

# LUXEMBOURG: WORLD HEADQUARTERS FOR THE STEEL INDUSTRY

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## Introduction

The Grand Duchy of Luxembourg (Luxembourg), although one of the smallest countries in the world, has historically played a disproportionate role in the formation of modern Europe. It was a charter member of the Benelux Economic Union, the European Union, NATO, and the United Nations. The territory now called Luxembourg was a prized possession of various powers in Europe because of its geography and natural resources, only gaining its independence in 1890; with a population of 480,000 (2007), it boasts the world's highest GDP per capita of \$87,995. (*The World Factbook* . . .) Although insignificant in size and area, Luxembourg has been able to maintain its economic and strategic importance on the European stage.

The purpose of this article is to examine how Luxembourg ultimately became the cornerstone of the world's largest steel conglomerate. In what follows I will provide a short history of the steel industry in Luxembourg along with a description of the evolution of the country's steel corporations into what is today ArcelorMittal.

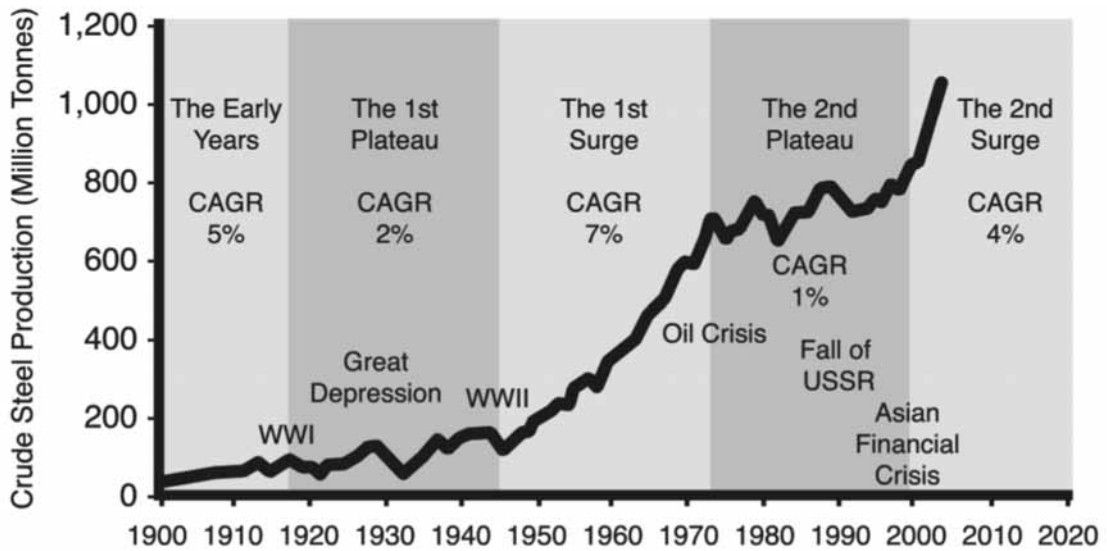
## The History of Steel in Luxembourg

Although there is evidence of ironworking in Gallo-Roman times circa 500 A.D. (Edwards, p. 1), for all intents and purposes the steel industry's rich history in Luxembourg took shape in the late nineteenth century. Following the inventions of two British industrialists, Henry Bessemer and Sidney Gilchrist Thomas in 1855 and 1875 respectively, mass production of steel became feasible. The Bessemer process, developed in Sheffield, England, utilized the patented Bessemer converter in order to mass-produce steel from pig-iron by removing impurities using compressed air which was bubbled through the molten metal. However, the minette<sup>1</sup> deposits in southern Luxembourg remained untapped by the Bessemer process due to their high phosphorus content until the

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<sup>1</sup>Minette sediment in the Esch and Differdange (southwestern regions of Luxembourg) was typically comprised of 30 percent iron ore and large concentrations of phosphorus, making it difficult to produce steel using the original Bessemer process.

**Figure 1**  
**Global Crude Steel Production**



Source: Chaudhary, p. 3.

Thomas-Gilchrist<sup>2</sup> process was developed. These innovations led to the tremendous growth of the global steel industry in the late nineteenth and (as shown in Figure 1) twentieth centuries, measured by compound aggregate growth rates (CAGR).

The population in Luxembourg grew from 211,088 in 1890 to 259,891 in 1910 and became more highly concentrated in the City of Luxembourg and the Canton of Esch; the mining and steel area employed 45 percent of the total population before the First World War as compared with only 26 percent in 1880. (“Economic

<sup>2</sup>The key to phosphorus removal in the Bessemer converter was the use of a lining composed of a strong basic substance (such as burned limestone) with which the phosphorus could combine and be eliminated in slag. With the aid of his cousin, Percy Gilchrist, Thomas was able to experiment and perfect his product in 1875. (“Thomas, Sidney . . .”)

<sup>3</sup>The German customs union was established by the majority of German states in 1834 to eliminate internal customs barriers while upholding protectionist tariff regimes against external parties. Luxembourg joined in 1842 and benefited from the economic ties until 1918 when the Allied powers required that Luxembourg dissolve its affiliation.

and Social . . . ,” p. 7) Located adjacent to the iron- and coal-rich terrain of the Lorraine region, Luxembourg was the ideal place to develop steel production. Following its accession into the Zollverein<sup>3</sup>, Germany provided Luxembourg with both much needed investment funds and a primary outlet for its steel products.

Arcelor’s historic lineage may be traced back to its origins with the Forges d’Eich-Le Gallais and Metz et Cie in 1838 (see Table 1). The growth of the Luxembourg steel industry, over 170 years in the making, has been a story of growth and decline, merger and acquisition, reaching its zenith in 2006 with the merger of Arcelor and Mittal Steel. The same tumultuous existence is echoed in France and Spain whose steel companies, also included in Table 1, combined with Arbed much later to form Arcelor.

In the years immediately preceding the First World War, the steel industry in Luxembourg went through its first phase of economic consolidation with the merger of Fourneaux, Sarrebruck, and d’Eich companies into Arbed in 1911. Arbed became one of the

# Table 1

## ArcelorMittal Merger Timeline

### Historical Timeline of ArcelorMittal

2006: July 2 - Revised €26.5B Mittal bid accepted

#### Chronology of Arcelor

- 2006: June 25 - Arcelor board recommends improved takeover offer from Mittal. Severstal stands to receive 140 million euro breakup fee
- 2006: June 2 - European Competition Commission gives the hostile takeover bid the green light.
- 2006: May 26 - White knight defense announced with Severstal
- 2006: May 19 - Mittal ups Arcelor offer by 34%
- 2006: April 4 - Arcelor unveils more takeover defenses, including a special payment of more than \$6 billion to shareholders and a poison pill requiring that recently acquired Canada steelmaker Dofasco remain an asset of Arcelor following any acquisition.
- 2006: February 16 - Declaration of extraordinary dividend 85% hike
- 2006: January 27 - €18.6B initial bid by Mittal
- 2002: February 18 - Merger effective with listing of Arcelor
- 2001: February 19 - Merger of Arbed, Aceralia, and Usinor announced

Chronology of Usinor (France)	Chronology of Arbed (Luxembourg)	Chronology of Aceralia (Spain)
1999: Re-organization of the Usinor group		
1997: Usinor-Sacilor becomes Usinor	1997: Strategic partnership with Aceralia (formerly CSI) in Spain	1997: Creation of Aceralia Corporacion Siderurgia and strategic alliance with the Arbed
1995: Usinor-Sacilor privatized	1995: Majority shareholding taken in Klöckner Stahl, now STAHLwerke BREMEN	1994 : Successor company CSI Corporacion Siderurgia setup
1986: Usinor and Sacilor merge	1993: Conversion to electric arc furnace steel production in Luxembourg	1991: Establishment of Corporacion de la Siderurgia Integral
1981: Usinor and Sacilor become state-owned	1911: The three largest steelmakers in Luxembourg, SA des Hauts Fourneaux, SA des Mines du Luxembourg et des Forges de Sarrebruck, and Société des Forges d'Eich--Metz et Cie merge to form Arbed	1973: ENSIDESA takes over UNINSA
1964: Creation of Sacilor	1882: Establishment of Societe Anonyme des Hauts Fourneaux et Forge de Dudelange in Luxembourg	1950: Creation of Empresa Nacional Siderurgia SA (ENSIDESA)
1948: Creation of Usinor by merger of Denain Anzin and Nord-Est	1856: Soci�t� Anonyme des Mines du Luxembourg et des Forges de Sarrebruck	1902: Creation of Altos Hornos de Vizcaya (AHV), from merger of Altos Hornos de
1882: The Societe des Forges et Acieries du Nord-Est founded	1838: Forges d'Eich-Le Gallais, Metz et Cie, founded	Bilbao, La Vizcaya and La Iberia
1849: The Societe des Hauts Fourneaux et Forges de Denain-Anzin formed		
1835: Ironworks of Denain and independently Anzin founded		

Source: ArcelorMittal

first truly vertically integrated steel companies, controlling ore, coke, and rolling mills. By 1913 Luxembourg was producing more than one million metric tons of steel annually, of which nearly 70 percent went directly to Germany. (“Economic and Social . . . ,” p. 8)

Following WWI the Allies mandated that Luxembourg withdraw from the Zollverein; and, in the absence of German investment, the steel industry in the region fell upon hard times. The inter-war period was categorized by sluggish growth in the global economy, further compounding the region’s economic and social hardship. Table 1 illustrates how this confluence of events impacted steel production. The effects cascaded through to the steel industry where annual output grew at a compound aggregate growth rate of only 2 percent and consequently led to social and economic unrest during the period.

The industry’s fortunes in Luxembourg were revived briefly during the Second World War as a dramatic increase in production was required in support of Germany’s war effort fol-

lowing the occupation that began in 1940. This increase was short-lived, however, as the Allied invasion and bombing campaigns decimated the German military machine in the later days of the war. Fortunately for Luxembourg’s economy, the restrictions of the post-war construction period following World War I were not repeated; and efforts such as the Marshall Plan led to a significant investment of \$559 million in the country and a rapid recovery. (Bailey, p. 205) The period following the war from 1945 until 1975 saw annual steel production in Luxembourg grow from less than one million to over six million metric tons. This dramatic increase in production was at least in part due to the rapid growth in technical productivity<sup>4</sup> as measured by the Federation of Luxembourg Steel Industries. Steelmaking productivity more than doubled in conjunction with the rapid general post-war growth from 1950 to 1974. (“Economic and Social . . . ,” p. 12)

<sup>4</sup>Measured in tons per annum per worker and reflecting increases in efficiency and new methods of producing steel.

**Table 2**  
**Luxembourg Steel Plan Expenditures**

Budgetary Expenditures Made by the State under the “Steel Plan” between 1975 and 1987			
Unit: million euros	1975–1982	1983–1987	1975–1987
<b>A. Investment Aid</b> (Ordinary capital subsidies, extraordinary capital subsidies, special interest rate reductions, and other subsidies)	70.6	63.4	134.0
<b>B. Financial Restructuring</b> (Convertible bond and share subscriptions, acquisition of Sidmar company shares, special and temporary aid)	–	393.0	393.0
<b>C. Social Aid</b> (Professional re-training, re-employment benefits, early retirement, and special disability scheme)	147.1	307.6	454.7
<b>D. Tariff Aid</b>	9.6	1.7	11.3
<b>Total</b>	227.3	765.7	993.0

*Source:* “Economic and Social . . .,” p. 14.

The marked growth in both raw production and productivity during the aforementioned period reversed course from 1975–1985 as the world reeled from the first and second oil crises. The steel industry in particular suffered from a serious worldwide demand and supply imbalance as severe overproduction placed downward pressure on prices. Beginning in 1975, Luxembourg responded rapidly to the economic downturn in an effort to stem any potential job losses. Table 2 identifies the cumulative expenditures made under the “steel plan”<sup>5</sup> including investment aid, financial restructuring, and social support. The most significant aid package prioritized several new social programs including legislation with the express purpose of providing for early retirement of steel workers. Despite the injection of the equivalent of one billion euros, stemming the increase in unemployment was impossible; and the number of registered unemployed increased markedly from 1974 to 1984 as more than 14,800 steelworkers left the industry. (“Economic and Social . . .,” p. 14)

<sup>5</sup>The “steel plan” was a series of emergency measures enacted between 1975 and 1987 in an effort to rejuvenate the ailing Luxembourg steel industry and support social services for affected workers.

This period of economic rationalization continued on a larger scale across all of Luxembourg’s steelmakers. Ultimately, in the late 1970s Arbed was the sole surviving steelmaker due primarily to the direct intervention of the state. The Societe Nationale de Credit et d’Investissement,<sup>6</sup> a long-time national steel industry investor, increased its holdings to 42.9 percent of Arbed’s total capital in order to stave off the company’s bankruptcy. The magnitude of the government intervention underlines the relative importance of the industry as Luxembourg’s principal employer.

### **A National and Regional Champion in the EU**

Luxembourg’s rationale in maintaining a partnership between government and private enterprise can be described by the doctrine of economic nationalism.<sup>7</sup> It follows that in smaller

<sup>6</sup>Founded in 1978 as a federal organization, the Societe Nationale de Credit et d’Investissement provides financing through grants, loans, credit facilities, and equity investments in public and private companies located in Luxembourg.

<sup>7</sup>Economic nationalism refers to policies that are guided by the idea of protecting domestic consumption, labor, and business.

states the theory seems to hold particular appeal because they are more conscious of losing their own sovereignty and thereby justify the economic protection and investment in “critical” industries that provide some economic independence. Arbed engendered a great deal of historical pride, and the political and socioeconomic interests of the nation were and still are intertwined with Luxembourg’s single largest company and employer. (More than 60 percent of the industrial workforce was tied to steelmaking prior to WWI.)

Realizing its vulnerability, Luxembourg began to increase its economic diversity by promoting a service economy during the 1950s. Indeed, this vision and flexibility enabled the country to successfully adapt to the changing economic landscape and turned it into a leading European service provider. Yet, in the early 1970s, twenty years following this shift in economic focus, the steel industry still accounted for more than 20 percent of the total added value of Luxembourg according to STATEC.<sup>8</sup> However, there was a dramatic decline in the steel sector following the oil crisis in 1973.

The exhaustion of minette ore deposits saw the last Luxembourg iron mine close in 1981. Nevertheless, Arbed remained the country’s largest employer. Due to the company’s national champion status, the economic and political support of the government provided the resources necessary for modernization of the industry. These efforts paid off in the form of new technologies, such as the electric arc furnace, dramatic productivity gains, and quality improvements between 1974 and 1990.

The importance of national sovereignty and economic independence in a rapidly globalizing world has led to support for the steel industry in many countries. However, such national interests have distorted market supply and demand, contributing to chronic overcapacity in the global steel industry and volatile and unsustainable markets. Whereas traditional economic theory suggests that market forces would move to resolve any imbalances by lowering production and eventually capacity in an economic

downturn, many nations preserve production in an effort to protect jobs, economic stability, and their strategic independence. Excess national production is thus exported at subsidized prices, flooding neighboring markets.

## Consolidation Trends

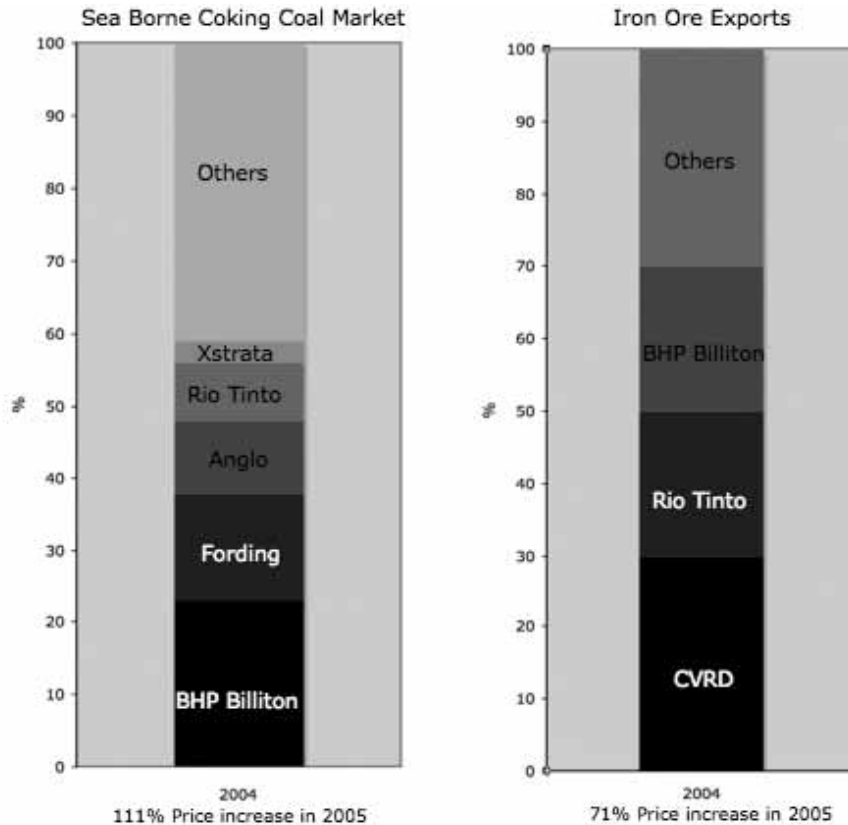
The long-term viability of the steel industry broadly defined requires significant rationalization in order to remedy the challenges of rampant overcapacity, global competitiveness, and increasing commodity prices. In response, toward the end of the 1990s, following the Asian Crisis (1997) and early into the twenty-first century, the market reacted with a wave of regional consolidations. In order to survive, Arbed was driven to become a pan-European champion by merging with French steelmaker Usinor and Spanish concern Aceralia in 2002. The merger created the largest steelmaker in the world, with 110,000 employees and annual steel production of 46 million tons. The pressure for further consolidation is evidenced by the most recent wave of mergers and acquisitions in the twenty-first century that created global companies from regional leaders, ArcelorMittal being the most notable example in the steel industry.

Steel companies have been caught between raw material price inflation, increasing demand, particularly from China, and the consolidation of customers, particularly the automobile sector. In a historically fragmented industry facing fluctuating economic conditions, stability has been hard to maintain; consequently managing costs has been one of the most important issues for steelmakers. Yet, competitiveness in the steel industry requires significant capital expenditures in technology and heavy equipment. Balancing these forces had made companies like Arcelor and Mittal successful while other companies, such as Bethlehem Steel in the United States, doomed themselves to failure as overproduction and capacity issues forced them out of business. The intensive capital investment required in order to compete in the steel market requires continuous innovation leveraged over increasing economies of scale. A dominant leader(s) needed to emerge to stabilize the industry and drive more effective management of material efficiency and innovation across the sector.

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<sup>8</sup>The Central Service for Statistics and Economic Studies, formed in 1962 from the merger between the General Statistics Office and the Service for Economic Studies and Documentation in Luxembourg, provides economic data to the government.

**Figure 2**  
**Supplier Consolidation and Raw Material Inflation**



Source: Chaudhary, p. 5.

The industry has incentives to consolidate from both ends of the supply chain. The market for raw materials is controlled by oligopolies. The top five coking coal suppliers and the top three iron ore suppliers in Figure 2 control upwards of 50 percent of their respective market shares. In the face of accelerating demand, they have been able to increase prices dramatically since 2004. The Chinese have been one of the most vociferous in objecting to this concentration of pricing power and have even entered into the acquisition fight to protect their interests, purchasing a minority stake in Rio Tinto. ("China Takes . . .") In order to maintain negotiating leverage, steel companies must consolidate their buying power on a global base or risk having their margins squeezed by supplier consolidation.

The top five manufacturers by tonnage in the global steel industry (shown in Table 3)

account for less than 20 percent of market share. (By comparison the number is closer to 70 percent for automobiles.) The benefits of consolidation include the ability to maintain greater pricing power, a serious problem in the past due to the multiplicity of national protectionist interests. Additionally, as customers themselves become more globally distributed, their steel needs can be better served by a company with a presence and capability in each customer locale. Finally, the trend of moving production to low-cost and high-growth countries can be most effectively navigated by global players in the industry.

Consolidation in the steel industry also allows firms to capture growth opportunities in new markets. Facilitating new relationships in geographically dispersed regions will come more easily to a diversified steel company with a global network already in place. Additionally,

**Table 3**  
**The Top Six Steelmakers by Tonnage**

Rank	Company	Production (mmt)*
1	ArcelorMittal	117.2
2	Nippon Steel	34.7
3	JFE	32
4	POSCO	30.1
5	Baosteel	22.5
6	U.S. Steel	21.2

\*mmt = million metric tons.

Source: "World Steel in Figures 2007," p. 3.

major players will have access to the requisite investment capital to pour into new opportunities while spreading the risk across their entire portfolios. Finally, global companies will be less subject to the influence of national interests and therefore will be better prepared to handle fluctuations in demand and prices by adjusting production and employment.

### **The ArcelorMittal Case**

One of the most dramatic consolidation events in the steel industry occurred in 2006 when Mittal Steel, controlled by Indian born Lakshmi Mittal, launched a hostile bid for Luxembourg-based Arcelor. It was a new breed of deal that created the first truly global steel company in terms of geographic reach, portfolio of clients, and wide selection of value-added products. Driven primarily by opportunities of potential synergy, market power, and global competitiveness, Mittal launched an initial bid for the company at the beginning of January 2006, valuing the company at \$18.6 billion. What followed was a bitter five months of negotiations that ultimately succeeded in creating a behemoth controlling 10 percent of the world's production (three times as much as its closest rival). In the following sections, the financial and economic motivations supporting Mittal's rationale will be compared with extraneous political and socioeconomic perspectives.

Historically, the projected economic benefits of large merger and acquisition transac-

tions have come under fire from various constituencies, including labor unions, investment analysts, and the investing public, for failing to deliver the promised financial results. No matter how one evaluates the success of a merger, it is difficult to quantify non-financial factors. These factors can play significant but different roles with individual parties. As a result, there is an inherent tension between purely financial and the non-financial perspectives, with neither telling the entire story. Mittal's actions and statements suggest that its primary motivation in approaching Arcelor was financial. However, in the case of Arcelor, non-financial factors had considerably greater importance.

### **Mittal's Perspective**

For Lakshmi Mittal and his son Aditya, the merger of two industry titans made economic sense. The deal was heralded by Mittal's management for several reasons, including potential resource, manufacturing, and research synergies, portfolio optimization, and international expansion opportunities. According to Aditya Mittal, "The merger is good for jobs and investment as it creates a more sustainable industry." (as quoted in Aldrick, "Arcelor Bid . . .," p. 1) Historically, companies have struggled in periods of economic turbulence because of competing interests and market fragmentation. As a global entity, ArcelorMittal should now have the ability to control costs more effectively and

improve margins by capitalizing on economies of scale, ultimately diversifying its business operations. The two companies complemented one another in terms of geographic operational scope. Both had been products of numerous mergers, and their combination, according to Aditya Mittal, would deliver 1.6 billion in savings.

Research and development synergies can create a significant amount of value and competitive advantage. According to Aditya Mittal, the effect of research investments combined between the two companies “will be leveraged over 130 (million) tons. Others will be able to manage just 30 (million) tons per dollar.” (as quoted in Aldrick, “Arcelor Bid . . .,” p. 2) Maintaining innovation in steel product lines is integral to the product’s continued applications around the world. ArcelorMittal’s ability to concentrate research in fewer locations while sharing the outcomes globally will spread the risk and ultimately provide the promised economies of scale.

The bid for Arcelor enhanced Mittal’s reputation, expanding the company’s reach into the heart of Europe while it concurrently re-branded Mittal from a low-cost commodity steelmaker into a world class environmentally-friendly company with cutting-edge technology and product development. With its increased size, the company should be able to stand toe-to-toe with major suppliers and customers in order to protect its bottom line.

## **Arcelor and the European Perspective**

Politically, Luxembourg’s government was presented with a difficult situation by the proposed merger. Although the merger made economic sense, there were other factors to be considered. In particular, the historical significance of the steel industry to Luxembourg’s economy meant that the loss of such an icon could be a political disaster for Prime Minister Jean-Claude Juncker. On the other hand, Luxembourg’s reputation carefully cultivated by the government, portraying the country as an ideal place to locate international business headquarters, would be severely tarnished if it attempted to block the transaction. India has a great sense of pride in the success of Mittal Steel, so much so that India’s commerce min-

ister, Kamal Nath, hinted that a “move against Mittal Steel could trigger a trade war between the two countries.” (Thornton, p. 1)

Stoking national sentiment and a populist agenda was an ingenious tactic that achieved several political objectives as well as financial benefit for Luxembourg. It placated the electorate by playing to European emotions, secured several important concessions, and ultimately provided the government with a foreign scapegoat in case of the failure of the steel industry in Luxembourg. Last but not least, the tactics employed contributed to a higher value for all shareholders.

The first response to Mittal’s announcement of its intention to merge was grounded in the economic nationalism argument. Former Usinor President and Arcelor Chief Executive Guy Dollé likened Arcelor to the “Airbus of the European Steel industry” in an attempt to engender a sense of European pride. (Maidment, p. 1) Subsequently, the governments of France and Luxembourg moved quickly to dismiss the merger proposal, and Dollé continued to voice his opinion regarding the ArcelorMittal deal in a way that at times verged on xenophobia. He questioned Mittal’s safety record and compared its products to “cheap cologne” against Arcelor’s high quality “perfume.” He even went so far as to call Mittal’s cash “monnaie de singe” or “monkey money.” These outlandish comments merely demonstrated an emotional rather than a rational reaction to the merger.

Initially, both Arcelor management and European political forces were sharply opposed to the deal, and in general Europeans felt as though their national pride was for sale in a takeover orchestrated by an individual from a “third world country.” There have been examples of economic nationalism effectively blocking other acquisition attempts including Danone<sup>9</sup> in France and CNOOC-Unocal<sup>10</sup> in the United States.

The strategy of the Luxembourg government and Arcelor management successfully garnered several important concessions. First, Luxembourg was established as the new company’s global headquarters. Although the true corporate power remains in London where the Mittal family resides, this was an important gesture both from a symbolic and an economic stand-

point. The decision to move the headquarters of the combined company to Luxembourg placated Luxembourgers and Europeans. The move also maintained important higher-level employment opportunities in the country for the foreseeable future. Secondly, as the chief shareholder with 5.6 percent of Arcelor's shares, the government of Luxembourg had a financial stake in the deal. ("Forging a Steel . . .") Politicians and management grumbled that the initial offer of €18.6 billion from Mittal valued the company below what it was worth. The negotiations dragged on over several months until Mittal increased its offer by more than 33 percent to €26.5 billion and conceded several places on the management board for Luxembourg officials. Thus, Luxembourg's ferocious resistance resulted in a much-enhanced deal for shareholders.

### Labor's Perspective

In order for the merger to proceed, Mittal also needed to placate apprehensive labor constituencies in the government in labor unions. These constituencies had reason to be concerned for, as Aldrick notes (p. 2), "the global steel workforce has declined 30 percent every ten years since the 1970s" and as many as 1,500,000 jobs have been lost. Therefore, the governments of Luxembourg, Belgium, France, and Spain were acutely aware of the political and socioeconomic impact of potential job losses and had a vested interest in the merger's outcome. For Luxembourg, Arcelor represented the single largest national employer. Belgium, and in particular Wallonia, whose industrial heritage had fallen on hard times, employed over 12,000 steelworkers. Although France didn't have an equity stake, approximately 30 percent of the employees of Arcelor worked in that country; further, Spain's 18 Arcelor plants were also at risk.

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<sup>9</sup>Danone is a food-product company based in Paris, France, that operates as Dannon in the United States. The company provides a variety of dairy products, bottled water, and baby foods. In 2005, speculation of a takeover bid by PepsiCo. led to the legislative intervention of the French government blocking the sale of strategic businesses.

<sup>10</sup>The Chinese National Offshore Oil Corporation dropped its all-cash bid of \$18.5 billion for Unocal in 2005 as a result of a broad political backlash in the United States centered around national security concerns.

Prior to announcing the merger, Mittal had previously acknowledged that it was attempting to eliminate 40,000 jobs internally. Continental diplomats and management were justifiably concerned that if any deal were struck, ongoing restructuring at Mittal would overflow into Arcelor. However, after repeated efforts at shuttle diplomacy plus several promises from Mittal to protect European jobs, Mittal was able to navigate much of the political opposition. Ultimately, the success of the merger will be judged by labor unions and by governments to the extent that ArcelorMittal maintains its European operations.

### Arcelor Management Reaction

Although Arcelor CEO Guy Dollé attempted to leverage political and social forces to aid in the defense of Arcelor against the merger, his efforts were hampered by poor management. Arcelor did not mount an effective defense due to several tactical errors. Significant amounts of surplus cash made the company an ideal target for acquisition in an industry under pressure to consolidate. Additionally, management had tenuous control over its own destiny because of the significant share-dilution or free float<sup>11</sup> that resulted in 86 percent of shares being held by anonymous owners. Mittal simply had to accumulate shares on the open market and could do so to a certain degree without Arcelor management's knowledge.

In a final unsuccessful attempt to hold Mittal at bay, Arcelor management proposed two strategic options including a massive share repurchase program in order to return cash to shareholders and the acquisition of Severstal, a Russian Steel company valued at €13 billion. Ultimately, however, the shareholders were appeased by the sweetened offer of Mittal worth €26.5 billion or €40.37 a share.

### Conclusion

Steel has played a central role in the economic history of the Grand Duchy, and it tells a

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<sup>11</sup>Free float represents the proportion of a quoted company's shares not held by the company or close affiliates (e.g., directors, founding families), allowing prospective suitors to acquire control of the company without management knowledge.

compelling story of Luxembourg's ability to grow from an industrial nation into a premier international financial hub. For its size, Luxembourg is one of the most influential and affluent countries in the European Union. Though the Luxembourg steel industry may have waned somewhat and has been supplanted by a service economy, the most recent merger reaffirms the nation's prominence and its ability to remain an economic force in this sector.

Mittal has turned the traditional paradigm of outward FDI from Europe and the West on its head: growing the Mittal outfit from its humble beginnings while acquiring assets around the globe culminating in the merger of Europe's steel champion. ArcelorMittal has certainly set the pace for an industry that Mittal envisions as being controlled by several global steel companies each with production of more than 100 million metric tons annually. The fusion of Mittal and Arcelor represents a significant milestone toward the global consolidation of the steel industry in which Luxembourg continues to play a meaningful role. Termed a merger of

equals, between young and old, their operations were complementary, sharing a common foundation of growth by merger and acquisition in disparate regions of the world. Their consummation stands upon proven experience and helps to explain why ArcelorMittal may well succeed where numerous other mergers have failed.

Time has tested Luxembourg's mettle, necessitating leadership and dynamic transformation. Many challenges are yet to come; while ArcelorMittal dominates the steel industry now, its position is far from secure. China has shown through its rapid ascendancy to be an economic leviathan and a tremendous market for Mittal. Yet the emergence of China as a steel exporter will surely challenge Mittal's dominance. In addition to the emergence of China, the company's acquisition-focused growth strategy may be a cause for concern, sapping capital and management time from the core businesses. One thing is for certain, however; if both Luxembourg and ArcelorMittal are to remain competitive, constant innovation will be required.

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