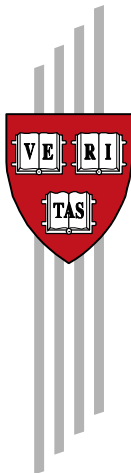


# **Expanding Foreign Direct Investment in the Andean Countries**

Howard J. Shatz

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## Abstract

Developing country officials increasingly have come to see attracting foreign direct investment as an essential part of their development strategies. The Andean countries of Bolivia, Colombia, Ecuador, Peru, and Venezuela have joined other countries around the world in pursuing multinational investment. This paper presents an overview of their suitability for investment compared to other investment locations. It also describes policy areas where national governments of the five Andean countries can take action to attract the type of foreign direct investment that will increase living standards and help alleviate poverty. Export-oriented investment is identified as the key type of investment on which these countries should focus. Possible policy interventions include improving access to developed country markets, lowering trade costs, improving export processing zones, and investigating the further use of efficient investment incentives.

**Keywords:** Andean Countries; Competitiveness; Economic Geography; Economic Reform; Foreign Direct Investment

**JEL Classification Codes:** F1, F2, O1, O2, L5

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**Howard J. Shatz** was a doctoral fellow, and subsequently a post-doctoral fellow, at the Center for International Development at Harvard University at the time the research for this paper was completed. He holds a Ph.D. in public policy from Harvard with a specialization in international economics and a dissertation on the location of U.S. multinational affiliates. He is now a research fellow for a private, non-profit, non-partisan research institute.

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# **Expanding Foreign Direct Investment in the Andean Countries**

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## **I. Introduction**

Developing country officials increasingly have come to see attracting foreign direct investment (FDI) as an essential part of their development strategies. Yet as competition for investment increases, only a few developing countries receive large amounts of FDI, or foreign investment for the purpose of controlling and operating a business. For the five years from 1993 to 1997, only 10 countries received two-thirds of the FDI directed at all developing countries (Shatz and Venables, 2000). Many countries, though their leaders would like to attract investment, remain unsuitable business locations or are unable to attract FDI for other reasons.

The Andean countries of Bolivia, Colombia, Ecuador, Peru, and Venezuela have joined other countries around the world in pursuing multinational investment. This paper presents an overview of their suitability for investment compared to other investment locations. It discusses the key determinants of foreign direct investment worldwide and the actual pattern of foreign direct investment in the Andean countries. It also describes policy areas where the national governments of the five Andean countries can take action to attract the type of foreign direct investment that will increase living standards and help alleviate poverty.

The decision by the five countries to pursue multinational investment came somewhat late in the modern era of economic integration, with a firm commitment marked by the 1991 adoption of Andean Pact Decisions 291 and 292. These decisions eliminated all government authorization requirements, replacing them with only simple registration by foreign investors, abolished divestiture requirements for foreign owners, and allowed the five countries full

discretion in setting their own policies. The changes reversed years of highly restrictive policies toward foreign investors dating from Andean Pact Decision 24, effective 1971, the so-called Andean Investment Code. These original policies were so restrictive that Chile abandoned the Pact in 1976 in order to liberalize its trade and investment rules (Hufbauer and Schott, assisted by Clark, 1994, and Bulmer-Thomas, 1997).<sup>1</sup>

So far the results of the liberalization have been mixed. Table 1 shows inward FDI patterns for the Andean countries, South America, Latin America, developing and transition countries, developed countries, and the world. As a group, the Andean countries have achieved high levels of investment relative to gross domestic product (GDP), but do not stand out in terms of growth of investment. The reason is that some of them experienced decreases in GDP in the late 1990s. Ideally, one would like to see both continuing growth of investment and continuing growth of GDP, with the new investment entering low- and middle-technology labor-intensive manufacturing industries and other new activities, such as manufacture for export. As will be shown later, if the activities of U.S. multinationals indicate broader patterns, the five Andean countries do not attract much export-oriented manufacturing investment and have a mixed record on attracting manufacturing investment in general. These are exactly the types of investments the Andean countries need if they hope to develop more rapidly and equitably.

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<sup>1</sup>Decision 24, adopted on December 31, 1970, included the forced divestiture of 80 percent of foreign holdings in public utilities, mass media, advertising, and banking over three years; divestiture of 51 percent of foreign holdings over 15 to 20 years in all firms that wanted to take advantage of low tariffs within the Andean market; and limitations on profits earned by foreign-invested companies. In truth, Ecuador applied only a few provisions and other countries found loopholes. The policy came at a time of nationalizations throughout Latin America. All five Andean countries nationalized at least one major foreign firm or industry between 1968 and 1977 (Sigmund, 1980).

Table 1. FDI in the Andean Countries in Comparative Perspective  
All numbers are percentages

Region	Average FDI/GDP 1989-1993	Average FDI/GDP 1994-1998	Annual Average Growth of FDI 1989-1993	Annual Average Growth of FDI 1994-1998
World	0.87	1.44	2.27	26.24
Developed Countries	0.84	1.20	-6.03	33.22
Developing and Transition Countries	0.96	2.18	31.17	14.36
Latin America and Caribbean	0.95	2.42	18.11	21.96
South America	0.79	2.32	16.23	35.10
Andean Countries	1.12	3.38	30.38	14.49
Bolivia	1.01	6.70	124.22	60.93
Colombia	1.20	2.82	13.62	19.89
Ecuador	1.61	3.28	55.60	11.81
Peru	0.46	4.17	84.73	-11.23
Venezuela	1.33	3.09	14.96	46.42

Notes: Developed countries include high-income OECD countries under the definition in World Bank (2000), along with Israel. Latin America and Caribbean countries exclude the high-income non-OECD economies of Aruba, Bahamas, Bermuda, Cayman Islands, Netherlands Antilles, and U.S. Virgin Islands. The growth rate for Bolivia for 1989 to 1993 is actually 1990 to 1993, since FDI flows to Bolivia in 1989 were negative. All figures for country groups represent the numerator aggregated for the group relative to the denominator aggregated for the group, rather than unweighted averages.

Sources: World Bank (2000), UNCTAD (1995, 1996b, 1997, and 1998), and National Bank of Hungary, Statistics Department (2000).

Policy recommendations for attracting new types of investment include improving access to developed-country markets, lowering trade costs, improving export processing zones, and investigating the further use of efficient investment incentives. Over the longer term, improved education is essential. In addition, the government of each country should formalize a

mechanism for discussing business climate issues with foreign investors so that it can more easily monitor and improve business and investment conditions.

The plan of this paper is as follows. The next section will more completely define FDI and discuss its role in development. Section III will review recent research on the country characteristics driving inflows of FDI, with particular attention to the characteristics of the Andean countries. After that, Section IV will report on patterns of FDI in the Andean countries along with new statistical tests of determinants. A final section will conclude and suggest general policy directions. Companion pieces, prepared by teams of researchers in each of the Andean countries, will assess each country more deeply and supply policy recommendations.

## **II. What is FDI?**

Foreign direct investment is investment across borders aimed at operating a business. While it also includes investment in real estate, the most important type of FDI from the perspective of economic growth and distribution is investment to control some form of business operation. At the heart of the definition is the idea of influence or control.

For example, the fifth edition of the International Monetary Fund's Balance of Payments Manual (IMF, 1993, pp. 86-87) gives this definition:

*Direct investment* is the category of international investment that reflects the objective of obtaining a lasting interest by a resident entity in one economy in an enterprise resident in another economy . . . the lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the investor on the management of the enterprise.

. . . In this *Manual*, the primary distinguishing feature of *direct investment* is the significant influence that gives the investor an effective voice in management. For the foreign-controlled sector in the *SNA* [System of National Accounts], the primary distinguishing feature is control.

Since it can be difficult to judge whether one investor influences or controls another firm, the IMF and many countries have adopted a threshold of 10 percent foreign ownership as the sign of direct investment.

The financial flows regarded as FDI come in three flavors, equity investment, loans from the investor to the foreign-invested firm, and earnings retained by the foreign-invested firm and not yet remitted to the foreign investor. As a result, FDI as measured in the balance of payments can be far different from capital investment by foreign-invested firms, in both its pattern and its determinants (Grubert and Mutti, 1991). In fact, the balance of payments measure can be very volatile, so researchers investigating multinationals often rely on sales by affiliates (Brainard, 1997, Yeaple, 1999, and Shatz, 2000), number of affiliates (Fujita, 1998) or capital expenditures (Wheeler and Mody, 1992).

Increasing foreign direct investment in an economy certainly brings in new capital, but this is only one of the possible benefits, and not necessarily the most important. More important may be new technologies and management techniques, increased international linkages and expanded export opportunities, and greater domestic competition and product variety. Therefore, while countries are interested in the growth of inward FDI, it may be more appropriate for policy makers to consider the internationalization of business in many different forms. These include licensing agreements, management contracts, franchising, subcontracting, and other situations in which a foreign company supplies some asset, either tangible or intangible, but does not own the project using the asset (Oman, 1984 and 1986).

The main difference between these other forms and FDI itself is that in FDI, the investing firm keeps the asset internal to its corporate group, rather than letting another entity use it. Such an asset might include proprietary process or product technology, favored access to financing, or

a uniquely efficient organizational form. This paper will concentrate on FDI, rather than other modes of internationalization, with the presumption that many (though certainly not all) of the factors influencing FDI also influence these other modes.

### **III. Factors that Attract FDI<sup>2</sup>**

#### *Why Firms Go Multinational*

Firms that go multinational use some asset, whether physical capital, organizational expertise, a proprietary technology, or marketing skill, to produce goods and services at their foreign locations. The fact that firms that invest abroad have some proprietary asset also means that FDI clusters in specific industries (Hymer, 1976, and Caves, 1971 and 1974). Industries with the most outward FDI are those with high levels of differentiated products, research and development, or skilled labor, for example. Often they will have strongly branded products and high ratios of advertising expenditures to sales and will find it advantageous to locate close to their ultimate consumers.

However, there can be significant costs and uncertainty in owning or working with a foreign plant. Therefore, any multinational firm must have a governance or transaction cost advantage in keeping its asset internal to the firm (Caves, 1996, p. 2). Even in the case of producing intermediate inputs abroad, the firm must have some type of transaction cost advantage. Otherwise, it could buy the good through a contractual arrangement or on a spot market.

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<sup>2</sup>Many of the studies cited throughout this paper rely on U.S. data on multinationals. U.S. multinationals and their affiliates are widely studied because the data are the most comprehensive and easily available in the world. In fact, nearly all the data are freely available on the web site of the U.S. Bureau of Economic Analysis, <http://www.bea.doc.gov> (click on the "Catalog of Products" link).

### *Country Characteristics That Attract Multinationals*

Firm and industry characteristics are only one part of the explanation behind investing abroad. Another comprises the characteristics of the foreign location. The firm must find some advantage to producing abroad that justifies the extra coordination costs and lack of familiarity with the foreign business climate. Among these location factors, country size in terms of GDP and country distance from investors most strongly influence the level of multinational production in a host country, with large countries attracting and distant countries failing to attract investment (Shatz, 2000, Chapter 2; see also Brainard, 1997, Ekholm, 1998, and Shatz and Venables, 2000). Statistical tests using data of U.S. multinational affiliates reveal that the GDP of the host country and the distance of the host country from a prospective investing country account for about two-thirds of the variation in the worldwide distribution of production by multinationals. For the Andean countries, this means that their natural investing partners will be the U.S. and other Latin American countries.<sup>3</sup>

Distance can play a role in two ways. It can increase coordination costs. Farther distances mean home country managers must spend more time traveling back and forth if they wish to meet with the executives of their subsidiary in person. More importantly, distance can heighten transport costs. If a firm wants to sell in a distant market but exporting is expensive because of transport costs, the firm might set up a subsidiary in that market. However, if it wants to produce abroad for sale back to the home country, it will want low transport costs and therefore a nearby investment location. Distance, it seems, can either encourage or discourage

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<sup>3</sup>Note that cultural factors, such as a common language, also have been shown to determine "natural" investing partners. This helps explain why Spanish companies are such prominent investors throughout Latin America. Yeaple (1999) attributes the language effect to its influence

investment. In practice, far distances deter direct investment.

Most studies have not attempted to differentiate the effects of distance independent of coordination or transport costs.<sup>4</sup> Most likely, transportation and coordination costs are the overriding factors influencing the location of investment, and distance serves only as a proxy and on its own has little effect. If this is so, then there is great room for policy in lowering total transport costs, such as by making ports more efficient and speeding customs clearances. This will be expanded upon below in the section on export-oriented investment.

There is also room for policy regarding country size. While GDP is used here to denote size, size should really be considered the size of the market accessible to producers. If producers cannot ship their goods to consumers because of poor roads, then they face a market smaller than that indicated by GDP. Therefore, improving internal communications and transportation services, as well as lifting restrictions on movements of goods internally and to neighboring countries, will effectively increase market size.

There are a number of other general determinants over which policy can play a positive role. Three of particular note include the level of education, particularly secondary education and higher education, the host country's infrastructure, and national policies towards inflows of FDI. High levels of education, advanced transportation, communications, and energy infrastructure, and non-restrictive investment laws all contribute to higher levels of sales by multinational affiliates. While these three determinants are all related to a general level of development, they can be separated and shown to be separately influential.

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on reducing fixed costs, while Shatz (2000) attributes it to reducing costs in general.

<sup>4</sup>One exception is that of Ekholm (1998). Her results do not show a strong transport cost effect when distance is included. However, rather than using actual transport costs she uses as a proxy an index based on the relative importance of trade between adjacent countries. Also, her analysis is for market-serving FDI, and is not applicable to other types, such as export-oriented or

In fact, they influence a number of important activities by multinationals. Wheeler and Mody (1992) showed that better infrastructure is associated with higher levels of capital expenditures by U.S. foreign affiliates. Stevens (1997) showed that negative policies can depress plant and equipment spending by U.S. foreign affiliates.

Entry conditions for foreign investors are generally liberal in the Andean countries, and became so at the beginning of the 1990s. However, while entry conditions are open, the business climate for companies in the Andean countries may be difficult. Though the relationship between business climate and the level of multinational activity awaits further research, it is becoming clear that the microeconomic business environment is a key determinant of country prosperity (Porter, 2000). The components of the microeconomic business environment include factor input conditions (human resources, capital resources, infrastructure), demand conditions (sophistication of home demand, pressure from local buyers for quality), related and supporting industries (availability and quality of local suppliers, development clusters), and the context for firm strategy and rivalry (intellectual property protection, hidden trade barriers, intensity of local competition, legal barriers to entry).<sup>5</sup>

Out of 58 countries ranked on business environment in the 2000 Global Competitiveness Report (Porter, Sachs, Warner, Cornelius, Levinson, and Schwab), the five Andean countries fare poorly. Bolivia and Ecuador are at the bottom, ranked 57 and 58 respectively, while Venezuela is ranked 55, Peru is 51, and Colombia is 48. These rankings put them below the median not only for all countries, but for all countries that are not high-income OECD members. In some cases, the report points directly to actions governments can take. For example, Ecuador ranks

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infrastructure.

<sup>5</sup>Lee and Mansfield (1996) provide a particularly informative analysis of how intellectual property protection influences foreign direct investment in developing countries.

very poorly regarding financial disclosure requirements, import fees, and the time businesses must spend with government bureaucracy. Peru's biggest business environment problems include the independence and adequacy of the judiciary, and Venezuela ranks poorly on intellectual property protection. The lesson here is that the Andean countries appear to have made the overall investment environment open but must now shift their attention to the microeconomic foundations of the business environment, to the benefit of both local and foreign investors.

A final determinant of overall multinational investment worth noting especially for the Andean countries is political and economic stability. In a study of terrorism and foreign direct investment, Enders and Sandler (1996) found that terror campaigns in small countries can have a large depressive effect on inflows of FDI when many of the attacks target foreign commercial interests. They estimate that between the mid-1970s and the early 1990s, such campaigns depressed annual FDI by 13.5 percent in Spain and 11.9 percent in Greece.

One commonly used proxy for country stability is the Institutional Investor magazine country credit risk rating (Shatz, 2000). This ranges from 1 to 100, with 100 the best rating, and is based on a semi-annual survey of international bankers. In the latest ratings (September 1999 and March 2000), the Andean countries were rated at about the same level as developing countries as a whole, but somewhat below the other South American countries. Within the Andean countries, Bolivia and Peru improved between March 1999 and March 2000, Venezuela held steady, while Colombia fell slightly and Ecuador fell dramatically. It is not yet clear how new developments in Venezuela under President Hugo Chávez will affect perceptions of that country's stability.

To recap, host country size, distance from major investors, education level, infrastructure,

investment openness, and stability all serve as key determinants of the level of inward FDI. The effects of the microeconomic business climate are as yet not clear, but most likely it influences operations once a foreign-invested business is in place, and thus opportunities for future investment. Beyond these factors, however, to craft effective host country investment policies, it is more useful to think about different types of FDI, rather than overall FDI.

### *Country Characteristics and Different Types of FDI*

One way to consider FDI is by industry, while another is by purpose, such as export-oriented or host-market-serving. For example, Yeaple (1999) showed that contrary to the findings of recent research, the location of multinational production for sale to the host country market depends in part on the comparative advantage of the host country. He did this by disaggregating U.S. multinational affiliate sales data into 52 manufacturing industries and studying how the skill-intensity of each industry interacted with the skill intensity of each of 48 countries. He found that lower-skilled countries tend to attract lower-skilled industries, but larger countries attract industries of all skill levels.

Likewise, Shatz (2000, chapter 3) disaggregated sales by U.S. multinational affiliates into sales to the host country, sales to the U.S., and sales to third countries. He found that the country characteristics that attract production for the host country market differ substantially from the country characteristics that attract production for export.

For the purposes of policy in the Andean countries, it is most useful to differentiate FDI into export-oriented, host-market serving, and infrastructure.<sup>6</sup> Export-oriented investment is extremely low in the Andean countries (if U.S. multinational behavior reflects the behavior of

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<sup>6</sup>Parts of this discussion are drawn from Sachs, Maira, and Shatz (2000).

multinationals from other countries).<sup>7</sup> This presents the greatest policy challenge to these countries, since expansion of manufactured exports has proved crucial to most of the rapidly growing countries of the past few decades (Radelet, 1999). Examples include the East Asian tigers and cubs (Hong Kong, Korea, Malaysia, Singapore, Taiwan, and Thailand), along with Ireland, Mauritius, and Tunisia. In the most recent cases, multinationals mediated this expansion of manufactured exports.

Briefly put, the different types of investment are attracted by the following characteristics. Export-oriented investment depends on costs, especially production and transport costs. Education appears not to influence strongly the level of export-oriented investment in developing countries. Rather, labor costs, effective tax rates, and transport costs are all negatively correlated with production by multinationals for export. In attracting export-oriented investment, incentives can influence the choice of investment location, though this seems to remain a point of contention among analysts. Well-run export processing zones can help as well. Finally, regional trade agreements can boost export-oriented investment, since they lower total cross-border costs.

Inflows of host-market-serving investment are determined by market size, though distance from the investing country can play a role, as can trade policy. Trade policy, however, usually involves protecting the internal market for the investor. This breeds economic inefficiency and is seldom worth the tradeoff.

Inflows of infrastructure investment depend crucially on the regulatory environment because of the high sunk costs that infrastructure projects incur. Once the investment is in place, national regulatory authorities can easily rewrite prior contracts to reduce revenues and profits

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<sup>7</sup>Table 5, discussed later in the paper, shows these breakdowns for the Andean countries and

for the investor. Because of this risk, investors in the negotiation phase usually expect higher profits and bargain for favorable terms, giving the country incentive to actually rewrite contracts. From the country's point of view, the infrastructure investor has incentive to overpromise for the given price, and then renegotiate once it has locked out competitors. To attract such investment, therefore, countries must supply regulatory stability along with a transparent dispute resolution mechanism. Stability in political institutions is also critical.

The following sections elaborate on these points and discuss them in the context of the Andean countries, with special attention to export-oriented investment.

### *Export-Oriented Investment*

Location and geography, factor costs, and trade policy have particularly important effects on the attraction of export-oriented investment. All of these elements contribute to production costs, and export-oriented investment is the most sensitive of the three types to costs. Costs should be taken to mean not just labor costs, but all costs associated with producing a good and bringing it to market. Multinationals choosing export platforms often can scan the world before settling on a location and therefore face many opportunities for cost minimization.

Location plays an especially large role as a determinant of investment for production of goods intended for export back to the investing country (Shatz, 2000, chapter 3, and Shatz and Venables, 2000). Firms in the major investing countries all produce inputs and goods for export back home in neighboring countries. The U.S. has an enormous level of such investment in Mexico, Germany moved very quickly into Hungary during the 1990s, and Japan has invested heavily throughout Asia.

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other country groups.

It is important to note – especially for those countries geographically unfavored – that being far from major investors is not an immutable sentence against attracting export-oriented FDI. The U.S. also has an enormous level of such investment in Singapore, definitely not a neighboring country. While Mexico is adjacent to the U.S., Singapore is almost 8,800 miles away. In 1998, U.S. manufacturing affiliates in Mexico produced \$52.7 billion worth of goods and sold 39.3 percent of the output to the U.S.. In the same year, U.S. manufacturing affiliates in Singapore produced \$33.9 billion worth of goods and sold 41.7 percent of the output to the U.S.. Singapore ranked seventh in terms of manufacturing output by U.S. affiliates in 1998, while Mexico ranked fourth. Only Canada, France, and Germany ranked higher.<sup>8</sup>

Just as the location of a country in the world can affect its attractiveness as an investment site, the location of the population within a country can do the same, and this may be one geographic factor that helps Singapore. Gallup and Sachs, with Mellinger (1999; known from here as GSM), show that the percentage of a country's population within 100 kilometers of the coast is a powerful determinant of economic growth. They suggest that growth is strong because coastal access by the population facilitates exports. Shatz (2000, chapter 3) shows that this type of coastal access is associated with higher levels of certain types of export-oriented investment.<sup>9</sup>

The Andean countries show mixed results regarding this measure, doing well on average for South America but not as well compared with countries throughout the world. Of the 129 countries in the GSM data set that are not OECD high-income countries, the mean for this measure was 39.8 percent in 1994. Colombia (27.2 percent) and Bolivia (0 percent) were below

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<sup>8</sup>U.S. Department of Commerce, Bureau of Economic Analysis (undated data file a), tables 3.E.3 and 3.F.4.

<sup>9</sup>More specifically, high coastal access results in low transportation costs for output produced in the country. Furthermore, it presents a large pool of workers for multinationals eager to produce near ports and ship their products overseas. Note that it does not take account of proximity to

the mean as well as the median. Venezuela (69.1, the highest in South America), Ecuador (60.1), and Peru (55.6) were above the mean and the median. Above the mean may not be good enough, however. Of these 129 developing countries, 21 had fully 90 percent or more of their populations near the coast, including such exporting powerhouses as Malaysia, Korea, and Singapore, along with all the Central American countries.

Factor costs comprise the next set of costs that determine the location of export-oriented investment. Wage costs are not as important as unit labor costs, the total compensation paid by the firm per unit of output. Extra costs beyond wages can include high mandatory severance benefits as well as restrictive labor laws that force firms to retain employees whose services are no longer necessary or that make firing or laying off employees unduly expensive or time consuming. In 1998, U.S. multinational affiliates paid an average of \$18,226 in compensation per employee in the Andean countries. In 120 other comparison countries, they paid an average of \$20,937. These numbers are unweighted averages, and do not take account of the education level of workers or industry mix.<sup>10</sup>

Note that the goal for policy makers is not to destroy social protection systems. Rather it is to strike a balance between labor flexibility and social protection to encourage investment and allow steady increases in employment and wages through productivity improvements.

Tax rates are another important factor cost, as they constitute a reduction of the return to capital. Research results regarding the effect of tax rates on investment are mixed, but this is in part because most of the analysis focuses on aggregate foreign investment, not export-oriented investment. Results favor a tax impact on export-oriented investment, with low taxes attracting

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sea lanes, which may be another factor.

<sup>10</sup>The comparison countries include all countries that are not high-income OECD members for which data exist.

international exporters.

Related to tax rates, incentives (tax and non-tax) also influence the location of export-oriented investment. Guisinger and Associates (1985) made this point simply and forcefully in their study of investment incentives and performance requirements. They provided evidence that incentives attract export investment, even though the fundamental concerns of investors are the general economic and political conditions and the current and anticipated policies of the host country. Their study included 38 cases of export-oriented investment aimed at selling either to the world market or a common market. They found that in 15 of these, the investment either would not have been made or would have been made in another location without explicit factor incentives, a category that includes tax holidays and accelerated depreciation.

Analyzing U.S.-owned manufacturing affiliates that export back to the U.S., Shatz (2000, chapter 3) also found a strong tax effect. The advantage of this analysis was that the tax variable was not the statutory corporate tax rate, as is commonly used, but was computed as an effective tax rate taking account of tax holidays and other tax-rate incentives. Results were that a one percent decrease in the export incentive tax rate was associated with about three percent higher sales from U.S. manufacturing affiliates in developing countries to the U.S..

Despite the extensive use of tax incentives by the most successful recipient countries in the world, such as China, Ireland, Malaysia, and Singapore, the use of incentives remains controversial. United Nations Conference on Trade and Development (1996a) reviews much of the debate. Because of the disagreements, there is little consensus on what incentives might be most appropriate. The best guides may be the case histories of successful countries, such as Malaysia (Japan International Cooperation Agency Malaysia Office and Deloitte Touche Tohmatsu Malaysia/Kassim Chan Management Consultants Sdn Bhd, 1998) and Ireland

(MacSharry and White, 2000).

Corporate tax rates among the five countries are in line with world levels, ranging from about 25 percent in Bolivia to 35 percent in Colombia (PricewaterhouseCoopers, 1999). Colombia's rate may be lowered to 32 percent (U.S. Embassy Bogota, 2000). According to Diamond and Diamond (1998), PricewaterhouseCoopers, and other sources, Colombia, Ecuador, and Peru have generous incentives for firms in free zones and export processing zones (EPZs). EPZs will be reviewed further below. Incentives beyond the EPZ benefits are not noted as being particularly significant.

Trade costs are another type of cost that influences the location of export-oriented investment. Indexes of trade openness represent a comprehensive measure of trade costs, and more trade openness is associated with higher levels of export-oriented investment. Trade-enhancing policies may include low uniform tariffs, equilibrium real exchange rates, and limited or no non-tariff barriers. According to the Sachs-Warner index (Sachs and Warner, 1995), which extends from 1950 to 1992, all five of the Andean countries were rated open to trade by 1992. However, all had periods of extensive trade restrictions in the 1970s or 1980s.<sup>11</sup>

The recent opening is not necessarily a green light to investors. Issues of credibility matter as well. Investors may invest little or nothing at all if they believe governments can easily reverse the trade openings. What may be just as important as the policy change is a strong signal that it will continue (Bartolini and Drazen, 1997).

In addition to open trade policies, export processing zones can help facilitate export-

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<sup>11</sup>Bolivia originally opened in 1956, but was closed from 1979 to 1985, and then reopened in 1986. Colombia opened in 1986. Ecuador was open in 1950, but closed from 1984 through 1991, and then was rated open in 1992. Peru was rated open from 1950 to 1967, closed from 1968 to 1991, and then open again in 1992. Finally, Venezuela was rated open from 1950 to 1959, closed from 1960 to 1989, and then open from 1990 to 1992.

oriented investment. These are special zones in which manufacturers can import equipment and inputs duty free for assembly for export. Often, they offer significant tax incentives, as well as lighter labor regulations or other benefits. The core element of these types of export enhancement schemes seems to be a mechanism that allows exporters to import capital and intermediate goods without paying import duties on them (Radelet, 1999). This keeps exporters globally price-competitive.

Finally, regional trade agreements can boost export-oriented investment, since they lower total cross-border costs. However, this can cut both ways, especially with trade agreements between developing countries. Investors may be tempted to cluster in the larger markets in the regional trade area, so that other countries get less investment than they otherwise might have (Venables, 1999). Agreements with developed countries likely are more effective at attracting investment.

Among the Andean group, all five countries now have EPZs (Diamond and Diamond; U.S. Embassy La Paz, 1998), and some offer generous incentives. For example, firms in Colombia's EPZs gain income and capital tax exemptions, while firms in Peru's EPZs are exempt from profit-sharing rules, but must pay at least twice the minimum wage (Diamond and Diamond).

Unfortunately, the Andean countries started their EPZs well after many other developing countries, and evidence indicates that their benefits come only with a lag. Of the 120 comparison countries noted above in the labor costs discussion, 30 host enough U.S. multinational activity that they regularly appear in the published industry-group-level data on U.S. multinationals produced by the U.S. Department of Commerce, Bureau of Economic Analysis. These 30 include Colombia, Ecuador, Peru, and Venezuela. Of the 30, fully 13 had

started export processing zones by 1974, and 23 by 1986. Of the Andean countries, only Ecuador had started a zone by 1974, with Colombia starting a true EPZ by 1984, and Venezuela by 1986. Bolivia and Peru started their EPZs only in the 1990s (Diamond and Diamond; Currie, 1985; International Labour Organisation and United Nations Centre on Transnational Corporations, 1988; Kreye, Heinrichs, and Fröbel, 1987, and U.S. Embassy La Paz).

Finally, besides geography, factor costs, and trade costs, administrative openness has been shown to be an important determinant for some types of export-oriented investment (Shatz, 2000, chapter 3, and Markusen and Maskus, 1999). This involves the approval process and other administrative tasks a company must go through before investing. The Andean countries have made great strides since the late 1980s, and are routinely rated as open by a number of rating groups.

Two of the main investment openness ratings are components of the Index of Economic Freedom (IEF; O'Driscoll, Holmes, and Kirkpatrick, with Johnson, 2000), and the Economic Freedom of the World (EFW; Gwartney and Lawson, with Samida). For the year 2000 IEF investment rating, the Andean countries averaged 2.2, on a scale of 1 to 5 from best to worst. This is far better than the average of 2.9 for 138 comparison countries that were not the high-income OECD members. It is slightly better, though not statistically different from, the ratings for other South American countries. For the year 1997 IEF investment rating (the latest available), the Andean countries averaged 6.8 on a scale of 10 to 0 from best to worst. The average for 101 comparison countries was far worse, at 3.5, though it was about equal for the rest of South America at 6.7.

Within the Andean group, the ratings were similar for most countries, though Venezuela ranked at the bottom in both systems. Specific ratings for EFW – low is good – were Bolivia (2),

Colombia (2), Ecuador (2), Peru (2), and Venezuela (3). For IEF – high is good – the ratings were Bolivia (8), Colombia (5), Ecuador (8), Peru (8), and Venezuela (5).

### *Determinants of Host Market-Oriented Investment*

Though the Andean countries must emphasize export-oriented investment as they try to attract new multinationals, host market-oriented investment can have positive effects as well. It too can bring new technologies and management techniques. Policy makers and local business groups are often reluctant to encourage host-market serving investment because it might produce goods in competition with locally owned industries. However, that is precisely one of its potential benefits. The new product varieties can benefit consumers, while the increased competition might not only benefit consumers but might also force local firms to upgrade their own products and capabilities. Porter (2000) shows that a nation's commitment to competition is a key determinant of per capita GDP among low-income countries, while the intensity of local competition is a large, positive correlate of per capita GDP growth among his full set of 58 countries.

Market size is an overwhelming determinant of the level of host market-oriented investment. In a number of econometric tests, Yeaple (1999) shows that for U.S. multinational affiliates, elasticities of local sales with respect to GDP range from 0.81 to 1.32, depending on the econometric specification. The most econometrically correct specification yields 1.32, meaning that as GDP increases by one percent, sales by multinationals to the host market increase by 1.32 percent.<sup>12</sup>

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<sup>12</sup>Even though this review for the Andean countries uses aggregate GDP to represent market size, there are two caveats. One of these is that income distribution may interact with overall market size as a determinant in the sense that host market-serving firms may need a certain number of

The five Andean countries have a very wide range of market sizes, with 1998 GDP for Bolivia the lowest at \$8.6 billion, and 1998 GDP for Colombia the highest at \$102.9 billion (World Bank, 2000). However, within South America, they are dwarfed by Brazil (\$778 billion) and Argentina (\$298 billion). Brazil and Argentina have the added benefit of Mercosur, their customs union, which enlarges the market and serves to further attract investment (Shatz, 2000, chapter 3). Among 150 economies that were not high-income OECD members and that have 1998 GDP data, Colombia ranks 16, Venezuela ranks 18, Peru ranks 26, Ecuador ranks 47, and Bolivia ranks 64, so all are above the median. Again, however, they fall well below such tempting markets as China, India, Mexico, Korea, Russia, Turkey, Hong Kong, and Poland.

In terms of per capita GDP, all the Andean countries except Bolivia are above the median of the 150 countries. Per capita GDP is important as a determinant because multinationals – especially those serving the host-country market – cluster in differentiated products industries and often their products appeal to higher income consumers. Venezuela is ranked at 33, with a 1998 per capita GDP of \$4,088, while Peru and Colombia are ranked 50 and 51, respectively, Ecuador is number 69, and Bolivia is number 81, at \$1,080. There are an additional 34 economies without data.

Small size does not doom a country to receiving no multinational investment. In fact, at least 10 developing countries that are not among the 10 largest developing countries have FDI in excess of their size.<sup>13</sup> These include Singapore, Malaysia, Costa Rica, Honduras, Philippines,

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possible consumers rather than an aggregate level of income. The second is that population distribution and the quality of internal transport may also determine the size of the actual market. A large proportion of the population in isolated rural areas may result in an actual market that is quite small. These ideas remain untested.

<sup>13</sup>The measure used is U.S. direct investment position abroad in manufacturing industries in 1998 (U.S. Department of Commerce, undated data file b). "In excess of their size" means their share of U.S. direct investment among development countries is larger than their share of total

Dominican Republic, Panama, Thailand, Kenya, and even Venezuela. Though a more serious analysis is needed before saying conclusively how these countries were able to overcome their small size, it can be noted that they are either close to a major investor (the Central American countries), offered generous incentives and efficient labor forces (Singapore, Malaysia, and Thailand, among others), or were comparative islands of economic freedom and stability (Kenya, which is also larger than most of its neighbors).

As with export-oriented investment, geography plays a role in the quantity of host-market serving investment received. Long distance from Asia and parts of Europe may actually enhance opportunities for host market-oriented investment from those regions to the Andean countries. Research by Brainard (1997) and Ekholm (1998) shows that greater distance from producing countries actually encourages host market-oriented investment, since the cost of exporting to that market acts as a trade barrier.

Trade policy can also influence host market investment, but probably not in an economically sound manner. Trade policy to attract host market-oriented investment usually involves protecting the internal market for the investor. This breeds economic inefficiency and is seldom worth the tradeoff. (See Shatz and Tarr, 2000, for more on trade policy and development.)

As will be shown, the Andean countries already receive sizable amounts of host market-oriented investment. The scope for expansion of this is uncertain, however. International investors may choose to locate in Argentina or Brazil, where the markets are larger, and export to the Andean countries. In addition, the small size of the Andean markets suggests that after a decade of liberal investment policies, there may be few opportunities left for host-market-serving

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developing country GDP out of 153 developing countries with available data.

investment without reforms to the microeconomic business environment. Because of this, Andean policy makers might consider granting sectoral incentives such as favorable tax treatment – but not trade protection – for those industry categories where product variety or competition are lacking.

### *Determinants of Infrastructure Investment*

Well-developed infrastructure has been shown to be a determinant of capital investment by multinationals (Wheeler and Mody, 1992), and of sales by multinational affiliates (Shatz, 2000, chapter 2). For those countries without good communications, transport, or energy infrastructure, attracting foreign infrastructure investment has been a solution.

Experience with telecommunications firm privatizations in Latin America indicates why foreign investment in infrastructure might benefit both the investor and the country.

Telecommunications privatizations for developing countries started with Chile in 1988. Later sales resulted in bidding wars and escalating prices paid per line in such countries as Hungary and Peru (Sonnenschein and Yokopenic, 1996).

Foreigners might have been willing to pay high prices throughout the 1990s for a number of reasons. The poor condition of existing firms indicated bright prospects for future expansion of basic and advanced services. In preparation for privatization, governments restructured the firms, negotiated deals with workers and unions to buy labor peace for the new investors, cleaned up company finances, and, importantly, redefined the regulatory environment. In many cases governments introduced price-cap regulation, in which the new buyer would be allowed to raise prices in step with inflation minus some productivity factor. Often, low productivity boosts were assumed, giving the new owners a great deal of profit potential.

In return, the privatized telephone companies rapidly expanded their networks after privatization, engaging in a great deal of capital spending. Investors' access to capital, operating experience, and knowledge of new technologies made these expansions possible. Rapid growth in labor productivity accompanied the expansions. Sales and profits both rose, though so did prices, resulting in some consumer complaints (for more information see Ramamurti, 1996, on which the previous two paragraphs are based).

Latin America has been one of the premier sites for infrastructure investment, particularly in telecommunications. However, in general, such investment is fraught with difficulty because of what has long been known as "the obsolescing bargain" (Caves, 1996, p. 104-105; originally used in the context of natural resource investments). Thus there remain lessons to be learned by the Andean countries that have failed to attract infrastructure investment or that wish to attract new infrastructure investment.

Infrastructure investments involve large up-front capital expenditures. Because of uncertainty about future government policies, there is uncertainty about future returns, and so the investor will negotiate for higher expected profits up front. Once the multinational starts actually earning these profits, popular indignation can lead a sitting government to try to renegotiate the contract or it can lead to a change of government and subsequent renegotiation.

Infrastructure projects are also different from other types of investments because the government is not just a buyer and supplier, but a regulator as well (International Finance Corporation [IFC], 1996, p. 2). Political commitment is therefore essential, particularly the establishment and enforcement of fair rules of the game for infrastructure investors.

Accompanying political commitment, stability of political institutions is critical (Sonnenschein and Yokopenic).

Most important to the success of private infrastructure investment are government use of impartial outside advisors and transparency in all parts of the transaction, according to the IFC. Fully functioning regulatory frameworks and international competitive bidding have not proved to be necessary to successful foreign-invested infrastructure projects. Transparency involves clarity in procedures for awarding and operating projects and predictability in implementing government commitments. A third element of transparency involves striking a balance between a fair expected return on the project and a fair price for the government. Pricing and profits must be competitive, but the government also must recognize that early projects may demand a premium because of the risks involved.

A final factor necessary to infrastructure investment success is a long-run dispute resolution mechanism. An infrastructure project may last decades, and disputes may develop in contracts or regulatory procedures. A mechanism for dealing efficiently with unforeseen disagreements will help seal infrastructure deals and, just as importantly, encourage new ones.

It is helpful that all five Andean countries are signatories to the Convention for the Settlement of Investment Disputes, although they all agreed to it well after it entered into force in 1966. The International Center for the Settlement of Investment Disputes provides facilities for the conciliation and arbitration of disputes under the convention.<sup>14</sup> Among the Andean countries, entry into force for the convention took place July 23, 1995, for Bolivia, August 14, 1997, for Colombia, February 14, 1986, for Ecuador, September 8, 1993, for Peru, and June 1,

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<sup>14</sup>It is troubling that Venezuela has two new cases before ICSID. One, registered June 23, 2000, involves Autopista Concesionada de Venezuela (Aucoven), a Mexican-Venezuelan consortium with a contract to upgrade and operate the Caracas-La Guaira highway. The other, registered March 1, 2000, involves GRAD Associates of New Jersey regarding a contract for the construction and modernization of penitentiaries. No further information on these cases was available.

1995, for Venezuela.<sup>15</sup>

#### **IV. The Empirics of the Region**

As noted at the beginning of this review, the Andean countries have attracted higher levels of FDI in relation to their size than many other developing countries. This has not always been the case, as detailed in Table 2. Table 2 shows the evolution of stocks of inward investment, meaning the total value of foreign investment in a country, rather than the annual flow, which FDI represents. It also shows sales by U.S. multinational affiliates in all industries and at all ownership levels greater than 10 percent, as a percent of GDP. The sales variable can serve as another measure of the level of multinational activity in a country.

In 1985, the Andean countries had a lower relative stock of direct investment than any other comparison group, including the countries of South America, Latin America and the Caribbean, and the developing and transition countries. Only Bolivia, the smallest of the Andean countries, had a higher proportion of direct investment relative to GDP than other groups. By 1990, shortly after reforms started, this situation started to change, and by 1998, three of the five countries had higher relative stocks than developing countries as a group and than Latin America and the Caribbean. In sales relative to GDP as well, four of the five Andean countries were at or above the average for developing countries as a group.

Simple statistical tests indicate there is now nothing unusual about the level of multinational activity in the Andean countries. Table 3 shows the level of sales by U.S. multinationals regressed against average years of secondary education, host country GDP, distance from the U.S. in miles, and several 0-1 variables for a set of 158 countries. Sales,

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<sup>15</sup>Source is the ICSID web site, <http://www.worldbank.org/icsid/>.

Table 2. Inward investment in the Andean Countries in Comparative Perspective

All numbers are percentages

Region	Inward Stock/ GDP 1985	Inward Stock/ GDP 1990	Inward Stock/ GDP 1995	Inward Stock/ GDP 1998	U.S. MNC Sales/ GDP 1998
World	6.23	8.26	9.73	14.23	7.77
Developed Countries	5.88	8.42	8.94	12.73	17.31
Developing and Transition Countries	7.17	7.73	12.34	18.86	6.25
Latin America and Caribbean	9.08	8.51	12.56	18.43	12.02
South America	8.81	8.33	12.89	19.36	10.19
Andean Countries	4.63	7.65	9.44	17.08	9.34
Bolivia	18.96	14.54	23.14	42.70	5.12
Colombia	5.49	7.46	6.93	13.80	9.71
Ecuador	6.15	15.22	19.14	29.69	11.45
Peru	6.11	3.97	9.40	12.48	6.25
Venezuela	2.50	7.95	9.03	18.92	14.17

Notes: Developed countries include high-income OECD countries under the definition in World Bank (2000), along with Israel. Latin America and Caribbean countries exclude the high-income non-OECD economies of Aruba, Bahamas, Bermuda, Cayman Islands, Netherlands Antilles, and U.S. Virgin Islands. All inward stock figures for country groups represent the numerator aggregated for the group relative to the denominator aggregated for the group, i.e., the weighted average. All figures for U.S. sales relative to GDP for country groups represent the average of the figure of sales relative to GDP for each country in the group, i.e., the unweighted average. The weighted average of U.S. sales relative to GDP for the Andean countries is 10.4 percent.

Sources: World Bank (2000), United Nations Conference on Trade and Development (1995, 1996b, 1997, 1998, and 1999), National Bank of Hungary, Statistics Department (2000), and U.S. Department of Commerce, Bureau of Economic Analysis (undated data file a).

education, GDP, and distance are all in natural logarithms. The first two columns substitute in 0.2 for sales when sales are zero, since the natural logarithm of zero is undefined. The 0-1 variables indicate whether a country is in the Andean region, whether a country is currently or formerly communist, and whether a country is under comprehensive U.S. sanctions.

The key result is that the 0-1 variable for the Andean countries equals zero statistically. This means that adjusting for education, GDP, distance, communist status, and sanctions, these countries do not have unusually high or low levels of multinational activity. Even when the Andes 0-1 variable is interacted with other variables, the results statistically equal zero. This means that country size, distance from the investing country, and education do not have different effects for the Andean countries than for the other countries.

In fact, however, the Andean countries are different in two respects. One is the level of manufacturing investment. The other is the purpose of the foreign investment – whether it is intended to produce for sale to the host country or for export. Both of these findings rely on U.S. data and therefore depend on whether U.S. investment is representative of investment from all countries.

Table 4 (second column) shows sales by U.S. manufacturing affiliates as a percentage of sales by all U.S. affiliates in each country and region listed. Only four of the Andean countries have these data, and of these four, three are below the world, developing country, Latin American, and South American averages. Only Venezuela is on par with its region, with 55.9 percent of sales by all U.S. affiliates coming from manufacturing affiliates.

The flip side of a low share of manufacturing in total sales means that other sectors must have a relatively high share. For the Andean countries, these sectors are petroleum, mining, construction, and utilities. The final two columns of Table 4 show these data, along with the share of sales held by U.S. affiliates in these sectors along with non-depository financial institutions.

Table 3. Gravity, Education, and the Andean Countries

Dep Var: Sales by U.S. Affiliates	OLS inc. Zero Obs	OLS inc. Zero Obs	Tobit	Tobit	Tobit	Tobit
Secondary Education	–	–	–	–	1.05 <sup>***</sup> (3.25)	1.05 <sup>***</sup> (3.24)
GDP	1.48 <sup>***</sup> (18.97)	1.48 <sup>***</sup> (18.85)	1.71 <sup>***</sup> (16.72)	1.71 <sup>***</sup> (16.72)	1.34 <sup>***</sup> (11.70)	1.34 <sup>***</sup> (11.66)
Distance	-1.69 <sup>***</sup> (4.71)	-1.69 <sup>***</sup> (4.67)	-2.06 <sup>***</sup> (4.65)	-2.06 <sup>***</sup> (4.65)	-1.22 <sup>***</sup> (2.83)	-1.21 <sup>***</sup> (2.80)
Andes	0.23 (0.16)	8.96 (0.15)	0.13 (0.08)	8.39 (0.12)	0.25 (0.20)	–
Transition or Communist	-2.80 <sup>***</sup> (5.41)	-2.80 <sup>***</sup> (5.37)	-3.34 <sup>***</sup> (4.96)	-3.33 <sup>***</sup> (4.96)	-1.64 <sup>**</sup> (2.27)	-1.64 <sup>**</sup> (2.27)
Sanctions	-7.24 <sup>***</sup> (5.92)	-7.25 <sup>***</sup> (5.89)	-9.39 <sup>***</sup> (5.34)	-9.39 <sup>***</sup> (5.34)	-9.70 <sup>***</sup> (7.31)	-9.70 <sup>***</sup> (7.31)
Andes*Education	–	–	–	–	–	-3.70 (0.31)
Andes*GDP	–	-0.63 (0.28)	–	-0.86 (0.33)	–	-0.83 (0.27)
Andes*Distance	–	-0.25 (0.04)	–	0.12 (0.02)	–	1.31 (0.28)
Constant	5.51 (1.77)	5.50 (1.75)	6.07 (1.59)	6.08 (1.60)	2.81 (0.77)	2.74 (0.74)
N	158	158	158	158	109	109
Adjusted R <sup>2</sup>	0.7370	0.7337	–	–	–	–
Log Likelihood	–	–	-323.04	-322.99	-217.75	-216.01
Wald Test: Are the Andes Different?	–	F(3,150) =0.04 0.9909	–	F(3,151) =0.04 0.9894	–	F(3,101) =0.04 0.9880

Notes: Affiliate sales, years of secondary education, GDP, and distance are all in natural logarithms. Andes, transition or communist, and sanctions are all dummy variables (0, 1). The Wald test asks whether the coefficients for the Andean countries as a group are different than those for all other countries. Sales and GDP are for 1995, education is for 1990.

Absolute value of t-statistics are in parentheses.

\*\* = significant at 0.05.

\*\*\* = significant at 0.01.

Sources: U.S. Department of Commerce, Bureau of Economic Analysis (undated data file a; affiliate sales), Barro and Lee (1996; secondary education), World Bank (2000; GDP), Shatz (1997; distance), U.S. Department of Commerce, Bureau of Export Administration (1999; sanctions). See the data appendix to chapter 2 of Shatz (2000) for more information.

For the Andean countries for which data are available, all are above the world average for share of sales in these capital-intensive non-manufacturing industries, and Colombia, Ecuador, and Peru are well above the South American average. Clearly, these countries have the natural resources and privatization opportunities that interest international investors. But specialization in such sectors has not been shown to bode well for future growth and development (Sachs and Warner, 1997).

Table 4. Industry of Sales by U.S. Affiliates, 1998  
All numbers are percentages

Region	Manufacturing	Petroleum, Mining, Construction, and Utilities	Petroleum, Mining, Construction, Utilities, and Finance
World	47.0	18.32	25.53
Developed Countries	46.3	n.a.	n.a.
Developing and Transition Countries	49.7	n.a.	n.a.
Latin America and Caribbean	56.4	20.24	29.23
South America	55.8	24.90	29.34
Andean Countries	39.7	n.a.	n.a.
Bolivia	n.a.	n.a.	n.a.
Colombia	43.7	40.86	43.01
Ecuador	39.7	44.18	46.59
Peru	19.3	n.a.	59.87
Venezuela	55.9	25.87	28.44

Notes: Table shows sales by U.S. affiliates in the designated industry or industry groups in each region or country as a percent of sales by all U.S. affiliates in each region or country. Figures for all country groups except for Andean Countries are weighted averages (the sum of the sales figure over the sum of total sales). The figure for the Andean countries is an unweighted average and excludes Bolivia. Figures for "mining, construction, and utilities" are actually from a category called "Other Industries." This includes agriculture, mining, construction, transportation, communications, electric, gas, and sanitary services, and retail. Of the total sales for "other industries" worldwide in 1998, 75.3 percent comprised sales in mining, construction, transportation, communications, and electric, gas, and sanitary services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis (undated data file a).

For an understanding of the purpose of foreign investment – whether it is export-oriented or host-market oriented – it is again useful to use U.S. data on multinationals.<sup>16</sup> These data divide sales by affiliates into sales to the host market, sales to the U.S. market, and sales to other foreign markets. Table 5 shows these data for the Andean countries and comparison groups. The figures in the table are host sales, sales to the U.S., and sales to the rest of the world as a percent of total affiliate sales in the region or country in question in 1998.

Worldwide, U.S. multinational majority-owned affiliates sell about two-thirds of their output to the host country. For manufacturing majority-owned affiliates only, this figure is about 56 percent. In developing countries, both figures are about two-thirds. Since the category "all industries" includes petroleum, mining, and utilities, and since this paper has focused on export-oriented manufacturing, the rest of the discussion of Table 5 will focus on manufacturing affiliates.

In three of the five Andean countries, U.S. manufacturing affiliates not only sell more of their output to the host country than the developing country and Latin American average, but they sell more than the South American average as well. Peru and Venezuela have strikingly high figures, both greater than 90 percent. This paucity of foreign-controlled manufacturing exports is true of other South American countries in the data, specifically Argentina, Brazil, and Chile, though to a lesser degree. Throughout Latin America, the main U.S. export platforms for manufactured goods appear to be Costa Rica, Guatemala, and Mexico.

The high ratio of multinational sales to the host country rather than export markets holds true on an industry basis for the Andean countries, with some exceptions. The U.S. data divide

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<sup>16</sup>It is also possible to get this type of breakdown with Swedish and Japanese data, but few other countries collect such information or make it available to researchers.

Table 5. Destination of Sales by U.S. Multinational Affiliates  
All numbers are percentages

Region	All Industries			Manufacturing		
	Sales to Host	Sales to U.S.	Sales to ROW	Sales to Host	Sales to U.S.	Sales to ROW
World	65.46	10.59	23.95	55.56	16.04	28.40
Developing Countries	62.89 (N=32)	16.56 (N=32)	19.85 (N=35)	67.88 (N=30)	16.56 (N=27)	18.66 (N=26)
Latin America and Caribbean	67.29	17.79	14.92	66.90	21.82	11.28
South America	82.47	3.96	13.57	82.07	4.76	13.17
Andean Countries	76.80 (N=4)	6.29 (N=4)	16.91 (N=4)	81.14 (N=4)	2.21 (N=2)	8.84 (N=2)
Bolivia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Colombia	83.16	4.64	12.19	84.42	2.94	12.67
Ecuador	70.83	13.32	15.85	56.30	n.a.	n.a.
Peru	58.88	6.23	34.89	90.31	n.a.	n.a.
Venezuela	94.32	0.96	4.72	93.52	1.48	5.01

Notes: Figures for World, Latin America and Caribbean, and South America are weighted averages (the sum of the sales figure over the sum of total sales). Figures for Developing Countries and the Andean Countries are unweighted averages, with the number of countries shown in parentheses. Shares may not add up correctly due to different sample sizes.

Source: U.S. Department of Commerce, Bureau of Economic Analysis (undated data file a).

manufacturing into seven industry aggregates – food, chemicals, metals, non-electrical machinery, electric and electronic equipment, transportation equipment, and miscellaneous manufacturing. The final category includes textiles, apparel, paper, glass, leather, and instruments, among other industries.

For the Andean countries, much of the data are suppressed for confidentiality reasons. In addition, no industry data are published for Bolivia. Out of 28 possible numbers for sales to the

host country as a percentage of total sales (seven industries and four countries), 15 numbers are published. Of these 13 are 75 percent or higher, meaning that production takes place largely for the host country market in nearly all industries for which data exist. Ecuador is an exception in a few cases, with U.S. multinationals exporting about 40 percent of their sales in the food industry, and all of their (very low level of) sales in the electric and electronic equipment industry group.

## **V. Conclusions**

For the Andean countries as a group, foreign direct investment – foreign financing of operating businesses in the form of equity, certain types of debt, and retained earnings – has been high and on the rise in the 1990s. For all five countries, the percentage of FDI in GDP has been higher than the percentage for developing countries as a group from 1994 to 1998.

In part, this is due to a loosening of the laws and regulations restricting foreign investment during the 1970s and 1980s. But the Andean countries also have competitive tax rates, human capital comparable to that found throughout much of the world, and geographic and cultural links to a number of major investing countries.

While levels of FDI have been high, the composition of the activities of the foreign-investment firms, in terms of sales, is heavily biased towards supplying the local market. This means that unless the Andean countries make new efforts to attract other types of foreign business activities, market size will become a major constraint limiting sustained new entry of international businesses.

Furthermore, infrastructure-oriented FDI, stemming largely from privatizations, has contributed a large share of FDI in the 1990s. This may be transitory, especially if the newly privatized firms have limited expansion opportunities, and could be sensitive to legal, political,

and administrative behavior on the part of authorities.

The biggest challenge now is to attract export-oriented manufacturing FDI. While there is a great deal of foreign involvement in natural resource-related industries, business activity in such industries will not lead to higher productivity in the economy or sustained growth in incomes (Porter, 2000). A secondary effort could include attracting European and Asian host market-serving investment, but only if it does not throw policy makers off the main task of seeking export-oriented investment.

To attract these new types of foreign investment, five Andean countries must improve their competitiveness in a number of other overlapping areas.

One area of improvement involves market size and market access. Specific steps include trade agreements with developed countries, improved port facilities, expedited customs procedures, simplified trade regulations, and improved internal and continent-wide (South American) transportation links.

Another area of improvement includes costs of production. Steps could include the use of efficient tax incentives encouraging production of manufactures for export, and improved export processing zones. Some of the Andean EPZs have attracted investment, while others have not. An evaluation of the world's most successful EPZ strategies, for example in Singapore, Malaysia, and Ireland, could help policy makers unleash the promise of EPZs in the Andean countries.

A third area includes inputs used by foreign (and domestic) producers. Steps include improved education and training for workers and improved infrastructure. Human capital in the five Andean countries is comparable to that found throughout much of the world. However, foreign investors tend to cluster, so comparability may not be enough. A long-range goal must

include improved education for all segments of the population as one way to differentiate the Andean countries from their competitors.

There will certainly be other possible improvements beyond those suggested in this overview. Detailed reports by country teams will find more specifics and include the feedback of the international business community resident in each country. A final policy step suggested by this process is for the government to institutionalize meetings with the business community so that it may learn first-hand and on an ongoing basis the challenges it faces in its attempts to improve employment, distribution, and wealth.

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