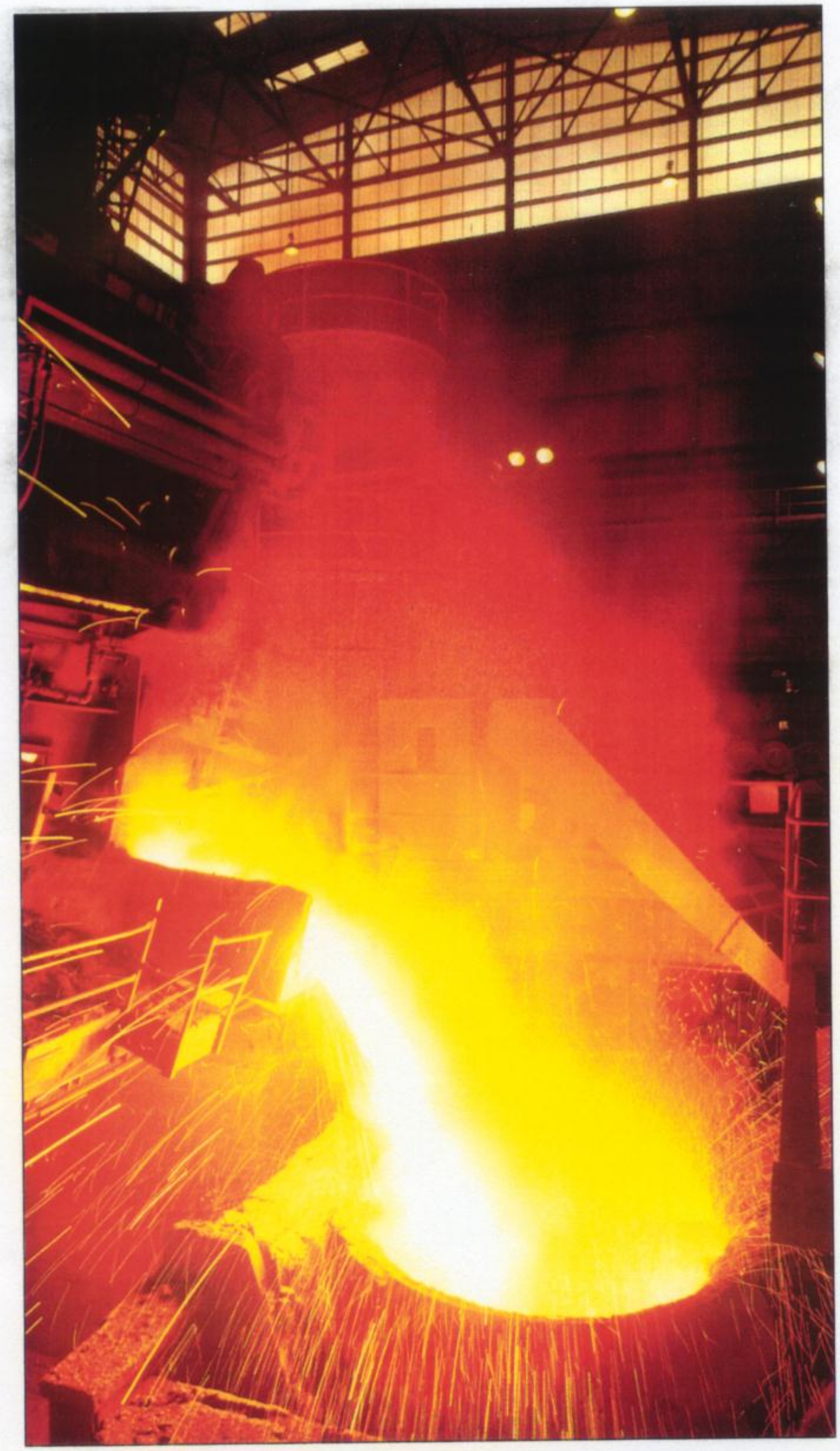
Future winners in world steel: minimills, Dofasco, China



Steelmakers in Europe and Japan face major challenges. Prospects in Korea and China are bright

JOHN E. JACOBSON

Steelmakers' fighting for markets and customers remains intense. Especially in Japan and Europe, steel companies are suffering casualties. Public interest in subsidizing steel firms is at an all-time low, and the competition is growing more fierce daily.

It is no secret that many steel-producing enterprises have run into severe financial difficulties. The steel industry's history as a building block of economic and political growth created a sizable financial cushion that has been severely deflated during the past 15 years.

Major steel companies in the United States such as LTV, Wheeling-Pittsburgh, and Sharon Steel have responded to this downturn by reorganizing under Chapter 11, with varying success. Steel enterprises in Europe are slowly moving toward privatization and genuine rationalization: Witness the privatized British Steel emerging as a low-cost competitor. Privatization of steelmaking enterprises in Latin America has increased the industry's efficiency.

The good news for the industry is that efficient companies will do well; poorly run, inefficient companies will die. Other conclusions of an industry analysis by the WEFA Group (*Crisis and Competition: Global Steel Outlook*) are:

- Minimills will rule the U.S. steel industry in the 21st century.
- Canada's Dofasco is proving that integrated steelmakers can divorce themselves from past mistakes.
- Korea and China will come to dominate Asian steelmaking as the Japanese steel industry withers.

Minimills will continue to grow, says the WEFA Group. Molten steel is poured into the ladle at North Star Steel's mill at Monroe, Mich.

The outlook for steel prices

$/net ton (2000 lbs)	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
All steelmakers (1982=100)[1]	97	100	101	105	105	100	102	111	115	112	109	106	108	113	112	117	114
Integrated mills[2]	451.9	410.9	401.4	435.1	402.2	404.8	480.8	538.5	490.1	443.2	413.6	393.5	408	426.8	415.6	435.1	424.8
Big Six steelmakers (average)[3]	552	545	488	498	473	463	473	542	531	532	507	486	505	520	515	520	515
Minimills[4]	332.2	305	295.8	314.5	307	309	331.1	393.6	368	342.6	321.5	310	332.1	348.6	334.6	352	342.1
Hot-rolled sheet	365	325	320	360	324	333	379	425	388	326	314	304	320	340	330	340	330
Cold-rolled coil	448	410	400	445	398	408	489	525	496	460	434	416	450	460	440	470	465
Galvanized	627	574	560	573	546	545	633	708	638	603	537	500	495	525	520	545	525
Plate	357	326	316	353	340	324	430	523	451	391	380	364	373	388	380	390	385

Sources: WEFA/Chase Econometrics surveys; independent market cross-checks; *Purchasing* magazine. Figures for 1993-1997 are forecasts.
[1]Composite of all steel-mill products (1982=100).
[2]Composite of hot-rolled sheet, cold-rolled coil, and galvanized and plate products.
[3]Average value/ton of steel sold by Big Six steelmakers: U.S. Steel, Bethlehem, Inland, National, LTV, Armco Steel.
[4]Composite of structurals, CF bar, wire rod, and rebar products.

• The longer the inevitable restructuring of Western European steelmaking is delayed, the more inroads low-cost eastern European producers will make.

• Substantial new growth will occur in Brazil and Argentina in response to asset privatization and in Mexico because of NAFTA.

Minimills to dominate the U.S.

Traditional integrated steel producers in the United States are confronted with the question of how to compete with companies whose cost structures are between 25 percent and 50 percent lower. The biggest problem for traditional steel companies is that they evolved into employment centers rather than profit centers. A tremendous bureaucracy of vice presidents, administrators, and technical and other support people added a huge fixed-cost burden. In the mill, the union saw to it that as many people as possible were paid as much as possible to do as little as possible.

But minimill steel producers, such as Nucor, Birmingham, and MacSteel, have based their success on getting the most out of their people. Labor productivity at the best minimills is generally 200 to 300 percent better than at traditional integrated steel producers.

This superior productivity translates into a $100-per-ton cost advantage for minimills vs. traditional integrated steelmakers. Ten of the largest minimills have been outpacing the Big Six U.S. steel companies in other areas, too. From 1987 to 1992:

• Sales grew 45 percent at the minimills and dropped 6 percent at the Big Six, which are U.S. Steel, Bethlehem, Inland, National, Armco Steel, and LTV.

• Shipments increased 47 percent at the minimills and decreased 10 percent at the Big Six.

• Steelmaking capacity rose by 5.3 million tons per year (tpy) at the minimills and fell by 11.7 million tpy at the Big Six.

Dofasco's promising strategies

Steel companies worldwide are showing that they can divorce themselves somewhat from the inevitable ups and downs of the steel cycle. Some companies have used unique strategies and superior operating practices to achieve consistently better results than their competitors.

Canada's three largest steel companies provide clear evidence of this trend. Although Dofasco made a mistake in acquiring Algoma, the firm has since embraced some very promising market strategies, such as the Continuous Pickle Cold Mill (CPCM), DNN Galvanizing, and Gallatin Steel, the minimill to be built in Kentucky.

Dofasco also has considerably improved labor productivity and customer focus. As a result, Dofasco is emerging as one of the more promising steel companies in North America.

On the other hand, Stelco continues to writhe around with numerous identity problems and painful labor relations. Algoma seems to be in a very difficult situation with rather limited prospects.

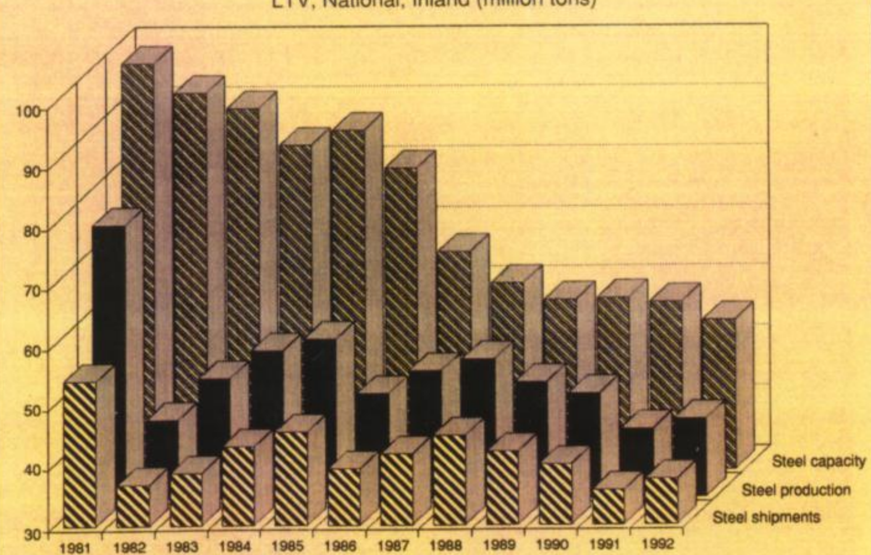
A strong domestic economy and increased exports are providing the Canadian steel industry with a much improved performance of late. Look for this upturn to be sustained for the next few years.

Hard times in Japan

Steel production in China, South Korea, and other developing regions in Asia such as Taiwan is growing robustly. The Japanese steel industry, however, has peaked and now is in a prolonged

Capacity at the Big Six steelmakers has nearly halved in the past decade...

Steel production at U.S. Steel, Bethlehem, Armco Steel, LTV, National, Inland (million tons)



Source: WEFA Group

period of rationalization.

In 1992, combined steel production for China and South Korea surpassed production in Japan for the first time. Within three to four years, steel production in China alone will surpass production in Japan permanently. In fact, Japanese steel production has been supported by substantial exports to China.

Recent financial results for the major Japanese steelmakers demonstrate the onset of difficult times. Japanese steel producers are now among steel companies with the highest costs in the world. Because of these high costs, Japanese steel companies are in a distinct competitive disadvantage and will have financial hurdles for years to come.

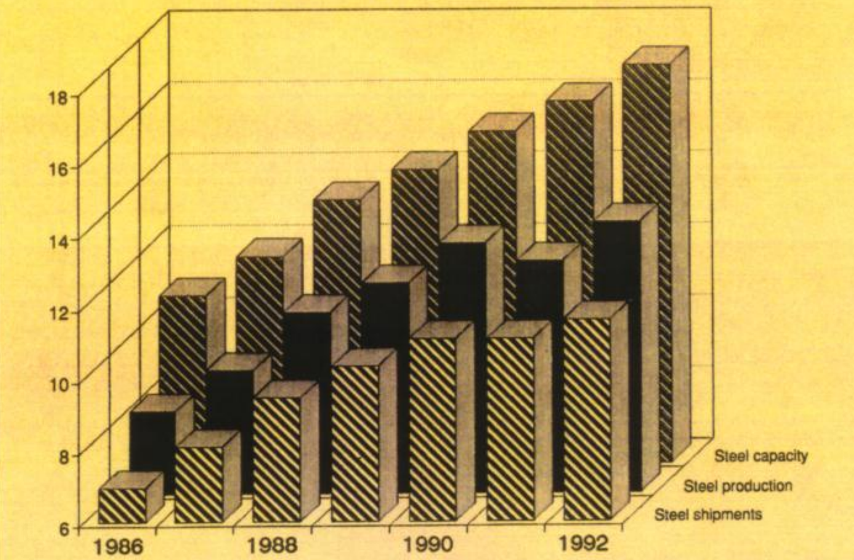
Competition in Western Europe

The financial and competitive comfort level in Western Europe has deteriorated sharply. Less government funding has reduced the financial buffer once available to many steel companies in Europe. More privatization of steelmaking assets has increased the pressure on steel companies to improve efficiency and profitability. Barriers to commerce with Eastern Europe have eroded, opening up access to low-cost steel.

This combination of reduced aid, more pressure to perform, and entry of low-cost competitors will burden Western European steelmakers. In addition, minimill steel producers will begin to make bigger inroads into specific product markets within Europe. This will put even more pressure on the traditional large integrated steel companies.

...While capacity at U.S. minimills has doubled in the past seven years

Steel production at U.S. minimills (million tons)



Source: WEFA Group

Recent financial results in Europe indicate the degree to which demand and pricing are deteriorating for most steel products. For example, in October every Antwerp spot steel export price dropped. There is legitimate concern that spot prices in Europe will continue to fall. Yet restructuring, which is painfully needed, seems to face interminable delays.

Privatization in Latin America

Most steelmaking assets in Latin America now are out of the hands of government and in the hands of private enterprise. This shift is translating into rationalization of excess capacity, improved operating efficiency, and ultimately better profitability. More privatization is also improving product quality, reliability, and pricing; all these encourage greater market growth.

Greater steelmaking efficiency and improved overall economic prospects are fueling a resurgence in the Latin American steel industry. Combined steel production in Brazil and Mexico should increase more than 44 percent between 1990 and 2000.

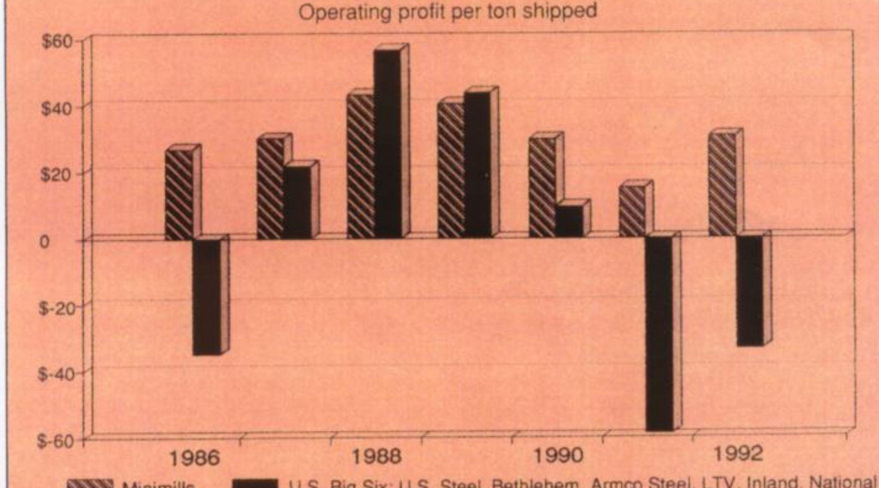
Near-term prospects for demand and production gains are rather bleak for most of Europe and Japan. The steel industries of Europe and Japan are going through three to five years of painful restructuring. It is not entirely clear whether established producers in Europe and Japan will be able to reduce costs enough to compete effectively with lower-cost producers.

China will continue to have extremely high growth in steel demand for years to come. Other developing regions such as Mexico, Turkey, and a few smaller Pacific Rim countries also hold promise for substantial gains in steel demand.

Finally, the minimill philosophy of steel production, with its low capital costs, employee empowerment, and high productivity, will continue to spread throughout the world. ❑

Operating profits: Violent swings at the Big Six, steady profits at minimills

Operating profit per ton shipped



Source: WEFA Group

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