TURKEY

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Turkey is located at a point where three continents – Asia, Africa and Europe are closest to each other, and straddles the divide between Europe and Asia. Because of its geographical location, the mainland of Anatolia has always found favour throughout history, and is the birthplace of many great civilisations. It has also been prominent as a centre of commerce because of its land connections to three continents and the sea surrounding it on three sides. In recent years, economic and commercial relations between Turkey and the US have developed into a mutually beneficial partnership. The importance of Turkey vis-à-vis the US has been steadily increasing, not only as a lucrative market for US exports, but also as a reliable prospective partner for joint projects and investments in Turkey and in third party countries. The US Commerce Department has designated Turkey as one of the world's ten 'Big Emerging Markets'.

In 1999, Turkey was included in the newly- established G-20 group along with other major dynamic emerging economies. Turkey has been a full member of the EU Customs Union since 1996. The EU formally designated Turkey as a candidate for full membership at its Helsinki Summit in December 1999. Currently, the Government of Turkey is engaged in harmonising its legislation and institutional basis to match EU standards and requirements. Both remain committed to expanding and diversifying further the scope and content of their economic and commercial relations.

The US Government has expressed strong support and commitment to the implementation of the strategic Baku-Tiflis-Ceyhan oil pipeline, which will be an important component of the Euro-Asian energy transportation network in the 21st century. Turkey and the US are exploring the possibility of creating 'Qualified Industrial Zones' in Turkey, with special investment and trade incentives to expand commercial relations between the two countries. The Turkish Government is implementing an ambitious structural reform and economic stabilisation programme with the support of international financial institutions including a stand-by agreement with the IMF. The Turkish Grand National Assembly approved numerous legislative changes, paving the way towards broader integration of the Turkish economy with the global economy.

Economic overview

Turkey has become very experienced in preparing stabilisation programmes during the past decade. Unfortunately, this success in theory and diagnosis, has yet to be put into practice and the fact that problems are known in advance but the solutions are not implemented is a source of widespread public discontent. Nevertheless, at the end of 2002, the response of the markets to Turkey's single-party government led by Tayyip Erdoğan were better than expected. But continued support for the new government will be conditional upon decisive action being taken to implement much-needed economic reforms.

In the first half of 2002, especially during the second quarter, GDP grew appreciably and after slowing in 2001, GDP for full year 2002 grew by 7.8%, far better than expected. Inflation rates fell to historic lows. However, on the debt side, the country's total debts increased to US$146.6 billion. IMF credits accounted for 13% of the total, and domestic and foreign debts accounted for 29% and 19% respectively. Exports and imports both rose strongly in 2002 with foreign trade reaching unprecendented levels. During the January-October period, exports reached a record US$28.3 billion and accelerated because of sluggish domestic markets. They were also encouraged because the appreciation of the euro created a price advantage for Turkish exporters. Over the same period, however, imports also rose, posting a 15.5% increase to US$39.7 billion. Accordingly, the foreign trade deficit soared by 33.3%. Over the full year, exports increased by 12%, compared with US$35.1 billion in 2001, whereas imports rose by 22.8% to US$50.8 billion.

The government expects GNP growth to be 5% in 2003; inflation is targeted to decline to 17.4% in terms of WPI and 20% in terms of CPI by the end of 2003. Exports and imports, on the other hand, are expected to reach US$39.2 billion and US$54.7 billion, respectively, in 2003. Finally, the current account is projected to yield a deficit this year of US$3.5 billion.

Turkey's minerals sector is one of the leading sectors supplying raw material to basic industries and also acts as an impetus for other sectors (Table 2). The country possesses an estimated 2.5% of the world's industrial minerals resources, including 62% of global borax resources, 20% of bentonite and more than 50% of perlite. The main products of the minerals sector include natural borates and concentrates, natural stone, ferro-chromium, chromium ores, copper ores, magnesite, zinc ores, feldspar, pumice stone, kaolin and other clays.

Ferrous and non-ferrous metals

Ferrous and non-ferrous metals constitute Turkey's most important mineral products and the development of the iron and steel industry more than 70 years ago has been the basis of the country's industrialisation effort. The first iron and steel factory was built for military purposes in 1928. The first integrated iron and steel plant, Karabuk Iron and Steel Works (Kardemir), was built in the Zonguldak region in 1937. Eregli Iron and Steel Works, built in 1961 with a 2.8 Mt/y capacity, is the main flat-rolled steel producer. The third biggest integrated producer is Iskenderun Iron and Steel Works (Isdemir) with a capacity of 1.6 Mt/y. The first electric arc furnace began operating in 1960 and in the following 20 years a number of private sector iron and steel plants were developed. Turkey relies on imports of iron-ore concentrates.

In the non-ferrous sector, the Cayeli high-grade copper and zinc mine in northeastern Turkey, 55%-owned by Inmet Mining Corp. of Canada, is now one of the lowest-cost underground mines in the world, with operating costs consistently in the US$0.40-US$0.45/lb range. Last year, the mine milled

895,000 t of ore at an average grade of 4.2% Cu and 5.1% Zn and produced 32,600 t of copper and 33,100 t of zinc. Reserves of polymetallic sulphides are sufficient for a further 13 years of mining at current rates. In April this year, Inmet announced that its 55%-owned subsidiary and operator of the Cayeli mine, Cayeli Bakir Isletmeleri AS (CBI), would purchase 100% of the shares of Teck Cominco's wholly-owned Turkish subsidiary, Teck Cominco Madencilik Sanayi AS (TCM). TCM owns the Cerattepe property, host to a near-surface gold-silver deposit. It is located by highway some 200 km from Cayeli and existing infrastructure will be used to add some 20,000 t/y of additional low-cost copper to Cayeli's production.

Teck Cominco has completed some 33,875 m of core drilling at the property and spent around C$17 million on feasibility work. Cerattepe possesses probable reserves of 3.0 Mt of oxide averaging 4.2 g/t Au and 151 g/t Ag, plus 3.7 Mt of sulphide averaging 5.2% Cum 1.2 g/t Au and 117 g/t Ag. There is a further oxide resource in the indicated category amounting to some 5.2 Mt averaging 3.8 g/t Au and 117 g/t Ag, plus 0.2 Mt of sulphide averaging 5.2% Cu. The high-grade copper reserve amounts 1.32 Mt averaging 10% Cu, 0.5% Zn, 1.3 g/tAu and 29 g/t Ag. CBI will undertake a feasibility study based on building a ramp down to the high-grade ore and mining around 250,000 t/y of ore which will be trucked to Cayeli for processing.

Chromite mining in Turkey is carried out by Eti Holding but the production of chromite fluctuates with the price. The capacity of seventeen main Turkish chromite concentration plants is approximately 800,000-850,000 t/y.

Precious metals

Turkey's first modern gold mine, at Ovacik, about 100 km north of Izmir in eastern Turkey, poured its first gold in May 2001 after more than ten years of exploration, construction and environmental permitting by Normandy Mining and its predecessors. The operation is now 100%-owned by Newmont Mining Corp. of the US and in the first six months of 2002 the mine processed some 170,000 t of ore averaging 12.7 g/t for the production of 52,400 oz of gold. Full-year sales were forecast at 100,000 oz and cash costs were estimated at US$150/oz. Newmont is spending around US$1.0 million on annual exploration in the mine vicinity.

Mining of the gold-bearing epithermal quartz veins at Ovacik is thought to date back to Roman times and the modern operation and will be from open pit for the first three years and thereafter from underground. The operation utilises a 300,000 t/y capacity mill and a gold recovery plant. To overcome environmental issues, the plant incorporates what Newmont describes as a unique cyanide destruction system for processing fluids, asealed tailings pond and a zero discharge sytem for waste water. The operation employs a workforce of 370.

With Ovacik now in production, there is greater incentive for further gold exploration. A number of international companies are active and an estimated 509 t (including reserves under operation or ready-for-investment) of resources have reportedly been identified in nine deposits.

Energy
Turkey's energy resources are quite diversified and include hard coal, lignite, asphaltite, oil, natural gas, hydro and geothermal. Oil and natural gas reserves are limited and almost all of Turkey's proven oil reserves lie beneath southeast Anatolia. The major part of Turkey's proven natural gas reserves are in Thrace and lesser quantities in southestern Anatolia. Coal reserves are substantial, and lignite has the biggest share in primary energy production, contributing 43% of the total, with oil at 13% and natural gas at just 1%. However, oil has the biggest share in terms of total primary energy consumption, at 44%, while natural gas has a 12% share.

Due to the efforts to diversify energy supply, the consumption of imported natural gas has risen rapidly. Natural gas consumption is currently running at 6.8 billion m^3 per year but is expected to increase at a rate of 11% annually and to reach 31 billion m^3 by 2010, by which time it will account for 18% of total primary energy consumption. In 2002, 11.6 million m^3 of natural gas was imported from the Russian Federation, including 6.42 million m^3 imported through TURUSGAZ. Around 4.08 million m^3 and 1.27 million m^3 of liquified natural gas were imported from Algeria and Nigeria, respectively, plus 0.67 million m^3 from Iran. Approximately 17.38 million m^3 of natural gas was sold to the power, fertiliser, industrial, residential and commercial sectors in 2002 (Table 3).

Annual oil consumption is around 28.3 Mt of which 82% is imported. Oil consumption has increased in recent years, and this trend is expected to continue. The major suppliers of crude to Turkey are Saudi Arabia, Iran, the United Arab Emirates, Libya and Russia. Oil refining in Turkey is dominated by state-owned Turkish Petroleum Refineries (TUPRAS), which has four main refining complexes: Batman in the southeast; Aliaga near Izmir; Izmit near Istanbul; and Kirikkale near Ankara in central Anatolia. Turkey's only private refinery is ATAS, near Mersin on the Mediterranean coast, a joint venture between British Petroleum, Shell and local company Turcas Petrolcülük. The total capacity of these five refineries is 32 Mt/y.

Production of lignite in 2002 amounted to 60-65 Mt (reserves are some 8,400 Mt) and production of hard coal totalled 2.6 Mt (reserves of 1,100 Mt). No new developments can be reported with regard to solid fuels, energy efficiency or renewable energies during 2002. Turkey does not operate any nuclear power plants.

Acknowledgements
The author would like to thank the General Secretariat of the Istanbul Mineral and Metals Exporters' Association (IMMIB) and the State Planning Organisation for statistical data (2001-2002). Thanks, also, to Dr M. Dulupcu for his kind contributions. The article draws on data from the State Planning Organisation (April 2003), the State Institute of Statistics (April 2003) and the Ministry of Energy and Natural Resources (April 2003).

Table 1. Turkish Foreign Market Values

Sectors	2001 US$ '000	2002 US$ '000
Exports		
Agriculture/forestry	2,231,100	1,999,354
Fishing	28,342	43,555
Mining/quarrying	338,041	347,582
Manufactures	28,565,090	32,656,784
Others	23,856	33,846
Total	31,186,430	35,081,121
Imports		
Agriculture/forestry	1,411,339	1,669,223
Fishing	879	1,199
Mining/quarrying	6,713,350	7,178,112
Manufactures	32,180,558	41,573,695
Others	200,472	409,472
Total	40,506,599	50,831,702

Source: State Institute of Statistics (SIS), Turkey

Table 2: Mineral Production and Reserves (2001)

Group/mine	Reserves (t)
Gold	400
Alunite	4,000,000
Antimuan	106,306
Asbestos	29,646,379
Asphhalt	74,370,000
Copper	2,279,210
Barite	35,001,304
Bentonite	250,543,000
Schist	1,641,381,000
Bauxite	87,375,000
Boron	1,805,709,953
Mercury	3,820
Zinc	2,294,479
Iron	149,925,000
Diatomite	44,224,029
Dolomite	15,887,160,000
Feldspar	239,305,500
Phophate	70,500,000
Fluorite	2,538,000
Graphite	90,000
Silver	6,062
Kaolin	89,063,770
Rock Salt	5,733,708,017
Clay (Cer.+Ref)	354,362,650
Chrome	25,931,373
Lead	860,387
Quartz	1,307,414,250
Quartzite	2,270,287,821
Sulphur	626,000
Lignite	7,964,982,000
Meer schaum	(sandık) 1,483,000
Manganese	4,560,000
Magnesite	111,368,020
Marble	5,161 million m^3
Perlite	5,690,027.600
Pumice	(m^3) 1.479.556,876
Sepiolit	13,546,450
Sodium Sulphate	16,536,000
Stronsium	665,082
Talc	482,736
Coal	1,126,548,000
Thorium	380,000
Trona	233,317,680
Uranium	9,137
Wolfram	36,719
Zeolite	19,923,750
Emery	3,725,082

Source: General Directorate for Mineral Research and Exploration (MTA), Turkey

Table 3: Natural Gas Sales in 2002 (Million m^3)

Power	11.63
Fertilisers	4.97
Industry	2.28
Residential	2.97
Total	**17.38**