Canadian steel production: the next generation

Although production has remained relatively stable, the state of Canada's steel sector has changed wholesale, with the passing into foreign ownership of the last Canadian steel plant. This special report looks at the steel industry in Canada at a turning point in its history and in the face of worrying economic conditions south of the border.

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Ivaco's wire and rod plant was one of the first to fall into foreign ownership, when purchased by US holding company Heico, in 2004.

The forces of consolidation that have affected the steel industry globally have been particularly acute in Canada – to the extent that, in the past year, all four of the country's largest mills have changed ownership. "I don't know of another industry anywhere that has gone through the ownership changes that we have in such a short period of time" says Ron Watkins, President of the Canadian Steel Producers' Association (CSPA).

Steel production began in Canada in the 1880s and, by the early 1900s, steelmaking centres had been established in Hamilton and Sault Ste Marie in Ontario, plus in Sydney, Nova Scotia. The industry continued to develop – slowly until WWII but then more rapidly as the post-war economic boom created a tremendous demand for steel. Large firms grew to dominate the industry so that by 1997, the three major integrated steelmakers of the time, Dofasco, Stelco and Algoma accounted for over 60% of all steel made in Canada. Today, Canada is the 16th biggest producer of steel worldwide, with total production standing at just over 15Mt/y.

Yet despite achieving dominance in domestic terms, Canada's leading steel companies have rarely featured amongst the global top 50 companies by production. As rising steel prices and a globalising marketplace precipitated consolidation amongst producers, there was hope in some quarters that the larger Canadian players could merge together to form a Canadian champion. This, however, was always an unlikely proposition and US Steel's acquisition of Stelco, in August 2007, finally marked the end of independent steel production in Canada. The industry which, through the Trans-Canada railway literally laid the tracks for the country's transition from being labeled as 'hewers of wood and drawers of water' into one of the world's most sophisticated service-based economies, is now totally controlled by foreign entities.

FOREIGN OWNERSHIP INVIGORATES

Sections of the Canadian media reacted with dismay to these changes, sensing another blow to a proud manufacturing heritage. On the other hand, within the industry there was a sense of inevitability, which has since translated into hope for renewal. "Rather than being depressing it's exciting," says Watkins. "People say 'well, geez, our steel industry has gone but, hello the mills are still standing, they're still operating and from what I've heard about the new owners' plans, steel production in Canada would seem to have a very promising future'." For those unsure about what foreign ownership can mean for a sector, Ontario's Minister for Economic Development and Trade, Sandra Pupatello, suggests they should look no further than the province's automotive sector which, in 2007, produced more cars than any other province or state in North America. "All five plants are foreign-owned and that has always been the case. By keeping its place at the front of the technology curve, I'm sure that the steel industry will remain a similarly important part of Canadian manufacturing."

From recording a Q4 loss of C$145M in 2006, Stelco (renamed US Steel Canada) is in the process of being integrated into the fifth largest steelmaker in the world. While over the past five years many producers had been flirting with bankruptcy, Canada's steel production is now incorporated into the plans of global players whose financial clout can offer job security for workers and the chance to build strategically for the future.

Another of the former triumvirate, Algoma was bought by Essar Steel Holdings Ltd in June 2007 – an acquisition that offered the Indian conglomerate one of the last remaining platforms for growth into the North American market. Over the next 3-5 years Essar expects to significantly increase Algoma's overall output, through a series of strategic capital expenditure initiatives, to in excess of 4Mt/y.

According to Denis Turcotte, Algoma's president and CEO, the new ownership has had an immediate impact. "Within two days of the transaction being completed we had seven people on the ground here from India. They are very strong technically, with a great sense of urgency and a propensity to act – it's transforming our culture here already."

Located at the junction of Lake Superior with Lake Huron, Algoma's Sault Ste Marie works has a capacity of 2.8Mt/y of flat products.

Indeed, despite the current market challenges, the mood across the sector appears to suggest that the stagnation that was associated with the industry just 3-4 years ago has cleared. Algoma, like others, is now able to progress, with initiatives on knowledge transfer and achieving world-scale cost efficiency and best in class practice. For example, the company can now buy more effectively by leveraging off Essar's global scale. "Understanding what others do and how we can implement those processes here at Algoma is the challenge for us as part of our integration," notes Turcotte.

THINKING GLOBALLY

In addition to establishing effective intra-company communications,

Company	Product	Crude capacity Mt/y	New ownership
Algoma	Slab, plate & strip	2.8	Essar Steel (June 07)
Dofasco	Sheet & tube	4.1	ArcelorMittal (2006)
Stelco	Billet, bar & sheet	4.8	US Steel (Aug 07)
Ipsco	Tube & pipe	3.2 (incl USA)	Swedish Steel AB (July 07)
Ivaco	Wire & rod	0.4	Heico (USA) (Dec 04)
QIT-Fer et Titane Inc	Pig iron, billet and Ti by-product	0.5	Rio Tinto

Table 1: Ownership of Canada's major steel producers

Martin Doble, president of the Canadian division of Hatch: "Canadian production is now in the hands of firms who need to justify investments across a global scale".

realigning relationships quickly with the broader supply chain will also be of utmost importance for the newcomers. Hatch, a leading international consulting, engineering, and project management organisation, headquartered near Toronto, has a long history working with producers in Canada.

The company's managing director of iron & steel consulting, Martin Doble believes that the changing industry dynamic has consequences for both the customers and suppliers of steel producers and that opportunities exist for those able to respond to producers needs. "A consolidating steel sector means that serious global players are emerging and those that service them need to be able to offer relationship support and expertise on a global scale," says Doble. "At Hatch, we have the geographic presence, the ability to combine different technologies - whichever are appropriate – and we are independent, which makes us special."

Significantly for the future of the sector, Canadian production is now in the hands of firms who need to justify investments across a global scale and are looking to where the investment dynamics are the most positive. In a North American context, Canada has historically enjoyed a cost-advantage for producers in the areas of pension and post-retirement health care costs, explains Fernando Traficante, director of sector competitiveness at Ontario's Ministry of Economic Development and Trade: "Due to the country's generous social welfare system, current and retirement health care costs are not a direct responsibility of employers and, consequently, the benefit costs for active and retired employees are significantly lower than in the US." However, Traficante also admits that, in a global marketplace, the attractiveness of Ontario and Canada's investment environment now comes under greater scrutiny than ever before. On a macro-scale, the increasing strength of the Canadian dollar certainly isn't helping producers much at the moment although the recent corporate tax measures announced by the federal government, aimed at giving Canada the lowest tax burden amongst the G7 group of rich nations, were well received. At both the provincial and federal level, government is being pressured to do more to advance the industry's competitiveness.

One such effort already bearing fruit is the Government of Ontario's Advanced Manufacturing Investment Strategy (AMIS) programme, introduced to encourage technological innovation and

Ivaco bar coil laying heads at the start of the Stelmor-controlled cooling conveyors

Round billet awaiting shipping at Ivaco – the company ran at 100% capacity in 2007

The control cabin of the rolling facilities at Tenaris' Sault Ste Marie, which has a capacity of 250kt/y of seamless pipe

employment in the manufacturing sector. Dofasco, formerly Canada's largest steel producer and now part of the world's no 1 producer of steel, ArcelorMittal, last year, announced its plans to begin building a C$60M pulverised coal injection (PCI) system at its two blast furnaces in Hamilton. The investment decision for this project, aimed at significantly reducing the company's fuel costs was bolstered by an agreement with the Government of Ontario to provide a C$6.05M five-year loan under AMIS. "In a global steel industry Dofasco has to compete with other plants worldwide for capital investment" commented Dofasco VP Joan Weppler. "Programmes like AMIS help ensure that Dofasco Hamilton remains competitive into the future."

US CROSS-BORDER TRADE

The steel industry supports about 150 000 direct and indirect jobs across Canada, and contributes about C$9bn every year in purchased goods and services in communities across the country. However beyond its importance to the Canadian economy, the sector has for many years been at the forefront of integration into the broader North American economy. The 1965 Canada-US Auto pact created what was in effect a free market between Canada and the US in automotives, which was subsequently followed by the Canada-United States Free Trade Agreement in 1988 and the North American Free Trade Agreement (NAFTA) in 1993. The North American steel market is now essentially integrated and trade in steel between the US and Canada is roughly balanced. The US accounted for about 50% of Canada's total volume of steel imports, in 2006, contributing 5.12Mt while, conversely, Canadian steel exports to the USA of 5.28Mt accounted for some 91% of Canada's steel exports.

Supplying sectors as diverse as metals service centres, the automotive industry, energy extraction and transportation and construction, Canadian producers are best considered as part of the larger value-added manufacturing supply chain in North America. The health of North American manufacturing as a whole underpins the sustainability of steel production in Canada and, as such, the current economic environment, in part stemming from the US sub-prime mortgage crisis, has given serious food for thought for Canadian producers and their new owners.

According to Ian Williams of the Canadian division of the Metals Service Center Institute, "the uncertain economic outlook has already had a noticeable impact." Across North America, apparent steel consumption is falling in response to lower automobile production (in 2007 less than 16 million units were produced for the first time in a decade), a weak housing sector and inventory adjustments by steel service centers.

In November 2007, Canadian steel product shipments registered a year-on-year decline for the 16th consecutive month, to 321.4kt. Steel inventories were also down some 12.4% from a year ago to 1.13Mt.

Furthermore, in Canada, the effect of the economic downturn is being compounded by the strength of the country's currency against a weakening US dollar. It may have been a welcome boost to national self-esteem when 'the Loonie' soared past parity with the US dollar for the first time in a generation however, its continued strength has gone on to do considerable damage to Canadian manufacturing competitiveness. "The situation with our currency is that it has severely impacted on things that were previously advantageous," remarks Aron Gampel, vice president & deputy chief economist of Scotia Bank "Our cost of labour, cost of power, etc has been affected to the tune of some 40% to the negative. It is very difficult to forecast long term but it appears to us that the currency is likely to remain strong for a much longer period than was at first anticipated."

A sustained slump in demand also brings with it the danger of impacting on productivity, something the Canadian industry has always prided itself on. According to Tom Perlus, president, supply chain, Heico Metal Processing Group, parent company of Ivaco Rolling Mills, one of the few firms to grow production in 2007 (by 6%), the key to maintaining productivity is to focus on utilisation. "Unlike competitors, we ran at 100% capacity last year and the importance of this is that it has given us the ability to promote productivity." says Perlus. "It's very difficult to promote productivity when you're only running at 75% capacity, because that means you're saying 'c'mon everybody, hurry up'…and then you lay them off because you don't need them 25% of the time."

In 2004, Ivaco Rolling Mills, one of North America's most advanced producers of hot rolled wire rods, rationalised from using two electric furnaces in its process to one. This had an instant impact on production volumes. Nevertheless, through a continuation of the company's focus on improvement and productivity, Perlus expects Ivaco to recover output above its 2004 level of 830kt by 2009.

There is also a prevailing view that the downturn does at least offer some respite from the cost pressures and shortages that have arisen in recent years. In fact, some even suggest that the slowdown in manufacturing could be a blessing in disguise.

Like many other industrial sectors, the Canadian steel industry faces a growing 'demographic crunch'. More than half of Canada's steel workforce is over 45 years of age and, as a generation of skilled employees retires, there are prospective shortages of skilled trades, engineers, managers, and other key jobs for the steel industry.

"The biggest challenge we face, however, is addressing the labour shortages and attracting sufficient talent to join the company," comments Alberto Ipert, president and CEO of Tenaris Canada, a division of the multinational manufacturer of tubular steel products. However, being global in scale, the new owners are at least able to draw from a wider talent pool and one upside of the Loonie's appreciation is that it should increase the attractiveness of working in Canada.

POSITIVE NOTES

Gampel also finds time to look on the bright side. "The good news is that increasingly what we're sending to the US is energy, which is impervious to the construction scene," he notes. Commodity development, such as the unrelenting expansion of the Albertan oil sands, is providing an important offset to the weakness in manufacturing and exposure to the US; Canadian producers are capitalising on the high demand for quality specialty steel in such places.

QIT Fer-et-Titane, part of the Rio Tinto group, for example, is expanding on its production of Sorelsteel™ billets to develop round steel billets for the Canadian tubular industry, which is benefiting from high levels of activity in well drilling and completion. "We've always tried to target niche markets to reduce our exposure to market cyclicality so we saw this as a good way to diversify steel production." says Jean-Francois Turgeon, president and CEO of the company that operates electric pig iron furnaces producing titanium slags as a by-product.

The company is still in the process of improving internal and surface quality for the product, but those unfamiliar with the company should not underestimate its commitment to the new market. Indeed, QIT's association with high quality products is something characteristic of the Canadian industry in general.

The chance to assume a position of global leadership may have passed for Canadian steel production, but the qualities that attracted interest from the emerging tier of global players look set to endure. The new ownership structure of the industry beckons a period of stability unseen in a decade and many are confident this will support Canada's role in the marketplace as a high-quality, specialised producer well into the future. STI

QIT owned by the Rio Tinto mining group processes titanium containing iron ore providing a high value Ti slag as by-product

Jean-François Turgeon, CEO and president, QIT-Fer et Titane Inc.

QIT operates electric pig iron furnaces to produce 0.5Mt/y of steel billet