ArcelorMittal's Iron Ore Mining Project in Liberia: Balancing Returns, Corporate Social Responsibility and Economic Development in a Post-Conflict Country

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ABSTRACT

The case considers a renegotiation of an iron ore mining contract by the Government of Liberia and steelmaker ArcelorMittal in 2006 amid criticism that the deal unfairly favored ArcelorMittal. How do private companies and governments ensure that natural resources are explored responsibly, and profits are managed conscientiously and in developing countries? How are these concerns balanced with the need to provide sufficient incentives and protections to investors in what are often unstable and risky environments? What kind of measures can the Liberian government take to stimulate post-conflict reconstruction without falling victim to the resource dependence curse?

More fundamentally, what are the social responsibilities of a multinational company investing in a developing country with limited investment history? What is reasonable from the company's perspective? What is useful to the local communities? What is the government's role in fostering corporate social responsibility?

The case of ArcelorMittal's investment in Liberia's iron ore sector is multidimensional, and raises complex issues regularly faced by companies doing business in developing countries.

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INTRODUCTION

On January 16, 2006, Ellen Johnson Sirleaf took office as Liberia's president and Africa's first elected female head of state, promising to rebuild the war-torn country and its devastated economy after two decades of war and instability.[1] The "Iron Lady," as she was known, was pursuing an aggressive reform agenda, including a review of all concession contracts awarded by the previous interim government to ensure the agreements properly protected Liberia's national interests.[2]

Among the contracts coming under review was a Mineral Development Agreement (MDA) for an abandoned iron ore mine in Yekepa, northeastern Liberia, signed in August 2005 by the interim government and Mittal Steel Co., which in 2006 was in the process of merging with Luxembourg-based Arcelor SA to create the world's largest steelmaker.

In September 2006, the Government of Liberia and the newly formed ArcelorMittal were at a crossroads, deciding if the contracts should be renegotiated. (See Exhibit 1 for timeline of events)

BACKGROUND ON ARCELORMITTAL

Lakshmi N. Mittal, chief executive and chairman of ArcelorMittal, built the world's largest steel company. He began with a small steel business in Indonesia, and later expanded to places such as Trinidad, Mexico, Eastern Europe, Kazakhstan, and eventually the United States. At the time of the merger, the newly formed company accounted for 10 percent of world steel output. Mittal had acquired a reputation for boldness, successfully turning around struggling steel firms and mills in difficult business environments.

The ArcelorMittal merger reshaped the global steel sector by spurring consolidation in a highly fragmented industry to create multinational steel giants better-positioned to face off against the powerful mining companies supplying the sector with iron ore, the primary raw material used to make steel.

However, ArcelorMittal was one step ahead: it was creating a mining company within its steel operations. Pursuing a strategy of "vertical integration," it was increasing its own supplies of iron ore to reduce the company's dependence on miners like Rio Tinto Group, BHP Billiton, and Companhia Vale do Rio Doce (CVRD), which together controlled about 75 percent of global iron ore exports.

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[1] Polgreen, Lydia "Liberia's Harvard-Trained 'Queen' Is Sworn In as Leader." The New York Times, January 17, 2006.
[2] Speech by President Ellen Johnson Sirleaf: "Remarks by Her Excellency Madam Ellen Johnson Sirleaf President of the Republic of Liberia on the Occasion of the Formal Launching of the Extractive Transparency Initiative In Liberia." July 10, 2007.

In 2005, Mittal Steel was already the world's fifth-largest iron ore producer and was able to meet more than half of its iron ore needs from its low-cost production sources in South Africa, Bosnia, Kazakhstan, the Ukraine and Mexico.[3] The merger would set back its plans because Arcelor did not have as many mining assets, but the combined company still expected to reach 50 percent self-sufficiency in iron ore by 2010.[4]

"We have a unique position among steel producers," Lakshmi Mittal told investors on a conference call in early 2006. "Our high level of integration to mining allows us to maintain low operating costs while providing a strong foundation to support future expansion of our steel operations. Our mines are located in close proximity to our steel operations, thus reducing the delivered cost of our iron ore."[5]

ArcelorMittal produced 44 million tons of iron ore in 2006 and hoped to raise output to 67 million tons per year by 2010. Central to those plans was the recent agreement with the Liberian government, which proposed a $900 million investment over 25 years to develop the Nimba mine concession. The project was estimated to eventually produce 15 million tons a year and would be well-positioned to export to Europe, where iron ore demand was booming.[6]

To date, ArcelorMittal's existing iron ore mines were located next to steel mills and the raw ore was processed on-site, referred to in the industry as "captive" ore production. The proposed Liberia project would mark ArcelorMittal's first non-captive iron ore mine, allowing it more flexibility to send the iron ore mined in Liberia anywhere in the world.

BACKGROUND ON LIBERIA

Liberia, a West African country with a population of roughly 3.3 million people, is bordered by Guinea, Sierra Leone, Cote d'Ivoire and the Atlantic Ocean. (See map in Exhibit 2) Founded as a republic by freed slaves from the United States in 1847, its economy was for a long time largely agricultural, though it also developed lucrative export industries, such as rubber, lumber, diamonds and iron ore.

The country's recent troubles began when a civil war broke out in 1989 as Charles Taylor led an uprising against military dictator Samuel Doe. Despite intermittent ceasefires, the violence continued as various ethnic factions sought to take control until 2003, when Taylor left for exile in Nigeria, allowing a peace agreement to be signed between the government and rebel troops.

An interim administration headed by a Monrovian businessman, Gyudeh Bryant, took office, while a major United Nations peacekeeping mission helped to restore stability.

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[3] Mittal Steel Annual Report 2005, page 7.
[4] Mittal Steel Company Earnings Conference Call, Feb. 15. 2006.
[5] Glader, Paul "Mittal, Arcelor Clash on Strategy In Takeover Battle." The Wall Street Journal, March 10, 2006.
[6] Presentation by Lakshmi Mittal at Goldman Sachs Conference: "Stability and growth." p14. Dec 7, 2006.

The conflict, however, had devastated the country's economy, killed an estimated 250,000 people, and left its infrastructure in tatters. Roads barely existed, electricity and water services needed to be restored, education had collapsed, and official unemployment was about 85 percent.[7] (See Exhibits 3 and 4 for macroeconomic and development data) Meanwhile, the interim government was plagued by allegations of rampant corruption, prompting international donors to threaten to cut off the millions of dollars in aid sustaining the country.

Liberia's iron ore sector, however, had great potential. Iron ore mining began in Liberia in the early 1950s. After Buchanan Port was opened in 1963, iron ore production picked up, and ranged between 12 million and 24 million tons per year from 1964 to 1989, when most production stopped.[8] From the 1960s to early 1970s, Liberia was among the world's top exporters of iron ore, sending most of its production to the U.S. and Germany. While production slumped during a downturn in the global steel market in the early 1980s, iron ore had remained Liberia's largest export prior to the start of the country's first civil war.

Most of Liberia's pre-war output came from rich iron ore deposits in Nimba County mined by LAMCO, a Liberian-Swedish-American company. The war caused a complete halt in iron ore production, however, as LAMCO was forced to abandon the project. During the drawn-out conflict, the project's infrastructure – which included a processing facility, 162-mile (260-kilometer) railway, and export facilities at Buchanan port – were largely destroyed. ArcelorMittal's proposal was to rehabilitate the project nearly from scratch.

In an effort to reconstruct Liberia's economy after the nearly twenty year long conflict, President Johnson Sirleaf's administration was revitalizing sectors that once played an important role in the country's economy, including mining. However, the new government needed to be mindful of the dangers of an economy overly reliant on natural resources. Oil-rich Nigeria was a vivid reminder in the region of what could go wrong: Dutch disease,[9] corruption, environmental degradation, economic inequality, weakening political institutions, social unrest, and the tendency by royalty-rich governments to use low taxes and political patronage to relieve pressure for more democracy. Furthermore, Liberia's civil war was fomented by the "blood diamond" trade, and a U.N. ban on diamonds from Liberia was still in effect. While the government faced an urgent need for economic development, revitalizing the mining industry was to be done with caution.

IRON ORE MARKET IN 2006

[7] Per 2003 estimates from The World Factbook, Central Intelligence Agency.
[8] Coakley, George J. "The Minerals Industry of Liberia." U.S. Geological Survey Minerals Yearbook 2004.
[9] Dutch disease: the decline in a country's manufacturing sector that takes place when the discovery of a natural resource raises the value of the nation's currency, making manufactured goods less competitive with those made in other nations, increasing imports and decreasing exports. The term originated in Holland after the discovery of North Sea gas. Source: investorwords.com

Steel can be recycled from scrap metal or produced in blast furnaces using raw materials, principally iron ore and coke (Exhibit 5 for diagram of steel making process). Demand for iron ore in recent years had shot up amid a worldwide boom in the steel market led by China, which to a greater extent than most countries, was dependent on iron ore supplies: the Asian country produced 80 percent of its steel from raw materials compared to a global average of 60 percent. (See Exhibit 6 for world production of iron ore and crude steel) From 2001 through 2006, the global steel price index climbed drastically. (See Exhibit 7)

On the supply side, mining companies Rio Tinto, BHP Billiton and CVRD – known in the industry as the "Big Three" – were able to dominate the global iron ore trade having locked up supplies from the two biggest iron ore exporters, Australia and Brazil. In annual negotiations with consumers, which set the benchmark price of iron ore for the following year, the three giants had continually pushed up prices.

Since 2002, benchmark iron ore contract prices had risen for four consecutive years, including a 72 percent gain in 2005 and a 19 percent gain to set a new record in 2006. With demand outpacing the growth in supplies, industry analysts from JPMorgan, Daiwa Securities SMBC, Goldman Sachs JBWere Pty, and Credit Suisse Group were all predicting that benchmark iron ore prices would continue to rise in 2007 anywhere between 5 to 10 percent.[10]

Against that backdrop, steelmakers were seeking to reduce their vulnerability to price swings by securing supplies either through long-term contracts or from their own sources.

"Chinese steel producers, who collectively have the world's largest appetite for imported iron ore, have been scouring the globe for iron-bearing materials. Suppliers that have been out of the market for years, such as those in Sierra Leone and Liberia, have successfully sold ore to China this year," said U.K.-based steel consultant MEPS Europe Ltd.[11]

Freight accounts for a large part of the cost of iron ore imports – long-distance shipping from places like Australia and Brazil could sometimes add as much as $20 per ton to the cost of iron ore. The Baltic Dry Index, an indicator of the cost of moving commodities such as iron ore by sea, had risen 36 percent in the 12 months to September 2006.[12] (See Baltic Dry Index graph in Exhibit 8) With China's booming economy showing what appeared to be an insatiable appetite for commodities, many were expecting global freight rates to remain high.

[10] Rong, Feiwen; Yuan, Helen "Iron Ore Prices May Rise to Record on Chinese Demand." Bloomberg, October 24, 2006.
[11] "Iron Ore Negotiations Stall But Settlements Likely To Be Higher." MEPS - International Steel Review, March 29, 2006.
[12] Bloomberg

For ArcelorMittal, establishing a foothold in West Africa was attractive because of its proximity to steel mills in Europe. The company was also in talks with the government Senegal about developing an iron ore mine in the country's southeastern Faleme region.

A CHANGE IN OUTLOOK AND CONTRACT DETAILS

Shortly after her inauguration, President Johnson Sirleaf announced that her administration would be reviewing all concessions awarded by the previous interim government, most notably the MDA with Mittal Steel and another contract with the multinational rubber giant Firestone.

"We've undertaken to review all concessions and contracts that were signed during the interim government as many of them were not signed in the interest of our country," President Johnson Sirleaf said in an interview with the United Nations' humanitarian news agency soon after the review began. "This time, we want to be very careful in giving out a concession and making sure it benefits the local community. It must also bring adequate resources to the country."[13]

Following a four-month review, the government's Public Procurement & Concessions Commission concluded that the Mittal MDA should be renegotiated.[14]

Among the key points at issue were: ownership and control of project infrastructure, principally the railway and port facilities; how the iron ore that was extracted would be priced, which would affect the amount of royalty and tax revenues the government would receive; and how to guarantee a stable fiscal regime throughout the project's duration.

The government argued that the MDA appeared to transfer ownership of the railway linking the mine in Yekepa, Nimba County to the port of Buchanan, as well as Buchanan Port itself, to ArcelorMittal. It was also unclear under what conditions other parties would be allowed to use these facilities. Liberia wanted the contract revised to clearly state that the government would retain ownership of the infrastructure as public assets, which would be made accessible to other operators and would also allow the government to derive revenue from third-party usage of the facilities.

ArcelorMittal, however, was concerned it would not be able to carry out the project if it did not maintain operational control over the facilities and wanted to ensure government usage would not interfere with its activities. Furthermore, ArcelorMittal was assuming the financial responsibility of rehabilitating the decrepit railway and port. Transfer of ownership would raise questions about who would provide the money for any further upgrades and maintenance during the project's lifetime.

[13] "Liberia: Interview with President Ellen Johnson-Sirleaf." Integrated Regional Information Networks, June 29, 2006.
[14] "Government-sponsored Review Calls for Renegotiating Liberia's Mittal Deal." The Associated Press, October 3, 2006.

The second sticking point was how the iron ore would be priced. ArcelorMittal intended to sell all production to its affiliates within the company, and the government feared that ArcelorMittal would sell the ore at below-market prices. If that were to happen, it would diminish the amount of royalty payments and tax due to the government. ArcelorMittal, as a public company, was bound by company policy to link such transfer prices to the prevailing market price. It would take three to four years after breaking ground on the project before the first shipment of iron ore would be exported, and the price would also depend upon the quality of the ore, including the amount of iron and impurities it contained.

Thirdly, the two sides were in dispute over a stabilization clause in the contract that ArcelorMittal said was intended to guarantee a stable regulatory environment throughout the duration of the investment, principally to protect ArcelorMittal from subsequent changes in tax rates during the 25-year period.

"One of the things you have to realize is that Liberia is a country where the laws are a work in progress," said Joseph Mathews, CEO of ArcelorMittal Liberia. "All the capital is spent up front – you want some kind of understanding of what taxes you have to pay so that five years down the line, if the country suddenly wanted to change income tax laws and increase the income tax rate to 50 percent or 60 percent, we were protected. That's why we had the stabilization clause."

Stabilization clauses had become standard in the industry following a global wave of mining sector nationalizations in the 1960s and 70s in countries like Peru, Chile, Zaire and Zambia. But the government said this clause was too broad: Liberia's legal and judicial system needed to be overhauled, and the government feared the clause could hamper its ability to enforce on the project new environmental, human rights, labor and other regulations as they were developed.

By taking on the project, the firm assumed considerable country risk, and provided much needed investment to a country devastated by civil war and eager to stimulate economic development. Although President Johnson Sirleaf's administration generated a lot of support and confidence from the international community, Liberia's business environment and political situation were still fairly uncertain.

Particularly challenging to overcome were Liberia's considerable infrastructure hurdles, such as a lack of power generation facilities near the mine in Yekepa, as well as the need to rebuild Buchanan Port and the railroad leading from the mine to the port. The firm also had to build an enrichment facility that would crush and refine the ore, leaving the quality ore to be shipped and exported. However, one major obstacle to building a facility at the mine was a lack of power generation capacity in the area. To eliminate this hurdle, ArcelorMittal would have to build a 250-megawatt coal-fueled power plant to supply the processing facility. The generator itself would weigh several tons, but the roads and bridges to the mine were not capable of sustaining that kind of weight. As a result, ArcelorMittal was considering building the power plant closer to the port and running electricity lines up to the mine. The mining and shipment could begin prior to the enrichment facility being built, as ArcelorMittal could first ship the iron ore that would not require much upgrading, and store the lower quality ore until the enrichment facility came online. However, the infrastructure challenges had to be overcome in order for ArcelorMittal to fully realize the mine's potential.

ArcelorMittal believed that Liberia's business and political environment, as well as the logistical and infrastructure challenges it was taking on needed to be taken into consideration when evaluating the terms of its contract with Liberia.

TO RENEGOTIATE OR NOT?

Liberia was keen to stress that it did not want to see ArcelorMittal leave the project. It would send the wrong message to foreign investors at a critical juncture in Liberia's reconstruction. Also, the present administration could not be entirely sure that there would be other candidates. Rio Tinto, BHP Billiton, and Global Infrastructure Holdings (the overseas investment arm of two Indian steel companies, Ispat and Essar) had initially competed against Mittal Steel in the original bid round, but the review by the Public Procurement & Concessions Commission of the interim government's deals said that "some information indicates that all the other bidders withdrew from the process."[15]

But Johnson Sirleaf was also determined that such a major investment in the country –a proposed $900 million compared to Liberia's gross domestic product of $445 million in 2005 - would set a precedent for transparency and equitability in the awarding of concessions.[16] (See Exhibit 9 for deal valuation summary)

"This agreement is important to us. It has job implications. It has implications for the economy. It has implications for the benefit for the country," Johnson Sirleaf told reporters in October 2006. "Our overall objective is to make it a better agreement, but not to kill it."[17]

ArcelorMittal, on the other hand, was taken aback.

"It took us by surprise when the new government wanted to review the agreement signed by the previous administration," said Mathews. "The agreement was mirrored essentially like it's done anywhere else, and was similar to the [pre-war] LAMCO agreement as well."

The government was declaring this a one-time review that would not be used to justify further contractual changes by successive Liberian governments, but the credibility of that claim was open to question.

[15] *ibid*
[16] World Development Indicators database. September 2008.
[17] Paye-Layleh, Jonathan. "Liberia: Contract Renegotiations with Mittal Steel Meant to Amend, Not End, Deal." The Associated Press, October 5, 2006.

"The measure must however be considered highly arbitrary and not respecting international practice (pacta servanda sunt), and implies a high degree of uncertainty for the future holders of mining rights at the two other mines under tender as far as security of tenure is concerned," said a subsequent 2007 report by the Integrated Framework for Trade-Related Technical Assistance, a multilateral body that advises developing countries on trade-related issues.[18]

ArcelorMittal was reluctant to walk away from the contract because it had an agreement that had been legally negotiated with the interim government. While no major capital investments had yet been made in Liberia, the company had committed significant time and resources to get this far.

Yet renegotiating would mean further delays: a year and half had already passed since Mittal Steel won the bid for the concession in early 2005, and the company still had not broken ground on the project. "That's one of the issues we have in this country: the capacity was not there on the government side to do things expeditiously," Mathews said.

Meanwhile, the matter was turning into a public relations headache for the company. The press was reporting criticism of the contract, while Global Witness, a U.K.-based transparency watchdog, was about to publish a damaging report that accused the company of using its clout to draw up a contract that, though not illegal, was exploitative. (See Exhibit 10 for summary of Global Witness report)

Refusing to negotiate would fuel those claims, and would also likely mean international arbitration, which could prove lengthy and costly. "This is a 25-year or longer relationship that we need to have with this country and there's no reason we need to start this marriage with a fight," said Mathews.

Furthermore, ArcelorMittal prided itself on conducting its business responsibly and felt its intentions were being misunderstood. Lakshmi Mittal, who was born into a poor family in Rajasthan, once said his ambition was to create "the world's most admired steel company, and we pride ourselves in being socially responsible. We will provide support to social, sport, educational activities in addition to improving the environment."[19] The MDA with Liberia already stipulated the company would provide $3 million a year for such efforts.

Should ArcelorMittal cut its losses and pursue its opportunities elsewhere, such as Senegal? If it renegotiates, how could it be sure that subsequent governments wouldn't try to change the terms again? Given the delays, infrastructural hurdles and the government's lack of administrative capabilities, was Liberia really ready for such a major investment? What are the social responsibilities of a multinational like ArcelorMittal under such conditions?

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[18] English, Philip. Annex B from an Aide-Memoire by the Integrated Framework for Trade-Related Technical Assistance on its Diagnostic Trade Integration Study Main Mission, November 1-16, 2007.
[19] Company News Release: "Mittal Steel Company Acquires a 93 percent stake in Kryvorizhstal in Ukraine." October 24, 2005.

To what extent can Liberia afford to negotiate with ArcelorMittal? What are its options if the negotiations were to fail? If the company walks away, would it be able to extract better terms from another company?

EXHIBIT 1: Timeline of Events

August 2005:	MDA signed between Mittal Steel and Interim Government headed by Gyudeh Bryant
January 2006:	Ellen Johnson-Sirleaf takes office as President of Liberia. Mittal Steel approaches shareholders of Arcelor SA about a merger
April 2006:	Government begins review of all concessions awarded by the interim government.
May 2006:	U.S. antitrust authorities' approval clears the way for the proposed Mittal Steel and Arcelor merger.
June 2006:	Mittal Steel and Arcelor reach an agreement to combine the two companies in a merger of equals.

EXHIBIT 2: Map of Liberia, proposed project and nearby iron ore developments

Sources: Map image: http://www.un.org/Depts/Cartographic/map/profile/liberia.pdf
Guinea iron mine location: http://www.riotintoironore.com/ENG/operations/301_simandou.asp

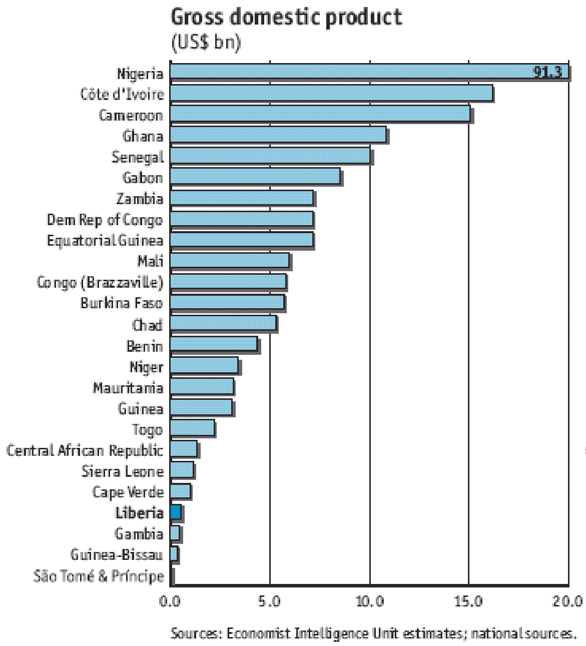
EXHIBIT 3: Liberia—selected macroeconomic and development data 2000-2005

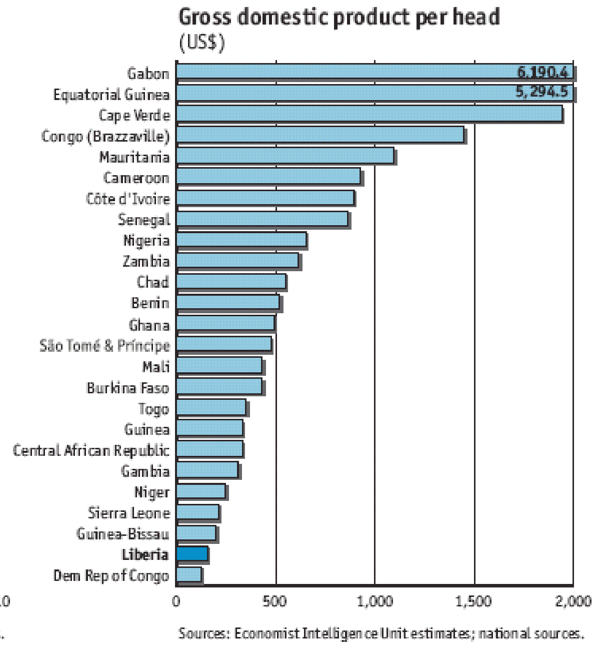
Source: World Bank, World Development Indicators database

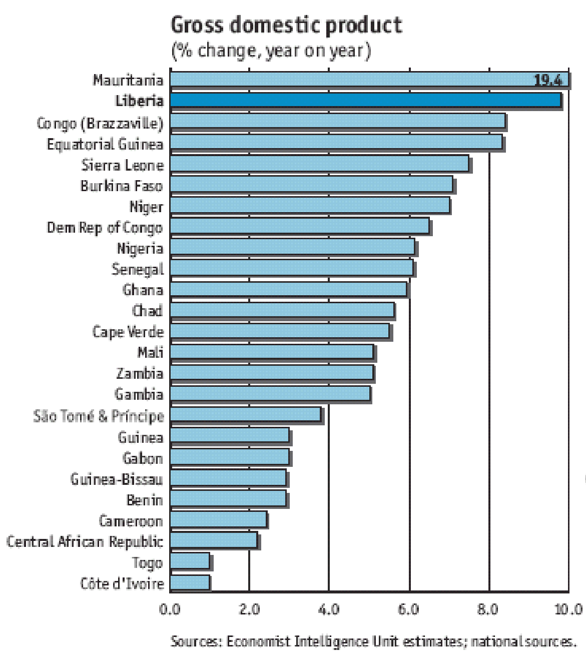
	2000	2001	2002	2003	2004	2005	2006
Unemployment, total (% of total labor force)[20]	..	..	..	85	..	..	..
Population, total	3,071,079	3,181,050	3,247,001	3,291,527	3,348,483	3,441,796	3,578,925
Population growth (annual %)	6	4	2	1	2	3	4
Official development assistance (current US$)	67,420,000	38,410,000	51,770,000	106,560,000	213,010,000	232,560,000	268,660,000
Literacy rate, adult total (% of people ages 15 and above)	..	..	..	..	52	..	..
Life expectancy at birth, total (years)	43	..	44	..	..	45	45
GDP, PPP (constant 2005 international $)	1,359,127,443	1,398,542,153	1,450,288,305	996,348,050	1,022,253,079	1,076,432,496	1,160,394,189
GDP per capita (constant 2000 US$)	183	181	184	125	126	129	134
GDP growth (annual %)	26	3	4	-31	3	5	8
GDP (constant 2000 US$)	560,899,968	577,166,080	598,521,216	411,184,096	421,874,880	444,234,240	478,884,512
Foreign direct investment, net inflows (% of GDP)	4	2	1	91	45	37	-13

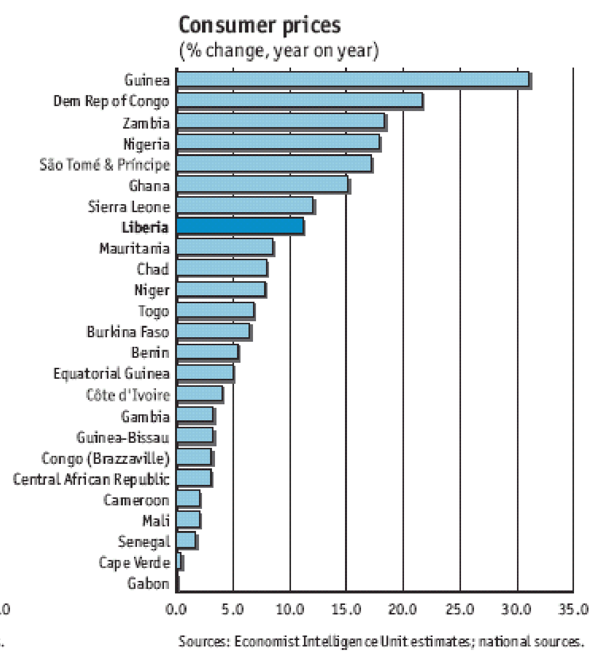
[20] CIA World Factbook

EXHIBIT 4: Liberia comparative economic indicators, 2005





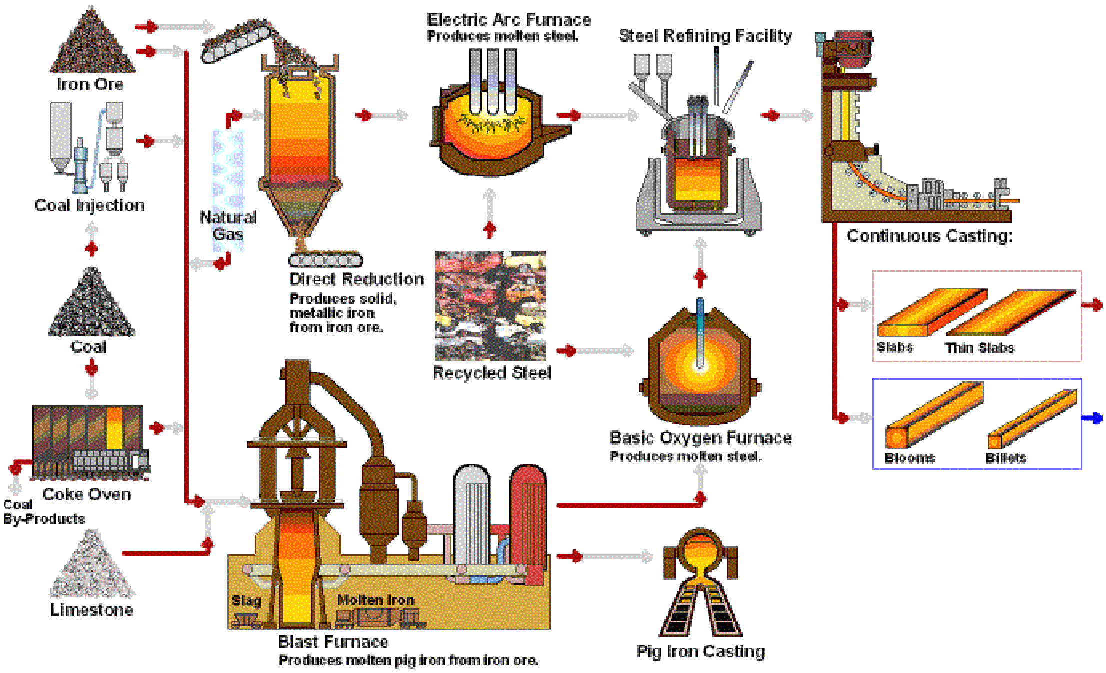




Source: Economist Intelligence Unit

EXHIBIT 5: Steel-Making Process

Low-grade iron ore needs to be refined before it can be used in blast furnaces to produce steel. It is an extremely capital and energy-intensive process. First, boulder-sized pieces of iron ore are crushed into small pieces. Next, giant magnets separate the iron from non-iron material like silica and sand. Finally, the iron ore concentrate is mixed with a binding agent and is rolled into marble-sized pellets – ready for the steel-making process below.[21]



Source: World Steel Association

21 For more detail, see American Iron and Steel Institute: www.steel.org/AM/TemplateRedirect.cfm?template=/CM/ContentDisplay.cfm&ContentID=12309

EXHIBIT 6: Iron Ore and Crude Steel Production

Sources: UNCTAD, World Steel Association and Macquarie Bank

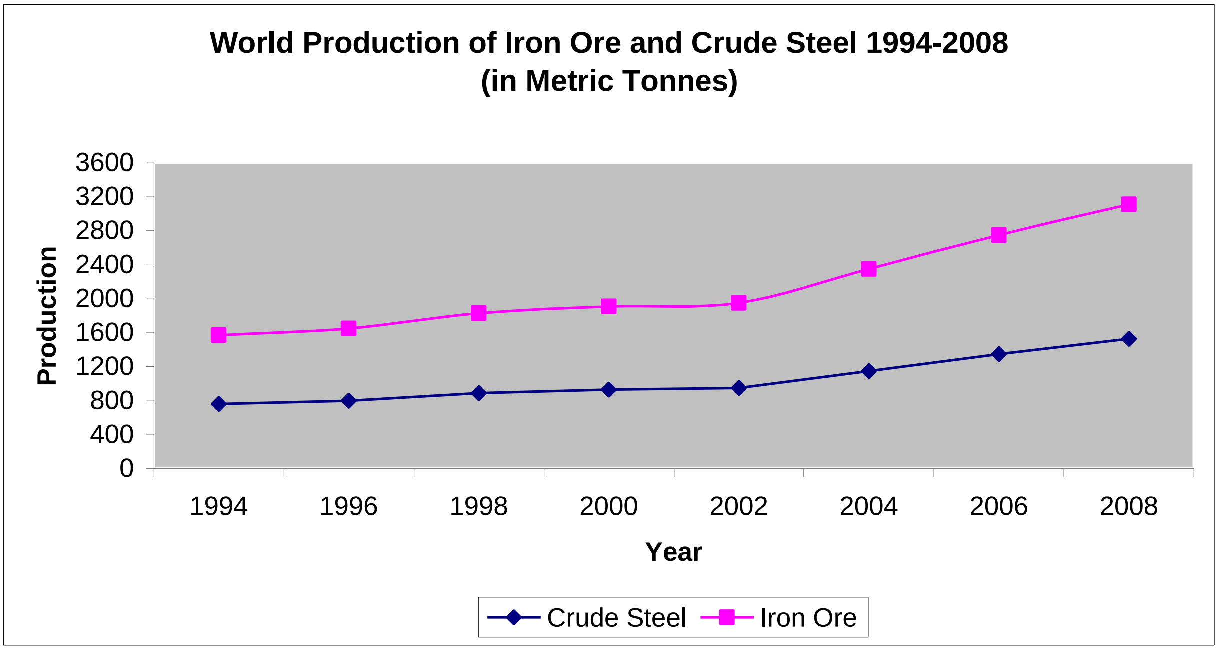


EXHIBIT 7: Global Steel Price Index

Source: Bloomberg LP

EXHIBIT 8: Baltic Dry Index 2005-2006

Source: Bloomberg LP

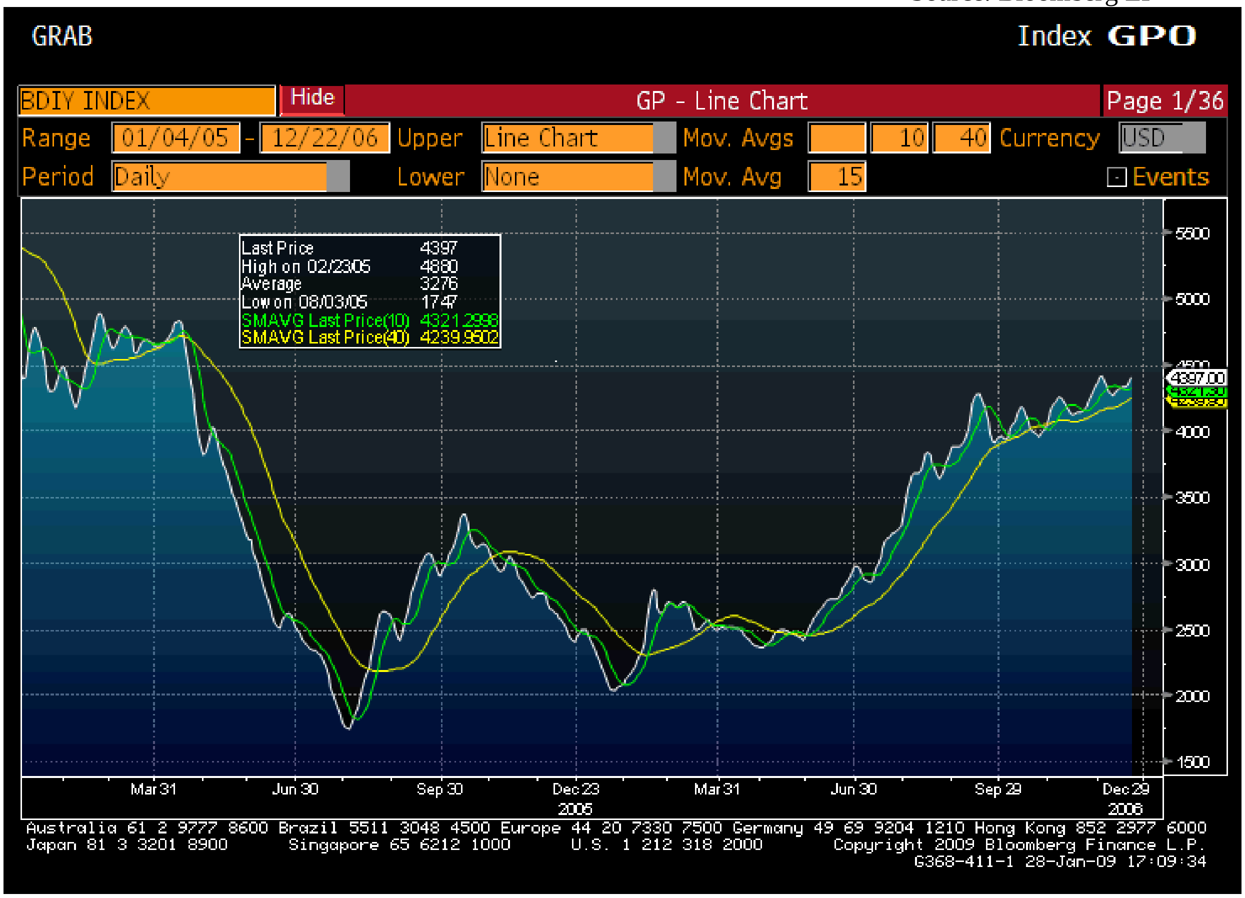


EXHIBIT 9: Deal Valuation Summary[22]

This summary was produced by a team from Columbia Law School's Human Rights Clinic, which aims to bring transparency to extraction contracts in the developing world. Columbia Law School Professor Peter Rosenblum and his students analyzed the original Mittal contract, as well as other contracts the Liberian interim government had signed with foreign companies.

Operating, Production & Pricing Assumptions

Mittal Agreement - Base Case - No delay	2006	2007	2008	2009	2010	2011	2012	2013	Average 2014-2030	Source
Total Production, incl. delays	**0.1**	**1.4**	**5.0**	**5.9**	**6.3**	**11.3**	**12.6**	**12.6**	**12.4**	
Atkins Feasibility Study - Production	0.1	1.4	5.0	5.9	6.3	11.3	12.6	12.6	12.4	
Concentrate production (Mtpa)	**0.0**	**0.0**	**0.0**	**5.9**	**6.3**	**11.3**	**12.6**	**12.6**	**12.4**	
Tokadeh	0.0	0.0	0.0	5.9	6.3	6.3	6.3	6.3	6.3	Atkins Feasibility Study, Sept. 2005
Gangra	0.0	0.0	0.0	0.0	0.0	5.0	6.3	6.3	3.3	DB Research, 10/11/05
Yuelliton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	Government of Liberia Estimate
Crude ore (Mtpa)	**0.1**	**1.4**	**5.0**	**9.0**	**9.0**	**16.1**	**18.0**	**18.0**	**17.7**	
Tokadeh	0.1	1.4	5.0	9.0	9.0	9.0	9.0	9.0	9.0	Atkins Feasibility Study, Sept. 2005
Gangra	0.0	0.0	0.0	0.0	0.0	7.1	9.0	9.0	4.2	Atkins Feasibility Study, Sept. 2005
Yuelliton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	Atkins Feasibility Study, Sept. 2005
Iron ore prices, FOB Buchanan ($/t)										
Base Case	$28.74	$28.74	$28.74	$25.10	$25.10	$25.10	$25.10	$25.10	$25.10	Atkins Feasibility Study, Sept. 2005
COGS / ton of iron ore (excluding royalties/fixed)	**$7.9**	**$7.9**	**$9.7**	**$11.5**	**$11.5**	**$11.3**	**$11.3**	**$11.3**	**$11.3**	Atkins Feasibility Study, Sept. 2005
Rail	4.6	4.6	3.8	2.9	2.9	2.8	2.7	2.7	2.7	
Port	1.0	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	
Mine	2.1	2.1	3.1	4.0	4.0	4.0	3.9	3.9	3.9	
Concentrator	0.0	0.0	1.8	3.6	3.6	3.6	3.6	3.6	3.6	
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	
Royalty rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	Mittal Agreement, 8/17/05
SG&A	3%	3%	3%	3%	3%	3%	3%	3%	3%	Atkins Feasibility Study, Sept. 2005
Land Rental rate	$0.2	$0.2	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	Mittal Agreement, 8/17/05
Social payments	$3.0	$3.0	$3.0	$3.0	$3.0	$3.0	$3.0	$3.0	$3.0	Mittal Agreement, 8/17/05
Contribution: Scientific Research Fund	$0.2	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	Mittal Agreement, 8/17/05
Payment in lieu of Duties	$0.0	$0.4	$0.4	$0.4	$0.4	$0.4	$0.4	$0.4	$0.4	Mittal Agreement, 8/17/05
BIVAC rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Mittal Agreement, 8/17/05
Charitable contributions (% of taxable income)	0%	0%	0%	0%	0%	0%	0%	0%	0%	Mittal Agreement, 8/17/05
Turnover tax	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	Mittal Agreement, 8/17/05
Income tax rate	0%	0%	0%	0%	0%	30%	30%	30%	30%	Mittal Agreement, 8/17/05
Interest rate on cash	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	SS Assumption
Inventory days	15	15	15	15	15	15	15	15	15	SS Assumption
Accounts Receivable	30	30	30	30	30	30	30	30	30	SS Assumption
Accounts Payable	45	45	45	45	45	45	45	45	45	SS Assumption
Royalties Payable	90	90	90	90	90	90	90	90	90	SS Assumption, Mittal Agreement
Maintenance capex (% of revenue)	1.0%	1%	1%	1%	1%	1%	1%	1%	1%	

Capital Expenditures

Atkins Feasibility Study	Budget	2006	2007	2008	2009	2010	2011	2012	2013	Sum 2014-2025
Phase I										
Mining		$31.2	$31.2							
Concentrator										
Rail		67.3	67.3							
Port & Infrastructure		12.2	12.2							
Other		18.5	18.5							
Phase II										
Mining				$18.9						
Concentrator				122.3						
Rail				25.5						
Port & Infrastructure				8.4						
Other				10.3						
Phase III										
Mining					$39.6	$39.6	$39.6			
Concentrator					73.7	73.7	73.7			
Rail					15.9	15.9	15.9			
Other					7.8	7.8	$7.8			
Phase IV										
Mining										$34.9
Total										
Mining	$234.9	$31.2	$31.2	$18.9	$39.6	$39.6	$39.6	$0.0	$0.0	$34.9
Concentrator	$343.4	0.0	0.0	122.3	73.7	73.7	73.7	0.0	0.0	$0.0
Rail	$207.9	67.3	67.3	25.5	15.9	15.9	15.9	0.0	0.0	$0.0
Port & Infrastructure	$32.8	12.2	12.2	8.4	0.0	0.0	0.0	0.0	0.0	$0.0
Other	$70.6	18.5	18.5	10.3	7.8	7.8	7.8	0.0	0.0	$0.0
Maintenance	$251.5	1.3	1.3	2.6	4.5	5.9	7.3	8.8	8.9	$210.9
Total	**$1,141.1**	**$130.5**	**$130.5**	**$187.9**	**$141.5**	**$142.9**	**$144.3**	**$8.8**	**$8.9**	**$245.8**

The assumptions included above drove the deal valuation summary included below.

[22] Based on preliminary model provided by Columbia Law School

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Debt/Equity Financing											
Assumptions											
Minimum cash balance	$15.0										
Term	10 yrs										
Grace period	6 yrs										
Interest rate	8%										
Financing Requirements	$871	**$127**	**$124**	**$158**	**$107**	**$112**	**$77**	**$25**	**$19**	**$14**	**$106**
From debt	$771	$127	$100	$126	$85	$90	$77	$25	$19	$14	$106
From equity	$100	$0	$25	$32	$21	$22	$0	$0	$0	$0	$0
Tranche A											
Year Drawn	2006										
Factility	$400										
Drawn Down	$400	$127	$100	$126	$47	$0	$0	$0	$0	$0	$0
Repayment		0	0	0	0	0	0	(100)	(100)	(100)	(100)
Balance, eop		$127	$227	$353	$400	$400	$400	$300	$200	$100	$0
Interest payments		$10.2	$14.1	$23.2	$30.1	$32.0	$32.0	$28.0	$20.0	$12.0	$4.0
Tranche B											
Year Drawn	2009										
Facility	$400										
Total Drawn Down	$371	$0	$0	$0	$38	$90	$77	$25	$19	$14	$106
Repayment		0	0	0	0	0	0	0	0	0	(93)
Balance, eop		$0	$0	$0	$38	$128	$205	$231	$250	$264	$277
Interest payments		$0.0	$0.0	$0.0	$1.5	$6.7	$13.3	$17.4	$19.2	$20.5	$21.6
Revolver											
Drawdown		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Repayment		0	0	0	0	0	0	0	0	0	0
Balance, eop		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest rate	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Interest payments		$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total Interest Payments		**$10.2**	**$14.1**	**$23.2**	**$31.7**	**$38.7**	**$45.3**	**$45.4**	**$39.2**	**$32.5**	**$25.6**
Total Debt		$127	$227	$353	$438	$528	$605	$531	$450	$364	$277
Net Debt		$112	$212	$338	$423	$513	$590	$516	$435	$349	$262
Debt / Total Cap		79%	81%	78%	77%	77%	77%	71%	63%	54%	43%

Source: Columbia Law School

The project is highly levered, consistent with typical projects of this scale.

($m, unless noted)

ArcelorMittal IRR Estimate	2006	2007	2008	2009	2010	2025	2026	2027	2028	2029	2030	Total Through 2030
Equity contribution	$0	($25)	($32)	($21)	($22)	$0	$0	$0	$0	$0	$0	($100)
Acquisition of GOL shares	0	(7)	(0)	0	0	0	0	0	0	0	0	(8)
Dividends	0	0	0	0	0	86	86	85	83	82	63	993
Less: Withholding tax on Dividends	0	0	0	0	0	0	0	0	0	0	0	0
Net Dividends	0	0	0	0	0	86	86	85	83	82	63	993
Total	**$0**	**($32)**	**($32)**	**($21)**	**($22)**	**$86**	**$86**	**$85**	**$83**	**$82**	**$63**	**$485**
Termination value - BV 2030											315	$315
Mittal's Share	0	0	0	0	0	0	0	0	0	0	267	267
Total Proceeds to ArcelorMittal	**$0**	**($32)**	**($32)**	**($21)**	**($22)**	**$86**	**$86**	**$85**	**$83**	**$82**	**$331**	**$485**

Proceeds to ArcelorMittal	$
Equity contribution	($100)
Acquisition of Government of Liberia share	(8)
Dividends	993
Withholding tax on dividends	0
Termination value - BV 2025	267
Total proceeds to Mittal	**$1,153**

ArcelorMittal IRR	**16%**
ArcelorMittal Cash on cash return	**11.7x**
ArcelorMittal discount rate	**12%**
NPV	**$60**

Source: Columbia Law School

The schedule provided above shows the estimated cash flows to ArcelorMittal over the life of the project along with a summary valuation of ArcelorMittal's investment (discounted at 12%).

Total Financial Impact to Government of Liberia ($m, unless noted)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total Through 2030
Royalties	$0.2	$1.8	$6.5	$6.6	$7.1	$12.7	$14.2	$14.2	$14.2	$14.2	$301.9
Land Rental	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	7.3
Payment in lieu of customs	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	9.6
Tax Revenue	0.0	0.2	0.7	0.7	0.8	12.0	16.7	18.4	20.3	23.6	571.8
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	175.2
Withholding tax on dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Termination value - BV 2030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.2
Additional shares sold to Investor	0.0	7.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
Additional capital contributions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total proceeds to GoL	**$0.4**	**$10.1**	**$8.0**	**$8.0**	**$8.6**	**$25.5**	**$31.6**	**$33.4**	**$35.3**	**$38.5**	**$1,120.6**

Total Proceeds through 2030	$	%
Royalties	$301.9	26.9%
Land Rental	7.3	0.7%
Payment in lieu of customs	9.6	0.9%
Tax revenue	571.8	51.0%
Dividends	175.2	15.6%
Withholding tax on divds	0.0	0.0%
Additional Shares	7.5	0.7%
Total proceeds to GOL	**$1,121**	**100%**

NPV of Total Receipts	$	%
Royalties	$73.8	34.5%
Land Rental	2.2	1.0%
Payment in lieu of customs	2.8	1.3%
Tax revenue	105.5	49.3%
Dividends	21.1	9.8%
Withholding tax on divds	0.0	0.0%
Additional Shares	6.0	2.8%
NPV	**$214**	**100%**

Gov't discount rate **12.0%**

Source: Columbia Law School

The schedule provided above shows the estimated cash flows to the Government of Liberia over the life of the project along with a summary valuation of the Government of Liberia's interest in the project (discounted at 12%).

EXHIBIT 10: Summary of Global Witness[23] Report - "Heavy Mittal? A State within a State: The inequitable Mineral Development Agreement between the Government of Liberia and Mittal Steel Holdings NV", October 2006

The following table is a summary of key terms and issues raised in the Global Witness Report (GWR) published October 2006 with regard to the Mineral Development Agreement (MDA) between Mittal and the National Transition Government of Liberia (NTGL). Note that the MDA used in negotiation was a model document provided by NTGL to Mittal. Although the GWR identifies some significant issues with the MDA, it does state in the report that Mittal's behavior in negotiating the agreement was not unusual or illegal.

Key Terms	
Royalties & Transfer Pricing	Issues Raised by Global Witness Report ▪ Mittal Steel has control over the amount of royalties paid to the government because the MDA does not specify the mechanism to set the price of ore. ▪ The MDA leaves open the basis for intra-company pricing arrangements and therefore creates a strong incentive for Mittal to sell the ore below the market value to an affiliate, which would reduce the actual royalties paid to the Government of Liberia (GOL). ▪ A lower rate of royalty may apply once Mittal Steel Liberia Holdings Limited (the Concessionaire) develops the necessary production facilities to enrich iron ore. Mittal's Concerns ▪ As a public company, AM was bound by company policy to link such transfer prices to the prevailing market price. ▪ The price would also be dependent upon the quality of the ore, including the amount of iron and impurities it contained.
Taxation	Issues Raised by Global Witness Report ▪ The MDA provides Mittal with a five year tax holiday, with a pre-agreed right to renew it; there are no restrictions on subsequent extensions. ▪ Combined with Mittal's tax structure, the tax arrangements inherent in the arrangements dictate that Mittal could expatriate any profits it makes from Liberia. Mittal's Concerns ▪ These were standard taxation rules for resource extraction contracts at the time
Corporate Structure	Issues Raised by Global Witness Report ▪ It is unlikely that the operating company will have a sufficient level of assets to cover any large claim. ▪ The company structure created by Mittal protects the parent company from guaranteeing or bearing the risk of the activities and liabilities of its subsidiary. Mittal's Concerns ▪ [This was a standard structure for an operating project – essentially the project is a standalone entity with no recourse back to the sponsor]
Capital Structure	Issues Raised by Global Witness Report ▪ The MDA imposes no financial or other obligation on Mittal Steel NV or Mittal Steel Holdings AG. ▪ Mittal can set both the level of equity and debt and other important financial terms without consultation of Liberia. Mittal's Concerns ▪ [As Mittal would be developing and operating the project, it wanted to control capital structure and not be dependent on Liberia for additional equity]
Transfer of Assets	Issues Raised by Global Witness Report ▪ The MDA transfers two major public assets of Liberia to Mittal Steel. ▪ The GOL will only be allowed to use these facilities if there is spare capacity; as a

[23] Global Witness is a British-based non-governmental organization which investigates the role of natural resources in funding conflict and corruption around the world.

	result, the GOL stands to lose out on significant potential revenues. Mittal's Concerns ▪ [Mittal wanted to ensure it had control of the relevant assets for the life of the project to prevent any interruptions]
Stabilization Clause	Issues Raised by Global Witness Report ▪ The provisions of the stabilization clause have the potential to undermine Liberia's right to regulate in important public policy areas such as human rights, the environment and taxation. They could severely limit Liberia's ability to fulfill its current and future obligations under the Liberian Constitution as well as its commitments under international law by especially narrowing what counts as applicable domestic law. Mittal's Concerns ▪ As the capital is spent up-front, Mittal wanted to protect itself from sudden changes in income tax laws in the future ▪ Stabilization clauses had become standard in the industry following a global wave of mining sector nationalizations in the 1960s and 70s in countries like Peru, Chile, Zaire and Zambia.
Land Rights	Issues Raised by Global Witness Report ▪ The MDA gives the Concessionaire far-reaching authority to possess public and private land without providing adequate compensation or the means to seek effective redress. Mittal's Concerns ▪ [Mittal had already agreed to $3mm USD a year social fund to compensate local communities] ▪ [In large scale projects, companies need assurances that they will have access to required land to execute construction and operations – land disputes have potential to cause major delays]
Transparency & Good Governance	Issues Raised by Global Witness Report ▪ The MDA commits the government and Mittal to very stringent provisions of confidentiality and non-disclosure of information. ▪ There was a lack of public scrutiny of the MDA prior to its ratification. Mittal's Concerns ▪ The public reaction that scrutiny of the MDA would bring about is difficult to anticipate.
Environmental Issues	Issues Raised by Global Witness Report ▪ The MDA gives the Concessionaire rights to any additional mineral it discovers in the concession area. ▪ There is a lack of detail regarding the mitigating measures by the Concessionaire to address the environmental impacts of the operations. Mittal's Concerns ▪ Mittal noted that while Liberia was still developing its environmental laws, the company was bound by internal policy to follow much more stringent international standards already.
Rights of the Government	Issues Raised by Global Witness Report ▪ The MDA restricts the government's ability to monitor the Concessionaire. ▪ The MDA limits the government's ability to enforce permit conditions and issue necessary authorizations. Mittal's Concerns ▪ The project had already been delayed more than a year and on-going monitoring could further delay progress
Other Rights of the Concessionaire	Issues Raised by Global Witness Report ▪ The MDA makes no allowance to review the contract in terms of any human rights or environmental concerns which the GOL may have. ▪ The rights of termination under the agreement are unequal. Mittal's Concerns

	▪ MDA used in negotiation was a model document provided by NTGL to Mittal and standard in the industry; re-opening the document once a deal was struck which may further delay progress of the project