GHANA

By Joseph Yaw Aboagye

The government's main objective in 2003 was to consolidate the remarkable achievements chalked up during 2002. Against this background, economic policies were aimed at strengthening and sustaining economic growth, and reducing inflationary pressures, at the same time ensuring effective implementation of the poverty reduction programmes of the Ghana Poverty Reduction Strategy (GPRS).

The implementation of the 2003 budget was beset with some challenges, including: high and volatile world oil prices which necessitated the transfer of financial resources to the Volta River Authority (VRA) for the procurement of crude oil to enable it provide uninterrupted electricity to Ghanaians; and the continued restructuring of the Tema Oil Refinery debt, which posed a systematic risk to the domestic banking system.

Economic performance in 2003, notwithstanding the above challenges, was strong as a result of the hard work and prudent measures put in place by the government. All the key indicators pointed to a sound and vibrant economy.

Overall GDP recorded a growth rate of 5.2%, which exceeded the projected 4.7% for the year and was better than the 4.9% stipulated in the GPRS for the medium term. This was accounted for by 6.1% growth in the agricultural sector and 5.1% and 4.7% growth respectively in the industrial and services sectors. Growth in all three sectors showed a remarkable improvement over 2002.

Year-on-year inflation declined to 23.6% at the end of December 2003 after peaking at 30% at the end of April 2003.

The local currency, the cedi, remained relatively stable throughout the year depreciating by only 4.7% against the US dollar. The overall budget deficit was contained at 3.4% of GDP as against the target of 3.3%. Gross foreign exchange reserves were equivalent to 3.9 months of imports, the highest since the liberalisation of the foreign exchange market in 1990. Interest rates were lower, with the benchmark 91-day Treasury bill rate falling sharply, from a peak of 35.3% in June 2003 to 18.7% at the end of the year.

Total tax revenues exceeded expectations in 2003 as a result of measures taken to improve efficiency in tax administration, and expenditures were kept within budget ceilings.

In line with government policy to provide the basic data needed to promote investment and to strengthen the capacity of its agencies to carry out their functions efficiently, a €40 million grant was secured during the period under review from the European Union to undertake the following projects:

- institutional reinforcement and capacity building in the mining sector;
- geological data development including airborne geophysical survey of the entire Voltain Basin for mineral and other resources;
- mining environmental impact assessment to measure the effects of large-scale mining operations and future consequences of mine closures throughout the country in order to find appropriate solutions; and
- a feasibility study of the western corridor rail system to facilitate the transportation of the bulk minerals, ie bauxite and manganese for export.

Gold
Gold exploration and mining continue to be the focus of activities of the companies though the thrust of current government policy has been to diversify the mineral production base of the country, which has been hinging on gold, and to lesser extent diamonds, manganese and bauxite, to include the production of industrial minerals. Value addition has also been one of the current policies.

Thirty-four prospecting/reconaissance licences were granted to both Ghanaian and foreign-controlled companies, and valid exploration licences stood at 152 at the end of 2003.

Five of the 17 companies permitted to conduct mineral exploration in forest reserves applied for mining leases and received government approval to proceed with the process of securing the necessary permits for mining.

Ashanti Goldfields Co Ltd
Obuasi's total output fell by 4.5% to 513,163 oz (15,962 kg). The lower production resulted from production from lower grade bulk-mining blocks and grade control difficulties, as well as equipment availability problems. Production came from the Sulphide Treatment Plant (STP) for underground ore, the tailings re-treatment plant and the Oxide Treatment Plant (OTP), which processed open- pit ore from a number of small low-grade deposits and transition ores previously mined and stockpiled. Cash operating costs of US$217/oz compared with US$198/oz in 2002. The higher cost resulted from the spread of the fixed costs over a lower number of ounces produced, higher tonnage of material processed at lower grade and increases in fuel, power and labour charges.

Surface mining continued, with the development of the Kunka and Adubrem deposits and completion of the Homase open pit. Underground, exploration above 50 level was largely directed at infill and perimeter definition drilling of the mature exploration blocks at George Cappendell Shaft (GCS), Sansu and the BSVS areas. Deep exploration and development was directed at the establishment of new sites to the north of the presently-drilled areas, diamond drilling being used to test the extension of high-grade ore shoots in the Kwesi Mensah Shaft (KMS) and Adansi sections of the mine, and to target the northward extension of the mineralisation delineated from the 50S 131 south crosscut.

The company took a decision to commit a higher level of funding to accelerate the development and exploration activities required to expand and improve the confidence level in the mineral resources that will be included in the feasibility study for the Obuasi Deeps project. Engineering studies on ventilation requirements, alternative mining methods and the infrastructure options for the project were progressed, and schedules and capital and operating cost estimates updated to reflect more detailed levels of engineering.

At Iduapriem/Teberebie, gold production for 2003 was 243,533 oz (7,575 kg) representing a 32% increase over the previous year. The higher gold production was due to the increased mill throughput resulting from the upgrade of the processing plant. Cash operating costs increased to US$240/oz from US$232/oz in 2002, owing to high run-of-mine (ROM) rehandling charges and increases in the costs of labour, power, fuel and reagents.

At Bibiani, production fell by 12% to 212,716 oz (6,616 kg) at a cash operating cost of US$216/oz during 2003. The anticipated lower grade and the higher tonnage of refractory type ore arising from the pit explain the lower gold production. The underground trackless decline was advanced by approximately 1,200 m from the portal, to just below the base of the main pit. The ramp intersected 6.0 m at 7.5 g/t Au and two recent surface exploration holes drilled to the south of the ramp returned 12.5 g/t over 4.3 m and 10.5 g/t over 4.0 m. The old five level workings are being rehabilitated to allow for geological mapping and sampling of the mineralised zones to commence in the first quarter of 2004.

Mining operations continued at Mpasetia throughout the year and are expected to extend into 2004 following the discovery of additional resources and revaluation of the deposit using a higher gold price.

In 2003, the Siguiri mine in Guinea produced a total of 252,795 oz of gold at a cash operating cost of US$279/oz compared with the 269,292 oz at US$230/oz achieved in 2002. Production and costs were impacted by lower-than-expected metallurgical recovery rates from the ore stacked during the year, higher mined and processed tonnages, as well as by increases in power, fuel, labour and reagent costs. Following a geological mapping review, exploration drilling was targeted at a new shear corridor striking approximately north-south through the Kosise and Soloni pits. Drill results along the zone linking the pits have demonstrated the continuity of mineralisation along the strike and resulted in an increase in mineral resources in this area. Further drilling is programmed to test the extensions of this corridor to the north and south in 2004.

Full year production at the Freda-Rebecca mine in Zimbabwe in 2003 was 51,091 oz at a cash operating cost of US$268/oz compared with 98,255 oz at US$214/oz achieved in 2002. The decline in production was a result of low availability of drill rigs and drilled reserves occasioned by a challenging environment. The high cash operating costs reflect the lower gold production from the operation. In September, the mine was re-engineered around a plan to rehabilitate the mining fleet and re-build the developed and drilled ore reserves to adequate levels to support a stand along 80,000 t/mth underground operation producing around 60,000 oz per annum.

The 50%-owned Geita mine in Tanzania produced a record 661,045 oz at a cash operating cost of US$170/oz in 2003, compared with 579,043 oz at US$163/oz in 2002. The upgrade of the crushing and leach tank sections of the processing plant was successfully commissioned in the first quarter of 2003 and the capacity of the plant was increased from 4 Mt/y to 5.6 Mt/y.

Golden Star Resources Ltd

Colorado-based Golden Star Resources Ltd holds a 90% equity interest in the Bogoso/Prestea open-pit gold mine and the Wassa gold project. The company also has a majority interest in the currently inactive Prestea underground mine in Ghana as well as exploration interests elsewhere in West Africa and in the Guiana Shield of South America.

The Bogoso/Prestea open-pits are operated by Golden Star's subsidiary, Bogoso Gold Ltd (BGL). The company produced 174,315 oz (5,422 kg) in 2003, which represents an increase of 40.12% over that of the previous year. The increase was as a result of improvements in ore grades and gold recovery. The Bogoso mill processed an average of 5,736 t/d of ore, down from 6,000 t/d in 2002. Processing rates were reduced to optimise recoveries from the higher-grade feed material. The slower processing rate combined with a gravity circuit installed in 2001 combined to push gold recovery up to 81% as against 74% in 2002. All the feed to the Bogoso mill during 2003 came from the North pit on the Prestea property. The company plans to expand mining and processing operations at Bogoso/Prestea by constructing a second processing plant near Prestea, converting the existing Bogoso mill to process refractory sulphide ores using bio-oxidation technology and expanding the mining fleet to feed the enlarged mill complex.

Following the successful completion of a feasibility study for the Wassa gold project in July 2003, a lump sum contract was awarded to a South African contractor for the construction of a 10,000 t/d carbon-in-leach mill and infrastructure at Wassa. Construction and development costs at Wassa are projected at US$25.5 million, with an approximate US$15 million of capital needed for a mining fleet scheduled in late 2004. Gold production for the initial one and half years will come from the reprocessing of existing heap leach pads supplemented by higher-grade ore from the open pit. Some of the Bogoso/Prestea mining equipment will be utilised for mining. Full scale mining will commence in the second half of 2005 once the Wassa heap leach material is exhausted. Wassa is expected to produce annually an average 140,000/oz at cash cost ranging between US$200 and US$210/oz.

The company completed the compilation of a mine-wide digital plan for the Prestea underground mine in 2003, with more detailed digitising and structural mapping still taking place in areas of specific interest. This project involved the examination of over 100 years of mining and geological records, the resulting electronic database being used to identify unmined zones to gain a better understanding of the potential of the Prestea gold system.

Golden Star acquired the Asikuma and Mansiso exploration properties from Birim Goldfields Inc in 2003 for US$3.4 million plus a net smelter return royalty. This followed the successful acquisition of the Mampon project from Ashanti Goldfields Co Ltd.

In 2003, the company entered into joint venture agreements whereby it has the right to earn an interest of 51-82.5% in the Minako gold property in Mali and an interest of 51-85% in three properties in Sierra Leone totalling 500 km^2, subject to Golden Star meeting certain expenditure commitments.

Gold Fields (Gh) Ltd
At the Tarkwa mine, production in 2003 increased by 7.32% to 561,8910oz (17,474.65kg). This increase is attributed to the optimisation of the crushing and heap-leach plants. Also, considerable effort was placed on reducing the gold-in-process (GIP) at both the North and South heap-leach facilities and to this end a US$3 million solution handling system and gold recovery plant upgrade was implemented to increase irrigation times from 270 days to 450 days. This project also contributed to the increase. The heap-leach-pad expansion project cost the company US$11 million. In January 2003, it completed the Tarkwa expansion project feasibility study. Following from the study, the company intends to invest US$159 million in the construction of a new 4.2 Mt/y SAG mill and CIL facility and the conversion from contract mining to owner mining. The investment is expected to increase ore mining and treatment rates to over 19 Mt/y and, initially, increase annual gold production by 200,000 oz. The project is expected to be complete by the end of 2004.

At the Damang Mine, where the company operates under the name Abosso Goldfields Ltd (AGL), gold production for 2003 fell by 1.3% to 302,847 oz (9,420 kg). This marginal decline in gold production was caused partially by a planned mill maintenance shutdown during the year and a gradual decline in head grades in line with the depletion of the Damang pit ore reserves. During the year under review, Gold Fields accelerated exploration activity with the objective of proving both Tarkwa- and Damang-style deposits across the Damang lease area.

Bonte Mines Ltd
The company operates the only alluvial mine in the country and produced 43,516 oz (1,354 kg) in 2003 as against 46,055 oz in 2002 (a fall in production of 5.5%). Production levels at the Bonte mine have remained low, owing to the shortage of dependable, operating mining equipment and the low grade of the alluvial material that was mined during the year.

The exploration programme implemented by the company was cancelled because of lack of funds and therefore new areas of high grade could not be identified.

Small-scale gold mining

Production by small-scale gold miners increased by 38.46% to 222,762 oz (6,929 kg). This good performance by the miners may be due to the excellent delivery of extension services to these miners in improved mining and processing techniques

Diamonds

Total diamond production fell by 6.2% to 904,089 ct, and consisted of 746,925 ct from small-scale and medium-sized mines, and 157,164 ct from Ghana Consolidated Diamonds Ltd (GCD) – the only large-scale diamond mining company in Ghana. The divestiture of the company's Akwatia mine has not been successful and the government is still looking for a strategic investor to take over the mine.

Bauxite

Ghana Bauxite Co is the only company mining bauxite in the country, at Awaso. Production for 2003 fell by 27.64% to 494,716 Mt. The performance of the company depends to a large extent on the efficiency of the railway system and during the period under review the company had problems with the Ghana Railway Corp over tariff increases, which affected the company's production.

Manganese

Ghana Manganese Co is the only company mining manganese in Ghana. The company's mine at Nsuta increased production by 32.9% to 1.51 Mt in 2003. The production trend has been positive since the company took over from the erstwhile Ghana Manganese Corp in 1995, when output for that year was just 7,542 t.

Tables following page.

Gold production (kg)

	2001	2002	2003
Ashanti Goldfields			
Obuasi	16,437	16,710	15,962
Ayanfuri	358	-	-
Iduapriem	6,380	-	-
Bibiani	7,871	7,541	6,616
Teberebie/GAG	-	5,761	7,575
Ashanti Total	**31,046**	**30,012**	**30,153**

Bogoso Gold Ltd	2,7010	3,869	5,423
Small-scale mines	5,773	5,004	6,929
Bonte Gold Mines	2,031	1,433	1,354
Gold Fields (Ghana)	15,685	16,283	17,475
Prestea Sankofa	257	70	-
Resolute Amansie	3,385	3,187	-
Abosso Goldfields	9,411	9,544	9,420
Ghana Consolidated Diamond	42	4	5
Prestea Gold Resources Ltd	390	-	-
Satllite Goldfields Ltd	2,171	133	-
TOTAL	**72,901**	**69,537**	**70,756**

Other Minerals

	2001	2002	2003
Diamonds (ct) GCD	196,600	171,585	153,992
Small/medium mines (ct)	973,032	791,907	746,925
Diamond Total (ct)	**1,169,632**	**963,492**	**904,089**
Bauxite (t)	687,445	683,653	494,716
Manganese (t)	813,329	1,135,828	1,509,432

