PREBISCH AND THE SITUATION OF BOLIVIA TODAY

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Introduction

Prebisch is the most influential third world economist. His ideas built the base for many other economists and their theories. Also real policies have been influenced by Prebisch- In the history of Latin America after the Second World War, many traces of Prebisch's thoughts can be discovered. Ideas like import substituting industrialization, the role of the state in the development and the regional integration have been attempted to realize in the politics of many Latin American countries (Nohlen 1999). In this essay, it will be examined if Prebisch's proposals can still be important for underdeveloped countries today. The essay will concentrate on the case of Bolivia, a poor country that shows the typical trade pattern of developing countries: Bolivia exports mainly primary products, especially gas, and imports mainly manufactured commodities.

At first, a short overview over Prebisch's life and the different jobs he did will be presented to show how he could gain so much influence and to see what his background was. The following part will focus on a text about commercial policy in the underdeveloped countries that Prebisch wrote in 1959 and problems Prebisch saw in the international trade will be demonstrated. After, previous research which has been done on Prebisch's influence and the realities today in whole South America will be shown. The third part will focus on Bolivia: its political history, its trade history and the situation of exports and imports today. It is assumed that the trade situation of developing countries such as Bolivia did not change much since 1959. If this is true and if the problems Prebisch saw in 1959 still exist, also his solutions and proposals could still be relevant today.

Prebisch

Prebisch was an influential person and he caused many discussions already during his life time- he doubted that every country can profit of a free market in a time when free trade was very popular. He tried to connect theory and practice and he played important roles in different international organizations. He was not afraid of changing his own theories if the reality showed a different outcome- he developed from a neoclassical to a keynesian thinker and promoted first bilateral and later multilateral trade (Nohlen 1999). To understand his ideas and to see how he gained his influence, his life should be looked at.

Prebisch was born in Argentina in 1901, his father was German and his mother Argentine. He grew up in an upper middle class family and he studied commerce in Buenos Aires. In 1930, he became state secretary in the ministry for finances after a military putsch. After two years he got fired and he moved to Geneva and London where he participated in an international currency conference. In this international context he realized how vulnerable countries like Argentina were. The new perspective and the experience of the financial crisis contributed to the abundance of his neoclassical thoughts (Nohlen 1999, Ricupero 2004). When he went back to South America, he participated in the founding of a Latin American central bank, which he directed from 1935 until 1943. After he worked for the Mexican

central bank and he got aware of the situation not only of Argentina but of whole Latin America. In 1950, he became the director of the CEPAL (comision economica para America Latina), the Latin American economic commission of the UN. During his presidency, the position of the South within the UN developed. His economic theory built the base for the "cepalismo", the theory of the CEPAL which spread out over whole Latin America. Prebisch founded the UNCTAD (United Nations Conference on Trade and Development) whose general director he became. He worked there for 4 years, until 1969, when he left disappointed about the different interests of the developing countries. During the time as a representative of the CEPAL and of the UNCTAD, he wrote his most influential essays. After, he became general secretor of the ILPES (Latin American and Caribbean institute for Economic and Social Planning), an institute which was founded due to his initiative and which gives advices to governments. He was active in different multinational organizations until his death in 1986 (Nohlen 1999).

Prebisch's vision of the commercial policy in Latin America

Prebisch (1959) stated that in the traditional trade of Latin American countries, there exists a difference of the elasticity between their imports and their exports. Underdeveloped countries use to export primary commodities and import manufactured products. As the elasticity of primary products is very low, a bigger amount of exports of these products will be harder to sell. On the other hand, the demand of imported goods will increase proportionally more because their elasticity is higher. And the elasticity of primary products like agricultural products is even lower because of the protection of their own production of primary commodities in the developed countries. The different elasticities and the uneven distribution of technological progress lead to a continuing deterioration of the terms of trade. This is the main problem Prebisch sees in the common Latin American trade policies. He demonstrates a fictional example of a world without such disparities. If there is no difference between the elasticities of primary and industrial goods, and if the wage rate and the productivity rate is the same in the two compared countries, it does not matter that the country A produces industrial goods and the country B consumer goods. There would be no reason for a deterioration of the terms of trade of the primary goods producing country. But then, Prebisch (1959) shows that if the conditions are still the same except that in the second example, different elasticities do exist and that the demand for industrial products is higher, declining terms of trade are to expect for country B. Country B would transfer workforce to the industrial sector too, but with the disadvantage that in country B, the productivity ratio of industrial goods is lower than for primary goods. As there will be a workforce surplus now in the industrial sector, wages will fall and also the prices of the exports will fall. The result will be a deterioration of the terms of trade. The country A is the one who will profit, it will transfer more workforce to the industrial sector which is favorable in the country due to the growing demand for industrial goods and the wages will even rise because more workers are needed in the industrial sector.

The deterioration of the terms of trade for country B will be even stronger if the uneven distribution of technological progress and the protection of the primary goods in country A are added in the example.

Additionally the industry of primary goods does not offer many employment opportunities and these will even decrease if better technology is used in these sectors. Prebisch concludes that industrialization that concentrates on the traditional export sectors cannot work out in the long run (Prebisch 1959).

But as "industrialization is an inescapable part of the process of change accompanying a gradual improvement in per capita income" (Prebisch 1959 p251) developing countries

should industrialize in other parts of the economy. They should produce manufactured products themselves. “Import substitution (…) is the only way to correct the effects on peripheral growth of disparities in foreign trade elasticity” (Prebisch 1959 p 253). Import substitution does not mean that imports have to decrease but that the amount of domestically produced goods should rise. Imports will still be necessary but the imported goods will vary, depending on the stage in development a country has reached.

If the increment of incomes that takes place with a domestic production (compared to the increment that would have been produced if the same amount of workers had worked in the traditional export sector) is taken into account, goods should even be produced if the price of imported goods would be lower. This justifies a protection of the domestic industry for example through export taxes or subsidies.

Although import substitution was taking place in some countries when Prebisch wrote the article, it was not the way Prebisch thought it should be. The problem was that the markets of the countries which engaged in import substitution were too small and so the new industries could not profit of specialization and the economies of scale. Prebisch’s idea was that a common market of several Latin American countries should be created and the trade between the countries in this zone should increase through preferential trade. There could still be trade with countries outside the zone but it should not be the major part.

Prebisch and the overall situation of Latin America today

Various research has been done in order to examine Prebischs role in Latin American politics and realities today. Prebisch has seen many factors, which seem to be true if the situation today is looked at. He recognized how important the role of technical progress in economic growth is and he realized that the spread of technology was uneven, which can still be seen in the world today. Technological progress is still highly concentrated in the center countries and the centers continue to be the main producers of machinery and equipment (Ocampo 2001). Prebisch thought that the situation of a country in the world and its relationship to other countries must be taken into account- the development processes can not simply be copied from countries which have developed earlier because the situation of the world has changed.

Also other studies confirmed that the situation of Latin American countries has not much changed (Ricupero 2004). In 2003, the CEPAL compared the situation of 1997 and 2003 of Latin American and Caribbean countries. It was reported that the overall GDP had dropped 1.5%, unemployment was risen two percent at 10.7% and poverty was risen and affected now 44% of the population, 20 million people more than in 1997 (CEPAL 2003).
Prebisches vision of multilateralism has not been realized yet- the US for example tend to rely on unilateral contracts instead of multilateral contracts. The GATT did not advance during the last years because the easy questions have been dealt with, what is left are the difficult themes such as agriculture and it is unlikely that these problems can be solved during the next years (Ricupero 2004).

Prebisch was a strong supporter of trade among developing countries. Regional integration gains more importance around the world- also in Latin America, several attempts for integration are made. Argentina, Brasilia, Uruguay and Paraguay founded the Mercosur, the market of the South in 1991. Even much earlier, in 1969, the CAN (comunidad andina de naciones) was founded by Ecuador, Peru, Bolivia and Colombia. Between 1990 and 1997, the intraregional trade flows grew strongly due to the CAN and the MERCOSUR. The grade of manufacturing goods in the intraregional trade in South America reached 81% in 1991 (excluding Mexico, as Mexico exports many manufactured goods to the US since the North American Free Trade Agreement was signed). The recent regionalism is different from older

integration attempts as more areas of action are involved and tariff liberalization is tried to reach (Ocampo 2001). Although the intraregional exports in Latin America grow, they are still a relatively small part of all the exported goods: During 1991 and 2000, the intraregional exports in Latin America grew from 7 to 10 milliards USD. During these years, also the overall exports increased from 43 to 56 milliards, and so the intraregional exports increased from 16.2% to 17.8%. A large part of Latin American exports are sent to the US – in the year 2000, the exports to the US were 56% (GATT 1991-1992, OMC 2001).

It seems that Prebisch's thoughts are tried to be realized concerning regional integration, but his goal has not been achieved yet. The Latin American organizations need to integrate their economies much more if a community such as the European Union, which trades to a large extent among the member countries shall be reached (Ocampo 2001).

Prebisch was also right, according to Ricupero (2004), in claiming that the industrialization of less developed countries in the South creates an additional demand in the North and trade among southern countries should not replace trade between North and South. This possibility has been shown by countries such as China, which exported to the US and was able to create more demand there.

In other issues, the world has changed since Prebisch. Less developed countries now export more manufactured goods than they did before, manufactured products now reach 70% of the exports in South America (Ricupero 2004). Though it needs to be taken into account though that the technological standard of the products varies much.

And the increase of exported manufactured goods was mainly caused by a change in the economy: Big companies buy the prepared parts of the end product in different countries, import them and put them together in a developed country. The problem is that the added value in the less developed countries is small: Although jobs are created and there are positive aspects for the less developed countries, this was not what Prebisch imagined. Today, the production is not national anymore. Latin American countries did not profit either of the globalization in the way countries such as India did: they do not export services.

As Ricupero (2004) mentioned in a speech, history is difficult to predict because unpredictable events happen, which change the whole situation. Nobody for example would have predicted that China would emerge as one of the most important trading countries in so short time after the Chinese Cultural Revolution. But what always can be learned from Prebisch, independent of the way history takes, is the way he questioned things. His method, the way he evaluated and criticized dominant theories and beliefs, will always be important and relevant in any time. Prebisch was critical towards other theories but he also questioned his own theories. He dared to change and add new thoughts and at the same time to admit that the reality was not as predicted.

Prebisch's method is consequently used in development problems. Especially in this field, it is necessary to compare the theory and the reality and to be ready to adapt and change the theories. Short before his death, Prebisch said: "To renew our ideas is an imperative" (cited from Ricupero 2004, p. 2).

Bolivia

To examine the relevance of Prebisch's thoughts, an overview over Bolivia's history over the last few decades will be presented. It will focus first on the general political changes, which affected the trade policy and after show the exports and imports of Bolivia in the past.

Political history of Bolivia

Bolivia is a poor country with many natural resources. It has a very turbulent history with frequent government and policy changes. Also the gas policies varied frequently during Bolivia's history. After the global depression, the state controlled the extraction of natural resources strictly in 1938 (Rochlin 2007). After the politics shifted to the right, they were turned around again after the Revolution in 1952 of the MNR (Nationalist Revolutionary movement). Bolivia's largest tin mines were nationalized and a land reform was initiated. After 12 years, the MNR lost their power and Bolivia was governed by successive military and civilian regimes. After 1980, the politics again turned around and they were dominated by neo-liberal thoughts. This development was supported by the IMF restructuring policies. In 1990 and in the following years, a wave of privatization was initiated under the President Gonzalo Sanchez de Lozada. With the National Capitalization Process, the control over the pipeline transport of hydrocarbons was transferred from the state oil company YPFB to the TRANSREDES S. A. , which is a consortium of companies such as Shell and Enron. After many protests and the claim for the nationalization of the natural resources, reelections were finally organized in 2006. Evo Morales was elected president- and with him the state plays again a more important role in the resource extraction (Rochlin 2007).

Bolivia's Exports and Imports

Bolivia has been an export country of primary goods since the colonial times and is still today. Imported goods are mainly manufactured goods. The exported goods changed with the time: In the colonial time, silver and gold were mainly exported, after the main export good was tin, and after 1980 the country relied on its gas exports (Neu et al. 2004).

The dependence of the prices of primary goods was costly for the country: In 1980 and the following years for example, the Bolivian economy faced serious problems. The exports were concentrated on a few goods and the volatility of the prices hit the economy strongly. The low commodity prices caused the terms of trade to decline. Although Bolivia exported more goods in 1980 than before, the total value of the exports was less. In 1887, the value of the exported goods was only 53% of the value in 1880 (Seyler 1991). A disruption in the balance of payments took place in the 80s and recession and hyperinflation followed.

During this period, it was also the time when tin lost importance as an export good and gas became one of the most important export goods of Bolivia. After the world tin collapse in 1885, Bolivia started to diversify its exports and to liberalize the imports. But the Bolivian economy was not competitive after years of protection and a negative trade balance resulted. Exports were tried to increase by a floating exchange rate and no export taxes but in 1887, the import excess was still one billion USD. In this time, the main trading partners of Bolivia became the surrounding countries: Brazil surpassed the US in exported goods to Bolivia and in 1887, 51% of the exports went to Argentina, mainly due to the gas exports.

A bit more than 10 years later in 1999, the WTO wrote a very optimistic review about the situation of Bolivia. GDP growth, a slow down of the inflation rate and macroeconomic stabilization were stated. These achievements were considered to be due to the liberalization path, which Bolivia had followed for the last 14 years. There was not much protection against imports, a general uniform tariff of 10% existed for all imports except for capital goods and books, which profited of lower tariffs. Non-tariff barriers and anti-dumping measures were hardly used- the liberalization wave had been successful. Bolivian exporters were little supported by the state, they still faced difficulties in the international market because of the lack of technical inquiries. Most of the services, which had been owned by the state had been privatized. Foreign debt was still increasing, but at a slower rate. Although the exports

increased constantly from 11.8% of GDP in 1993 to 14.6% in 1997, imports grew even faster. Among the imported goods, particularly capital goods and intermediate goods increased (WTO trade policy review of Bolivia 1999). However the next review of the WTO in 2005 was less optimistic. Although the tariffs had lowered to 8.2%, per capita GDP had fallen since 1999 and there was not much foreign investment. This was explained by internal political instability and the simultaneous external shocks Bolivia experienced. The WTO review (2005) recommended the Bolivian economy more liberalization initiatives.

The exports and imports of Bolivia today

Although the exports of Bolivia are more diverse today, they are still largely composed of primary commodities, which were 79.4% of the Bolivian exports in 2003. The most important export good were fuels (30% of the exports), which contain out of natural gas and petroleum oils. Of the rest of the exports, 31.6% were agricultural products and only 16% were manufactured goods. Most of the goods in 2003 were exported to other Latin American countries (63%), mainly to Brazil (30%) and Colombia (10%) (Table A1). Some exports still went to the traditional "centers" of the world: 14% of the exports flew to the US and 16.9% to Europe.

Imports on the other side largely consist of manufactured goods and capital goods and they come from other Latin American countries (58.1%), from the US (18%), from Asia (12.7%) and Europe (9.6%). Bolivia itself has only few manufacturing industries and the value added is relatively low (Table AIV4).

Bolivia's gas exports

As gas is the most important export good of Bolivia nowadays, it will be examined further.
Bolivia has the second largest gas resources in South America. Gas is the most important export good in Bolivia and the country is highly dependent on it (Mähler, 2007)- in 2003, the gas exports were 23.1% of the overall exports (Table A1).

Although the hydrocarbon sector produced in the average 34% of the current fiscal revenues in the last decade- but only 6% are directly won by the gas export taxes, the rest is due to local gasoline taxes. It is problematic that there are only few potential buyers: Brazil, Argentina and in the future maybe Chile, if the border conflict between Bolivia and Chile can be solved (Mähler 2007, Lykke& Mesa 2001).

The hydrocarbon sector is intensive in capital and offers only few employment opportunities. The gas industry is not strongly connected to the rest of the economy and a big part of the gas revenues are the profits of foreign companies. The state companies from neighboring countries or multinational corporations that decide over the extracted gas amount are probably not thinking of Bolivia's long run interests. The state revenue of the gas exports varies a lot because the gas prices are very volatile (Lykke& Meza 2001). Bolivia expierenced several price shocks and had to struggle with them because the export economy was highly influenced. Between 1990 and 1992, less gas could be exported to Argentina and so the real export value diminished. In 1998 and 1999, the price shock was caused by an international crisis.

The tax income flows partly to the departments where the gas has been extracted and partly to the central government. As for example Tarija holds 80% of the certified natural gas resources and is only sparely settled, the tax income is distributed uneven (Lykke& Meza 2001).

Prebisch and Bolivia

The typical trade of developing countries that Prebisch described in 1959 still exists in developing countries such as Bolivia: Bolivia exports primary goods and imports mainly manufactured goods, so the difference between the elasticities of ex- and imported goods still exists. Bolivia's exports consist only to 1/6 of manufactured goods, compared to ¾ manufactured goods in the worldwide exports. Bolivia confirms Prebisch's theory of the deterioration of the terms of trade due to different elasticities between the exported and the imported goods.

The situation has not much changed either concerning the protection of primary goods in the developed countries: They still protect their agricultural industries (Nyahoho and Proulx 2006), which even lowers the elasticity of these products.

The gas industry, which is the most important export industry in Bolivia is capital intensive, it does not offer many employment opportunities. Only 0.2% of the Bolivian Labor force in 1998 were employed in the gas sector (Lykke and Meza 2001). Before the capitalization process, in 1990, the YPFB employed more workers but then the number of workers decreased as the investment increased (Lykke and Meza 2001). This was also a difficulty Prebisch had observed- the production of primary goods does not offer many employment oportunities, they rather decline if investments are done in these sectors.

Most of the Bolivian gas exports go to Argentina and Brasilia which are not part of the traditional "center", the Western world, where Prebisch had assumed that most exports of developing countries are going. And also a big part of manufactured imports in Bolivia are produced in countries of the region. But as the economic difference between the countries in the region grew during the last decades, the relation between Bolivia as one of the poorest countries and richer neighbor countries is similar to the relationship Prebisch observed between countries of the South and the North such trade does not support the development of Bolivia sufficiently.

Recent changes Bolivia

When Evo Morales was elected president of Bolvia in 2005 it was a historical moment as he is the first indigenous president of Latin America.

Morales makes part of Latin Americas new left movement and he stands for a "new model of development that relies on statism and wealth redistribution" (Rochlin, 2007, p 1327). As the gas exports had caused many problems, maybe the most important and most popular promise Morales made in his election campaign was to nationalize the gas industry. This promise was highly criticized by the foreign companies, which are involved in Bolivia's gas industry and they said they would accuse Bolivia in a international court. The nationalization was at the end realized more peaceful than expected and Morales could reach new treaties with the foreign companies (Rochlin, 2007). The state's revenue of the gas exports is supposed to rise but it is not clear and transparent yet how the government will use them (Mähler, 2007).

Conclusion

In this essay it has been examined if Bolivia still faces the same problems Prebisch has seen in 1959. To answer this question, a text about commercial policies of underdeveloped countries that Prebisch wrote in 1959 has been presented. After, previous research on Prebisch and recent developments in Latin America was looked at. It was found that many of

Prebisch's observations have not changed in the last decades: Technological progress is still spread very uneven and the asymmetries between the countries are maintained.
And also ideas Prebisch supported are still relevant: Regional integration is gaining importance around the world. Prebisch would not have predicted integration for developed countries as the European countries- but the development of the European Union brought the idea of integration back and now, the attempts of integration are intensified also in Latin America.
Prebisch's observations are both relevant for the whole continent of Latin America and also for Bolivia specifically: The trade situation that existed in 1959 for underdeveloped countries still exists in Bolivia. As Bolivia is rich in natural resources, the export of these goods and the concentration of the industry on these primary commodities are tempting and offer easy ways to revenues for a government. But as Prebisch (1959) said, the industrialization should not concentrate on primary products because the elasticity of primary products is lower and trade imbalances are likely to emerge. The trade situation of Bolivia today supports this claim.
It is concluded that Prebisch's thoughts are still relevant for countries such as Bolivia because their situation has not changed much.
And so also Prebisch's solutions can still be relevant- if Prebisch could give Bolivia an advice today, he would probably recommend a strong engagement in the regional integration process. And it seems that Bolivia listens to Prebisch- Bolivia is already member of the Andean pact and an associated member of the Mercosur, and Bolivia's new president Evo Morales shows interest for a full membership in the Mercosur. It seems that with the new Left Movement in South America, Prebisch's theory is gaining influence again and will be relevant for the future politics of Bolivia and other Latin American countries.

References

Andersen, L, and M. Mauricio (2001), "The Natural Gas Sector in Bolivia: An Overview", *Andean Competitiveness Project*, pp. 1-23

Andersen, L., R. Farris and M. Medinaceli (2003), "Exportacion de Gas Natural: El Efeto sobre Crecimiento, Empleo, Desigualdad y Pobreza", *Andean Competitiveness Project*, pp. 1- 20

Annagret ,M. (2007), "Bolivianische Erdgaspolitik im Wandel", *Lateinamerika Analysen* 16, 1/2007, pp. 125- 147

Hirschman, A. (1968), "The Political economy of Import-Substituting Industrialization in Latin America", *The Quarterly Journal of Economics*, Vol 82, No 1, pp 1-32.

Gabriel, L. (2002), "El shock de precios de los productos basicos en Bolivia", *Revista de la Cepal*, Vol 76

Neu. M., W. Gieler and J. Bellers (2004), Handbuch der Aussenpolitik

Nyahoho E. and P. Proulx (2006), "Le commerce international, Théories, politiques et perspectives industrielles," (3rd edition). *Presses Universitaires du Québec*

Nohlen, D. (1999), "Raul Prebisch (1901-1986), Das Zentrum-Peripherie-Modell der internationalen Wirtschaftsbeziehungen", *E+Z - Entwicklung und Zusammenarbeit*, Nr. 11, p. 316-319

Ocampo J.A. (2001), " Raul Prebisch and the development agenda at the dawn of the twenty-first century", Cepal Review, Vol 75, p 23-37

Rochlin, J. (2007), "Latin America's Left Turn and the New Strategic landscape: the case of Bolivia," *Thirld World Quarterly*, Vol 28, No 7, pp. 1327- 1342

Ricupero Rubens (2004), UNCTAD Past and Present: Our Next Forty Years, *12th Raul Prebisch Lecture*, Speech

Ricupero, R. (2004), "La renovada contemporaneidad de Raul Prebisch," Revista de la Cepal, Vol 84, p 7-18

Prebisch, R. (1959), "Commercial Policy in Underdeveloped Countries", *The American Economic Review*, Vol 49, No 2, pp. 251-273

Seyler D.J. (1991), "Bolivia-a country study, chapter 3: The economy", *Federal Research Division*, Library of Congress, Edited by Hudson R.A. and Hanratty D.M.

Statistics were used from:

GATT, le commerce international 1991-92, Statistiques, tabl. A.2

OMC, Statistiques du commerce international 2001, tabl. A.2

Trade policy review of Bolivia 1999: www.wto.org/english/tratop_e/tpr_e/tp109_e.htm (looked at the 12.13.2008)

Trade policy review of Bolivia 2005: **http://www.wto.org/english/tratop_e/tpr_e/tp255_e.htm** **(**looked at the 12.13.2008)

Appendix:

Table AI.1
Merchandise exports by product group, 1998-2003
(US$ million and per cent)

Description	1998	1999	2000	2001	2002	2003
			(US$ million)			
Total	1,323	1,402	1,457	1,353	1,372	1,651
			(per cent of total)			
Total primary products	64.2	55.2	66.7	72.3	77.5	79.4
Agriculture	32.9	28.2	31.4	31.7	34.0	31.6
Food	27.5	24.5	28.4	29.2	31.7	29.6
0813 Oilcake and other solid residues	8.0	8.2	10.1	14.4	15.4	12.9
4211 Soya bean oil and its fractions	5.2	3.8	4.7	5.5	6.5	6.8
0577 Edible nuts, fresh or dried	2.3	2.2	2.3	2.1	2.1	2.3
2222 Soya beans	3.6	2.9	3.2	0.1	0.4	1.5
0612 Other beet or cane sugar and chemically pure sucrose	1.0	0.3	0.2	0.4	0.9	1.2
2239 Flours and meals of oil-seeds or oleaginous fruits	1.1	1.0	2.8	1.0	1.2	0.9
4215 Sunflower seed or safflower oil and fractions thereof	0.3	0.5	0.6	1.4	1.3	0.6
0222 Milk and cream, concentrated or sweetened	0.1	0.1	0.3	0.5	0.6	0.5
0542 Leguminous vegetables, dried, shelled, whether or not skinned or split	0.4	0.6	0.3	0.5	0.6	0.4
0711 Coffee, not roasted	1.1	1.0	0.7	0.4	0.4	0.4
0910 Margarine, etc.	0.7	1.6	1.7	1.1	0.7	0.3
Agricultural raw materials	5.4	3.7	3.0	2.5	2.3	2.0
2484 Wood of non-coniferous species, sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed, of a thickness exceeding 6 mm	3.4	1.6	1.7	1.5	1.4	1.3
Mining	31.2	27.0	35.3	40.6	43.5	47.8
Other minerals	18.4	16.3	17.9	14.0	14.5	13.8
2875 Zinc ores and concentrates	11.9	11.0	11.7	8.8	8.2	7.5
2891 Precious metal ores	4.4	4.0	4.5	3.7	4.6	4.3
2876 Tin ores and concentrates	0.6	0.4	0.7	0.4	0.7	0.9
Non-ferrous metals	5.6	5.5	5.2	4.2	4.0	3.9
Fuels	7.3	5.3	12.2	22.4	25.0	30.1
3432 Natural gas, in the gaseous state	4.2	2.5	8.3	17.4	17.8	23.1
3330 Petroleum oils and oils obtained from bituminous minerals, crude	2.3	1.9	2.5	3.5	4.5	5.8
Manufactures	27.2	38.2	27.1	20.6	15.8	16.0
Iron and steel	0.1	0.1	0.1	0.3	0.0	0.0
Chemicals	1.0	0.9	0.8	0.9	0.9	1.2
5121 Acyclic monohydric alcohols	0.2	0.1	0.3	0.4	0.3	0.5
Other semi-manufactures	2.6	3.0	4.0	3.3	3.5	2.7
Machinery and transport equipment	14.3	25.0	13.3	6.8	3.0	3.9
Power-generating machinery	0.2	0.2	0.1	0.1	0.2	0.2
Other non-electrical machinery	2.0	3.5	2.2	4.3	1.8	2.8
Agricultural machinery and tractors	0.1	0.4	0.0	0.1	0.0	0.1
Office machines and telecommunications equipment	0.2	0.3	0.2	0.8	0.1	0.1
Other electrical machinery	0.1	0.1	0.1	0.1	0.1	0.2
Automotive products	0.5	0.7	0.6	0.9	0.4	0.5

Description	1998	1999	2000	2001	2002	2003
						Table AI.1 (cont'd)
7821 Motor vehicles for the transport of goods	0.1	0.1	0.1	0.4	0.1	0.2
Other transport equipment	11.3	20.2	10.1	0.5	0.3	0.1
Textiles	0.4	1.0	1.1	0.8	0.3	0.4
Articles of apparel	2.1	1.9	2.1	2.1	1.9	2.6
8454 T-shirts, singlets and other vests, knitted or crocheted	0.6	0.4	0.3	0.3	0.4	0.8
8437 Shirts	0.1	0.3	0.6	0.7	0.5	0.7
Other consumer goods	6.7	6.3	5.8	6.4	6.2	5.3
Other	8.7	6.5	6.2	7.0	6.7	4.5
Gold	8.5	6.4	6.0	6.8	6.5	4.4

Source: United Nations Statistics Division (UNSD) Commodity Trade Statistics (Comtrade) database (Standard International Trade Classification, SITC, Rev. 3).

Table AI.2
Merchandise imports by product group, 1998-2003
(US$ million and per cent)

Description	1998	1999	2000	2001	2002	2003
			(US$ million)			
Total	2,350	1,835	1,849	1,708	1,769	1,684
			(per cent of total)			
Total primary products	14.1	14.8	20.5	24.1	20.0	22.7
Agriculture	8.8	10.6	15.1	16.5	14.3	14.7
Food	7.9	9.6	13.5	14.9	13.2	13.2
2222 Soya beans	0.5	0.1	2.8	2.6	3.0	2.9
0412 Other wheat (including spelt) and meslin, unmilled	0.9	1.8	1.8	2.1	2.2	2.1
0989 Food preparations, n.e.s.	0.9	1.1	0.8	1.0	0.9	1.0
0461 Flour of wheat or of meslin	0.6	0.7	1.5	2.1	1.5	0.9
0485 Mixes and doughs for the preparation of bakers' wares of subgroup 048.4	0.0	0.0	0.0	0.0	0.2	0.7
0222 Milk and cream, concentrated or sweetened	0.8	0.8	0.8	0.9	0.7	0.7
0622 Sugar confectionery (including white chocolate), not containing cocoa	0.4	0.5	0.6	0.6	0.5	0.5
0482 Malt, whether or not roasted (including malt flour)	0.3	0.3	0.3	0.3	0.4	0.5
Agricultural raw materials	0.9	1.1	1.6	1.6	1.1	1.5
2631 Cotton (other than linters), not carded or combed	0.0	0.0	0.2	0.5	0.3	0.5
Mining	5.3	4.2	5.5	7.7	5.7	8.0
Other minerals	0.1	0.1	0.1	0.1	0.2	0.2
Non-ferrous metals	0.4	0.5	0.5	0.4	0.5	0.5
Fuels	4.7	3.5	4.8	7.2	5.0	7.3
3341 Motor spirit (gasoline) and other light oils	0.0	0.1	0.0	0.0	0.0	6.8
Manufactures	84.3	83.1	78.7	75.5	79.5	76.6
Iron and steel	9.4	6.4	5.3	5.5	11.7	6.0
6762 Bars and rods (other than those of subgroup 676.1) of iron or steel, not further worked than hot-rolled, hot-drawn or hot-extruded, but including those twisted after rolling	1.0	1.0	0.9	1.1	1.2	1.7
6791 Tubes, pipes and hollow profiles, seamless, of iron or steel	6.4	1.6	1.5	1.1	0.8	0.9
Chemicals	11.0	13.3	14.3	17.2	15.7	17.7
5913 Weed-killers (herbicides), anti-sprouting products and plant-growth regulators, put up in forms or packings for retail sale or as preparations or articles	0.6	0.9	1.2	1.6	1.4	1.8
5429 Medicaments, n.e.s.	0.9	1.0	0.8	1.1	1.2	1.3
5711 Polyethylene	0.4	0.7	0.9	1.1	0.9	1.0
Other semi-manufactures	6.4	9.2	9.9	10.6	10.2	10.5

Description	1998	1999	2000	2001	2002	2003
Machinery and transport equipment	49.9	44.8	36.9	29.1	29.4	31.3
Power-generating machinery	1.0	4.6	1.2	1.7	2.5	2.8
7148 Gas turbines, n.e.s.	0.0	0.0	0.1	0.2	1.6	1.2
Other non-electrical machinery	13.5	15.6	11.2	11.5	13.4	11.9
7431 Air or vacuum pumps, air or other gas compressors, ventilating or recycling hoods (other than cooker hoods) incorporating a fan	0.7	0.2	0.2	0.7	0.4	1.7
7284 Machinery and mechanical appliances specialized for particular industries, n.e.s.	0.5	0.2	0.2	1.3	0.4	1.2
7234 Construction and mining machinery, n.e.s.	1.1	1.7	0.7	0.3	1.2	0.6
Agricultural machinery and tractors	0.7	0.6	0.5	0.7	0.9	1.4
Office machines and telecommunications equipment	6.1	6.5	7.0	6.7	4.8	3.3
Other electrical machinery	2.7	3.5	3.6	3.6	3.0	2.8
Automotive products	22.0	13.4	7.3	3.8	4.7	6.3
7812 Motor vehicles for the transport of persons, n.e.s.	10.2	6.0	3.4	1.6	1.9	3.0
7821 Motor vehicles for the transport of goods	7.6	4.1	2.2	1.0	1.4	1.7
Other transport equipment	4.7	1.2	6.5	1.8	0.9	4.2
7924 Aeroplanes and other aircraft, mechanically-propelled (other than helicopters), of an unladen weight exceeding 15,000 kg	3.3	0.0	5.2	0.7	0.0	3.1
Textiles	1.3	1.8	3.1	3.5	2.9	2.8
Articles of apparel	0.5	0.8	1.5	1.2	0.9	0.8
Other consumer goods	5.8	6.8	7.7	8.5	8.7	7.6
Other	1.6	2.1	0.8	0.4	0.5	0.7
Gold	1.6	1.3	0.5	0.3	0.4	0.6

Source: United Nations Statistics Division (UNSD) Commodity Trade Statistics (Comtrade) database (Standard International Trade Classification, SITC, Rev.3

Table AI.3
Merchandise exports by trading partner, 1998-2003
(US$ million and per cent)

Description	1998	1999	2000	2001	2002	2003
			(US$ million)			
Total	1,323	1,402	1,457	1,353	1,372	1,651
			(per cent of total)			
America	67.9	71.6	68.7	74.2	74.3	78.3
USA	22.9	33.2	24.0	13.9	14.1	14.3
Canada	0.5	0.5	0.5	1.5	0.6	0.4
Other America	44.4	37.9	44.2	58.8	59.6	63.6
Brazil	2.3	2.9	11.4	22.2	24.3	30.0
Colombia	6.5	9.1	13.2	14.2	10.2	10.3
Venezuela	0.9	1.4	3.5	7.3	12.8	9.4
Peru	10.6	5.4	4.2	5.0	5.4	5.4
Argentina	10.7	5.5	3.7	5.0	2.0	3.4
Chile	2.6	2.0	2.1	2.3	2.4	2.7
Mexico	0.5	0.6	0.5	0.6	1.5	1.3
Ecuador	6.1	5.1	0.4	0.8	0.2	0.6
Europe	30.0	25.6	28.6	23.5	22.8	16.9
EU (15)	23.6	20.6	17.3	10.4	7.1	6.7
United Kingdom	15.0	12.8	11.5	5.3	2.3	2.0
Italy	0.7	0.6	1.2	1.0	1.0	1.0
Belgium-Luxembourg	4.8	5.1	2.9	1.0	0.6	1.0
Netherlands	0.6	0.5	0.4	1.2	1.0	0.8
Germany	1.6	1.1	0.9	0.6	0.5	0.4
Finland	0.0	0.0	0.0	0.3	0.8	0.4
Spain	0.5	0.2	0.2	0.5	0.4	0.4
EFTA	6.3	5.0	11.2	13.1	15.7	10.1
Switzerland	6.3	4.9	11.2	13.1	15.7	10.1
Eastern Europe	0.1	0.1	0.0	0.0	0.1	0.1
Former USSR	0.0	0.0	0.0	0.0	0.1	0.1
Other Europe	0.0	0.0	0.0	0.0	0.0	0.0
Asia	0.8	1.2	1.5	1.4	2.0	4.0
Middle East	0.0	0.1	0.2	0.1	0.0	0.1
United Arab Emirates	0.0	0.0	0.0	0.0	0.0	0.1
East Asia	0.8	1.1	1.1	1.1	1.9	3.8
Japan	0.2	0.5	0.2	0.2	0.4	1.1
Korea, Republic of	0.3	0.0	0.1	0.1	0.2	1.0
China	0.0	0.3	0.4	0.4	0.6	0.7
Malaysia	0.2	0.1	0.4	0.1	0.4	0.7
Hong Kong, China	0.0	0.0	0.0	0.0	0.1	0.2
South Asia	0.0	0.0	0.1	0.2	0.1	0.1
India	0.0	0.0	0.1	0.2	0.1	0.1
Oceania	0.2	0.1	0.1	0.1	0.2	0.2
Australia	0.1	0.1	0.1	0.1	0.1	0.2
Africa	0.1	0.1	0.1	0.1	0.1	0.1
Sub-Saharan Africa	0.0	0.0	0.0	0.0	0.0	0.0
Other Africa	0.1	0.1	0.1	0.1	0.1	0.1
Other	1.1	1.3	1.0	0.8	0.6	0.5

Source: United Nations Statistics Division (UNSD) Commodity Trade Statistics (Comtrade) database (Standard International Trade Classification, SITC, Rev. 3).

Table AI.4
Merchandise imports by trading partner, 1998-2003
(US$ million and per cent)

Description	1998	1999	2000	2001	2002	2003
			(US$ million)			
Total	2,350	1,835	1,849	1,708	1,769	1,684
			(per cent of total)			
America	61.5	70.5	72.3	77.1	75.2	76.5
USA	23.4	23.9	22.0	18.4	15.6	18.0
Canada	1.2	0.8	0.7	1.1	0.7	0.4
Other America	36.9	45.8	49.7	57.5	58.8	58.1
Brazil	10.9	13.6	14.4	16.2	22.0	20.4
Argentina	9.9	13.3	14.3	18.0	17.4	16.7
Chile	6.0	7.1	8.3	8.5	7.0	7.2
Peru	4.0	4.8	5.0	6.3	5.4	6.2
Colombia	2.0	2.2	2.4	2.8	2.4	2.9
Mexico	1.7	2.4	2.3	2.2	1.8	2.1
Paraguay	0.1	0.1	1.4	1.3	1.0	1.0
Venezuela	1.0	1.1	0.7	1.0	0.8	0.5
Europe	14.9	14.3	12.6	10.5	8.9	9.6
EU (15)	14.1	12.5	11.6	9.4	8.4	8.5
Germany	2.5	2.7	2.1	2.2	1.7	2.2
Spain	1.6	2.8	2.7	1.6	1.4	1.4
Italy	1.6	1.7	2.2	1.7	1.3	1.3
Fran	0.9	1.0	0.7	1.0	1.1	1.2
United Kingdom	0.8	0.9	0.5	0.8	0.7	0.8
Sweden	4.6	2.0	1.3	0.7	0.8	0.6
Belgium-Luxembourg	0.4	0.3	0.3	0.4	0.4	0.5
EFTA	0.5	0.7	0.6	0.9	0.3	0.5
Switzerland	0.4	0.4	0.6	0.8	0.3	0.4
Eastern Europe	0.2	0.2	0.2	0.2	0.2	0.5
Former USSR	0.0	0.1	0.1	0.1	0.1	0.4
Other Europe	0.1	0.8	0.0	0.0	0.0	0.0
Asia	22.8	14.0	12.8	12.1	13.1	12.7
Middle East	0.4	0.7	0.2	0.2	0.2	0.1
East Asia	22.4	13.2	12.3	11.6	12.6	12.1
China	0.6	1.6	3.1	5.1	4.8	5.0
Japan	19.7	8.6	5.5	3.4	5.6	5.0
Korea, Republic of	1.2	1.9	1.3	1.2	0.9	1.0
Chinese Taipei	0.4	0.8	1.8	1.2	0.7	0.4
Thailand	0.1	0.1	0.1	0.1	0.1	0.2
Indonesia	0.0	0.1	0.1	0.2	0.2	0.1
Malaysia	0.0	0.0	0.1	0.1	0.1	0.1
Hong Kong, China	0.1	0.1	0.1	0.1	0.1	0.1
South Asia	0.1	0.1	0.2	0.3	0.4	0.5
India	0.1	0.1	0.2	0.2	0.3	0.4
Oceania	0.2	0.2	0.2	0.2	0.1	0.1
Africa	0.2	0.1	0.1	0.1	0.1	0.1
Sub-Saharan Africa	0.0	0.1	0.0	0.0	0.0	0.0
Other Africa	0.1	0.1	0.1	0.1	0.1	0.1
Other	0.3	0.9	2.0	0.1	2.5	1.1

Source: United Nations Statistics Division (UNSD) Commodity Trade Statistics (Comtrade) database (Standard International Trade Classification, SITC, Rev. 3).

Table AIV.4
Value added and employment in the manufacturing industry
(Average for the period 1999-2001)

	Value added (% of total)	Employment (% of total)	Productivity (thousands of bolivianos per person)
Food and beverages	36.9	33.8	131.4
Processing and preserving of meat and meat products	6.0	4.9	148.1
Manufacture of vegetable oils and fats	7.0	4.6	183.9
Manufacture of sugar	5.7	1.9	372.5
Manufacture of malt and non-alcoholic beverages	11.9	9.7	148.0
Other food- and beverage-processing industries	6.3	12.9	59.2
Tobacco products	0.6	0.4	188.7
Textiles	2.3	8.1	34.2
Wearing apparel, except fur garments	1.3	6.9	23.4
Footwear and other leather articles	1.4	3.4	50.6
Wood products	1.4	5.1	34.0
Articles of paper and paperboard	2.3	3.1	89.5
Printing and publishing	2.7	6.0	53.2
Refined petroleum products	32.7	1.8	2,179.2
Chemicals, paints, pharmaceuticals, soap and other products	5.0	6.1	98.1
Rubber and plastic products	1.9	4.3	51.9
Cement, lime and products of glass, ceramic or stone	6.9	8.8	93.8
Primary metal products	0.8	1.4	75.6
Fabricated metal products	1.2	2.8	52.3
Household machinery and appliances	0.1	0.5	27.6
Electrical machinery and equipment	0.3	0.8	45.7
Bodywork and parts for motor vehicles	0.2	0.9	23.9
Furniture and mattresses	0.7	3.5	24.4
Jewellery and related articles	1.2	1.8	76.5
Other	0.1	0.4	30.2
	(thousands of bolivianos)	(persons)	
Total for the manufacturing industry	5,956,576	49,403	120.6

Source: WTO Secretariat calculations based on the *Estadísticas Anuales de la Industria Manufacturera* (Annual statistics for the manufacturing industry) of Bolivia's National Institute of Statistics (Instituto Nacional de Estadísticas, INE).