

Mining holds on through tempest

The mining and metals industry is one of the most important sectors in Greece, and a significant contributor to the local economy



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FAST FACTS

Capital:	Athens
Population:	10.7 million
Government:	Parliamentary republic
Currency:	Euro
GDP Growth:	-2% (2009 est)
Primary Stock Exchange:	Athens

A PART from providing raw materials to key domestic industries (such as the aluminium industry) the mining industry in Greece is a significant exporter to other countries, particularly in bauxite, nickel and mixed sulphides (lead and zinc).

Total production of these three commodities is some 5.5Mt/y, with mining located in Halkidiki in northern Greece, the Parnassos, Giona and Itri mountains in central Greece, and the Evia prefecture.

The global financial crisis had a negative impact on the Greek mining industry, which registered both a slow



down in production and fall in sales last year. However, the first signs of 2010 are optimistic and many companies believe that the mining sector will return to pre-crisis levels this year.

DEEPENING DEBT CRISIS

Greece last week became the first European country to have its international credit rating cut to 'junk' status by credit agency Standard & Poor's, sending global financial markets into turmoil.

Greece's economy has been struggling since it joined the EU in 2001, violating the EU's Growth and Stability Pact budget-deficit criteria (registering a deficit of over 3% each year from 2001 to 2006, and again in 2009). The country's deficit reached almost 13% of GDP in 2009 as public debt, inflation and unemployment rose.

The country faces the payment of €8.5 billion from bonds due on May 19, and is currently awaiting the finalisation of a rescue package from the European Union (EU) and the International Monetary Fund (IMF) that would prevent its debt crisis spiralling out of control.

The continuing crisis has already sent stock markets in both Europe and North America tumbling, and sent the gold price to record highs of €888/oz and £772/oz at the close of business on April 30.

However, the long-term effect on the country's domestic mining industry has yet to be seen.

BOUNTIFUL BAUXITE

In terms of mine output, bauxite is the most significant ore produced in Greece. The country is Europe's largest bauxite producer, with annual ore production of approximately 2.5Mt.

Greece exports around 1Mt/y bauxite to Western Europe and North America for production of products ranging from steel to wool glass and abrasives. However, the country's bauxite sector reported a 20% decline in production in 2009, while sales fell 25%.

Greece's major domestic producers are S&B Industrial Minerals SA, Aluminium of Greece SA and Elmin SA.

S&B Industrial Minerals is Europe's largest bauxite

producer, and owns both open-pit and underground bauxite mines in Parnassos, as well as a processing plant in Itea.

The company is listed on the Athens stock exchange and reported net bauxite sales amounting to €30.2 million (US\$40.1 million) in 2009, a decline of 35% from 2008. It says, however, that quarterly sales improved slightly in the December-quarter, based on increasing demand from the steel and cement sectors.

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Alumina and aluminium producer Aluminium of Greece is also one Europe's leading producers, with average production of 165,000t/y of metals and 800,000t/y of alumina hydrate, of which 45% of the total production is exported.

The group's subsidiary, Delphi Distomon Mining SA, is also a major bauxite producer, producing up to 1,000t/y from its underground mines in Distomon and Amfissa.

NICKEL PLAYER

Larco SA is a leading player in Europe for nickel laterite and nickel production, and operates three nickel mines, a lignite mine and a smelting plant in Greece.

The company is Greece's sole nickel producer and covers almost 7% of the European stainless steel market needs. The company produces on average 2.7Mt/y of nickel laterite, which is used to produce approximately 18,000t/y of ferronickel for export to the European stainless steel industry.

The extensive decline in nickel prices in 2009 had a

EUROPEAN POLICY

Greek mining legislation is in some areas being compounded by its integration into a large number of complex existing EU regulatory frameworks. For the adoption of a new mining project a period of between three to four years is required.

The 2008 European policy for raw materials, an initiative covering the essential requirements of the EU for mining development and employment, is expected to work positively for the Greek mining industry as it aims to promote the sustainable supply of raw materials from European sources.

The European policy for raw materials

proposes the following:

- Accelerate the process of licensing procedures;
- Implement best practices for land use planning;
- Improve research into and knowledge of the existing European raw materials and the eco-efficiency of their use;
- Improve accessibility to mineral resources by establishing guidelines for mineral exploitation within Natura 2000 areas (a network of legally-protected natural heritage sites across Europe); and
- Adopt technologies to minimise the environmental footprint from the exploitation of mineral resources.



dramatic effect on producers, with around a quarter of all production suspended during the first half of 2009.

As a result of the price decline, and the increased strength of the euro against the US dollar, Larco reduced production in 2009 in order to minimise potential losses. It is expected, though, that the global economic recovery will take place in the second half of 2010 and will result in higher demand for nickel.

LEAD-ZINC OUTPUT

European Goldfields Ltd holds a 95% interest in Hellas Gold SA, which operates the historical Stratoni polymetallic mine close to the coastal town of Stratoni in northern Greece.

The mine has historically produced 20Mt of ore containing up to 22% lead and zinc and 200g/t of silver.

Underground production resumed at the mine in 2005 and currently averages 950t/d, European Goldfields says. In 2009, the operation sold 37,123t of zinc concentrate and 17,001t of lead concentrate.

European Goldfields says ore production rates from the underground mine were lower than in 2008 due to unexpected poor geotechnical conditions, particularly in the upper levels and in previously mined areas found not to be backfilled. Grade was also affected by the poor geotechnical conditions, forcing the operation to mine lower grade areas, it adds.

The company is conducting ongoing exploration drilling around the existing mine to expand the resource.

NEAR-TERM GOLD

Greece also has the potential to become a near-term gold producer with a number of exploration companies active in the country.

European Goldfields received the preliminary environmental assessment and evaluation of its Greek gold projects from the Ministry of Environment, Physical Planning and Public Works in September last year.

This includes development of mining and processing at the Skouries gold-copper deposit and the resumption of mining and processing at the Olympias polymetallic deposit.

The pre-approval of the projects successfully concludes the major stage of assessment by the authorities and will lead to the preparation and submission of the environmental impact study and supporting studies required by Greek and European Legislation, the company said in its 2009 results.

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European Goldfields also plans to initially process 2.4Mt of stockpiled tailings arising from the previous operations at Olympias to produce approximately 350,000t of concentrates (containing 238,000oz of gold) over a three-year period. This will be followed by the resumption of underground primary mining operations at Olympias ramping up to production of approximately 450,000oz/y of gold equivalent by 2019, European Goldfields says.

At Skouries, European Goldfields has completed a feasibility study outlining potential annual production of 200,000oz of gold and 40,000t of copper for an initial capital cost of US\$300 million.

The project has total estimated proven and probable reserves of 146.2Mt at an average grade of 0.83g/t Au and 0.54% Cu.

Eldorado Gold Corp is developing the Perama Hill gold project through its wholly-owned subsidiary

Thracean Gold Mining SA. In March, Eldorado submitted a technical report on the project to the relevant authorities and it anticipates beginning construction at the property in 2011, at a capital cost of US\$159 million.

Once operational, Perama Hill is anticipated to produce 110,000oz/y of gold at a cash operating cost of US\$278/oz.

As of December last year, the project had estimated proven and probable reserves of 966,000oz.

The operation is expected to generate local investments of €160 million during the life of the mine, directly generating 200 new positions and a further 800 support jobs.

Australian-based Cape Lambert Resources Ltd, meanwhile, is developing the Sappes gold project in northeastern Greece. The company says it plans to add value to Sappes by completing the bulk of the project permitting, followed by divestment.

A 2003 feasibility study, updated in 2006, planned development of an underground mine at the high-grade Viper deposit and a nearby open pit at the St Demetrios deposit to produce 100,000oz of gold in doré and flotation concentrate over five years, with a cash operating cost of approximately A\$430/oz (US\$394/oz), Cape Lambert says.

The total mineral resource at the Viper deposit is 0.99Mt at 21.4g/t Au (including measured resources of 710,000t at 22.2g/t Au, and an indicated resource of 280,000t at 19.5g/t Au). The total mineral resource at the St Demetrios deposit is 0.8Mt at 3.4g/t Au (including measured resource of 730,000t at 3.5g/t Au, and indicated resource of 50,000t at 2.6g/t Au).

SUSTAINABLE DEVELOPMENT

The exploitation of Greek minerals in part depends on solving the chronic problems that currently affect the country's mining industry. These problems relate to the lack of integrated land-use planning, access to raw materials and the complexity of the permitting procedure.

Additionally, with various NGOs and local communities appealing against the permitting of mining activities, a major challenge for the industry is changing public opinion. The implementation of the principles of sustainable development is key to this.

The mining companies represented by the Greek Mining Enterprises Association have committed to a code of ten principles for sustainable development that predicts the continuous improvement of their economic, environmental and social activities. The principles will be measured and then published in the association's annual reports.

FUTURE OUTLOOK

Based on continuing market demand for raw materials, some good opportunities remain for the Greek mining industry. The impending adoption of a Special Spatial Plan for industry by the Greek government, which makes specific references to mining activities and mining operations for each prefecture and provide guidelines for its development, should be a positive development.

Furthermore, implementation of EU policies on raw materials in several key areas, in order to optimise and simplify the Greek regulatory framework, should also boost the mining industry.

The implementation of these policies, in combination with the shift of public opinion towards the acceptance of mining, should create a positive impact on the Greek mining industry and its future growth by offering substantial benefits to the Greek economy and the European and international community.