

**Bolivia**

**Key data**

Area (sq km):	1,098,580
Population (million):	8.14
Population per sq km:	7.41
Capital:	Sucre, La Paz*
Population of capital:	1.5 million
Language:	Spanish
Exchange rate:	
- spot rate (19/09/00) BOB = USD1	6.25
- annual average (1999) BOB = USD1	5.79
GDP 1999 (USD billion):	7.92
GDP per capita 1999 (USD):	973



*\*Sucre is the legal capital while La Paz is the administrative centre and seat of the government.  
Sources: DTI, INE Bolivia*

**Political and economic profile**

Bolivia has been called the most stable country in Latin America, boasting a model democracy, but this reputation has in recent times been threatened by mounting social unrest. The country, one of the poorest in South America with a GDP per capita of just USD973 in 1999, has been in the grip of economic recession for a number of years, resulting in discontent and increasing public protest. September 2000 saw a pay dispute lead to a serious teachers' strike, which, thanks to support from Bolivia's main trade union Central Obrera Boliviana (Bolivian Workers' Central), brought about general strike action. While strikes are not unusual in Bolivia, the most recent industrial action is believed to have been the country's biggest since the accession to power of former military dictator President Hugo Banzer three years ago. The underlying aim of the general strike is to change what the trade unions refer to as the government's 'economic starvation politics'.

The Bolivian economy is slowing; GDP growth stood at 3.5% in 1999, having averaged 4.75% throughout the nineties. Analysts are anticipating growth of just 2% for 2000, well below than the government's original forecast of 4.5%. GDP growth was adversely affected by the 15% reduction in Bolivia's earnings from exports, a drop mainly due to the ending of natural gas sales to Argentina. It is hoped that the projected increase in gas exports to Brazil in the coming years will aid economic recovery. Bolivia's inflation rate, which stood around 3.4% in 1999, is predicted to rise to 6.2% over the course of 2000. The government has stated its intention to focus on the nation's tourist industry in a bid to boost the economy; over the next five years it plans to triple the USD200 million earned by tourism in 1999.

Dialogue 2000, a national body established by the president to find ways out of the recession and economic crisis, has not managed to counter accusations from the populace that the government is not doing enough to combat issues such as unemployment, low salaries and poverty. According to the World Bank, 70% of the nation's population is considered to be on or below the poverty line while the remainder enjoys relative wealth. Unemployment has risen sharply, from 8% in 1998 to 10% at the end of 1999. President Banzer has called on opposition and business leaders to come up with emergency measures to help combat the weakening economy; a new package could be announced by the end of September.

Bolivia is the only South American nation which is a member of both the Andean Pact and Mercosur trading blocs. In June 2000 the members of the Andean Pact, Bolivia, Peru, Ecuador, Colombia and Venezuela, announced their intention to speed up the process of economic integration. Bolivia is still only an associate of Mercosur, whose other members are Argentina, Brazil, Chile, Paraguay and Uruguay; it will become a full member in 2006.

**Regulations**

<b>Regulatory body:</b>	Superintendencia de Telecomunicaciones (Sittel)		
<b>Date of liberalisation:</b>	Local telephony:	24 November 2001	
	Long-distance telephony:	24 November 2001	
	International telephony:	24 November 2001	

**Market commentary**

The Telecommunications Law 1995 guarantees Empresa Nacional de Telecomunicaciones (Entel) a monopoly on national and international long-distance services and gives 15 cooperatives exclusivity in the local loop until 24 November 2001, when both markets will be opened to competition. In June 2000 the Bolivian government announced that it planned to begin issuing long-distance and international licences by the end of the year; telecoms regulator Sittel is in the process of drafting regulations governing billing, interconnection and universal availability of service. The government is expected to require all new licensees to pay a percentage of annual revenues into a fund designed to cover the cost of rolling out telecoms infrastructure in rural areas.

Entel plans to enter the local telephony market in competition with the regional cooperatives as soon as regulations permit; as it stands it is only permitted to install main lines in parts of the country where the cooperatives are not present and at the end of 1999 it controlled just 3.4% of the main lines in service. Meanwhile the four largest local operators - Cotel, Cotas, Comteco and Cotes - which between them account for around 80% of all main lines installed, are planning to launch a long-distance service in competition with Entel via Teledata, Cotas' data transmission company. At the same time the four are undergoing a restructuring programme aimed at transforming themselves from cooperative status into joint stock companies, which will allow them to seek investment from foreign investors. They plan to use the funds generated from the sale of equity stakes to build a fibre-optic and satellite-based transmission backbone at an estimated cost of USD80-USD100 million. According to preliminary plans, a fibre-optic network will link the larger local cooperatives in western Bolivia while satellite connections will link the smaller telcos operating in the cities of Trinidad, Cobija, Riberalta and Guayaramerin.

According to Sittel at the end of 1999 there were 502,483 fixed lines in service, up from 452,138 twelve months earlier; 162,000 of these are in La Paz, 128,000 in Santa Cruz but just 2,000 in the Pando region. There is considerable excess capacity within the network, with total capacity standing at 652,000 by January 2000. Fixed line teledensity increased during 1999 from 5.69% to 6.18%; digitalisation of the fixed line network stands at between 85% and 93% depending on the cooperative.

**Main players**

**Entel**

Entel was capitalised in September 1995 when a 50% stake in the company (and full management control) was offered to whichever international telco guaranteed the largest investment in Entel over a six-year period. Telecom Italia emerged

<b>Facilities-based licensees</b>				
<b>Operator</b>	<b>Date licensed</b>	<b>Operating licence</b>	<b>Network</b>	<b>Local telephone subscribers</b>
Entel	1995	Local (rural areas only), long-distance, international	PSTN	18,600
15 local cooperatives	1985	Local	PSTN	483,883
Total number of telephone subscribers (end 1999):502,483				
Teledensity (end 1999): 6.18%				

as the winner with a bid of USD610 million; the remaining was distributed among many domestic investors. Although at the time Telecom Italia's offer was thought to be in excess of what was expected, at the end of 1998 the Italian PTO announced that it was to increase this figure to USD810 million, USD98 million of which was set aside for investment in 1999. By the end of 1999 Entel had approximately 450,000 customers using its long-distance and international service, more than double the number in 1995, making 240 million minutes of calls during the year. Entel's prospective customer base is currently limited to those connected to the networks of the local cooperatives; to combat this the company has begun installing its own direct links to the premises of major business customers, giving them access to national and international circuits whilst avoiding a contravention of the local loop monopoly regulations.

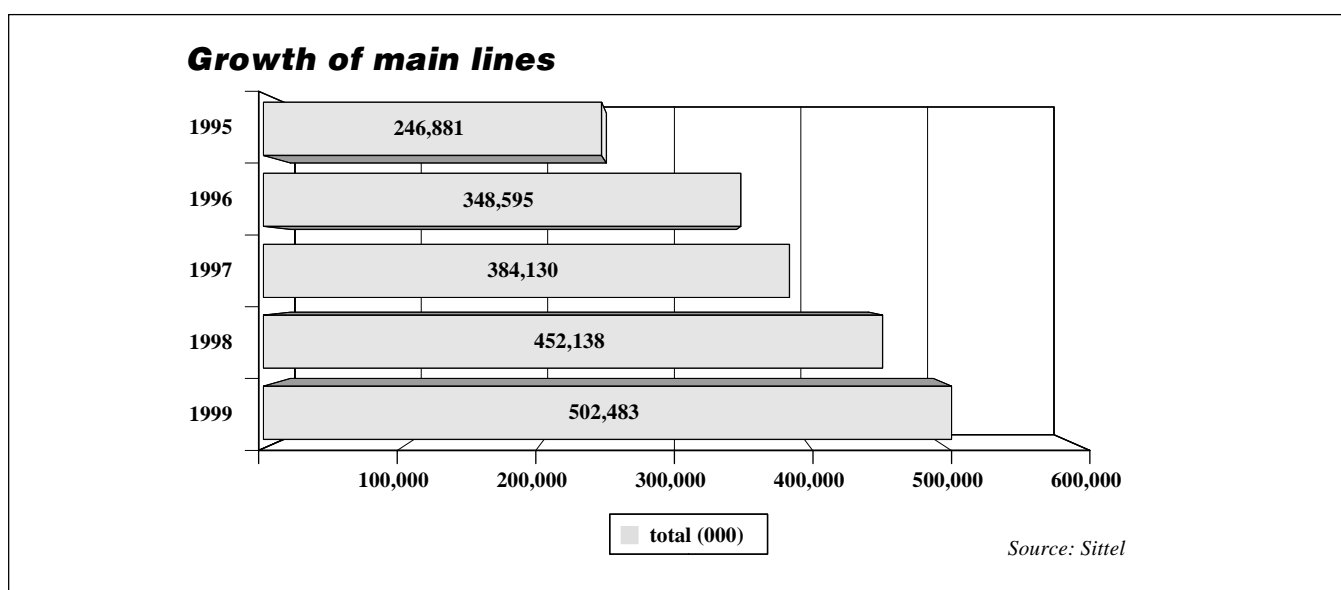
While the local cooperative operators are able to claim a monopoly in the local loop in Bolivia's major towns and cities, the government has allowed Entel to construct networks in rural areas where the cooperatives have not rolled out their infrastructure. Like telcos in other Latin American countries, Entel has opted for a wireless in the local loop (WiLL) system to boost the low penetration rates in sparsely populated regions. By the end of 1999 it had approximately 18,600 local customers, up from 16,204 twelve months earlier. The company claimed that by July 2000 it had connected 1,181 villages to the PSTN, up from just 229 in 1995. Entel plans to enter the local telephony market in metropolitan areas from November 2001 and is aiming to install lines free of charge. It had looked likely that Entel would simply buy its way into the local market: in January 2000 Entel shareholder Telecom Italia, Spanish utility Unión Fenosa and Bolivian media company Garafulic announced plans to purchase Comteco, a local telco with responsibility for around 20% of the country's main lines, but discussions quickly ended when Comteco revealed that it was planning to join three other local operators to form their own long-distance company.

As part of Telecom Italia's plan to create an international traffic hub in Bolivia, Entel has been busy upgrading links with its neighbours. In July 1999 it announced that fibre-optic connections with Chile, Peru and Argentina had entered service, adding 1,200km to its existing 2,000km domestic infrastructure which runs between the cities of Cochabamba, La Paz, Oruro, Potosí, Santa Cruz, Sucre and Tarija. Further international links to Brazil and Paraguay are due to be completed during 2000.

Entel is owned by Telecom Italia (50%), with the remainder held by distributed shareholders.

**Local cooperatives**

While Entel dominates the long-distance markets, the local sector is controlled by the 15 regional cooperatives - Cotel, Cotas, Comteco, Coteor, Cosett, Cotes, Cotap, Coteautri, Coteco, Cotabe, Coteri, Cotevalle, Cotegua, Cotemo and Cotevi - which operate networks in the country's main cities and towns. Subscribers pay approximately USD1,500 to have a telephone line installed, and this gives them a share in the ownership of the company.



The largest of the cooperatives, with around 160,000 main lines in service at the end of 1999, is Cooperativa de Teléfonos de La Paz (Cotel), which offers services in the capital. At the start of 1999 Cotel revealed plans for a USD100 million capitalisation and began the search for a strategic partner to take control of the company. However, despite interest from both domestic and international telcos, no offers had been received by the July closing date, forcing the company to postpone its plans. Potential bidders Entel and Telia of Sweden were discouraged by what they saw as an excessive valuation, particularly given the size of the company's debts which totalled approximately USD44 million. Cooperativa de Teléfonos de Santa Cruz (Cotas) and Cooperativa Mixta de Telecomunicaciones Cochabamba (Comteco) are the next largest local operators in terms of subscribers with 125,000 and 105,000 respectively at the end of 1999.

<b>Regulations</b>	
<b>Regulatory body:</b>	Superintendencia de Telecomunicaciones (Sittel)
<b>Recent regulatory developments:</b>	In November 1999 a PCS licence was awarded to US operator Western Wireless, making it the nation's third licensed cellular operator. There have been no regulatory changes in Bolivia since 1995.

**Market commentary**

Sittel was formed by the Bolivian government in 1995, shortly after the introduction of the new Telecommunications Law. Its objective is to ascertain that the nation's telephony services contribute to efficient economic development, to guarantee universal access to services and to ensure effective legal protection for customers, companies and the state.

Until November 1996 there was just one mobile operator in Bolivia, Telefónica Celular (Telecel). The nation is now home to three cellular operators although only Telecel and rival Entel are currently offering services; newcomer Nuevatel is planning for its commercial launch in late 2000. The government had originally planned to auction three PCS licences but reduced the number to one when fears were expressed that the market could not support five licensees.

**Main players**

**Telecel**

Telecel launched mobile services in November 1991. The company's start-up was slow; it initially covered only La Paz and over the first five years signed up just 19,000 subscribers. But an intensive rollout programme during 1997 led to subscriber growth and by mid-2000 it had widened its lead over its only competitor, Entel, claiming 286,013 subscribers.

The company launched its digital network on 10 July 1999. Problems arising from conversion to digital, largely connection difficulties and network congestion, led to numerous customer complaints and although the faults were rectified Telecel's failure to inform Sittel of the changes to its network contravened the 1995 Telecommunications law. The company was fined but continued to roll out its digital network which was finally completed in March 2000, at which time Telecel committed itself to the inauguration of six digital cells in La Paz and a further three analogue cells to alleviate congestion.

Telecel is wholly owned by Millicom International Cellular.

<b>Main operators</b>							
<b>Mobile telephony</b>							
Operator	Network	Launch date	Subscribers		% change	% pre-paid	WAP/ GPRS launched?
			End 1998	End 1999			
Telecel	AMPS/ TDMA	1991	123,000	242,461	97%	-	WAP
Entel	AMPS/ DAMPS	1996	116,000	145,000	13%	-	WAP
Nuevatel	PCS	2000	-	-	-	-	mid-2001
Cellular penetration:			3.07%	4.98%			
Total number of mobile subscribers:			239,000	387,461	<i>Source: operators</i>		

**Entel**

Despite its competitor's five-year start, Entel had taken over Telecel's market leadership within a year of its commercial launch. By the end of 1997 Entel claimed 65% of Bolivia's cellular subscribers, citing the experience of parent Telecom Italia as a major factor in its speedy start-up. However, by the end of the following year Entel's share had fallen to 48% and twelve months later it had dropped behind even more, claiming just 145,000 subscribers to Telecel's 242,461. Part of the reason for this could be its rival's conversion to digital technology. Entel has not released subscriber numbers for mid-2000. In September 2000 Entel announced that it sells an average USD928,000 worth of pre-paid mobile cards per month.

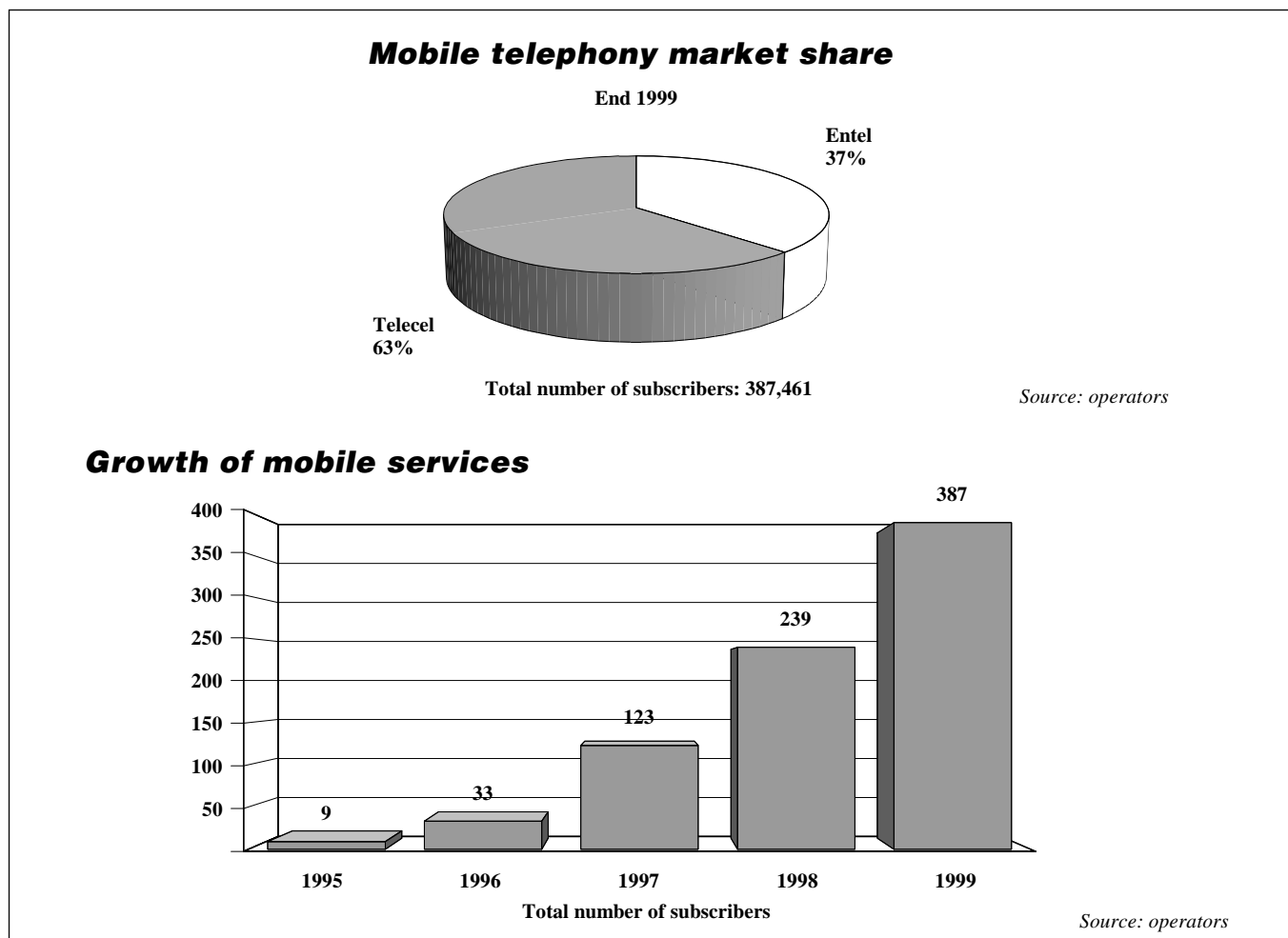
Entel is owned by Telecom Italia (50%). The remainder is distributed share ownership.

**Nuevatel**

Seattle-based Western Wireless won the one PCS concession on offer in November 1999, paying USD15.4 million, and formed a partnership with Bolivian operator Comteco which provides fixed line and internet services in the city of Cochabamba. In January 2000 Comteco embarked upon a search for a strategic partner to assist with its own fixed line operations but was forced to call the procedure off when a consortium involving Entel was the sole bidder; the rules stated that at least three offers had to be made for the process to go ahead. Comteco tried again in March 2000, hoping that its share in Nuevatel would make the package more attractive, but to date no partner has been found.

In September 2000 Nuevatel announced that it would launch commercial services in late November 2000. Nokia and Logica are in the process of deploying the GSM-1900 network. Initially services will be launched in La Paz, Cochabamba and Santa Cruz, although the second phase, planned for mid-2001, will see the network extended to other cities and the introduction of WAP and GPRS services.

Nuevatel is owned by Western Wireless (55%) and Comteco (45%).



**Regulations**

**Regulatory bodies:** Superintendencia de Telecomunicaciones (Sittel)

**Regulations:** Sittel was established in November 1995 as regulator of the Bolivian fixed line telephony market. The Telecommunications Law passed a few months earlier guaranteed Empresa Nacional de Telecomunicaciones (Entel) a monopoly on national and international long-distance services until November 2001. 15 regional cooperatives provide local telephony services but Entel is permitted to construct local networks in rural areas where these cooperatives do not have a presence. Closed user group telephony services are open to competition; operators must apply to Sittel for a licence.

**Market commentary**

Former state-owned PTO Entel dominates national and international telephony services in Bolivia's corporate market. It has been investing heavily in its business services during 1999 and 2000, largely thanks to the financial backing of its strategic partner Telecom Italia. It now has fibre-optic links to neighbouring countries Chile, Argentina and Peru and boasts an infrastructure of almost 4,000km based on SDH technology. It plans to complete links to Brazil and Paraguay early in 2001. Entel offers videoconferencing, fax and internet access services to corporate clients via its fibre-optic network. On 1 May 2000 Sittel implemented tariff cuts covering long-distance, telex, fax and public telephony services. As a result Entel cut prices of long-distance and international calls as well as domestic telex charges and the cost of sending faxes to the other Andean nations, the US and Canada.

Entel is a member of the Andean Consortium Aseta which is aiming to offer new residential and corporate IP services across the region through the Andean Internet System. The project is already operational in Venezuela, Colombia and Ecuador and its introduction into Bolivia is planned for 2001.

The 15 telecoms companies responsible for the provision of local telephony services in Bolivia vary dramatically in the services they provide for their business customers. The largest operators, Cotel, Cotas, Comteco and Cotes, announced in mid-2000 that they would join forces in order to compete against Entel. While retaining their individual local networks they will offer internet, mobile, long-distance and data communications services through their new joint venture. The four announced planned investment of USD40 million to roll out a nationwide backbone network which will connect all 15

<b>Business protocol availability</b>						
<b>Operator</b>	<b>ADSL</b>	<b>SDH</b>	<b>X.25</b>	<b>Frame relay</b>	<b>ATM</b>	<b>IP</b>
Entel		✓		✓	✓	✓
Local cooperatives				✓		✓
AT&T						✓
Infonet			✓	✓		
Global One						✓

cooperatives. They are keen to attract an international investor and finance the expansion of their services to corporate clients. Cotas, the second largest of the cooperatives, has about 140,000 lines in service; it provides basic telephony, data transmission, internet and cable TV services and plans to offer broadband services over its fibre-optic/coaxial cable network in Santa Cruz.

There are few foreign operators offering business services in the Bolivian market. Probably the most active is AT&T; the company offers international private line, toll free and managed internet services. AT&T and BT together formed Concert at the end of 1999; all services to multinational business are now being marketed under the Concert brand name. Global One has a minor presence in the business market, selling international private line services through the Bolivian PTO and calling card services to corporate customers. Infonet also has a Bolivian base; from its office in La Paz it provides frame relay, X.25, public data network and virtual private data network services to the country's multinationals.

<b>Business service availability</b>							
<b>Operator</b>	<b>SLA</b>	<b>Managed bandwidth</b>	<b>LAN/WAN intranet</b>	<b>VoIP</b>	<b>Fixed wireless</b>	<b>Dial-up access</b>	<b>VSAT</b>
Entel	✓	✓	✓				✓
Local cooperatives			✓				
AT&T	✓	✓	✓			✓	
Global One							✓

**Key addresses and contacts****Regulatory organisations****Dirección General de Comunicaciones**

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