## Turkey — on its way to the Top Ten

With crude steel output up 11% yoy in 2006 at 23.3Mt, and plans to move from a mainly long products producer to flats by 2010 with proposals to add nearly 18Mt of new flats capacity – partly as joint ventures – Turkey will rank as one of the top ten steel producers worldwide with capacity to add export of flat products to its existing longs.

BY ALFONSO TÉJERINA, MARIE VERPILLEUX, MUNGO SMITH\*



he history of the Turkish steel industry dates back to the foundation of the modern modern Republic in 1923. With the collaboration of foreign academics, the Ministry of Economy started feasibility studies in 1925 and, twelve years later, the first integrated iron and steel plant in the country was built in Karabük, near the Black Sea. Since then, the country has gone through challenging times, including military coups and deep economic crises. Yet, the fact remains that by the close of 2007, Turkey sits comfortably as the 11th largest steel-Turkey sits producing nation in the world (it ranked 17th in 2000), and its industry continues to grow fast. In 2006, among the top 15 steel only producers, China India and experienced higher growth rates. There is no doubt that the father of the Republic, keen industrialist and moderniser Mustafa Kemal Atatürk, would be proud to see the Turkish steel sector where it stands today.

The reasons for this success are diverse and related to both internal and external factors. To start with, steel prices have recently reached historical highs globally, pushing up the revenues of steel companies. In Turkey, the ranking of the top industrial enterprises according to their production-based sales illustrates this development: in the list for 2006, made public in summer 2007 by the Istanbul Chamber of Industry, there were 21 steel companies in the top 100. Of these, two in three rank better than they did the year before.

The increase in the price of steel can be seen as the result of growing demand and global consolidation. The Arcelor-Mittal merger in 2006 and Tata Steel's takeover of Corus in 2007 are good examples of the increasing M&A activity in the industry at the international level that has meant that fewer, but larger players, hold a tighter control over prices worldwide. Interestingly enough, consolidation is a phenomenon that does not seem to take off in Turkey, where the sector still consists for the large part of family-run minimills.

With regards to the increasing demand, Turkey's steel consumption per capita has more than doubled since the 2001 crisis, when the figure displayed a poor 137kg per capita per year. As a result of the accumulated needs from the recession period, consumption per capita reached 300kg in 2006, and the estimations for 2007 are for 330kg. Halil Ibrahim Akça, Deputy Undersecretary of Turkey's State Planning Organisation (SPO), explains: "The construction sector grew at an average 20.5% during the period 2005-2006 and is expected to maintain this positive trend, thanks to the implementation of the new Mortgage Law and the growing Turkish population, increasingly concentrated in urban areas

Indeed, Turkey's appetite for steel has a long way to go. Serdar Koçtürk, general manager of Kibar Foreign Trade and president of the Istanbul Iron and Steel Exporters Association, underlines this point when he compares Turkey's consumption per capita figure with South Korea's, which is around 1000kg. Although he does not expect his fellow countrymen to consume that much, he does think that "As economic development unfolds, Turkey's demand for steel will be somewhere around 600kg per capita".

But for the industry to keep growing, the economy needs to avoid the cyclical problems that have traditionally plagued the history of the Turkish Republic. The political continuity with the re-election of a majority government is probably a promising sign. As an example, the infrastructure projects approved during the first mandate will be implemented now, avoiding potential political quarrels, and

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this will provide the industry with a stable and secure demand for different products.

These expectations for stability are obviously shared by the government itself, which sees no reason why the country should not perform well in the coming years. The official forecast extracted from the SPO's Ninth Development Plan 2007-2013 places Turkey as the 17th biggest economy in the world by the end of that period, with an average GDP growth of 7% and a GDP per capita surpassing \$10000 (currently, it lies just under \$6000, according to IMF data).

However, the improving economy at home and domestic demand do not suffice to explain the industry's rates of growth. The sector displays a significant surplus of long products, as Cemalettin Damlaci, Director General of the Undersecretariat for Foreign Trade, explains: "The imbalanced structure of production and demand results in a lack of flat-rolled products, met with excessive amounts of imports, and a surplus of long products that we attempt to reduce by export".

This means millions of tonnes of long products for the international markets, and it is here where Turkey's geographical location between Europe, Asia and Africa pays off. The country is indeed in a perfect position to supply the steel that the neighbouring economies, such as the booming United Arab Emirates, need. With shipping costs increasing fast, customers asking for shorter delivery times and China flooding the Far East with its cheaper steel products, the shift towards Europe, the Middle East, North Africa and the CIS countries is the natural move for Turkish steel exporters.

#### ENTERING A NEW PHASE

Up until now, the history of the Turkish steel industry could be divided in two main periods, with the 1980s being the turning point. Before that decade, the three stateowned integrated plants (Erdemir, Isdemir and Kardemir) controlled most of the domestic production, which was all sold within Turkey. Then Turgut Özal, the economic supremo under the 1980-83 military government and prime minister thereafter, decided to push the Turkish economy towards privatisations and the international markets by providing providing incentives substantial to exporting companies. This led to the emergence of private run minimills and steel traders who began to flourish, to the point that a quarter of a century later, in 2006, Turkey's 18 electric arc furnace minimills accounted for 73% of the total crude steel production.

Over the years, the impulse provided by private investment has dramatically improved productivity rates in the sector, traditionally low in state-run integrated mills. The ongoing negotiations with the European Union, plus the demands from Brussels that all kinds of government subsidies be cut, have only accentuated this trend. In 1990, the annual crude steel production per employee was 210t, by 2006 it had climbed to 758t.

"Even during the economic crisis, with real interest rates of 100%, the sector kept investing", said Bayram Yusuf Aslan, vicechairman of Içdaş, and chairman of the Turkish Iron and Steel Producers Association (TISPA). "The reason for this

is that Turkish entrepreneurs have always had a strong belief in their country".

This belief in the country's future, together with an underlying wish to keep the main steel producers in Turkish hands, is well illustrated by the Erdemir Group's transfer to Oyak in February 2006. Oyak is the Turkish army pension fund that managed to beat such global giants as Mittal and Arcelor in the privatisation of the sector's most valuable asset, which also includes Isdemir. With this move, and with Kardemir having been privatised in 1995, the Turkish steel industry is now 100% private.

Yet, the transformation does not stop here. Despite its growth, as previously mentioned, the Turkish steel industry suffers from a pronounced shortage of flat products. "In 2006, only 13.5% of the total production was flat steel, while it is widely accepted that in developed steel-producing nations this figure should be around 60%", says Veysel Yayan, secretary general of TISPA. The imports of flat steel to meet the needs of domestic demand amounted to 7.2Mt/y in 2006; although the Turkish steel industry is a net exporter in terms of quantity, the total value of its imports is higher, which in turn negatively affects the country's already high current account deficit.

In order to address this problem, either within the frame of the National Restructuring Plan of the industry (submitted by Turkey to the EU Commission in September 2006) or independently of it, investments are being made to expand Turkey's flat steel production capacity. Isdemir, which is in the middle of a massive modernisation project, produced its first slabs in late 2006. In summer 2007, Çolakoğlu became the first minimill to embark on flat production. Others are following suit, on their own or with the help of foreign partners who see the huge potential that the country offers in steel high value-added products.

#### LOOKING AT THE FUTURE

Despite widespread optimism, some challenges still need to be overcome.

Turkish producers complain about the prices and taxes that apply to their electricity consumption, but this is indeed a small problem compared to the power generation shortage from which Turkey is likely to suffer in the near future. In addition, a similar problem is likely to apply to scrap supplies: Turkish production of steel is mainly based on scrap recycling rather than iron ore processing and the country is already the world's biggest importer of scrap. The current levels of growth are driving the demand for raw materials and that is likely to put pressure on scrap supplies in the future.

As the Turkish steel industry celebrates the 70th anniversary of its establishment (Kardemir started producing in 1937), the sector appears to be going through a defining transformation period, which will lead to a new era in the industry. The extent to which demand for steel products keeps increasing – and that Turkish producers can deal with the challenges ahead – will determine whether the target of being within the world's top 10 steel producing countries (a dream just a few years ago) becomes a reality in the medium term.

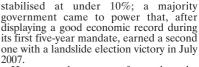
#### POLITICAL STABILITY FOR GROWTH

Until fairly recently, cyclical economy problems, hyperinflation, military

interventionism in politics and general instability used to be the ingredients with which Turkish businessmen had to cope, the 2001 financial crisis being the most recent example. Today, the picture could not be more different.

While the country's GDP has been growing steadily, inflation has

Bayram Aslan, president of the Turkish Iron and Steel Producers Association: "Even in the economic crisis the sector kept investing"



However, there were fears that the political battle between the mild Islamists in power and the secularists in the opposition would end up, again, with some kind of military intervention. The reason behind the tense political environment was the presidential bid by the Minister of Foreign Affairs, Abdullah Gül, whose wife wears the Muslim head scarf in a country where its use is banned in official buildings. Secularists demonstrated against Gül by the hundreds of thousands in Turkey's main cities, and the opposition party representing their fears managed to block his election in the courts. To overcome the political deadlock, the then prime minister, Recep Tayyip Erdoğan, decided to call an early election, otherwise not due until November 2007

Back in November 2002, the Justice and Development Party (AKP) had put an end to 15 years of coalition governments by securing 34% of the vote in the elections. During its first mandate, the GDP grew by an average 6.9% between 2003 and 2006; inflation was dramatically reduced, and the

country officially opened membership negotiations with the European Union in October 2005. Faced with a divided opposition, the AKP electoral machine swept to power again in 2007 with 46% of the vote. At the end of August, one month after the elections, Abdullah Gül was finally elected by the Parliament as President of the Turkish Republic.

Although some fret that the Islamists might use their powerful position to promote a religious agenda, others have

welcomed the outcome of the elections as a guarantee of economic development for the years to come. Indeed, Turkish businessmen are well aware of the negative effects that weak coalition governments have had on the economy in the past. As Serdar Koçtürk, president of the Istanbul Iron and Steel Exporters Association, puts it: "The political stability and the negotiations with the European Union are helping find more foreign investment; and, as foreign investment grows, the risk of downturns decreases".

Not everything is rosy though. The current account deficit is high (\$31.8bn in 2006, and \$19.6bn over the first half of 2007), the new Turkish lira suffers from volatility and political instability in neighbouring countries remains a risk. But despite all this, it could be said that the Turkish economy has hardly ever faced a brighter future than today.

STI

The Isdemir plant in Iskenderun, SE Turkey has added flat products to its portfolio







urkey's double-digit growth in the steel sector during 2006 and 2007 would be difficult to explain without the millions of dollars local producers that are ploughing into their mills. One visible result of these investments is the general capacities but, increase in more importantly than that, money is being spent in the production of higher value-added products, in order to alleviate the country's severe shortage of flat steel.

The main transformation project of 2007 is the one radically changing the face of Isdemir. The integrated plant located in Iskenderun on Turkey's South East coast, is reportedly (with the financial backing of the parent company, Erdemir) investing a total of \$2.1bn and has already started to cast slabs. If everything goes to plan, by 2008-09 its total crude steel output will reach 6.2Mt/y, with a slab-casting capacity of 5Mt/y, plus 3.5Mt/y of hot-rolled coils. Although, in theory, Isdemir's sales would be safe just producing flat steel, the company is not completely abandoning the long steel market, as it has also installed two new billet machines.

The enormous investments in modernisation are expected to be recovered through a general reduction of costs (for instance, energy efficiency) and a dramatic hike in productivity rates, as the company's CEO, Ismail Akçakmak, remarks: "In 2006 we were producing 2.2Mt/y with 6100 employees. In the coming two years we will add an extra 4Mt/y, the equivalent of having more than two Isdemirs in the same area; however, the number of employees will not go over 7000".

#### MINIMILLS WANT THEIR PART

With regards to flat production, the other big story of the year is Çolakoğlu Metalurji. Until now a long product mill with an annual output of 1.7Mt/y, the company is focusing on increasing value rather than just volume. After renewing its melting shop, in the summer of 2007 it became the first minimill in the country to start casting slabs. Uğur Dalbeler, the general manager, explains the rationale behind this move: "We used to be the biggest minimill, but at a certain stage we diversified our activities and put a stress on innovation. Çolakoğlu was the first minimill to ever install a continuous caster in Turkey, and now we Isdemir's integrated plant at Iskenderun is investing a total of \$2.1bn.

# Investments galore

Turkey needs more flat products, and investments are being made

to create new production facilities. On the other hand, long producers keep enlarging their capacities: minimills are not

'mini' anymore. BY ALFONSO TEJERINA, MARIE VERPILLEUX, MUNGO SMITH\*

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are the first to cast slabs. We want to keep being a pioneer in the Turkish steel industry".

Other companies that process flat products are also investing in larger capacity. Borçelik, a Borusan-Arcelor Mittal joint venture for the production of cold-rolled, galvanised and coated steel, will expand its capacity from 900kt to 1.5Mt/y by the end of 2008 and a 4.8Mt/y hot strip mill will be added by 2010. Russian producer Magnitogorsk (MMK) announced in May 2007 that it was entering Turkey's flat steel market with the construction of a 2.6Mt/y plant in Iskenderun, in a joint venture with Turkish industrial group Atakas.

Turkish industrial group Atakas. On a smaller scale, Tezcan expects its cold-rolled, galvanised and coated steel plant to be working at full capacity by 2010, therefore reaching 700kt/y of production compared to the current 400kt/y. Also, Tat Metal, so far a steel service centre for flat products located in Ereğli, has just put into operation a cold-rolling mill with a capacity of 300kt/y, and has commissioned a galvanising line for 2008.

The list does not cool there. Kibar is going to add 500kt/y of galvanising and coating capacity to its current 200kt/y and the holding is also planning a 2Mt/y plant for the production of hot and cold-rolled steel, in a joint venture with foreign partners. Sources from Içdaş, Turkey's largest minimill, say that the company will start producing flat steel to support its shipbuilding activities. And in Samsun, Yeşilyurt Iron and Steel has confirmed that, separately from its current increase in crude steel capacity, the minimill will invest in the flat business by 2009.

Production of flat steel aside, the term 'value-added' also includes other business areas. Cer Çelik, another minimill, plans to enter the high-quality steels market, also affected by a shortage of production that is covered with imports. On the other hand, the energy sector internationally and the automotive industry in Turkey offer opportunities that steel pipe manufacturers such as Borusan, Noksel and Yücel Boru cannot ignore; the latter company also wants to move into the stainless steel business.

As can be seen, the plans for investments 52



# The clients next door

Standing at the crossroads of Europe and Asia – and with demand also rising elsewhere – Turkey enjoys a perfect location to become the emerging economies' steel supplier. BY ALFONSO TEJERINA, MARIE VERPILLEUX, MUNGO SMITH\*



Necdet Yeşilyurt, board member of Yeşilyurt Iron and Steel: "Nowadays Turkish producers are strong in neighbouring countries…"

t might sound like a paradox but, as globalisation has virtually reached every corner of the world, the Turkish steel sector has progressively focused its exports towards its neighbouring countries.

Several reasons help explain this regionalisation. First, production from China has been growing at enormous rates, increasing the competition in east Asia and North America. Secondly, the demand for steel products in North Africa, the Middle East and the CIS countries is dramatically increasing. Last, but not least, shipping costs are significantly higher than they used to be.

In this context, Turkish mills are taking advantage of their geographical location to become the supplier of choice to the surrounding nations. Necdet Yeşilyurt, member of the board of Yeşilyurt Iron and Steel, commented on this trend: "Nowadays, Turkish producers are strong in neighbouring countries. We have adapted to the increasing Chinese competition by finding new markets in Southern and Eastern Europe, North Africa, the Middle East and, in Yeşilyurt's case, the Black Sea region, where we sell 60% of our total exports".

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If geographical location is already a plus for the Turkish industry in general, Yeşilyurt also benefits from being located in Samsun, on the Black Sea coast, where the company operates its own port. Mr Yeşilyurt continued: "One of our key competitive advantages is that we are the only crude steel producer in this region; in Turkey, we target a customer base of millions of people from Ankara to the Eastern Black sea. Moreover, due to our closeness to Russia, we can import scrap cheaply and be very competitive in the Russian merchant bar market".

The markets in the Black Sea are indeed doing very well for Turkish steel exporters. During the first half of 2007, exports to Romania and Bulgaria, the last two countries to join the European Union, increased dramatically compared to the same period of 2006 (+249% and +111% in terms of volumes, respectively) while exports to Russia rocketed (+523%). However, although these figures are very significant, the main destination markets are still to be found in Western Europe and the Middle East, the number one consumer being the United Arab Emirates, with 1.5Mt/y of Turkish steel purchased during the first half of 2007.

In order to serve the Gulf area more quickly and at lower cost, Turkish crude producers and re-rollers are increasingly establishing factories in the booming industrial area of Iskenderun, on the Mediterranean's south eastern coast. Companies there are investing heavily in the acquisition of land to expand capacity and to build port infrastructure, predicting that demand will keep growing and that the transformation of Isdemir (Iskenderun's steel integrated plant) into a flat producer will therefore create enormous business opportunities for long-steel minimills.

#### SURVIVING THE CHINESE TSUNAMI

asked about When international competition, China is on everyone's lips. Its production grew by an accumulative 54.6% during the period 2005-06, reaching 419Mt/y of crude steel in 2006; estimations for the end of 2007 put Chinese production at 483Mt based on 9 months. As has happened in other industrial areas, such as textiles, Chinese growth in the steel sector has shaken the market globally and Turkey has not been spared the effects, as shown by the currently negligible Turkish sales figures to the Far East. These accounted for just 0.5% of the total steel exports in 2006, whereas they had accounted for 70% in 1990.

Today, Chinese mills are also competing in the Middle East and Europe, with price as the main advantage.

According to Veysel Yayan, secretary general of the Turkish Iron and Steel Producers Association: "Price differences in the Gulf region between Chinese and Turkish products reached \$100/t in Q1 2007 and, when a certain level of price difference is attained, clients start to buy Chinese steel. Step by step, we have lost markets in the Gulf, the United States and Europe, where our wire-rod exports have been much affected".

Murat Talu, Deputy General Manager of Cer Çelik, forecast that "after the 2008 Olympic Games, Chinese domestic demand will diminish and this will increase international competition as Chinese mills will need to sell their production overseas".

Yet, Turkish producers generally remain optimistic about their exporting capabilities for two main reasons: firstly, Turkey's geographical location makes it easier to access the Gulf area and European markets; secondly, Turkish steel has a good reputation for quality, which still makes a difference in particular areas. For Sermet Hatunoğlu, general manager of Kroman Çelik, "Chinese producers are trying to penetrate the Gulf Region but they are not being very successful because this is a market that presents its own difficulties. For instance, clients ask for material with no traces of rust and, to avoid risks, they prefer to source from Turkish mills".

Moreover, having to compete with a steel giant is not something new for Turkish producers, according to Uğur Dalbeler, (Çolakoğlu Metalurji): "Seventeen years ago, in 1990, the world was flooded with Russian and Ukrainian steel – produced next door – and that did not prevent us from becoming the 11th largest steel producer in the world. Today, we face Chinese competition, but I see it as a tsunami: it floods the markets near China first but, as it tries to reach our neighbouring countries, the intensity of the wave decreases"."

#### ADAPTING TO A DIFFERENT MARKET

With the exporting experience acquired over the last three decades, flexible Turkish producers and traders have learnt to react against global competitors by redefining their areas of influence and adding value and quality. In a global and dynamic market, China might be the biggest challenge, but it is not the only one.

Diler Foreign Trade, the company that tops the table of Turkey's steel exporters, knows this very well. It sells 1.7Mt/y of steel annually to international markets, supported by the production of Diler Holding's two minimills (Yazici Iron and Steel and Diler Iron and Steel). For its general manager, Celal Özgündoğan, the strategies to compete in the international arena have to be tailored to the needs of each market: "We sell to any country in the offers good that business world opportunities. Competitors are divers, it is not just about China".

"Our main challenges at the moment are local mills in the destination markets, overcapacities, anti-dumping procedures, some globally competing nations and freight rates", Mr Özgündoğan explained, while noting, on the positive side, that "We are witnessing historical levels of consumption of reinforcing bars in many areas of the world. The construction sector in developing countries, as well as in petrol-rich nations, is booming, and this gives us enormous opportunities for the near future."

Opportunities that Turkish exporters are not ignoring, according to the Iron and Steel Exporters Association: sales of Turkish steel overseas grew by 14% in terms of quantity and 48% in terms of value during the first half of 2007 (year-on-year). Bar is, by far, the best-selling product, with 4.6Mt/y dispatched during the same period. With the investments that are being made to expand mill capacity, the Turkish steel sector is expected to maintain its position as a strong exporter of long products and to increase its share in the country's total exports (7% in 2006) in the years to come.

# Consolidation: The game has just started

The Turkish steel industry remains family-oriented and, therefore, very fragmented although the arrival of foreign investors is already bringing winds of change.

BY ALFONSO TEIERINA, MARIÉ VERPILLEUX, MUNGO SMITH\*



Kemal Saraç, general manager of steel pipe manufacturer Yücel Boru.

he steel sector in Turkey consists of three integrated plants and 18 electric arc furnace (EAF) mills. Of these, many are family-owned or family-run companies, with capacities varying from 200kt/y to 3.5Mt/y very small compared to some global giants. Although flexibility is always an advantage, size does matter in the international market: some voices warn that consolidation will need to take place in the near future if the industry wants to maintain its current momentum.

As Sabri Keleş (Nursan) put it: "In general, family businesses in Turkey are not very keen on opening the door to other players. There is not a consolidation culture such as exists in other countries - at least – not yet". For Çetin Kaya, general manager of Ekinciler, "There are too many producers. A Turkish steel industry with six to eight players would be much more competitive in the international arena". Apart from the cultural factor, the

current industry growth also acts as a \* Global Business Reports

#### 48 Investments galore...

are endless, but growth might not be. This is why some voices in the industry warn that not all these projects will be realised if growth slows down. However, in the hypothetical event that the Turkish flat steel market became saturated, there is always a plan B, from which long steel producers have been benefiting since the 1980s: the export market.

#### NOT JUST FLATS

Whereas flat steel production is only now starting to take off, for decades the bulk of investment has been made into the long steel business, with minimills driving growth in the Turkish steel sector.

Perhaps one of the best examples of this is Nursan, a producer located in Iskenderun that has grown tremendously since it put a deterrent for consolidation. Indeed, why should a producer welcome a rival family on its board if the business is doing very well as it stands? According to some, only a crisis would provoke such a change in this scenario.

"Consolidation might happen in the future but it will take some time", says Mr Özgündoğan (Diler Foreign Trade). "Maybe the next generation will be keener on mergers than that running the companies now but, at the moment, family businesses do not want to sell their companies".

However, as the country's economy and steel industry grow, foreign players are increasingly knocking at Turkey's door, bringing in changes more quickly than expected, in a process that seems irreversible.

#### WELCOME TO TURKEY

Inflows of foreign direct investment (FDI) into Turkey are booming. While these only amounted to \$2.9bn in 2004, they rose dramatically in 2006 to \$19.8bn; estimations for 2007 are around \$30bn. Alpaslan Korkmaz, president of the country's Investment Support and Promotion Agency, says that, "Turkey is the land of opportunities" and summarised some of its more attractive points for foreign investors: "We have a dynamic and young domestic market of 72 million people; a qualified and cost-effective labour-force; a liberal investment climate; and we are an official candidate to join the EU?

With regards to the steel sector, the severe shortage of flat products in the country acts as the main magnet for foreign players. Back in 2005 and prior to merging, both Arcelor and Mittal launched bids to take over the Erdemir Group in the privatisation process, as did Russian investors including Severstal. To compete with these giants, the Turkish steel industry had to join forces under the Ereğli Joint Enterprise Group, which included Diler, Kibar and Içdaş, among others. Although Erdemir would end up in Oyak's hands (the Turkish army pension fund), the first serious cooperation effort among Turkish steel producers had already taken place.

However, the efforts that are currently crystallising are those partnerships between Turkish and foreign players, a trend that looks set to continue. Borçelik, a Borusan-Arcelor joint venture, is reportedly in discussions for the opening of a hot-rolled steel production facility. Russia's MMK will set up a flat steel plant in Iskenderun in cooperation with Turkish group Atakaş. Kibar is also working with foreign partners in its 2Mt/y project for flat steel on the Black Sea coast. Finally, Arcelor Mittal announced in September that it is acquiring a controlling stake in Turkish distributor Rozak.

Although the trends are currently favourable to these kinds of moves, industry players need to study carefully the implications of such ventures and assess the potential benefits: "Apart from the financial support, a partnership should result in a valuable relationship in which there is a transfer of technology and knowhow", says Kemal Saraç, general manager of steel pipe manufacturer Yücel Boru. "And the most important thing is the possibility of reaching new markets'

In Turkey, these synergistic relationships are translating into the arrival of capital and technology for the production of flat steel into a market that is extremely hungry for it. These are also putting foreign companies in a privileged position to export higher value-added products out of Turkey presuming that the local market stabilises in the medium-term. In today's booming environment, some minimills prefer to stay out of the consolidation game and are doing very well on their own. It will be interesting though to see how they react in a few years time when international M&A activity has developed further. STI

500kt/y arc furnace into operation in 2005. Within months, capacity was expanded to 800kt/t and, between 2005 and 2006, the company climbed 46 positions in the list of Turkey's top industrial companies (from 129th to 83rd). Now, it is finishing the building of its own port and its capacity will peak at 1.1Mt/y in 2008.

Nursan's general manager, Sabri Keles, explains how the company's aggressive investments are paying off: "Before we established our own melting shop, we were very limited in terms of quality since we didn't have our own steel billets. We used to buy them from Isdemir and overseas suppliers, but this was not an ideal situation for us. Now, we are in a much better position and, as a result, our sales of reinforcing bars have quadrupled in two years".

As is shown by Nursan's case, Turkey's surplus of long products does not deter minimills from acquiring larger capacities. Also in Iskenderun, Ekinciler is planning to expand its plant from 1Mt/y to 3Mt/y. Another producer Kroman Çelik, located in Gebze near Istanbul, is doubling its capacity with a new arc furnace, to reach 2.3Mt/y of crude steel. Diler will start producing 500kt/y of wire rod in mid-2008 -and these are just some of the more significant examples.

Turkey's steel sector is going through an investment boom. For some, this is merely a result of the euphoria from the last two years. However, others believe there are no apparent reasons for a slowdown in the short term. Only the next few years will dictate if demand is able to absorb so many investments. STI

# Changes coming to Kardemir?

Karabuk Demir Celik San ve Tic (more commonly known as Kardemir) is an integrated long steel producer located in Karabuk, a town in northern Turkey about 100km south of the Black Sea coast. Kardemir is the smallest of Turkey's three integrated steel producers the other being Erdemir and its subsidiary Isdemir.

ounded in 1937, Kardemir was the first steel production facility in Turkey and, following long periods of losses and underinvestment, the government privatised the company in 1995 by transferring its ownership to its employees at no cost. Due to mismanagement during that period of employee ownership plus some difficult steel market conditions, the company has subsequently been in financial difficulties several times since. Its payables (most of which were to state-owned entities) and its banking debt were restructured in 2003, preventing the company's bankruptcy.

Its steel business has become more sound since 2004, partly due to the positive impact of the Yolbulan family increasing its shareholding; in addition, the Yolbulans' active interest in the management has helped the company get in much better shape and allowed it to access much needed investment.

Planned or soon-to-be-completed increases in capacity should prove timely if the general profitability of the steel industry continues. However, its relatively small size, inland location and inefficient ownership and management structure continue to present major risks. The Yolbulan family, whose re-rolling company is almost certainly Kardemir's largest customer, continues to significantly outweigh the influence of minority shareholders.

Kardemir holds 100% stakes in each Karcel Karabuk Celik Yapi (steel construction and assembly) and Kardemir Dokum Makina (steel casting) whose financials are fully consolidated into its own. In addition, it holds a 49% stake in Karcimsa, a small cement producer. Further holdings include a 10% stake in Erdemir Madencilik Sanayi (a small iron ore producer controlled by Erdemir providing part of Kardemir's iron ore need), a 95% stake in Kardemir Sigorta Aracilik Hizmetleri and 99% of Kardemir Filyos Liman Sanayi, (both at book value).

#### GORDON FELLER

Kardemir's 3200 blue-collar workers are represented by Celik-Is Union which negotiated a 12% wage increase to December 2008.

#### INCREASED CAPABILITY

Using blast furnaces, Kardemir produces billet and bloom out of iron ore and coking coal (**Table 1**). Most of the billet is sold directly to customers (re-rollers) while bloom (and some billet) is further processed and rolled into rebar, profiles or rail. Currently, the vast majority of the company's sales is to the domestic market.

Modernisation of the hot rolling mills, Kardemir's first major investment of recent years, was completed in 2005. The project cost US\$24M but has enabled the company to process larger billet, up to 150mm square. Also completed in 2005 – at a cost of \$4.58M – was a gas recovery system to increase energy efficiency.

The company's hot rolling capacity increased from 900kt/y to 1.3Mt/y in Q2 2007 with the commissioning of a 400kt/y rail/section mill. With this, it can start producing longer types of rail (up to 72m in length) and wider profiles (up to 550mm in width). The company will be the only such producer of long rail sections in the region. A 3.57M vacuum degassing station required for the new rail/section mill has also been completed.

In total, the new rail mill will have cost \$57M and the company has secured a 12year \$35.7M credit facility from HSH Nordbank through Asya Bank; because the company's unsound financial condition, it was required to get shareholders' backing. Consequently, in April 2005, Kardemir shareholders were asked to voluntarily pledge some shares to Asya Bank in order to secure the loan. In return, Kardemir offered subscribing shareholders 'priority customer status' for purchasing its products. In total, 46 Kardemir shareholders subscribed to the offer, pledging 56.1M shares (10.2%) to Asya Bank as collateral; 11% of those came from the Yolbulan family – 34% of its shareholding.

#### NEW BLAST FURNACE CAPACITY – OR IS IT?

Kardemir recently signed a \$37.2M contract with QMMC, a Chinese metallurgical equipment manufacturer, to build a fourth blast furnace while upgrading existing ones. These two together, by Q3 2008, will enable Kardemir to increase its liquid steel capacity to approximately 2Mt/y (from the current 1Mt/y). The new blast furnace will have a capacity of just 500kt/y; the rest of the planned increase will be obtained by upgrading the existing three blast furnaces.

However, some analysts are unhappy with the figures saying that 1Mt/y of greenfield blast furnace capacity would cost around US\$700M; some now suspect that one or more of Kardemir's blast furnaces have not been operational for some time and that the company is merely having this non-operational – and unquoted – capacity restored.

The company says it plans to use its increased liquid steel capacity for bloom and billet production, some to be used in rail production. Excess billet production, set to appear in Q3 2008 when the capacity increases are complete, will be sold to local re-rollers. It also had plans to build a \$11M electric arc furnace and a supporting \$20.5M electric transformer station; however, theses plans have now been dropped due to the problems arising with the Turkish electric grid operator (TEIAS).

If Kardemir can bring proposed new capacity on line in time and keep its financials on a more even keel, the high worldwide demand for steel products (especially from China) provides its best opportunity to establish itself not just as a still-significant Turkish steel company, but also to move onto the world steel market stage, taking its place alongside Erdemir and Isdemir.

(at year-end)	2001	2002	2003	2004	2005
No of employees	4344	3919	4098	3997	3460
Production (kt/y)					
Liquid Steel	727	542	809	801	973
CC ratio (liq steel - %)	74	57	81	80	97
Billet	597	536	665	641	767
Bloom	130	30	143	155	198
Finished product	446	202	374	323	318
Total sales (kt/y)	751	549	799	806	922
Pig Iron	12	1	21	37	49
Billet	360	348	414	450	576
Rebar	333	183	305	246	227
Rail & Profile	46	17	59	73	70
(Source: Kardemir)					

Table 1 Employment, production and sales of Kardemir