most programs are limited by the number of companies who can secure funding and are typically only suitable for larger companies.

As a result, many US states have recently switched their investment support regimes to be tied to the tax system and be outcomes based. The Gulf Coast states, for example, provide a range of tax credits to companies making major investments, which in effect decrease the tax burden on companies as they scale up production. Michigan has adopted a similar system to attract new auto assembly plants, and this approach has so far been successful. The tax credits are applied against all taxes including payroll, property, and corporate to secure investment and guarantee a longer-term return for taxpayers. They are open to all who invest, regardless of size of investment or company, and do not require pre-approval. Clearly, therefore, to remain a competitive jurisdiction for manufacturing investment, Canadian governments must also introduce modern investment attraction mechanisms.

Specifically, we recommend:

 Canadian governments should implement a taxbased investment incentive approach in addition to the more selective SIF program. The outcomes that should be measured and audited against are the critical elements needed for long-term success and prosperity. These include capital investment, training, exports, scaleup/commercialization, and environmental performance.

Canada has proven time and again that it excels at new technology development. Canada has a large worldclass technology and manufacturing equipment industrial sector. Companies in this sector are leveraging our innovation capabilities through our industrial and education sectors and are at the forefront of developing the next generation of manufacturing equipment, including automation, artificial intelligence, machine learning, and robotics, to name just a few areas.

Ironically, while Canadians are often at the forefront of developing new technologies, Canadian manufacturers are laggards in investing in and adopting such advanced technology. This not only has negative impacts on their productivity, but it also limits the domestic sales of those companies who are manufacturing and selling these technologies.

For established companies producing advanced technology, this means that they will invest less in Canada due to subdued domestic demand. For startup companies that are trying to develop their advanced technology products by expanding their customer base, they will struggle to gain a foothold.

By focusing attention on creating the next generation of manufacturing technologies, not only can Canada grow the output and exports of these products, other Canadian manufacturers can be early adopters of these technologies to boost their productivity and global competitiveness. In addition to improving B2B matchmaking through a Manufactured Right Here strategy described above, we recommend the following:

- Introduce a special investment tax credit for companies who adopt Canadian manufactured technologies.
- Create a virtual showroom for Canadian process technology companies to showcase their products as part of the Manufactured Right Here strategy.

ADDRESS LABOUR AND SKILLS SHORTAGES

Skilled labour is an essential ingredient to ensuring the manufacturing sector has a successful future. Based on previous CME surveys, 40 per cent of firms face labour and skills shortages today and 60 per cent expect to face shortages within five years. Manufacturers typically name labour and skills shortages as their most pressing issue. To be sure, rising immigration levels are increasing Canada's population and helping to partly offset the negative effects of an aging population. But more must be done to close the massive labour gaps felt by manufacturers.

Specifically, we recommend:

- Grow the domestic skilled labour pool by improving the engagement of youth, women, and under-represented groups in manufacturing. This must include strengthening education in science, technology, engineering, and math (STEM) fields and implementing a national apprenticeship strategy.
- Improve linkages between industry and postsecondary institutions to improve the skills of existing and future workers as well as to strengthen industrial innovation. This must include addressing curriculum gaps to ensure students are taught

skills relevant to manufacturing and to provide more opportunities for Work-Integrated Learning.

- Expand supports for business-led training, including the expansion and strengthening of the Canada Jobs Grant.
- Increase the flow of foreign-trained skilled workers through the immigration system and the Temporary Foreign Worker Program that are relevant to the jobs available in the manufacturing sector. Too often Canada is focused on bringing in "high-skilled" workers, which tend to be exclusively identified as those with university degrees, instead of also considering "right-skilled" workers, which are also in high demand.

LEVERAGING AREAS OF COMPETETIVE STRENGTH FOR CANADA'S ADVANTAGE

Canada's strength – our competitive advantage – has been turning our natural resources into economic opportunity and prosperity for all Canadians. Canada's manufacturing sector has been an economic cornerstone of the country since the early days of our nation because of natural resources. Initially, the country was a source of basic inputs of natural resources for the British Empire, particularly animals for food and clothing, timber, and minerals. The country leveraged these abundant resources to develop a manufacturing industry that has produced ever more advanced products over time. For example, steel production led to the manufacturing of machinery and equipment for resource extraction and refining, which led to the development of transportation equipment manufacturing, which eventually led to the production of advanced technologies such as computers and telecommunication equipment. These resources, and others, provide Canada a strategic advantage that most other nations can only dream about. However, as a nation, we no longer seem capable of fully developing these opportunities. This needs to change.

Manufacturing is an integral component of both the upstream and downstream supply chain of the resource sector. Manufacturers develop the technologies, machinery and equipment, and infrastructure needed for resource extraction. As resource extraction expands so too does demand for manufactured products. And, in turn, manufacturers use many of the resources in the production of their goods by turning raw materials into value-added products. In other words, a reliable and stable supply of natural resources is critical for manufacturing growth. And aside from traditional resources. Canada is one of the few countries with an abundant supply of rareearth elements, which are emerging as the next critical input for many advanced technologies, including rechargeable batteries.

Therefore, we recommend that Canada:

 Implement a resource development strategy that encourages development of natural resources, develops domestic supply chains for manufacturing inputs, and supports upgrading where practical.

This resource development strategy should effectively and sustainably unlock the potential of all natural resources. Specific attention should be focused on developing sectors with strong long-term global growth potential where Canada has unique abilities such as agri-food, energy, and rare-earth elements. In addition, while CME strongly supports domestic upgrading of the nation's natural resources, we recognize this may not always be practical given market realities and consumer demand. As such, there must be a focus on improving transportation of natural resources for both domestic and export purposes, including building energy pipelines. Finally, and most critically, any strategy must contain an effective inclusionary approach to Canada's First Nations to ensure they are part of the process and will socially and economically benefit from development.

While natural resource extraction is critically important for manufacturing and the economy more generally, it is not the only area of comparative advantage for Canada.

Our health care system also provides huge opportunities for innovation, commercialization, and domestic production.

The COVID-19 crisis has drawn attention to Canada's ability to manufacture PPE and other medical devices, with some concluding that we should manufacture and source all these goods domestically. While improvements can be made to domestic supply and procurement of critical PPE, this should not come at the expense of bigger opportunities that are available to Canada in heath care procurement.

Instead of focusing solely on what is needed for the current crisis, Canada should leverage its nearly \$200 billion annually in public sector health spending to spur an industrial health care revolution. We only need to look to our neighbours to the south for inspiration. In the US, the government leverages its military and defence spending for industrial and consumer innovation through the Defense Advanced Research Projects Agency (DARPA). While defence spending is one the biggest components of the US federal budget, health care is the single biggest budget item for every province in Canada. Yet, Canada has not harnessed the health care sector's potential in the same manner that the US has with defence. By harnessing health care procurement, Canada could develop and manufacture the next generation of health care and life sciences technologies for domestic and export markets and improve health care outcomes for Canadians.

We recommend:

 Canadian governments should create a set-aside fund from health care budgets to create the Health Advanced Research Procurement Agency. HARPA would target the development, production, and commercialisation of new health care technologies. To start, we suggest setting aside 1 per cent of Canada's health care expenditures for this purpose, creating a \$2 billion annual fund. This annual seed investment would have the potential to create long-term returns through the development of innovative health care and life sciences products.

Although natural resources are often considered a great asset, Canada's greatest asset remains our people. Canadians have a long history of generating innovative ideas, including how to leverage those ideas into innovative products that have literally changed the world.

Globally, we are recognized for the strength of our human capital, and it is imperative that we continue to develop and nurture the next generation. Along with addressing general skill shortages, Canada must also focus on leadership development and education in manufacturing. Of course, Canada has many great manufacturing business leaders. It also boasts several leading business schools, but their curriculums tend to be more general in scope compared to some specialized programs at schools in other countries.

Accordingly, we recommend:

• Canada establish a manufacturing business leadership school that will develop the industry's future leaders by focusing on innovation and technology, global competition, and growth.

AN INTEGRATED GLOBAL STRATEGY

The current shift in political and public sentiment toward increasing domestic production, strengthening domestic supply chains, and making and buying local is welcome news for manufacturers and fits well with Canada's trade and industrial realities. But this shift should not mean that Canada attempts to isolate itself, shut down global supply chains, and reverse decades of trade-driven prosperity for Canada. Instead, Canada should attempt to capitalize on these shifting sentiments by refocusing attention on the need to boost export growth by supporting the production of value-added goods and by strengthening regional supply chains.

BUSINESS COMPETITIVENESS AND TRADE

Before addressing these essential pillars, it is critical to note that Canada will not be able to improve its export growth performance without first improving its business environment. Over the years, Canada has signed multiple free trade agreements. While these agreements have helped boost exports, imports have risen more quickly.

Unfortunately, Canada's attempt to accelerate export growth is being undermined by its inability to address its deteriorating competitiveness. In other words, if Canada is to successfully implement a global growth strategy, governments must first create a supportive business climate that enables Canadian companies to invest, grow, and innovate.

LEVERAGING REGIONAL MANUFACTURING SUPPLY CHAINS

While strengthening manufacturing's domestic capabilities is important, Canada cannot overlook the strong historical relationship with our closest neighbours and trading partners. Despite recent political tensions, Canada's relationship with our regional partners has provided significant advantages to manufacturing and economy. The three decades of regional free trade has deepened the relationship with these partners and allowed Canadian industry to play a specialized role inside of larger global value-chains, opening new opportunities and markets both regionally and globally.

Governments have recognized the importance of these relationships to Canada's prosperity and have sought to deepen economic ties as a result. From free trade agreements, to simplifying border crossings for goods and people, to regulatory harmonization efforts, the goal has been to strengthen our economy in conjunction with our closest trading partners. The most recent effort has been through the renegotiation of our free trade agreement, the newly minted Canada-US-Mexico Agreement (CUSMA).

ABOUT NORTH AMERICAN TRADE

While efforts to broaden and diversify international exports are important, there is a fundamental difference between trade within the CUSMA region and trade with others. With other countries, we typically ship them our natural resources in exchange for their finished products.

True, Canada also exports natural resources to Canada and Mexico, but a large volume of trade within the CUSMA region is in intermediate goods and finished products. In this sense, our trade relationship with CUSMA is more balanced than it is with other trading partners.

In other words, we build goods together, such as cars, food, planes, and medical equipment. It is through this relationship that our manufacturing sector can thrive and compete against the rest of the world. Canadian industry supported the recent signing of the CUSMA. Now that it is about to come into force, the focus needs to shift to strengthening the manufacturing relationship within North America to allow companies to better compete with the world.

Specifically, the government should:

- Fully implement CUSMA as quickly as possible, including standing-up all committees related to joint economic cooperation, especially those on industrial competitiveness, regulatory harmonization, and SME export growth.
- Develop a joint strategy with the US on the manufacture and supply of critical PPE and other goods identified for security purposes that protects and grows integrated supply chains. This approach has been successfully implemented for decades in defence procurement and could be expanded to pharmaceuticals and medical equipment.
- Leverage the CUSMA competitiveness chapter to develop a joint strategy on dealing with competing jurisdictions who abuse international trade rules to protect our shared market from dumping, currency manipulation, IP theft, and other aggressive actions.

SCALE COMPANIES FOR GLOBAL SUCCESS

For years, Canada has attempted to accelerate export growth by diversifying its export markets. To date, this strategy has only had limited success, and this is due to three factors: the relatively small size of Canadian manufacturers, the highly integrated nature of manufacturing within North America, and Canada's proximity to a large and wealthy US market which is almost identical to our own. This does not suggest that Canada should stop pursuing a trade diversification strategy, rather, we must accept and embrace these limitations by focusing support on scaling companies for success both within North American and in other global markets.

By definition, small companies have fewer resources and less expertise than medium or larger sized companies. Their lack of resources directly impacts their ability to secure support from governments and other third parties. Canada has recognized this challenge and, in recent years, has started introducing measures to improve performance in this area. Still, much more can done.

We believe the following should be prioritized:

• Expand Canada's export concierge program to simplify access to government support programs, including adding more resources directly in industry associations to leverage their sectoral expertise and long-standing government relationships.

- Expand export mentorship peer councils by at least fourfold to improve the free exchange of information and know-how within the private sector.
- Introduce an export tax incentive that lowers corporate tax rates on export sales to encourage exports.
- Increase support for B2B linkages to support SME expansion from local suppliers into global valuechains, particularly in sectors where Canada has natural competitive advantages.
- Replicate the Saskatchewan Trade Export Partnership (STEP) program across other provinces to develop regional export growth strategies that directly support local manufacturing businesses and connects them to global markets.

CONCLUSIONS AND NEXT STEPS

Canada has a tremendous opportunity to reshape our economic landscape and future prosperity over the coming months. Governments will have an important choice to make as we fight COVID-19 together and build an economic recovery plan. Will we make it a priority to become a maker nation again? Will we focus and harness our natural advantages to drive investment and growth in the economy? Will we create a strong, innovative, and resilient manufacturing sector that can respond to any future crisis and help drive Canadian prosperity?

CME believes the answer must be yes! Working together we can begin to build the framework to emerge from this crisis in a strong position to build a foundation for growth and prosperity. The framework outlined in this report should be the starting point for the discussion of a new industrial strategy for Canada that can take us from crisis response to economic prosperity. And we cannot simply focus on the areas of traditional concern or just on the impacts of the current crisis. Instead, we must develop a comprehensive and innovative approach that allows the country to take advantage of its strengths that are aligned to current and future global opportunities.

This strategy should not be viewed as the end of the discussion. CME will leverage this report and continue to push governments across the country to implement these recommendations. Along with an overarching industrial strategy, the recommendations in this report should also help set the framework for governments to implement sector specific strategies at the national, provincial, or local levels.

And most importantly for our association, CME will use this report to continue to engage with industry and members from across the country to identify gaps in government support programs as well as roadblocks to a competitive business environment, continuing our 150 year mission to help manufacturers grow.

SUMMARY RECOMMENDATIONS

RESPOND: SHORT TERM IMPERATIVES

MANAGING EXISTING BUSINESS SUPPORT PROGRAMS

- Extend CEWS to at least January 2021 with a smooth transition to elimination that links improving revenue to a declining subsidy.
- Establish a rapid arbitration process for program qualification.
- Expand access to the Canada Commercial Rent Assistance program.
- Reinstate the Canadian Secured Credit Facility.
- Introduce programs to offset the costs of new PPE and training on new protocols.
- Extend dates of all required defined benefit pension contributions and freeze levels.
- Phase out CERB and transition recipients to regular employment insurance benefits.
- Improve fiscal support for municipalities so they can provide tax relief and liquidity support to industry.

IMPLEMENT CONSUMER SPENDING INCENTIVES

 Introduce Cash for Clunkers for vehicle purchases, a home renovation tax credit, and a three-month sales tax holiday.

RECOVER: MEDIUM TERM ACTIONS

MANUFACTURED RIGHT HERE

 Introduce a "Made in Canada" goods promotion strategy aimed at consumers, business, government, youth, and international markets.

LEVERAGE GOVERNMENT PROCUREMENT

- Conduct a full mapping of Canada's domestic manufacturing capabilities and capacities.
- Improve procurement transparency by creating and publishing long-term purchasing guidelines.
- Purchase based on societal (economic and security) value to Canada, rather than on price alone.
- Prioritize investment in trade and industrial infrastructure, including transportation networks, industrial parks, and broadband internet.

BOOST BUSINESS INVESTMENT AND PRODUCTIVITY

- Recapitalize existing investment support programs including the federal Strategic Innovation Fund (SIF) and SMART.
- Fund productivity training in manufacturing.
- Expand programs aimed at technology awareness and assessments, environmental performance, and other investment and productivity enhancing activities.

PROSPER: A CANADIAN MANUFACTURING STRATEGY

DRIVE INVESTMENT

- Lower domestic manufacturing costs through tax and regulatory reform and addressing energy costs.
- Increase technology adoption and creation through tax-based investment incentives.

• Address labour and skills shortages through a comprehensive strategy that aims to boost domestic and global supply of talent.

LEVERAGE AREAS OF COMPETITIVE STRENGTH FOR CANADA'S ADVANTAGE

- Implement a resource development strategy by focusing on areas with high-growth potential such as agri-food, energy, and rare-earth elements.
- Create the Health Advanced Research Procurement Agency (HARPA) to drive innovation and new production in pharmaceuticals and medial devices.

• Establish a manufacturing business leadership school.

CREATE AN INTEGRATED GLOBAL STRATEGY

- Fully implement CUSMA, leverage the strength of regional manufacturing supply chains for the manufacture and supply of goods identified for security purposes, and develop strategies on dealing those who abuse international trade rules.
- Scale companies for global success by expanding government support programs, especially export concierge, mentorship councils, and STEP programs.