Leverage to Growth

*Define Priorities is the Key*

- **We initiate the coverage of ArcelorMittal with a Buy recommendation.** The Price Target for FY14 is US$20.19, which represents and upside of 15.6% against the current price.
- **Economic Recover in Europe:** ArcelorMittal has suffered heavier losses than its peers due to its exposure to Europe. However, with the first signs of recovery in the region, the company has more leverage to advance with the upturn.
- **Focus on Franchise Businesses:** Special attention for the automotive industry, which is set to increase faster than the other market-end industries.
- **Mining Expansions:** Mining Business is established as a cornerstone of value where the company will be able to improve its competitiveness as the output grows.
- **Costs Savings:** With an industry set on marginal profits, the costs savings plan of the company will open space to an increase in margins and further profitability.
- **Strengthen Balance Sheet:** While leverage is still a problem in the company, the target of US$15 billion seems perfectly within reach.

Company description

ArcelorMittal is the largest integrated steel and mining company, with a current annual production capacity of 119 million tonnes of steel. The company has industrial presence in more than 22 countries spread by four continents, in both emerging and mature economies, being the leader in all major global steel markets, including automotive, construction, and household appliances.
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Company overview

ArcelorMittal was created in 2006, after the US$33 billion merger between Arcelor and Mittal Steel, generating the largest steel producer in the world. Since then, the company has been growing mainly through the acquisition of numerous steelmaking and other assets, which constitutes its major operation subsidiaries.

Currently, the company stands as the largest integrated steel and mining company in the world, with a current annual production capacity of 119 million tonnes of steel. It has industrial presence in more than 22 countries spread by four continents, in both emerging and mature economies, being the leader in all major global steel markets, including automotive, construction and household appliances.

The company is presently headquartered in Luxembourg and it is listed in eight stock exchanges being the most significant New York (under the trading symbol MT), Amsterdam (MT), and Madrid (MTS).

Business Overview

ArcelorMittal, although has worldwide exposure on its operations, relies heavily on its North American and European operations, which together accounts for 73% of its revenues. Due to this, the company suffered heavy downturns during the economic depression that has been affecting US and Europe, distressing both the financial results and the sustainability of the company.

Since 2008, the company saw its steel shipments drop more than 16% as a direct consequence of the decline in steel’s demand. As usual in any market, the decline in demand led prices to follow the same pattern. In the end, ArcelorMittal saw its revenues sinking around 32%. With such decline in demand, the company started working with lower utilization rates on its facilities. This circumstance pressed down the EBITDA margins of the company, which declined from 19.5% to 9.2% during the same period.

With the objective to ensure its sustainability, ArcelorMittal has been implementing profound restructurings on its operations, primarily in Europe and North America. The central point is to reduce production, with special focus in facilities that are working with lower utilization rates and where the company does not expect demand to recover in the foreseeable future. Also, a series of measures have been implementing in order to optimize steel production and increase the level of efficiency of the company.
Looking into the short-term performance, 2013 has been a difficult year for ArcelorMittal. During its first 9 months revenues dropped 8% comparing with the same period of 2009, driven mainly by decreases on the average steel prices (7.6% lower) and steel shipments (1% lower). Bottom line, during this period the company reported a total EBITDA of US$4.978 billion, 18.7% lower than in 2012.

Currently, ArcelorMittal reports its operations in six different segments: Flat Carbon Americas, Flat Carbon Europe, Long Carbon Americas and Europe, AACIS, ArcelorMittal Distribution Solutions, and Mining.

- **Flat Carbon Americas**

  Flat Carbon Americas (FCA) represents the flat steel facilities of the company that are located in the Americas region. These facilities are located in Canada, United States, Mexico and Brazil and have an annual crude steel capacity of 33.32 million tonnes. In this segment ArcelorMittal produces slabs, hot-rolled coil, cold-rolled coil, coated steel and plate, which are primarily sold in the following industries: distribution and processing, automotive, pipe and tubes, construction, packaging, and appliances.

  This segment saw its sales drop by 37.5% from 2008 to 2009, due to the financial crisis that affected the region. Since then, shipments have been recovering, with a total growth of 38.3% until 2012. However, one main issue remains: margins. In 2008 the company was reaching an EBITDA margin of 21.6%, while in 2012 that margin was only 9.63%. This has led to decrease in EBITDA of 66.7%.

  Regarding the first 9 months of 2013, this segment saw its steel shipments remaining flat, comparing with the same period of 2012. However, revenues dropped around 5.8%, due to a decrease on average steel price, leading EBITDA to lose more than 22%.

- **Flat Carbon Europe**

  Flat Carbon Europe (FCE) is the largest flat producer in Europe, with an annual crude steel capacity of 36.89 million tonnes. It has facilities in various European countries from Spain in the west to Romania in the east, and covers the flat carbon steel product portfolio in all major countries and markets. It produces hot-rolled coil, cold-rolled coil, coated products, tinplate, plate and slab, which are
primarily sold to the following industries: automotive, general industry and packaging industries.

This segment has been heavily affected during the last years, first due to the financial crisis and, more recently, the sovereign debt crisis in Europe. Between 2008 and 2012, and with exception to 2010, ArcelorMittal saw its steel shipments in FCE dropping every year, accounting for a total loss of 22%. Besides shipments, the other issue has been margins. While the company was reporting margins of 16.8% in 2008, now it accounts only to 3.7%, leading EBITDA to lose 84.3% of its value.

Despite last years have been difficult, 2013 showed some improvement with an increase of 2.3% in steel shipments, during the first 9 months. Together with the upgrading on margins, EBITDA went up 18.3% during the same period.

**Long Carbon Americas and Europe**

Long Carbon Americas and Europe (LC) represent the long steel facilities of the company located in America and Europe and have an annual crude steel capacity of 29.75 million tonnes. Production consists on sections, wire rod, rebar, billets, blooms and wire drawing, and tubular products. Among others, the production is mainly intended to construction industry.

Due to the main focus on construction, the demand has been struggling during last years. Most recent, the sovereign debt crisis in Europe pushed further down this sector, rejecting the slow recover that was showing in 2010 and 2011. Since 2008, steel shipments dropped 16.5%. Also the EBITDA margin suffered losses, with a decline to 8.16% from 20.7%.

Looking into the short-term, LC saw its shipments and revenues drop 1.9% and 4.2% respectively, during the first three quarters of 2013. However, EBITDA increase 5.5% driven by, as we saw in the FCE, efficiency improvements.

**AACIS**

AACIS (Asia, Africa and Commonwealth of Independent States) denominates the division that owns the facilities located in Asia, Africa and Common Wealth of Independent States. This division is the smallest between the steelmaking division and it is composed by three subsidiaries: ArcelorMittal Temirtau (Kazakhstan), ArcelorMittal Kryviy Rih (Ukraine), and ArcelorMittal South Africa (South Africa). These three facilities have a combined annual crude steel
capacity of around 19 million tonnes, around 16% of ArcelorMittal’s total capacity.

Although AACIS is exposed to a region that has been seeing steel demand growing above the rest of the world, the results have not been satisfactory. In fact, the company saw its shipments in this segment decrease 3.5%, between 2008 and 2012. More important, the EBITDA in 2012 was only 14.5% of the EBITDA in 2008, driven by decrease in margins but also strong decreases in average prices that were pressed down by Chinese steel’s prices.

In 2013, during the first 9 months, steel shipments decrease by 5% while sales suffered a cut of 20%. EBITDA drop by 31% comparing with the same period of 2012.

### AMDS

ArcelorMittal Distribution Solution (AMDS) is primarily an in-house trading and distribution arm of ArcelorMittal. It also provides value-added and customized steel solutions through further steel processing to meet specific customer requirements. With 400 facilities in more than 30 countries and 12 million tonnes of steel either processed or distributed worldwide, this division works with 200,000 active customers spread between all markets and all steel products. In order to reach a high level of market solutions complexity, the division is organized in five specialist units: Distribution, Construction, Projects, Total Offer Processing, and Wire Solutions.

Since this division depends on the demand from the other divisions mentioned above, last years have been defined by low performance in AMDS. Even though, when comparing shipments between 2008 and 2012 we see a decrease of 7.6%, which is lower than what we saw in other divisions, mainly in Europe and Americas. However, regarding EBITDA the underperformance is more pronounced, with a decrease of 63.8%.

During the first three periods of 2013, sales decreased 15% while EBITDA suffered a heavier loss, dropping 85% comparing with 2012.
Mining

Since 2010 ArcelorMittal started reporting its mining sector separately, as a distinct segment\(^1\). The mining division comprises all mines owned by ArcelorMittal in the Americas (Canada, USA, Mexico and Brazil), Asia (Kazakhstan and Russia), Europe (Ukraine and Bosnia & Herzegovina) and Africa (Algeria and Liberia). It extracts iron ore and metallurgical coal to supply both the company and third parties customers. For ArcelorMittal this division has been having a crescent importance, not only to allow the company to become increasingly self-sufficient in raw materials, but also because is set from the managers as a cornerstone for the future growth of the company.

In the first three quarters of 2013 the company produced 51 million tonnes of iron and 7 million tonnes of coal. Sales from the mining sector accounted for USD$4.145 billion, 2% below the same period of 2012 while EBITDA followed the same path and also decreased 2%, for USD$1.398 billion.

Shareholder structure

ArcelorMittal has a very distinctive shareholder structure with the chairman and CEO of the company, Lakshmi Mittal, being also the major shareholder with 39.35% of issued shares. This situation was preceded by Mr Mittal being also the major shareholder of Mittal Steel prior to the merger with Arcelor, owning 88% of the shares issued at the time. Regarding the rest of the shareholding structure, 59.95% is free float (of which the Luxembourg government holds 2.34%), and 0.71% are Treasury Shares.

Between 2008 and 2012 it is possible to note a reduction of 34% on the annual compensation of ArcelorMittal's board members. Also the dividend payment to shareholders has been reduced as a way to increase the liquidity of the company and raise its ability to face the adverse conjecture. We believe that these actions demonstrate an example of an ideal perception about the current challenges faced by the company and an appropriate reaction.

Regarding a possible conflict of interest between the management and shareholder, we believe that it is very unlikely since the leader of board is also the major shareholder, which must ensure a perfect alignment.

\(^1\) The output from their mines that can be sold on external markets is transferred internally, for the steel segment of the company, at market prices. Production from “captive mines” (when there is no potential market for the production and/or no logistics to access that market) is also transferred internally but on a “cost-plus basis”. Besides internal sales, the company also sells mined product externally to third parties at market price.
Steel Overview

The steel industry has been historically highly cyclical, being significantly affected by the overall economic conditions in each moment. Among others, the primary reason for that is linked with the specific cyclical nature of the most important steel customers industries, namely construction, automotive, machinery and equipment, and transportation industries. As an example of this cyclical nature we remind the strong correction that the steel market suffered during the Global Economic Crisis, that affected the world between 2008-2009, and which demonstrated the vulnerability and volatility of this industry.

After such tumultuous period, the industry started recovering at satisfactory pace, mainly during 2010 and the first half of 2011, driven by the “hangover” effect of heavy losses in 2009, primarily in the most developed economies as Europe and North America. However, renewed uncertainties in every major economy in the world have been cooling down the recovery in these last 2 years. Specifically, the sovereign-debt crisis that plagues Europe, the uncertainty about the healthiness and sustainability of the US economy and, more recently, the slowdown in emerging economies with special emphasis for China.

Table 1 – Average Beta by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Average Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>1.65</td>
</tr>
<tr>
<td>Metals &amp; Mining</td>
<td>1.62</td>
</tr>
<tr>
<td>Homebuilding</td>
<td>1.55</td>
</tr>
<tr>
<td>Heavy Construction</td>
<td>1.55</td>
</tr>
<tr>
<td>Machinery</td>
<td>1.26</td>
</tr>
<tr>
<td>Automotive</td>
<td>1.73</td>
</tr>
<tr>
<td>Petroleum Producers</td>
<td>1.45</td>
</tr>
<tr>
<td>Market</td>
<td>1.17</td>
</tr>
</tbody>
</table>

Source: Damodaran, FINVIZ

Correlation represented on Figure 18 is 85.4%...
Steel Consumption

Steel Consumption is a key indicator for steelmaking companies as it gives a close approximation of the demand for steel, which is one of the most important revenue drivers for steel producers. Since the year of 2009, when steel consumption dropped more than 7.5%, the industry has been struggling to embrace in a constant and sustainable growth, mainly due to the increasing uncertainty that has been evolving the most developed economies as Europe and US. Even tough, crude steel has been recording historical higher levels of consumption for consecutive years since 2010, essentially driven by the strong growth of the industry in Asia. In fact, China has been propelling the industry since the new millennium, and the downturn suffered in other regions only intensified that perception.

This last year should be marked by another peak in crude steel consumption, with an increase of 2.4%. For 2014 we expect steel demand to growth around 3.1% as the economic environment in Europe starts improving and the US starts accelerating its growth levels. However, it is important to underline that there is still a high degree of uncertainty in the global economy and any sign of further deterioration along the major economic markets can trigger a downward spiral in the demand for steel. Bearing that in mind, it is exceptional important to provide close attention for the major steel markets: Asia, Europe and Americas

- Asia

Currently, the Asian continent is responsible for around 65% of global crude steel consumption. Particularly, China plays a major role in the steel market by being, at the same time, the major producer and major consumer of steel in the
world, position that has been significantly strengthening during these last years. While the country has been experiencing very fast rates of growth, with the real GDP growing at a yearly average rate of 9% during the last 30 years\(^2\), the consumption of steel in the country started increasing exponentially, with special emphasis since 2000, mainly driven by government’s support\(^3\). Construction is the largest consumer of steel in the country, accounting for 80%, followed by machinery and automotive with 10% and 6% respectively. However, structural alterations are heading the country which will lead to a smooth in the growth of steel consumption.

China is starting a shift in its economic model, from an investment based to a more consumption base. During many years, Chinese economy grew sustained by large inflows of capital in the economy, both public and private, that were positioned mainly in construction and infrastructures\(^4\). This led the country to be a massive consumer of steel, with a CAGR of 10% during the last 12 years. However, today the country faces a tremendous problem of overcapacity in almost every industry. With the global economic crisis, the western world became unable to absorb Chinese’s production, and with low demand and high supply capacity the country is facing an overall unprofitability, which will be fought with an attempt to increase domestic demand.

One of the industries that will suffer higher impact from this economic change will be steel. The reduction in public investment, mainly towards construction, should lead to a substantial decrease on the grow rate of demand. However, other industries should benefit from this new consumption model, like automotive and household appliances. In fact, the automotive industry in the developing Asia-pacific region is expected to be the main driver of the industry, with a regional contribution to growth of 62%\(^5\). Even tough, we do not believe that this will be enough to offset the total effect, as industries like construction have much higher needs of steel.

Regarding the second largest consumer of steel in Asia, India, we are expecting acceleration on the steel industry as financial and economic reforms to address structural problems of the country are implemented. However, due to the difference of market size between India and China, this increase will not be enough to compensate for Chinese’s slowing.

\(^2\) Tang, Rachel (2010), China’s Steel Industry and Its Impact on the United States: Issues for Congress 
\(^3\) Not only by subsidized financing but also throw undervalued currency, export rebates and/or quotas, relatively weak environmental labor, and safety regulations (from reference 2).
\(^4\) As an example of the investment in construction, during the last 30 years more than 500 million of people have moved to cities.
\(^5\) Source: JDE Power
Although we are not expecting to see demand in Asia growing at the same rates of the recent past, the region will keep being the main driver for steel, mainly due to the size of its market. We forecast steel’s demand in Asia to grow around 4% in 2014 while, in a longer assessment, we expect a CAGR of 3.8% until 2020.

- **Europe**

European economy has been severely damaged during the last couple years, due to 1) the Global Economic Crisis and 2) the sovereign debt crisis, which exposed the deep structure problems of the region. Consequently, the steel market entered in a downward spiral with the apparent steel use in 2012 being 25% lower than the peak reached in 2007. Considering the most recent developments we believe that the bottom of the cycle in the European steel market was already reached and continuous growth is expected to materialize in the following years.

Neither the structural nor the conjectural situation in Europe is the most favourable for steel industry. The majority of the European countries are highly developed, with some exceptions on the Eastern Europe, with advanced infrastructures and facilities, which tends to reduce their needs for steel. Besides that, the region is trying to implement deep structural reforms, predominantly on the periphery countries, which will lead for budget constraints and prospective decline on income level in the next years. Finally, a predictable increasingly older demographic structure in Europe will also help to maintain the steel demand growth at low levels.

Bearing these factors in mind, we do not expect to see extraordinary growing rates on steel consumption in the region. For the long-term, a growth rate of 2.2% must be the scenario achievable.

Looking more into the short term, we are cautiously optimistic concerning the outlook. Both construction and the automotive sector, that together account for more than 50% of steel demand in Europe, had a tough year in 2001 as the austerity measures imposed in some of the major European economies, like Spain and Italy, led to another year of low investment levels. Nevertheless, although the situation is still very demanding, we are expecting a certain level of stabilization in both industries, even though at lower levels, which should boost steel demand. Moreover, regional leading indicators as PMI and consumer confidence have been showing gradual improvement, which traditionally tends to coincide with better performance in the steel industry.

As a conclusion, we are expecting a slight increase of 1% on steel demand in 2013 followed by an increase of 2.5% in 2014. Higher rates of growth are only
expected in a period of 3 to 5 years, when economic recovery accentuates its pace and both public and private investment reach sustainable levels. A total recover for the levels of demand in 2007 is not expected to be reached during this decade. Finally, we must underline that, although the outlook is increasingly positive, the European environment remains extremely challenging and vulnerable to any minor contraction.

- Americas

The global condition of the steel industry in the American continent is substantially correlated with the industry in the United States, as the country accounts for 54% of the total steel’s demand in that region. Countries like Brazil (14%) and Mexico (11%) saw their importance growth in these past years but are still far from the prominence of US.

As the epicentre of the global economic crisis that erupted in 2008, the steel industry in US suffered substantial losses, with steel consumption dropping 45%, between 2007 and 2009. In a more regional perspective, steel consumption dropped 41% and 16% in North America and South America respectively. However, unlike what we saw in Europe, the recovery in the Americas has been more intense, with demand in 2012 reaching the same level of 2008 for North America and recording historical levels in South America. For 2013 we expect demand to have growth of 1.2% in North America and 2.1% in South America.

In US, construction and infrastructure remain as the largest markets for steel consumption, accounting for around 42% of total consumption. And, even tough 2013 was not a particular interesting year, both industries are showing modest improvements, benefiting mostly from the extension of the FED asset purchases program, which kept interest rates at very low levels. However the eminent suspension of the FED program for 2014, and respective increase in interest rates, should limit the upside potential at least in the next year. Having that in mind, we believe that the automotive and the oil & gas sectors will be the main drivers of steel, at least in the short-term.

Regarding the automotive production in US, the sector keeps growing at very interesting rates. After a deep decrease in 2009, right in middle of the crisis, the sector started recovering at very fast rates and with outperformance against the last year in each period. For 2014, although it is expected an increase in interest rates, the increasing in consumer confidence and with utilization rates in the manufacturing of durable goods approaching the 80% should led to a new outperformance comparing with 2013.
Another sector that is living a boom in US is the energy sector, particularly the natural gas production, due to the shale gas revolution in the country. This development in the energy sector brings direct and indirect advantages for steel demand. First, the demand increases directly due to higher needs from drilling equipment, particularly in the production of tubular goods and transmission facilities. Secondly, the steel industry might benefit from lower energy costs in the production of steel due to lower natural gas prices.

Regarding Brazil, last years have been challenging for the steel industry. Steel consumption has been either decreasing or remaining flat, as the economy appeals to be cooling down. Theoretically, Brazil seems to be well positioned for growth, at least in the short-term, as it will host the football World Cup in 2014 and the Olympics in 2016. However, in our opinion, the effect from those events has already gone, at least in the steel industry, and we do not expect a strong growth for the next years.

As a conclusion, we are optimist for the steel market in Americas as we position it the most attractive after the Asian market, both for its potential and its size. We expect demand to grow around 3.6% in 2014 and a CAGR of 3% until 2020. However there are still a few sources of uncertainty, particularly regarding the reaction to the much anticipated suspension of the FED asset purchase program.

Overcapacity

Currently, overcapacity stands as the single largest issue faced by steel industry globally. Since the aftermath of the last global economic crisis, worldwide utilization rates have been settled below 80%, what shows the excess of steel production capacity that exists when comparing with demand. It is estimated that, for demand reach the current steelmaking capacity will be needed between 8 to 10 years. Although overcapacity is a common issue in the largest steel markets, the situation in China is more disturbing due to the structure of the problem.

Nowadays, China accounts for almost 50% of both total production and total demand of steel in the world. To reach that situation, the last twelve years had a

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7 The shale gas revolution in US has significantly boosted domestic natural gas in the country due to innovations in the field of drilling technologies, like horizontal drilling and hydraulic fracturing. The shale gas in total the total production of natural gas, in US, increased from 4 percent in 2005 to about 30% nowadays.

8 This benefits comes by switching coal to natural gas, both throw a direct replacement of coal by natural gas in the steel’s production process and by experiencing lower electricity prices, mainly driven by increased gas supply.
large contribution. Between 2000 and 2012, crude steel production in the country increased exponentially, being now more than 4x higher than in 2000. Regarding demand, it increased 378% in the same period. This massive expansion led the country from being a net importer to be a net exporter of steel and so, increased their importance on the industry globally. However, as demand in other regions started decreasing the country was entering in structural overcapacity.

The main reason for this change from a net importer to a net exporter of steel is the cost structure of the chinese’s industry. In fact, Chinese steel companies have increased their competitiveness on international markets mainly throw lower costs. Unquestionably, Chinese manufacturing industry relishes on low labour costs, essentially when comparing with more developed economies. This is a tremendous advantage for an industry that is high working intensive, as the steel industry. However, technological improvements also played a key role in this change. In fact, the average output per steel worker increase around 450% during the last 20 years. Even though the improvement was substantial, in 2010 this productivity was only half of the productivity in foreign industries. Nevertheless, the difference in labour costs was more than enough to offset that issue and enhance China’s competitive position.

What are the key consequences from Overcapacity? For the internal Chinese market, this problem carries serious concerns. Since potential supply outpaces total demand this leads to a decline in prices for steel which squeezes profitability margins for producers. In the end, the entire profitability of the sector is jeopardized starting by the smaller higher-cost producers but also affecting the larger ones (see Figure 24). The second part of the problem from Chinese’s overcapacity is the fact the country is a net exporter with large power and, with such a large amount of production, the smallest change in their exports pattern can create market disruptions in other regions. Consequently, with an over inflow of lower cost entering into the market, the sustainability of these markets is endangered.

Although the solution to face this problem is straight-forward, termination of the lower-efficiency facilities, its implementation has been difficult to accomplish. The assembly of a steel facility is extremely expensive and its operative production carries high fixed costs. Due to that steel producer prefer to keep production with marginal profit (or even loss) per unit than suspend production, in a way to amortize fixed costs. This issue is particularly important in China’s steel industry, as it is characterized by its fragmentation with many small

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9 Son, Ligang and Liu, Haimin *The Chinese Steel Industry’s Transformations* (pp. 133-138)
producers. Also for governments their termination is not a very suitable option. Since steel plants are high work intensive their closure carries an important social-economic impact, as it will increase unemployment\(^{10}\). In the same way, it will impact public budgets throw a decrease in tax revenues. This explains why regularly we see public authorities providing financial aid for steel producers to maintain production in facilities with lower efficiency, instead of incentivize its closure and a consequent efficiency improvement in the industry.

In Europe, overcapacity is also a question that has been jeopardizing the sustainability of the industry. The contraction in demand that has been observable during last years was not proceeded by the correct reduction in production capacity, which has led to a utilization rate of only 69.3% in 2013. Bearing in mind all the economic issues that Europe is already facing, this extremely low level of utilization rates together with low levels of demand have been driving the industry into a serious problem of profitability. Stable levels of sustainability for the smaller producers, with lower geographical diversification, will be very hard to reach in the long-term.

This last year was marked by an apparent increase in the awareness about the overcapacity issue, both from companies and governments. Large pressure has been made for Chinese authorities take steps in direction solve the question, not only from inside the country but also from other countries like US, as they are compromising the entire sustainability of the industry. Also environmental and labour safety issues are pressing down the government. Until now, different measures were already approved regarding this issue, mainly with the purpose to discourage investment in low-performing facilities and incentivize its closure. Nevertheless not much was accomplished, yet. Eight plants were dismantled in Hebei, the largest steel producing area in the country, which accounts for a total iron and steel capacity of 11.36 million tons. And, even though the total capacity dismantled is not more than residual compared with the needs, many of those furnaces dismantled were already out of production since the beginning of the year. By the opposite side, new steel capacity should be added in the country as there is around 90 million tons of iron ore and steel that is under construction or already approved, which will offset the closures of other facilities.

Although it is observable a more recognition about this problematic issue, we are still not very optimist about the outcome. The termination of facilities, even though is the most appropriate answer, carries many issues that limits its potential. In our opinion, the main driver to eliminate overcapacity and boost

\(^{10}\) This issue is amplified in certain cases as steel facilities tend to be in regions where economic activity is relatively low.
utilization rates will be the increasing demand that is expected to happen in the short-term. In Europe, utilization rates should increase as demand is recovering and companies, like ArcelorMittal, have been able to reduce capacity. Regarding Asia, we are not expecting substantial improvements in utilization rates and overcapacity will remain an issue. However, we admit to improve our outlook slightly if solid signs of consolidation in the industry arise.

For 2014 we project utilization rates around to 79% while utilization rates around 85% are only expected to be reached by 2016, a level which tend to ensure higher sustainability and profitability.

### Prices

Steel’s prices have been decreasing during the last two years as a consequence of both the slowdown on steel’s demand and the structural overcapacity that the industry suffers. In our outlook we are expecting steel prices to remain flat throw the year of 2014 due to: 1) modest growth on demand for steel, 2) overcapacity issues in the industry and, 3) decrease in iron ore prices.

Although we forecast a gradual recovery on the industry, with demand for steel starting accelerating, this recover might not be sufficient to push up prices in the short-term. We are not projecting strong levels of growth for the next year and, in addition, the world’s largest consumer of steel, China, will also start experiencing growth rates around 4%, far from the levels of 2009 and 2010.

Second point favouring our theory is the excess of supply, or potential supply, in the market. As discusses before, with utilization rates below 85% at least until 2016, the pressure will be felt in the prices’ side, with the producers being obliged to reduce margins in an attempt to increase shipments and enhance profits. Also, this scenario tends to lead to a higher correlation between prices of steel and raw materials, especially iron ore. As will be discussed below, iron ore prices are expected to decrease which should strength the pressure on steel’s prices, at least in the short term.

In the medium and long-term that situation should revert and prices will start recovering at moderate rates. However, it will only happen after the industry takes on the adjustment needed and overcapacity starts being eliminated by the further increases in demand and closures of inefficient plants.
Mining Overview

Iron ore and metallurgical coal are primary raw materials in the process of steel production and so, their projections are crucial for the steel industry. Because both industries are closely linked, the outlooks tend to be very similar.

The market environment in iron ore have weakened with the robust decline verified in steel output occurred in 2009 and, as occurred in the steel industry, the recovery has been almost entirely promoted by Asia, particularly China. In fact, the country is responsible for around 61% of worldwide consumption while the entire Asian continent is responsible for almost 80%. There are two main reasons for the large consumption of iron ore from China. First, as most obvious, is the fact that the country produces almost 50% of total steel production, which means something around 750 million tonnes. Second, around 90% of the steel produced by China is produced from the method of Basic Oxygen Steelmaking (BOF), which is more centred on iron ore.

For next years we are expecting a constant decrease on the price of iron ore with stabilization around US$98 in a period of 5 years, mainly driven by 1) an increase in supply, 2) decrease in steel production growth from China, and 3) increasingly adoption of Electric Arc Furnaces (EAF) to produce steel.

In the iron mining sector we are expecting considerable increases in supply for the next couple years. Some of the big companies in the sector, namely the Australians’ Rio Tinto, BHP Billiton and Fortescue, and Brazilian’s Vale are planning substantial expansions on their capacities. Among the projects approved we highlight:

i) BHPB’s 35mt expansion in Jimblebar

ii) Rio’s 60mt expansion in Pilbara, and

iii) Vale’s expansion of 40mt in Carajas.

This massive expansion should drive to a decrease on the prices for the commodity, reducing margins for producers. Meanwhile, China’s iron ore production should follow the opposite path. These projects mentioned above are being driven by companies with lower cash-cost in the industry. For instance, BHP Billiton and Rio Tinto have a cash cost of around US$50. Even with prices decreasing to US$98 the profit margin is still fairly interesting. By the opposite side, the smaller producers with higher cash costs, mainly the smaller Chinese

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11 It is a high-temperature furnace that uses high-voltage electric arcs to make steel. It produces steel from recycle iron and steel scrap.

12 Cash Cost refers to the production’s costs, at site level, per unit produced.
operations, will be out of the market. Consequently it is expected that the Chinese government will force the closure of the smaller high cost operations in an attempt to increase the industry’s concentration and its efficiency levels. Also the increasingly public concern about the labour safety and environments issues (as verified in the steel industry) might accelerate this process. Although these terminations can ease the impact from larger expansion, the real effect should be marginal and the iron ore output is expected to increase, at least, 300 million tonnes in the next 2 to 3 years.

Second point that we expect to push down iron ore prices is the already mentioned expected slowdown in China’s demand. During this millennium, and particularly since the Global Economic Crisis, China has been carrying iron ore demand almost by its own. However, structural changes in the country as its current conjecture will slow down the rates at which steel demand has been growing and, to face the overcapacity issue in the country, production of steel will need to slow down. This will affect heavily iron ore demand as China is, by far, the largest producer of steel and 90% of its production uses BOF method. It is true that other major markets will increase demand for steel, but this increase will happen at lower rates and, even so, it is not guaranteed that they will increase production in the same rate as the industry face high levels of overcapacity.

Third point that sustains our thesis is the competition between EAF and BOF, two different steel production methods. Basically EAF makes new steel from steel scrap while BOF produces steel from a mix of iron ore and scrap steel. Currently, in EU27 and US the EAF is used to produce around 42% and 60% of total steel production, respectively. EAF has been gaining market share over BOF due to 1) ample scrap, 2) lower capital and labor costs needed for production, and 3) improving technologies. While BOF production has been ensured by the needs of high-end products, new technologies are improving the capacity of EAF. However, in China the situation is still the opposite, as EAF is still not much expanded due to low levels of scrap in the country. We are not expecting a complete replacement of BOF, even because also carries disadvantages, but in the short and medium-term the advantages stated above should keep being exploited.

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13 Source: World Steel Association
14 Around 85% of flat produces and 95% of long products grades can be made by EAF.
Segmental Forecasts

Steel

ArcelorMittal has a wide exposure to the European and North American markets, which accounts for 73% of the company sales. Due to that, it has suffered more than its peers regarding volume cuts in the past few years. Mainly in Europe, where the company reports 46% of its sales, ArcelorMittal is shipping 27% less tonnes when comparing with 2007. However, as we project a stronger recover in Europe, ArcelorMittal has the most leverage to benefit from the turnaround.

One of the main focuses of the company has been to engage in a strategy of cost improvements with the aim to increase the efficiency and flexibility of its operations. In that way it will be possible to go along with a better adjustment for cyclical demand at the same time that enhances the competitiveness of the company. As an example, we are optimistic about the Management Gains plan for 2013-2015, where the company expects to reach a cost benefit of US$3bn throw improvements in energy, productivity and yields at the same time that leverages benchmarking opportunities within the group. Although it is very unlikely that the company is able to retain the entire amount, since its peers are also engaging in cost improvements plans, the size of ArcelorMittal should allow them to benefit more than other steel producers.

We are similarly optimist about the opportunities from the called “Franchise Businesses”\(^\text{15}\) of the company\(^{16}\), mainly in the automotive industry where ArcelorMittal is the leading supplier. ArcelorMittal holds automotive production facilities in US, Brazil, South Africa and Western Europe. At the same time, also embraces joint ventures alliances in China and more recently in US, providing geographical diversification for the company. Besides geographical diversification, ArcelorMittal also has the technological leadership, allowing them to respond efficiently to new needs from the industry.

- Flat Carbon Americas

ArcelorMittal has a stable position in the Flat Carbon steel market in Americas and it is expected to benefit from the increasing growth in the market, as the US economy accentuates its recovery. Particularly the automotive market has been

\(^{15}\) Franchise Business are business that are in attractive industries and/or markets (regarding the growth characteristics, margin potential, barriers to entry) and where the company is in position to be competitive (throw cost competitiveness, quality and assets, know-how).

\(^{16}\) Around 55% of the steel shipments are from Franchise Businesses, as they contribute to 80% of steel’s EBITDA (source: company’s fillings).
growing at very consistent rates, as it was stated before, which is a key driver for ArcelorMittal considering its strategic position.

Recently, the company entered in a joint venture with Nippon Steel & Sumitomo Metal Corporation for the acquisition of ThyssenKrupp Steel USA. We are very optimistic about that deal for ArcelorMittal, as it will strengthen the market position of the company in the automotive sector and also enhance production from other plants. Regarding South America, the company has been increasing its exposure, principally in Brazil where it announced a capacity's expansion of 1.15 million tonnes in Monlevade and Juiz de Fora, a clearly attempt to respond to an expected increase in demand from that country.

At the same time that we forecast an upsurge in steel shipments, EBITDA margins are also expected to increase. First, along with more shipments fixed costs will be superiorly spread, leading to better margins. Also, the cost management measures implemented, as improvements in energy efficiency and productivity, should strengthen the new upward trend.

Consequently, shipments are forecasting to grow at a CAGR of 4.23% during the next seven years, while margins should reach the 14% by the end of the decade.

**Flat Carbon Europe**

Although ArcelorMittal currently presents a wide geographical diversification, Europe continues to be the major market for the company. Bearing that in mind, we believe that the evolution of the economic situation in Europe will have an important impact on ArcelorMittal's outlook, improving its financial condition.

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17 See Appendix I for a more detailed analysis on the deal.
The management has been concentrating efforts to improve the efficiency of this segment, after margins had dropped to around 4% last year from 16% before 2009. In fact, one of the main focuses of the management was to reduce excess capacity. Almost 10 million tonnes of production capacity were already dismantled in an attempt to counteract the low utilization rates at the moment. Besides the direct effect of this measure as a cost reduction, we believe that the restructuration and consequently improvement in its competitive position might lead to strengthen its position as regional leader and allow to an increasing in market share.

Consequently, and although it is not expected strong increases in steel’s demand in Europe, we have an optimistic outlook for FCE. Shipments are forecasted to increase at a CAGR of 4.3% until 2020 (mainly driven by the recover from strong losses in last years), and EBITDA margins should reach 7% by the end of the forecasted period, being still far from the 16% before crisis

- **Long Carbon Americas and Europe**

The major end market for long carbon steel is the construction industry. We are not so optimistic about this segment since we are expecting construction to recover slower than industry. In US, industrial production and particularly the automotive sector have been the main drivers for steel and, although construction is showing some improvements, we are not entirely convinced about the strength of the comeback. In Europe, where the first signs of recovery are now hitting the markets, construction should still take some time to show substantial improvements. Also in China the outlook for construction is not so positive as before. While construction was, during last years, one of the top drivers of Chinese economy, the new approach more centred in consumption (instead of investment as before) should reshape the consumption pattern of steel in the country.
In this way, we are projecting Long Carbon steel shipments to Americas and Europe to grow at a CAGR of 1.5% until 2020. Regarding margins, we are confident in a substantial improvement (although lower than in FCA and FCE) due to 1) increase in shipments, 2) better cost efficiency, and 3) possible closures of less efficient plants, leading EBITDA margin to reach 12.3% in 2020.

**AACIS**

ArcelorMittal's steel shipments for Asia, Africa & CIS have not been increasing satisfactory, even though this division incorporates steel markets where the demand has been outperforming the overall value. The main driver for that, in our opinion, is the difficult that the company has to enter in market like China and India, first and third largest consumers of steel in the world, respectively.

In China, ArcelorMittal has a joint venture “Valin Steel Co” (VAMA), which produces raw sheet steel for the automotive sector. ArcelorMittal is supporting the project with its leading technology and by providing its know-how. This joint venture will provides exposure to the automotive industry in China, which is expected to increase by around 50% during the next 5 years\(^\text{18}\). However, this should not increase shipments in the company, at least in a substantial number.

Regarding the Indian market, ArcelorMittal has been delaying and cancelling its projects. Particularly, it has delayed its projects on Jharkhand (12 million tonnes capacity) and Karnataka (6 million tonnes capacity), whereas the project in Odisha was cancelled. Among the reasons there are difficulties over land purchase and delays in regulatory clearances. While India accounts for less than 1% of total sales, these developments will difficult the establishment of a solid presence in that market.

\(^{18}\) Source: JDE Power
AACIS’s shipments are forecasted to increase at a CAGR of 2.4% until 2020. Not only ArcelorMittal does not have a solid presence in those markets but we also expect the company to lose market share, particularly in China, as a result of the consolidation that the market will experience in the next years. Regarding margins, EBITDA margins should reach 7.31% in the end of the forecasted market, which is considerably higher than the actual margins (around 4.3%) but also lower than the observed in 2008 (30.3%).

AMDS

Since this segment is an in-house distribution platform for the company, sales will depend on the overall demand registered in the other segments. Our outlook is positive as we think that it will follow the same pattern as the other steel segments. However, it is not expected to grow at fast rates. Our projections show shipments increasing at a CAGR of 3% until the end of the forecasted period. At the same time, margins will also start improving, reaching 2.64% in 2020.
Mining

Steel producers have begun investing heavily in the mining business in order to become more vertically integrated, mainly with the aim to increase their control over production costs and reduce volatility on steel prices. ArcelorMittal is certainly among the biggest promoters of this tendency with a total production of 55.9 million tonnes of iron ore and 8.2 million tonnes of coal, in 2012. Although it has been a common practice in the sector, we believe that the approach of ArcelorMittal to their mining operations brings comparative advantages when comparing against the approaches from other steel producers.

Since 2011, ArcelorMittal started reporting its mining operations as a separate business segment, where the company not only produces iron ore and coal for its own needs but also sells it on the market. This approach of “isolation” between businesses segments allows the company to extract the maximum potential from mining assets as extraction operations are independent on the demand from the steel segment. For us, this is one of the key aspects for the vertical integration in ArcelorMittal. By being exposed to external sales, the company is obliged to remain competitive on the market (or will not be able to sell it for other companies), enhancing the value creation not only from the mining segment but also in the overall business.

In the next couple years, ArcelorMittal will keep investing heavily on its mining operations. The target of the company is to achieve a production capacity of 84 million tonnes of iron ore in 2015, with main expansions occurring in: Liberia, Canada and Baffiland. These expansions will enhance the self-sufficiency of ArcelorMittal in iron ore. Besides that, there is more potential beyond the current planned expansions, as the company can expand its production capacity for around 100 million tonnes of iron ore in 2017 and 135 million tonnes in 2020.

ArcelorMittal is clearly setting the mining business as a value’s cornerstone for the organization. Currently, the cash-cost regarding iron ore is considerably higher than the major players in the industry. Nevertheless, it is still below the iron ore’s prices projected for the next year, which allows rooms for profits. At the same time, with the increase in input the company will be able to perform a reduction on cash-cost, enhancing its competitive position and so its revenues in the segment.

We believe that ArcelorMittal will be able to ship its entire production, even assuming the future expansions, as the company will face a higher demand for steel. Also, it is important to remind that the company has self-sufficiency in iron ore of around 65% so, even with stable demand it will be possible to accommodate an increase in iron ore. While production and sales increase,
margins will follow the same pattern. Nonetheless, we are expecting a decrease in prices for iron ore in the market, due to the coming oversupply. This will limit the potential for increase in revenues and also reduce the capacity to increase margins. According to our model the incorporation of lower prices is reducing our EBITDA margins by around 5%. Even tough, the impact from the mining segment is substantial positive in the financials of the company.

Financials

ArcelorMittal saw its rating being downgraded by Standard & Poor’s, Moody’s and Fitch, during 2012. Among the reasons it was underlined the deterioration of the steel market, the amount of debt that the company had accumulated and results below expectations. In order to face that event, it was announced that ArcelorMittal will target to reach a Net Debt of US$15 billion until 2015. To reach that the company engaged in a plan of assets disposals and stronger requirements in CAPEX.

We are confident that the leverage situation in ArcelorMittal will not be further deteriorated. In fact, we are optimistic as we expect the company to reach the target of US$15 billion net debt in 2015. That situation will be driven mainly by the improvement in financial results and the limitation in CAPEX investments, where the company will only expand the mining division and its “franchise businesses”.

Figure 55 – ArcelorMittal’s Net Debt Projections ($ million)

Source: Analyst’s Estimates, Company Data
Valuation

As a result of our analysis, we are evaluating ArcelorMittal’s shares at US$20.19, which represents an upside of 15.6% against its current price of US$17.47. Consequently, our final recommendation for ArcelorMittal is a Buy.

Discounted Cash-Flow

In order to access the value of ArcelorMittal, we decided to use the Discounted Cash Flow (DCF) methodology. Through this approach, we discounted all Free Cash-Flows (FCF) of the company, during the forecasted period, to an appropriate Weighted Average Cost of Capital (WACC), which in this case was 7.34%.

In order to complete the assessment of the Enterprise Value of ArcelorMittal, we computed the termination value. This termination value was based on a growth rate of 1.70%, which represents our prospects for the future of the company by the end of the forecasted period. Finally, to the Enterprise Value, we subtracted all non-equity claims, reaching then the Equity Value of ArcelorMittal.

Scenario Analysis

Like was stated before, the steel industry is very cyclical and volatile. As a consequence, it is challenging to perform a correct assessment of the future outlook. Particularly in periods with higher uncertainty, like the current one, it is important to equate different possibilities. In order to achieve that, we created a scenario where the economic recovery in Europe is below our expectations.

Although we do not see it as a likely scenario, in fact the European economy is still under the possibility of a drawback. European countries have been living under austerity measures in order to correct budget deficits and perform structural reforms. For 2014 it is expected a relive on these measures, to allow for more sustainable economic growth. However, two main points will be crucial to analyse the final result of this relieve: 1) how the real economy will respond and 2) how the financial markets will analyse that response.

First it is important to see how the economy will respond to lower austerity and in what degree. Theoretically, the response will be positive and the first signs reinforce that sentiment. However, there is a possibility of failure due to the strong drawbacks in the recent past. Some conjectural situations, as the elevated unemployment, might prevent a sustainable recovery.

\[\text{For more detailed analysis on the WACC computation see appendix II}\]
Second point, financial markets will also have a key role. In case of negative sentiment over the current path, a renewed pressure on European countries, particularly on their sovereign debt, might arise, offsetting the current efforts from European governments.

A hypothetical scenario like this will also have an important effect in other regions, particularly in US, although with lower impact.

What are the practical effects on ArcelorMittal? The most direct effect will be a decrease on shipments and consequent revenues. With lower economic activity, the demand for steel is likely to decrease and ArcelorMittal’s sales, as a major supplier in Europe and US will follow the same pattern. As a direct consequence of lower demand, prices will struggle to increase. Regarding margins, we believe that the company will still be able to increase margins, as a result of their Management Gains programs and increasing flexibility in its operations. However, the potential will be much lower than in our “base case” scenario.

Although it is important to consider, with reinforce the idea that this scenario is unlikely to happen. Being that we gave a probability of 5% for its event.
## Financial Statements

### Balance Sheet (US$ million)

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### Income Statement (US$ million)

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<td>-1 552</td>
<td>-1 476</td>
<td>-1 340</td>
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<tr>
<td><strong>EBT</strong></td>
<td><strong>-5 375</strong></td>
<td><strong>-1 893</strong></td>
<td><strong>411</strong></td>
<td><strong>2 155</strong></td>
<td><strong>3 563</strong></td>
<td><strong>4 687</strong></td>
<td><strong>5 862</strong></td>
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<td>Income Tax Benefit (expense)</td>
<td>1 906</td>
<td>-186</td>
<td>-120</td>
<td>-630</td>
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<td>-1 370</td>
<td>-1 713</td>
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<td>Minority Interests</td>
<td>-117</td>
<td>50</td>
<td>50</td>
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<tr>
<td><strong>Net Income</strong></td>
<td><strong>-3 586</strong></td>
<td><strong>-2 029</strong></td>
<td><strong>341</strong></td>
<td><strong>1 576</strong></td>
<td><strong>2 572</strong></td>
<td><strong>3 368</strong></td>
<td><strong>4 199</strong></td>
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### Cash-Flow Statement (US$ million)

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<tr>
<th></th>
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<tr>
<td>Operational Gross CF Steel</td>
<td>7 113</td>
<td>4 727</td>
<td>5 212</td>
<td>5 847</td>
<td>6 540</td>
<td>7 315</td>
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<td>Operational Gross CF Mining</td>
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<td>607</td>
<td>1 556</td>
<td>1 659</td>
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<td>Operational Investing CF</td>
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<td>-4 057</td>
<td>-4 046</td>
<td>-4 495</td>
<td>-6 291</td>
<td>-6 390</td>
<td>-6 392</td>
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<tr>
<td>Cash-Flow from Other Operating Activities</td>
<td>-2 975</td>
<td>121</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Cash-Flow from Non-Operating Activities</td>
<td>1 364</td>
<td>3 286</td>
<td>-5</td>
<td>-507</td>
<td>-10</td>
<td>-9</td>
<td>-8</td>
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<tr>
<td><strong>Total Free Cash-Flow to the Firm</strong></td>
<td><strong>4 000</strong></td>
<td><strong>4 684</strong></td>
<td><strong>2 718</strong></td>
<td><strong>2 504</strong></td>
<td><strong>2 014</strong></td>
<td><strong>2 768</strong></td>
<td><strong>3 490</strong></td>
</tr>
<tr>
<td>Change in Debt</td>
<td>-114</td>
<td>-5 038</td>
<td>-933</td>
<td>-928</td>
<td>275</td>
<td>-533</td>
<td>-111</td>
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<tr>
<td>Interest Paid</td>
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<td>-2 893</td>
<td>-2 127</td>
<td>-1 830</td>
<td>-1 552</td>
<td>-1 476</td>
<td>-1 340</td>
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<tr>
<td>Interest Tax Shield</td>
<td>840</td>
<td>845</td>
<td>621</td>
<td>535</td>
<td>454</td>
<td>431</td>
<td>392</td>
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<tr>
<td>Changes in Equity</td>
<td>-1 811</td>
<td>2 403</td>
<td>-281</td>
<td>-281</td>
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<td>-1 190</td>
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<tr>
<td><strong>Financing CF</strong></td>
<td><strong>-4 000</strong></td>
<td><strong>-4 684</strong></td>
<td><strong>-2 718</strong></td>
<td><strong>-2 504</strong></td>
<td><strong>-2 014</strong></td>
<td><strong>-2 768</strong></td>
<td><strong>-3 490</strong></td>
</tr>
</tbody>
</table>
Appendix I – ThyssenKrupp Steel USA

ArcelorMittal announced, last November, the acquisition of ThyssenKrupp Steel USA (TK Steel USA); throw a joint venture with Nippon Steel & Sumitomo Metal Corporation (NSSMC)\(^\text{20}\), for an amount of US$1.55 billion\(^\text{21}\). This acquisition was done by around US$258 million cash from each partner and US$1 billion of joint venture debt. The transaction also includes a six-year agreement to purchase two million tonnes of slab annually from TK CSA, an integrated steel mill complex located in Rio de Janeiro, Brazil, using a market-priced formula.

Although this plant has been carrying negative results, under this new joint venture that situation should be turned around in the short-term. Both ArcelorMittal and NSSMC already have a solid established base of clients in the automotive industry, which should increase the utilization rates of the plant and allow to a better absorption of fixed costs.

Looking into the deal we see a wide number of advantages to the ArcelorMittal’s view. First of all, this plant incorporates into the strategy of the company, as ArcelorMittal has been focusing to extend its market share on the automotive steel business and investing in research and development to face new regulation requirements in the industry\(^\text{22}\). By acquiring this plant, ArcelorMittal keeps a new competitor out of the US market at the same time that expands its auto-sheet market share and, perhaps, increasing its price power.

Second, it is also expected that this joint venture will create, at least US$60 million synergies per year. The deal includes a six-year agreement to purchase two million tonnes of slab annual from TK CSA\(^\text{21}\). It is anticipated that an additional two million tonnes will be traced to that plant from others ArcelorMittal facilities, increasing the utilization rates of its slab plants in Mexico, Brazil and US. These slabs should account for around US$40-44 million per year in synergies. The remaining might come from SG&A and other operational activities. One factor that should enhance these points is the solid commercial connections that NSSMC has with Japanese car manufacturers.

\(^{20}\) Press Release from ArcelorMittal at 29 November 2013
\(^{21}\) TK Steel USA is a steel processing plant situated in Calvert, Alabama, with a total capacity of 5.3 million tonnes including hot rolling, cold rolling, coating and finishing lines. The plant is considered one of the most modern finishing facility in the world.
\(^{22}\) These new regulations, mostly about fuel efficiency and emissions from tailpipes, demand steelmakers to reduces the weight of steel used in the automotive industry in an attempt to reduce the own weight of cars
\(^{23}\) TK CSA has an option to extend the agreement for an additional three years at more favorable terms to the JV, compared with the initial time period.
Finally, this joint venture will also elevate the exposure of ArcelorMittal to the energy industry in North America, where we are expecting a growing demand for steel products as a result of the increase in oil and natural gas exploration.

Regarding possible governance conflicts with NSSMC, the risk is low as the two companies already have a joint venture in Indiana, that produce steel for the automotive industry, with positive results.

**Appendix II - WACC**

With the aim to compute a proper discount rate, namely the WACC, we accessed the cost of equity and the cost of capital of ArcelorMittal.

The cost of equity was computed by using the Capital Asset Pricing Model (CAPM). The unlevered beta was calculated throw an average of the unlevered betas of a list of comparable companies, where we used two years’ weekly returns against the MSCI World. As a result the unlevered beta was 1.021 and, posteriorly, the levered beta of ArcelorMittal reached was 1.274. In order to complete the cost of equity’s calculation it was applied a market risk premium of 5.5% and a risk-free rate of 2.85%\(^24\). No specific country risk was assessed. In the end, the cost of equity for ArcelorMittal totalled 9.85%.

In order to compute the cost of equity we analysed the market yields on company’s bonds and so, we used a default spread of 5.45%. Regarding default, it was modelled a probability of default of 0.8% with, in case of happening, a recovery rate of 70%\(^25\). As a result the cost of debt of the company is 5.17%.

Finally, to complete the WACC, it was used a Debt/Equity target of 35%, in line with the company’s objectives. Assuming the current corporate tax rate of Luxembourg, 29.22%, the Weighted Average Cost of Capital for ArcelorMittal is 7.34%.

\(^{24}\) Yield of a 10-Year Zero-Coupon US Strips Bonds

Disclosures and Disclaimer

Research Recommendations

<table>
<thead>
<tr>
<th></th>
<th>Expected total return (including dividends) of more than 15% over a 12-month period.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buy</strong></td>
<td>Expected total return (including dividends) between 0% and 15% over a 12-month period.</td>
</tr>
<tr>
<td><strong>Hold</strong></td>
<td>Expected negative total return (including dividends) over a 12-month period.</td>
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</tbody>
</table>

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