

ITALY

By a Special Contributor

Italy is a member of the G8 group of industrialised countries and has the world's seventh largest economy. In the north of the country, per capita incomes are amongst the highest in Europe although in some parts of southern Italy, where unemployment is high, the people are amongst the poorest. Last year, GDP is estimated to have grown by 2.5% and inflation by 2.4%. Italy possesses relatively few large multinationals but there are some 35,000 joint stock companies, often quite small and often family owned, and it is these which drive the economy, many having secured substantial shares of the global market for niche products.

The mining and extractive industries in Italy are dominated by the production of industrial minerals. It is one of the largest cement producers in the EU, an important producer of bentonite and montmorillonite clay (both mined mainly in Sardinia) and a significant producer of feldspar and feldspathic minerals. These are important constituents of ceramic tiles and Italy accounts for as much as 50% of EU output. Italy is famous for its marble, most notably for the white marble mined near Carrara in the Apuan Alps of Tuscany, but there are hundreds of quarrying operations spread across Italy exploiting coloured marbles. Other important industrial minerals products include pumice (on the island of Lipari off the north coast of Sicily), pozzolan and talc.

In the energy sector, Italy is entirely dependent on imports for its coal requirements, and heavily dependent on imports for its oil and natural gas needs. There is no hard coal production and lignite had formerly been produced at only one operation, the state-owned Santa Barbara mine in Tuscany. Last year, coal consumption met from imports amounted to the equivalent of 13.9 Mt of oil. There are natural gas reserves, particularly in the Po Valley, and last year

output was 15.5 billion m³, 4.6% less than in 2000. Consumption amounted to some 64.5 billion m³. Oil production was down by 11% to 4.1 Mt versus consumption of some 93 Mt. Some geothermal energy is produced in Tuscany and hydroelectricity is generated at several sites in alpine valleys in the north of the country, and in the Apennines. Consumption of hydroelectricity last year was the equivalent of some 12.5 Mt of oil.

Mining of metallic ore is minimal, mainly because of the depletion of ore reserves, but refining and smelting operations are important and rely on imported raw materials. Last year, mine production of base metals was limited to just 4,000 t of lead, according to the International Lead and Zinc Study Group. Refined production, however, amounted to 222,000 t. Refined production of zinc totalled 179,000 t.

As part of Italy's privatisation process in the resources sector, there have been substantial ownership changes in the lead-zinc sector in recent years. In Sardinia, the Porto Vesme lead-zinc smelting complex was sold by Enirisorse to Swiss-based Glencore International AG in 1999. Its annual production capacity is some 120,000 t of lead and 173,000 t of zinc. In 2000, Enirisorse sold the 100,000 t/y capacity Crotone zinc smelter to Zincocalabre SpA. By that time, loss-making Enirisorse, a subsidiary of state-owned ENI, was in liquidation. Zincocalabre was planning to expand capacity to 180,000 t/y.

Elsewhere in southern Italy, Enirisorse's sale in September 2000 of its Pertusola Sud zinc smelter to the Cogefin consortium, ran into problems early in 2001, when the European Union launched an investigation into the sale. The EU is examining aid given to Enirisorse since 1997 and the investigations could take over a year to complete. The Cogefin consortium

comprises Merloni Progetti, Finper and Ferrier Valsabbia, and Berzelius Umwelt Service. The partners planned to spend US\$235 million on the acquisition and on expanding the operational capacity from 100,000 t to 180,000 t. The government was to have contributed 50% of the required investment.

Italy produces primary aluminium at two smelters, a 144,000 t/y capacity facility at Porto Vesme and a 44,000 t/y operation at Fusina in northeast Italy. They are both owned by Alcoa and last year produced 149,000 t and 41,000 t of aluminium respectively. Both smelters source their alumina from the Eurallumina SpA refinery at Portoscuso on the west coast of Sardinia. Eurallumina is owned by Comalco Aluminium Ltd of Australia (56.16%) and Glencore (43.84%). Last year, output at the 1 Mt/y capacity refinery was restricted during August by technical problems. Alumina output for the full year totalled 975,000 t. Around 2 Mt/y of bauxite is sourced from Comalco's Weipa mine in Western Australia.

Eurallumina is supplying the Australian environmental specialist Virotec International with red-mud residue, produced as a by-product at Portoscuso, to produce its Bauxsol(tm) acid mine-water and heavy metal sequestration treatment material.

In the precious metals sector, it proved to be a busy year for Gold Mines of Sardinia Ltd (GMS). The company, originally based in Perth, Western Australia, is changing its

domicile to London. GMS began mining gold in southern Sardinia in 1997 at Furtei and produced 35,000 oz in its first year based on a modest oxide resource mined by open pit and using carbon-in-leach to recover the gold. The oxide is now largely depleted and during 2001, open-pit mining of primary sulphide began. This necessitated the installation of a flotation circuit and the production of a gold-rich copper concentrate. Teething problems saw output fall and operating costs rise sharply. By year-end, production had improved significantly, however, and in the first quarter of 2002, Furtei produced 5,880 oz of gold and 486 t of copper at an operating cost of US\$239/oz. With surface sulphide mining scheduled for completion by the third quarter of 2002, the company is carrying out a feasibility study in respect of underground mining.

In northern Sardinia, GMS has thus far been thwarted by legal action in its bid to commence trial mining under its current exploration licence at the Osilo project. GMS has an active exploration programme throughout Sardinia, however, and has identified a number of significant gold-bearing structures in Palaeozoic rocks, notably at Monte Ollasteddu and Torpe. A joint venture agreement has been signed with Barrick Gold Corp. to fund initial drilling at the former. Barrick can earn up to a 67.5% interest in Monte Ollasteddu by taking the project to the feasibility stage. The area of mineralisation crops out over an area measuring 1 km by 4 km as defined by soil sampling and channel sampling of multiple vein structures.