

The Success of Trade Liberalization in Bolivia

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The global community grows larger and more integrated each year. This allows for great opportunities between countries in the economic, political, and social arenas. Some possible outcomes are more alluring than others, such as gains from trade and political solidarity versus the homogenization and disappearance of culture. One area related to globalization is the integration of world markets. This possibility holds many potential gains, but also stirs much reservation from some critics of free trade.

Trade liberalization is the process of opening one's economy to foreign competition and investment. This is achieved by removing trade barriers that stifle free trade. Two typical barriers include tariffs, which add a tax on imported goods, and quotas, which specify a maximum quantity of a good that may be imported. In theory, liberalized economies enjoy the benefit of gains from trade that can be realized through efficient exchange of goods and services. As the global community grows increasingly connected, the possibility of increasingly integrated markets grows, too. And with this new possibility the discussion regarding the appropriate level of liberalization arises.

Developing countries must take a careful look at globalization's push towards economic integration. Undoubtedly, trade can act as an agent for long-term economic growth, but questions remain. Some countries that liberalized over twenty years ago remain impoverished with only meager long-term prospects of growth. Why haven't the promised benefits accrued in these countries? One country in the aforementioned predicament is Bolivia, the poorest country in South America. In 1985, after years of protectionist policies, Bolivia began following orthodox economic wisdom encouraging liberalization. Yet today Bolivia's unemployment remains high, per capita income is low,

and income inequality is large. A multitude of factors contribute to this situation, not the least of which was the political conditions that defined Bolivia for the past two decades and culminated in protest. In 2003 protest conflicts left thirty dead and Bolivia's president exiled to the United States. However, trade policy is one of the factors that can significantly affect a country's economic prospects. It is this factor that I will discuss in detail with regards to Bolivia in an effort to determine an appropriate trade policy. The conclusion-in-brief is that Bolivia's efforts to liberalize their economy have paid off and that liberalizing was a superior alternative to maintaining the protectionist policies in place prior.

The plan of this paper is as follows. Section II investigates the theoretical arguments regarding trade liberalization. I will discuss the potential gains from trade and the aspects of the theory that have been critiqued. Section III provides a summary of Bolivia's economic and political history with a sub-section devoted to Bolivian regional trade agreements. Section IV examines Bolivia's present economic status by investigating key indicators. This section will also compare these indicators with other South American countries. Section V concludes, noting that the economic reforms in 1985 and subsequent follow-up measures throughout the 1990s benefited Bolivia.

Section II – Theoretical Arguments Regarding Trade and Trade Liberalization

In order to speculate as to whether or not trade liberalization is a wise policy for economic growth, we must first explore the avenues through which international trade can contribute to economic growth.

Theories regarding trade's possible benefits focus on static gains and dynamic gains. Static gains can be reaped immediately in the short-run through more efficient allocation of factors of production. Dynamic gains accrue only over time in less obvious and direct ways. I start with an overview of the neoclassical model of trade, which highlights static gains. This section also notes under what conditions neoclassical trade theory breaks down. Certain assumptions of the model never hold perfectly, and sometimes are so unrealistic as to raise doubts about whether the opposite of the posited gains may actually be more plausible.

The Neoclassical Model

The neoclassical model of trade, credited to David Ricardo and John Stuart Mill, focuses on static gains from trade that accrue from comparative advantages in production. Comparative advantage exists when one country has a relatively lower opportunity cost of producing a given good or service than its trading partner.

Originally, economists assumed only a one-variable-factor, labor cost, to explain why comparative advantages exist. Under this restrictive assumption countries that possess relatively cheap labor will specialize production in sectors that are labor-intensive. That is, require a relatively large amount of labor versus capital. Conversely, countries with relatively expensive labor will invest in capital-intensive sectors.

Economists Eli Hecksher and Bertil Ohlin reconsidered this overly simplified version of economies by expanding the variable factors to include labor, land, and capital. The model became known as the Hecksher-Ohlin factor endowment model. A major difference in this model is that rather than comparative advantages arising from fixed but different labor productivities, they instead arise from differing abundances of land, labor,

and capital. The Heckscher-Ohlin model assumes all countries have access to the same technology for all production. In this scenario all countries would produce along the same production possibility frontier, if not for different factor endowments. Countries will specialize in areas with relatively abundant factors of production. For example, countries well endowed in capital will specialize in capital-intensive production.

Criticisms of the Assumptions of the Factor Endowment Model

Although the factor endowment model is compelling, it holds many assumptions that must be examined. The assumptions often break down, especially when looking at developing countries. Another major criticism is that overall welfare gains ignore the issue of redistribution of income, which necessarily benefit some and harm others.

The Heckscher-Ohlin model assumes all factors of production are fixed within a country and that no mobility of capital occurs. This is problematic because factors of production are in constant change. Generally, land may be assumed constant, even if it is altered, but labor and capital are in constant flux. Generally both are growing. However, they grow at different rates between developed countries (DCs) and less-developed countries (LDCs). The implications of this difference will be explored later in regards to countries decision to pursue strategies called 'import-substitution'.

A second assumption is that all the factors of production are perfectly mobile between different industries. This idea of transferable capital looks great because it allows countries to move flawlessly along ever-changing production possibility frontiers. However, in many developing countries structural shifts of capital are not always possible. A typical example in developing countries is of an agricultural economy trying

to reallocate their infrastructure of transport of agricultural goods to manufacturing machinery, which is often implausible.

Another overlook of the model is that it assumes national governments do not decide on policies that would affect international trade. The universal existence of tariffs, quotas, and subsidies contradict this notion. Some free trade advocates use this contradiction not to point out flaws in the factor endowment model, but rather to support their argument that governments ought to pursue trade liberalization.

Full employment and perfect competition are also assumed in the model. On top of the fact that no market exhibits perfect competition and no labor force full employment, this assumption neglects one of the most important facts – developing countries, including Bolivia, suffer from high levels of unemployment. Whether or not trade can help improve unemployment figures is an important consideration. One theory, called the vent-for-surplus theory, hypothesizes that trade can help solve underemployment. The vent-for-surplus theory points to how trade makes available previously inaccessible markets for domestic commodities. With new consumers, demand for products rise and domestic industries can incorporate the unemployed. This is known as higher capacity utilization and is one of the most powerful tools through which trade can contribute to economic growth.

Addressing the issue of redistribution of income is tricky. Economists frequently ignore the issue because discussion is laden with value judgments. Although overall welfare in a country necessarily increases, some sectors will gain and some will lose. This property is known as the Stolper-Samuelson Theorem. And although the winners could theoretically compensate the losers and still have gains, a protectionist mentality

for industries utilizing the relatively less-used factor is not irrational. As noted before, the transfer of capital – human or otherwise – across industries is not as easy as purported by classical trade theory. Expectations of immediate re-training of workers and shifting capital oversimplify the specialization of capital. Redistribution of income concerns leads to some of the most contentious arguments regarding the liberalization of trade. It is easy to think of examples in the United States. Auto-manufacturing subsidies, sugar tariffs, and other agricultural trade barriers are the results of effective lobbying by industries within the States who fear trade will force reallocation of manpower and industry capital out of their industry.

Dynamic Gains from Trade

Dynamic gains from trade are the indirect benefits, namely the ability for trade to increase productivity and foster exports, which can in turn fuel long-term GDP growth

Productivity gains accrue to more liberalized traders in several ways. The first way is the notion that trade liberalization forces domestic industries to become more competitive under the pressure of more efficient foreign competitors. Rather than seek out all efficiency improving procedures, the subsidies, tariffs, and other protectionist measures allow firms to operate in a sustainable, but inefficient, fashion. The second possibility for productivity growth is that economies of scale can come into effect through the larger global market. If able to export goods firms can expand and reduce costs through economies of scale. A final avenue for productivity gains through free trade is that of cheap imports replacing expensive domestic substitutes as factor inputs in various industries. By removing trade barriers and allowing firms to buy inputs at the lower global price firms will be more productive. An obvious worry in removing trade

barriers is that while inputs may be cheaper, foreign consumables will also, which leads back to a fundamental reason for erecting trade barriers in the first place. The outcome would depend upon whether cheaper inputs lead to cheaper goods, which leads to sufficiently cheaper goods for the domestic market or whether foreign goods will still sell more cheaply than the now-unprotected goods. A second worry is that the trade barrier may have been erected to protect the factor input producing firm.

In addition to productivity improvements, dynamic gains from liberalizing trade can be realized is by fostering total trade volumes in the long-run, which in turn increase long-run GDP. Removal of trade barriers eliminates the bias against trade. In the long run, current accounts (exports subtract imports) will always equal zero, but the total amount of goods and services exported and imported will increase. Firms will produce more and export more and consumers will have access more foreign goods and services, which increases their consumer surplus.

Liberalization of trade offers many magnificent possibilities for economic growth through liberalizing trade policies. Static efficiency gains through comparative advantage and more efficient resource allocation as well as dynamic gains through increased productivity and larger trade volumes in the long-run offer potential gains to GDP too great to be ignored. It is for this reason that recent trends tend to encourage such liberalization. However, it remains important to understand the fragility of the assumptions and the possibly costly consequences if liberalization does not grant all the gains it purports on paper.

Understanding basic trade theory, I turn towards a government's stance on trade, called 'orientation'. Deciding whether beneficial or harmful trade effects outweigh the

others becomes the critical question in choosing between an inwardly versus outwardly orientated economy.

Outward-Looking versus Inward-Looking Economies

The trade debate breaks into those optimistic about trade and those who are pessimistic. Optimists, who favor outward-orientation, advocate the theoretical benefits from trade, arguing that countries cannot afford to forgo gains from trade. Trade pessimist advocate inward-oriented regimes and note global trends that point to a plausibly worsening situation for LDCs if they engage in the trade of goods where they currently hold a comparative advantage. Having gone over the neoclassical model which closely resembles advocates for trade liberalization I will begin with inward-looking argument and later return to outward-orientation rhetoric.

Inward-Oriented Economies and Import Substitution

When development economics really took off in the 1940s and 1950s it grew from economists realizing that separate theory was required to address the dissimilarities between DCs and LDCs. An important question arose: how liberalized should developing country's economies be?

Two economists Hans Singer, who passed away this year, and Raul Singer, were two of the first to address this question. A series of analysis showed that many factors led to diminished terms of trade for LDCs whose exports were primary commodities such as agricultural goods and raw materials. Limited demand and shrinking markets of exports of primary commodities led to the development of a strategy known as the 'Prebisch-Singer import-substitution model'. The strategy recommends LDCs to import primary

commodities and protect their secondary domestic industries in an effort to build them up to being globally competitive.

The Prebisch-Singer model outlines five factors that deteriorate the terms of trade against primary commodity exporters on the demand side.¹ The first is low-income elasticities of demand for primary goods. As income levels rise in importing countries – oftentimes large DCs – only small demand increases are seen. This is especially true of agricultural goods. In fact, income elasticities of agricultural goods such as sugar, cacao, tea, coffee, and bananas, range mostly between 0.3 and 0.6.² Because of this LDCs only stand to see substantial export growth at times of great income growth in DCs. The second factor is that DC population growth rates are near replacement and therefore no expansion is likely to come from population growth. Third, price elasticity of demand is also low. Falling prices have not turned to greater demand, and thus exporting countries record significant revenue loss. And the general trend is for prices to fall for all primary exports except for oil.³ The development of synthetic substitutes constitutes the fourth factor. New, often cheaper, technologies have arisen over time that act as substitutes for the primary exports of LDCs. The market-share of such substitutes continues to rise and poses a major burden on LDCs.⁴ The final factor is that DCs maintain trade barriers against primary exports to protect domestic interests. Many LDCs complain justifiably about these barriers, which constitute one of the most detrimental factors. The five aforementioned factors can lead to continually deteriorating terms of trade, which is

¹ Todaro, 2001, pg. 557

² Todaro, 2001, pg. 558.

³ Todaro, 2001, pg. 558.

⁴ Todaro, 2001, pg. 560.

exactly what primary exporters have experienced in the last century. On the supply side, LDCs also face difficulties, although less related to trade regimes.

The realization of the obstacles facing countries that choose to export primary commodities turned many developing countries – including Bolivia and most of South America – to an import substitution policy. The goal of import substitution is to replace expensive secondary good imports with domestic production. The process is as follows: (1) Erect trade barriers to curtail imports of goods the country wishes to produce; (2) Setup local ‘infant industries’ to produce desired goods and encourage knowledgeable and hopefully efficient foreign investment to contribute to the process; (3) protect the country’s infant industries until they are globally competitive. Once achieved, the import-substituting country reaps the benefits of favorable terms of trade.

Despite the numerous factors encouraging adoption of an import-substitution strategy most economists agree that, by and large, the strategy failed. (A famous counter-example is the aircraft industry of Brazil that now manufactures an impressive amount of the world’s middle-sized commuter airplanes.) More typical surveys find countries with infant industries that never developed to being globally competitive, foreign firms that got behind the protectionist policies and benefited the most, and large balance-of-payments deficits, which resulted from overvalued currency in an effort to bring imports in at a relatively cheap price. After several decades of pursuit of import-substitution many countries abandoned the scheme in the 1980s or 1990s. Bolivia was one, who switched to an outward-oriented economy.

Outward-Oriented Economies

Trade optimists believe in potentially huge gains from trade through static and dynamic means and encourage LDCs to pursue relatively liberalized policies. Outward-orientation advocates stress conventional economic arguments. Trade encourages competition, allocates resources superiorly, leads to productivity gains, and is necessary for long-term economic growth through GDP-generating exports.

Section III – A Historical Look At the Bolivian Economy

The Bolivian economy went through two major changes in the twentieth century. The changes occurred in 1952 after the Revolution and in 1985 upon the adoption of the New Economic Policy (NEP), which saw Bolivia change from an inward-oriented economy to a more liberalized outward-oriented economy. Since then, policy has followed in the footsteps of the NEP reforms. This section provides an understanding of the state of the Bolivian economy from 1952 until the present.

1952 through 1985

After the 1952 Revolution, Bolivia, like many Latin American countries, took a socialist path. The government nationalized many of the sectors of the economy, most notably the tin industry. Although the state obtained a central role in the facilitation of tin many economic and social conditions remained the same. Two critical failures of the post-revolution period included the government's inability to raise the wage of the lowest income Bolivians and a lack of productive investment.⁵

Not only did poor Bolivians reap very few benefits from exports, but domestic manufacturing suffered indirectly as a result; the paltry earnings meant that manufacturing

⁵ Rhys Jenkins, "The Social Impact of Structural Adjustment in Bolivia". 1995, pg.6

never had a domestic market. At the time, nearly all Bolivian exports were primary goods, most notably tin. Over time the gas and hydrocarbon industry grew. The incompetence to foster productive domestic industry also manifested itself through the failure to utilize foreign direct investment (FDI) and aid effectively.

The surpluses, albeit not huge, gained in the year after the revolution through export of primary goods and foreign capital rarely transformed into productive investment. Bolivia relied upon US foreign aid during the 50s and 60s. Then in the 70s, Bolivia began to borrow large sums of foreign capital. With the lack of returns to capital investment Bolivia remained heavily in debt and continually borrowed.

Bolivia's borrowing habits came to an end in the late 70s and early 80s. A combination of the dictatorship of García Meza, whose regime led the U.S. to refuse aid, and the international debt crisis, which saw many LDCs FDI cut off, left Bolivia crippled by debt. Between 1982 and 1985 a net transfer of resources equivalent to 3.5% of Bolivia's GDP left to other countries.⁶ Consequences of this welter included falling GDP, rising unemployment, a growing budget deficit, a deteriorating balance-of-payments, and accelerating inflation. In response to the economic crisis, Bolivia's 1985 elected President Paz Estenssoro introduced the NEP.

The New Economic Policy

The Estenssoro government immediately put measures into place to stabilize the economy. The reform targeted nearly all aspects of the Bolivian economy: monetary and fiscal policy, state control of industry, and a new trade regime.

⁶ Rhys Jenkins, "The Social Impact of Structural Adjustment in Bolivia". 1995, pg.6

In an effort to stifle inflation and reduce the budget deficit, the Estenssoro government enacted both a monetary and fiscal contraction. The monetary contraction proved successful on multiple levels. First, it helped curb the annual inflation, which reached rates annual of 24,000%, to below 20%.⁷ It also brought real interest rates into positive figures. The fiscal contraction also proved successful. The public sector deficit fell to under 5% annually by the late 1980s.⁸ To achieve this reduction the government cut public employment, froze public wages, and mandated a public investment halt.

Under the influence of orthodox theories of private ownership, Bolivia reduced the role of the state in the economy as a part of the NEP. The measures aimed to allow for market forces to structure the economy. State-owned industries were downsized, interest rates were freed, worker protection was reduced, and agricultural subsidies were removed. An example of the downsizing included a seventy-five percent reduction of the COMIBOL labor force, Bolivia's state-owned mining company. Although the government downsized quickly, privatization lagged. Few state firms privatized until the mid 1990s.⁹

In a further effort to benefit from conventional economic wisdom, Bolivia sought to orient its economy outwardly. This came in sharp contrast to the import substitution regime that defined the previous decades. Bolivia eliminated most quantitative restrictions and leveled tariff rates to 10% with capital goods eligible for a 5% rate.¹⁰ The government also initiated a 'dirty float' for the exchange rate. While not perfectly floating, the new rate was far less overvalued than the previous one. The correctly valued

⁷ Rhys Jenkins, "The Social Impact of Structural Adjustment in Bolivia". 1995, pg.8

⁸ Rhys Jenkins, "The Social Impact of Structural Adjustment in Bolivia". 1995, pg.8

⁹ Rhys Jenkins, "The Social Impact of Structural Adjustment in Bolivia". 1995, pg.6

¹⁰ GATT Bolivia Trade Review, 1993, pg. 80

currency helped reduce the bias against export. These policies seem to have achieved their aims. Indices of openness provided by the World Bank and the INE show an increased openness in the years following the outward-oriented policy changes.¹¹

Economic Performance in the 1990s

In the mid-1990s, Bolivia remained largely on course with the reforms of the NEP. The political-economic atmosphere changed only slightly with different Presidents. In 1993 President Sanchez de Lozada took office and began implementing true privatization efforts, which he called ‘capitalization’. He relied heavily on the support of businessmen-turned-politicians, much like himself. Management of previously state-owned industries such as telecommunications, airlines, railroads, electric utilities, and the state oil system finally switched to private hands. The state also sold fifty percent of its ownership to businessmen.¹² During this period Bolivia enjoyed economic growth. In the late 1990s, President Hugo Banzer took office and continued the same privatization policies of Lozada. Bolivia’s relatively steady growth did not last long as it came to end in the late 1990s leaving limited job creation. Corruption also ran high at this time, which further aggravated the situation. Trade policy during this period remained unchanged from the outward-orientation that began in 1985.

Current Economic and Political Status of Bolivia

Recently, Bolivia has seen much political turmoil. The economy fared no better. In 2002, national elections again favored Lozada who promised job creation, anti-corruption policy, and social inclusion for the majority indigenous population. However, the four-year recession and tight fiscal situation led to a series of confrontations between

¹¹ World Bank 2001, INE 1992

¹² Bureau of Western Hemisphere Affairs, 2005

protestors and the military. One of the most heated conflicts regarded the export of Bolivia's natural gas through Chilean ports. Anti-Chilean sentiments and worries over where the profits would end up fueled the protests. In September of 2003, violence left thirty protestors dead. Deteriorating negotiations between the government and protest leaders eventually led to Lozada to resign and flee to the United States.

After Lozada resigned the Vice President Carlos Mesa assumed power and restored order. Under the same pressure as Lozada, Mesa promised to revise the constitution, revisit the hydrocarbon laws, and create a referendum on the country's natural gas reserves.¹³ Although popular support for Mesa never fell abysmally low, he continually faced peasant protests to a number of his policy proposals. After a mock threat to leave, Mesa later made good his threat in 2005 and officially resigned stating that the people would not allow him to govern. The Chief Justice of the Supreme Court presided interim over Bolivia. After early elections the socialist Evo Morales won the presidency handily. Much further to the left, Evo's political and economic outlook differ greatly from that of the New Economic Policy, although probably less than many fear.

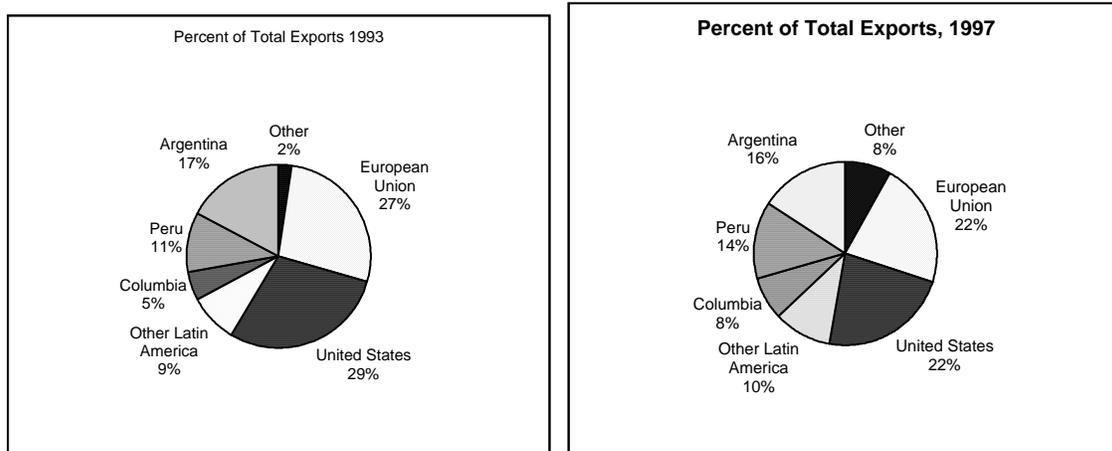
Regional Integration in Bolivia

Bolivia has consistently committed itself to a generally outward-looking trade regime since 1985. It is currently a member of the Andean Community and Latin American Integration Association (LAIA), has special access to Mercosur, and has negotiated trade agreements with Chile, Cuba, and Mexico. Bolivia has earned the favor

¹³ Bureau of Western Hemisphere Affairs, 2005

of the WTO for having few trade barriers and implementing generally unilateral liberalization measures.¹⁴

With continuing Latin American integration, Bolivia has traded an increasing amount with its regional partners. Significant changes in export recipients can be seen even between 1993 and 1997. The two tables below are recreated from a WTO Trade Review of Bolivia.¹⁵



Although the United States remains Bolivia's largest trading partner, the total percentage of exports to Latin American countries rose from 42% to 46% in a four-year period. Imports show a similar story. Between 1993 and 1997 the percentage of imports from Central and South American countries rose from 39.8% to 44.7%.¹⁶

Bolivia's trend towards regional trading blocs is tolerated by the WTO in part because Bolivia has a relatively small set of erected trade barriers that it has stayed committed to, but mostly because they foresee it as a stepping stone for future global integration.

¹⁴ WTO Trade Review, 1999, pg. xxiii

¹⁵ WTO Trade Review, 1999, pg. 12

¹⁶ WTO Trade Review, 1999, pg. 12

Section IV – An Empirical Look at Bolivia

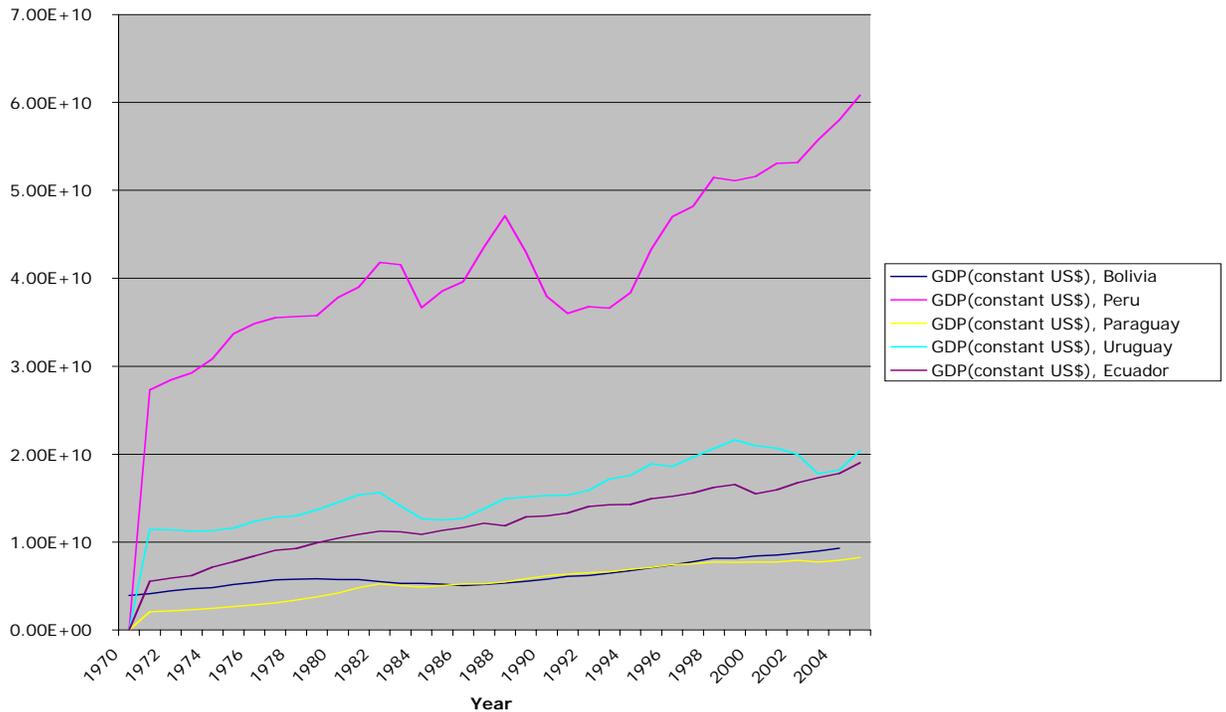
The paper now turns its focus to examining in detail economic indicators in Bolivia's economy to gauge the effects of the 1985 NEP reforms. How did Bolivia fair in comparison with its neighbors? Has the economy grown over the past twenty years? Did the NEP encourage trade in Bolivia? Which sectors benefited the most? All statistical information was found at the World Bank's World Development Indicator's website unless otherwise noted.¹⁷

Economic Environment in South America from 1970-2004

First, we look at how economies in South America fared since 1970. Noting the status of Bolivia's neighbors allows us to gauge whether or not Bolivia succeeded on a comparative global scale. The graph below, titled 'GDP in South America' shows the GDP gains in five countries: Bolivia, Ecuador, Paraguay, Peru, and Uruguay. Within South America, these five countries are the most similar to Bolivia.

¹⁷ Two excel spreadsheets are attached at the end of this paper listing all of the relevant summary statistics discussed.

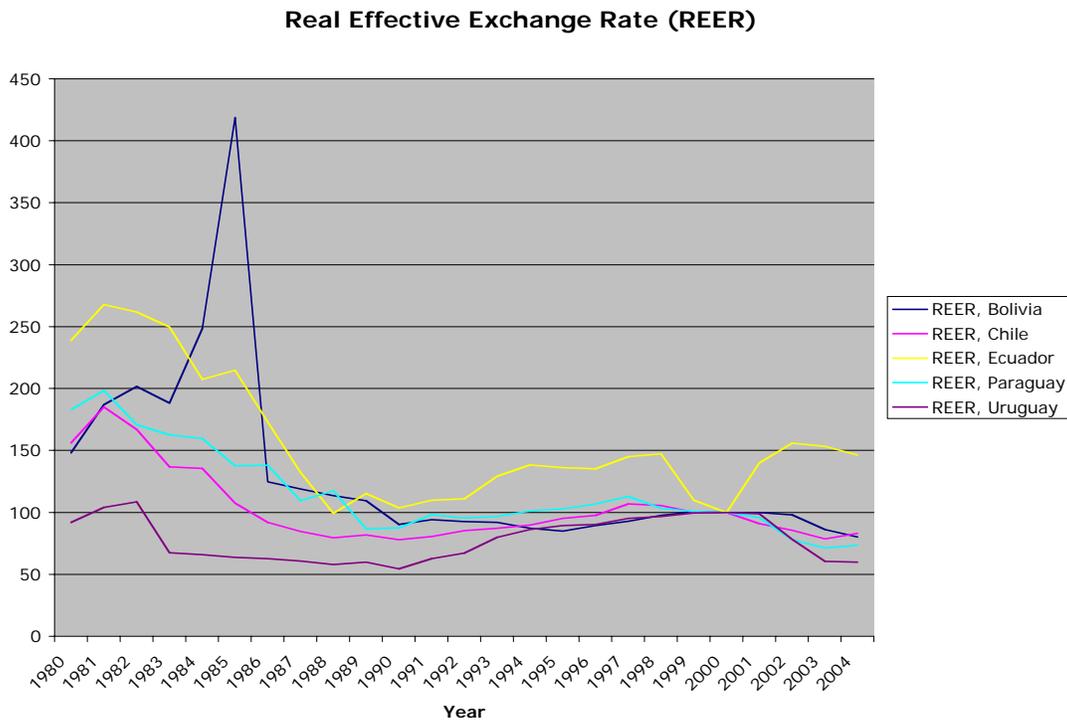
GDP in South American Countries



The graph reflects that Bolivia, along with Paraguay grew the least over the last thirty-five years. While growth remained more or less constant in Paraguay from 1970-2004, Bolivia's changed less uniformly. In 1970 Bolivia enjoyed a much larger economy than Paraguay, with a GDP of nearly \$4 billion. Bolivia's economy grew little during the seventies and early eighties, even decreasing between 1980 and 1986. At this point the economy again saw steady growth through the present, reaching \$9.3 billion in 2004. This is evidence that the NEP reforms in 1985 impacted the economy positively. A largely stagnate economy began to grow steadily as seen from gains in GDP. However, in comparison to its neighbors the gains were modest. Ecuador's economy was only \$5.5 billion in 1970 and grew to nearly \$20 billion by 2004. It is also important to keep in mind that this graph only shows the GDP growth in four other South American

economies similar to Bolivia. Other economies grew by much larger margins during the same time period.

Looking more closely at how the NEP altered trade in Bolivia, the next graph shows the real effective exchange rates (REER) of Bolivia, Chile, Ecuador, Paraguay, and Uruguay.



The graph shows country-specific indexing with the year 2000 equal to an exchange rate of 100. Aside from Uruguay, all the countries experienced a falling exchange rate from around 1980 to 1990 and then experienced relatively smaller REER changes. The high exchange rates experienced by South American countries in the early 1980s was the tail end of the inflation that hindered many economies in South American and elsewhere. Looking at Bolivia specifically the graph prominently shows the great success of the NEP in lowering the exchange rate. The high exchange rate resulted from the previously spiraling inflation that crippled the Bolivian economy in the early 1980s (looking at the

first graph of GDP is corresponds to when GDP actually fell). Bringing the exchange rate to a more stable and more valued level helped the trade climate in Bolivia. Between 1990 and 2000, the REER varied little, between 84 and 100.

Trade Indicators in Bolivia

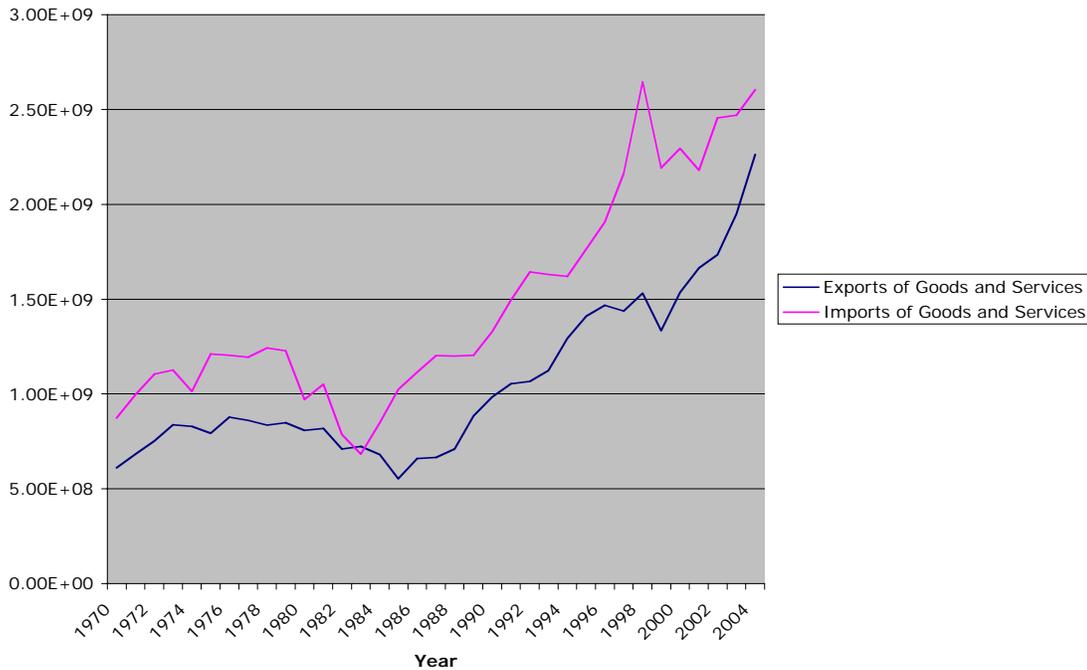
Gauging the overall impact that trade liberalization had on Bolivia as part of the NEP can be hard because it remains difficult to attribute successes during the period to trade liberalization measures versus other policy measures of the NEP. However, the outcomes on trade specifically are less vague. Overall, Bolivia's trade expanded as a result of the measures.

Before examining trade indicators, I must make a quick note regarding the information available for analysis. To perfectly gauge the effects of the trade barrier removals it would be necessary to find out the exact tariff rates (or other trade barrier statistics as appropriate), how they were changed after the reform and then compare the changes with how individual industries fared after their tariff levels were altered.¹⁸ Finding sector level tariff rates for Bolivia in the mid-1980s proved fruitless. The information was not available through the World Bank's indicators, IMF country statistics, UN Commons database, World Integrated Trade Solution database, or any of the literature I could find regarding sector level tariffs in Bolivia. What we can see from the available information is how the total trade volume was affected and how specific industries fared compared with one another before and after the economic reforms.

¹⁸ I originally planned to run a regression on sector level export volume change before and after the tariff rate reforms, including other exogenous explanatory variables such as real interest rate and employment rates. But unable to find the information I could not.

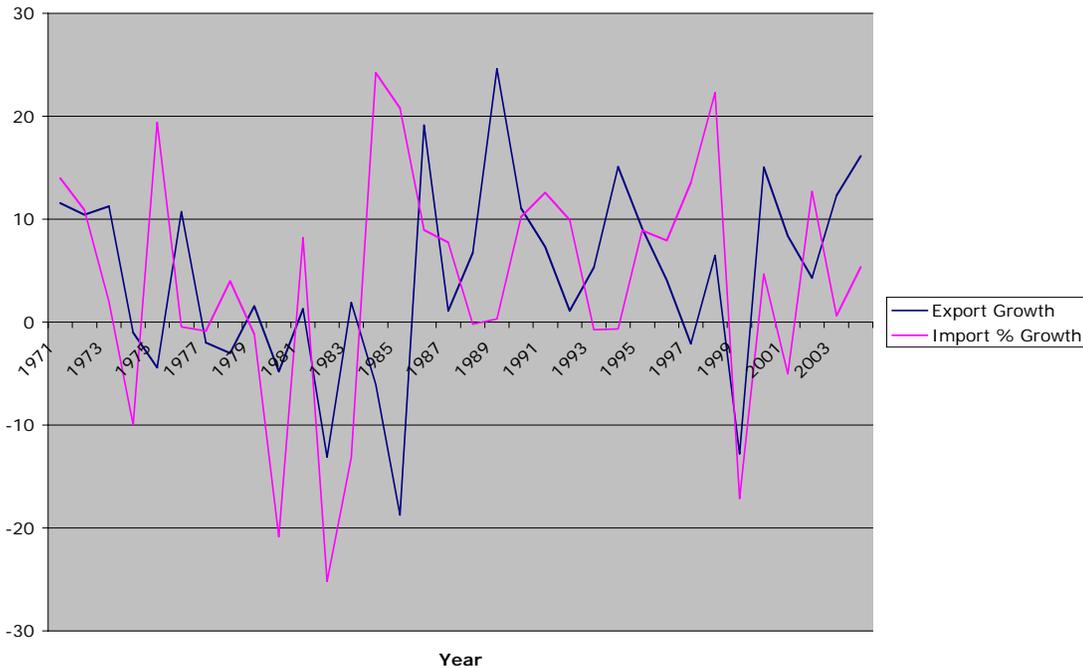
The first indicator to examine is the overall value of Bolivian imports and exports before and after the reforms. The data is summarized in the table below.

Imports and Exports Bolivia, 1970-2004



The most obvious insight this graph provides is that Bolivian imports have consistently exceeded the exports. While classic trade theory predicts that a country’s current account will always equal zero in the long-term, the discrepancy can be explained by the amounts of FDI and foreign aid that flow into Bolivia each year. The graph also illustrates that Bolivia’s total trade increased significantly after the reforms. In fact, Bolivia’s total trade, although it rose for some time in the mid-seventies, was at nearly the same level in 1985 as it was in 1970. Afterwards, both imports and exports grew steadily through to the present. This data points towards the effectiveness of the trade liberalization reforms in increasing Bolivia’s total trade. The graph below tracks the growth of Bolivian imports and exports.

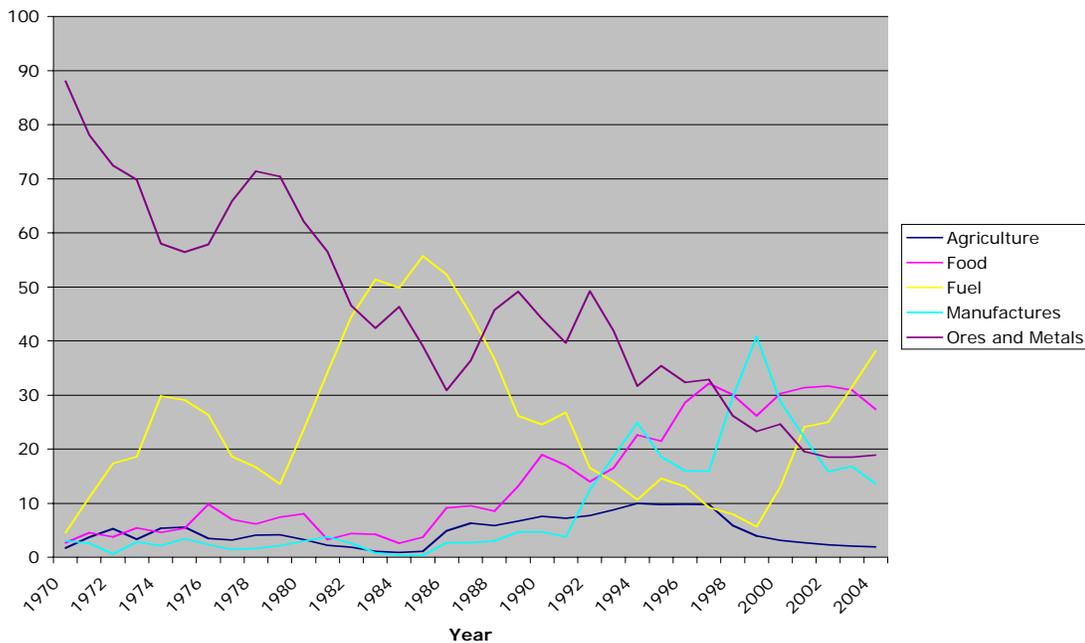
Percentage Growth on Imports and Exports



Much more sporadic in appearance than the dollar value graph above, the graph reflects the same trade improvement. After 1986, both imports and exports growth was almost entirely positive, albeit at staggered levels.

We have now seen that Bolivia's economy, as a whole, benefited from the NEP. Specific to trade, the REER became more stable and imports and exports increased steadily after the reforms. Classic trade theory – namely the Stolper-Samuelson theorem – predicts that trade liberalization will lead to both winners and losers within the economy. Discovering which sectors benefited the most is tricky for the aforementioned reason of determining how the trade barriers were actually changed by the new trade regime. Statistics do exist reflecting how sectors fared over the years in terms of the % of total exports the respective sector accounted for. The graph below shows this.

Breakdown of Merchandise Exports into Percentage of Merchandise Total



First, we must define a ‘merchandise export.’ The UN Common Database defines it as,

“Goods which add to the stock of material resources of a country by entering its economic territory. Goods simply being transported through a country (goods in transit) or temporarily admitted (except for goods for inward processing) do not add to the stock of material resources of a country and are not included in the international merchandise trade statistics.” (UN COM Trade Service, 1993)

The two most important aspects of this definition are that (i) it refers to goods, not services, and that (ii) the good must remain in the country as a material resource, rather than simply passing through during transport elsewhere.

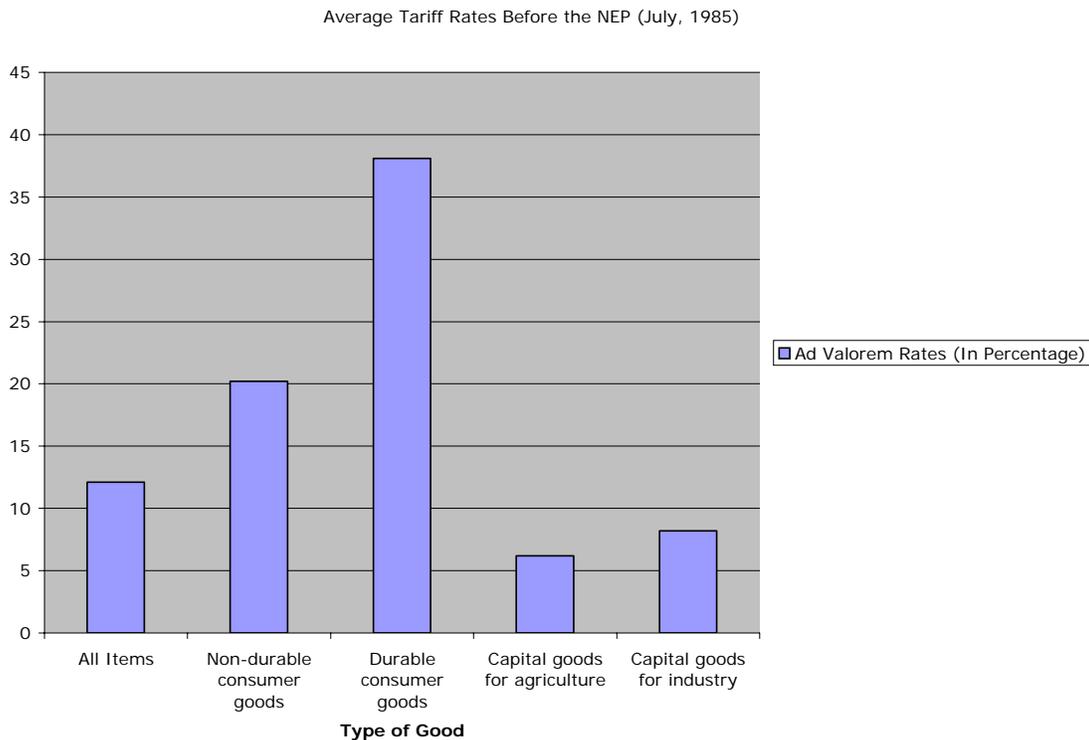
Several superficial observations can be made from the graph; only some of the observations can be linked to the trade liberalization policies implemented by the Bolivian government in 1985. First, ores and metals as a percentage of Bolivian exports have fallen considerably since 1970 and may be uncorrelated with the reforms. If anything, the reforms may have benefited the industry; ores and metals rose steadily for

five years after 1985. However, this remains inconclusive as the industry experienced a lot of variation over the course of its long-term decline. Second, fuel exports look to have been hit the hardest by the reforms. The sector was enjoying a larger and larger component of the total exports until 1985 when they fell sharply for the following fifteen years. In 1999 they accounted for a mere 5.6% of the merchandise export total value. Since then, natural gas reserves have boosted fuel exports to the largest contributor to total merchandise exports. Third, food, agricultural raw materials, and manufactures all appear to have benefited from the NEP. All three remained rather insignificant components of the total merchandise export volume until 1985. With the reforms in place all three sectors grew for ten years. Afterwards, the fates of the sectors differed greatly. Agricultural products began to fall and have continued to fall since 1995, accounting for only 1.9% of Bolivia's goods exports in 2004. Manufactures enjoyed an increasing share of the exports reaching its highest point in 1999 at 40.8%. It then slid down to 13.6% by 2004. Food, in contrast to agricultural raw materials and manufactures, continued to grow through 1999, and experienced only a small decline from 2000 to 2004.

One goal that is shown to have succeeded was the export diversification aim of the NEP. With traditional exports declining in Bolivia, the NEP set out to diversify their exports through their export promotion reforms.¹⁹ As seen from 1985 on, ores and metals became a much smaller portion of the total merchandise export total, falling from an incredible 88% in 1970 to just below 20% in 2004. In 2004, no single sector accounted for more than 40% of the total goods exports.

¹⁹ GATT Bolivia Trade Review, 1993

Two main analytical problems arise from the preceding analysis. First, the graph only reflects percentage changes with respect to the entire value of merchandise exports rather than the \$US value. What this means is that industries that suffer percentage losses may in fact be fairing well enough, but are shown in decline by the graph because other sectors outperformed them. Meticulous calculations outside the scope of this paper could determine the \$US growth of such industries, but these statistics are not offered in the WDI database. I qualitatively address this concern shortly. The second problem I addressed before is in regards to the need for information revealing pre-NEP tariff levels. The only very general information I could locate is recreated in the graph below from a published GATT trade review.²⁰



²⁰ GATT Bolivia Trade Review, 1993

Looking at the above tariff rates we can make predictions about how the tariff alterations should have affected various industries. First, remember that a flat tariff rate of 10% was implemented with the NEP except on capital goods that were eligible for a 5% tariff rate.²¹ Durable and non-durable consumer goods can only affect exports indirectly; they cause a shift in the domestic market. Lowering tariffs on consumer goods would allow foreign competition to enter into previously protected markets. Those that sold to the domestic market relatively more than others will lose the most. However, export values would be affected only as a result of the domestic market being opened up. Losses accrued to the domestic market might consequently lower the total production available for export by ways of falling economies of scale. However, losses in exports were not found in 1985 besides the constant decline in the ores and metals industry. This implies that either the firms were not affected negatively when Bolivia's economy was opened to foreign markets or that another competing affect outweighed the theoretically smaller domestic market. The competing theoretical effect is the lowered prices on capital goods, for both agriculture and manufactures. Cheaper capital from foreigners would simply lower the total production costs of the exporting firms, allowing them to increase their production volume. Export volumes did increase following the new tariff rates as seen in the graph and the cheaper capital could have contributed to the increase. However, it remains difficult to draw such strong conclusions. The data is only the average tariff rates from 1985 directly prior to the NEP reforms. Also, the data lumps multiple sectors into general categories.

²¹ GATT Bolivia Trade Review, 1993, pg. 80

One more interesting piece of information provided by this graph is that just prior to the 1985 the overall tariff rate of all items was only 12.1%. Remembering that the uniform tariff rate implemented in 1985 leveled all tariffs to no more than 10%, 2.1% is a surprisingly small change. Other South American economies had much higher average tariff rates.

Social Indicators

In broad terms data shows that the NEP reforms succeeded in many of their aims. However, as mentioned before, one of the main criticisms of the NEP concerns social improvement for the citizens of Bolivia. Unfortunately, much like sector level tariff rates, data on basic social indicators prior to 1990 such as literacy, employment rates, poverty figures, and improved sanitation levels are surprisingly difficult to obtain. Therefore, I can comment only in brief regarding the social impacts of the NEP based on empirical evidence. In regards to trade liberalization specifically it can only be extrapolated that trade gains contributed in part to the increase in resources available for social programs.

One indicator accessible from the World Bank is life expectancy, but only for select years from 1970 to the present. Tracing life expectancy one finds a very steady rise from around 45 years in 1970 to 68 years in 2000 that appears unrelated to the economic reforms of 1985. Analysis of other indicators by development economist Rainer Thiele, though, actually shows significant improvements since the reforms. Since 1985, extreme poverty (those existing on a budget below the costs of a basic food basket) fell from over to under 20%, and that moderate poverty (a basket including some non-food goods) fell from over to under 50%.²² This drop was attributed almost exclusively to a falling urban

²² Rainer Thiele, "The Social Impacts of Structural Adjustments in Bolivia", 2003, pg. 5

poverty rate. Thiele noted that “evidence on rural poverty [in Bolivia] turns out to be very limited. Since household surveys before 1997 did only cover selected rural developments and a low number of households, they were not representative of rural Bolivia, thus precluding any meaningful assessment of the evolution of rural poverty over time.”²³ Most primary health indicators also reflect positive change. Infant mortality rates fell along with child malnutrition and access to care improved.²⁴ While social conditions in Bolivia improved in many areas after the NEP was implemented, few if anyone are content with Bolivia’s current socio-economic state.

Section V – Conclusion

The New Economic Policy trade liberalization reforms of 1985 benefited Bolivia. As predicted by classic trade theory, exports and imports increased steadily after the liberalization measures, which in turn contributed to GDP growth during the same period. However, which sectors benefited remains less certain. With the available data it remains hard to identify which sectors were helped the most from the reforms, only that as a country Bolivia’s economy outperformed the prior regime.

With the introduction of a new leader, Evo Morales, it will be interesting to see how Bolivia’s trade regime changes in the near future. The new President is much more left-leaning and is promising state-owned enterprises in an effort to alleviate the problems arising from the highly unequal per capita income in Bolivia. But foreign investor confidence fell as a result of the government renegeing contracts in favor of

²³ Rainer Thiele, “The Social Impacts of Structural Adjustments in Bolivia”, 2003, pg. 5

²⁴ Rainer Thiele, “The Social Impacts of Structural Adjustments in Bolivia”, 2003, pg. 11

nationalization. Also, political dissatisfaction from the United States over coca farming also portends a change in trade relations for Bolivia's largest trade partner.

Looking more generally, what can be concluded about trade liberalization in developing countries everywhere? Most importantly is that liberalization (not necessarily absolute) appears to help even the most impoverished LDCs. In many ways, Bolivia's socio-economic situation is more akin to very poor African countries than its neighbors in South America. If gains from trade realized through liberalization reforms benefit Bolivia then liberalization is likely to benefit any developing economy.

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