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# CENTRAL AMERICA'S EXTERNAL DEBT PROBLEM: HONDURAS, NICARAGUA AND THE HIPC INITIATIVE

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# Central America's External Debt Problem: Honduras, Nicaragua and the HIPC Initiative

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#### **Abstract**

This paper reviews the foreign debt burden in Central America with special emphasis on Honduras and Nicaragua. These countries have a large debt overhang and they have lagged behind the rest of the region in terms of economic growth. Our work suggests that Honduras and Nicaragua require alleviation of their foreign debt as a prerequisite to achieve sustained economic growth. The paper also reviews the initiative aimed at reducing the debt burden of the highly indebted poor countries (the HIPC Initiative) and evaluates alternative scenarios of debt reduction for both Honduras and Nicaragua. It ends with a critical assessment of the implications of the fiscal and openness criteria established in the HIPC Initiative.

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#### 1. Introduction

Central America has recently gone through a substantial process of adjustment and modernization. After years of social unrest, the entire region is finally at peace and has begun to establish conditions for rapid and sustainable economic growth. However, despite the fact that all the countries in the region have made important structural reforms in recent years, not all of them have yet started to reap the benefits of these economic policies.

Figure 1 shows the per capita GNP in U.S. dollars for the five Central American countries in 1990 and 1998. This figure illustrates a worrisome feature of the recent pattern of growth in the region: the poorest countries in the area have remained practically stagnant during the 1990s, while the relatively wealthier countries achieved important per capita income gains during the same period. In consequence, regional inequality in Central America has been widening in the recent past.

Honduras and Nicaragua, the poorest countries in the region, also have the largest external debt burden in the region. It is quite likely that this factor has had a negative effect on their capacity to grow in recent years and that it will continue to do so in the near future. In that sense, the debt overhang of Honduras and Nicaragua might be an impediment for the promotion of economic convergence within the region. It must be stressed that in terms of economic growth, the challenge faced by Honduras and Nicaragua is tremendous.

To get an idea of the magnitude of this challenge consider the following implication: the per capita income of Nicaragua and Honduras is less than one-fourth that of Costa Rica, the richest country in the region, whose income is in turn about one-fourth that of the United States. Assuming a conservative population growth rate of 2.5 percent per year, the GDP in Honduras and Nicaragua must grow at a constant rate of about 6 percent per year during the next forty years simply to reach the income per capita that Costa Rica has today. It is therefore clear that any obstacle to economic growth in Honduras and Nicaragua has to be removed if they are expected to satisfy the growing demands of their population. Thus, achieving deep debt relief for these two countries is of the utmost importance.<sup>1</sup>

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In recent years, especially since Hurricane Mitch hit the region in October of 1998, substantial amounts of external aid have been granted (or at least committed) to both Honduras and Nicaragua. This fact, together with the allegations of corruption and mismanagement that have surrounded some of the external aid flows, calls into question the relevance of reducing the external debt of these countries. We believe, however, that external aid flows are no substitute for external debt reduction, since these countries need not only a reduction in their current financial commitments but they also need a continued inflow of net resource flows. Therefore, foreign aid must be seen as a complement, rather than as a substitute of external debt reduction.

(US dollars)

2500

2500

1500

1000

Costa Rica El Salvador Guatemala Honduras Nicaragua

■1990 ■1998

Figure 1. Central America: Per Capita Income

Source: The World Bank (2000a)

To complicate things further, in 1998 Honduras and Nicaragua, as well as other parts of the region, were severely hit by Hurricane Mitch, one of the most damaging natural disasters in recent history. The hurricane not only provoked the death of thousands of people in the region, but it also had a large negative effect on the productive capacity of Honduras and Nicaragua. The international community responded immediately to the natural disaster: the Paris Club countries,<sup>2</sup> for example, accepted to defer all interest payments on the external debt of both Honduras and Nicaragua for a three-year period. Also, a consultative group of donor countries gathered in Stockholm in May of 1999 and agreed to establish a long-term partnership with the Central American countries with the objective of sharing the responsibilities for the reconstruction and transformation of the region. These important international efforts notwithstanding, it is likely that they will be insufficient to help Honduras and Nicaragua to grow at the rates that are necessary to satisfy the most basic needs of their population.

This work begins with a brief review of the foreign debt burden in Central America putting special emphasis on the cases of Honduras and Nicaragua. We argue that if these countries are expected to grow at satisfactory rates during the next decades, they will require a substantial reduction in their external debt. This paper continues with a review of a recent initiative aimed at reducing the debt burden of the highly indebted poor countries (the HIPC Initiative). In the next

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<sup>&</sup>lt;sup>2</sup> Paris Club refers to the group of government creditors (mainly OECD countries) that meet with debtor countries under the auspices of the French government. Russia has recently been accepted as a member of the Paris Club.

section, the paper discusses the prospects of Honduras and Nicaragua to qualify for the new initiative and evaluates alternative debt reduction scenarios. Next, the paper provides a critical assessment of the fiscal and openness criteria that were established in the Cologne Terms of the HIPC Initiative, and discusses their implications for Honduras and Nicaragua. The last section presents our conclusions.

# 2. External Debt and Income Convergence in Central America

# The Burden of Foreign Debt

The Central American countries, like almost all the rest of the developing world, have made extensive use of some form of external savings to finance their domestic investments. However, as a result of the combination of inadequate infrastructure, low levels of human capital, inward-oriented policies, political instability, and a strong comparative advantage in certain agricultural products (mainly coffee and bananas), the region has been relatively unsuccessful in attracting foreign direct investment into areas other than agriculture.<sup>3</sup> In consequence, Central American countries have had to resort to external debt as an important means of financing development.

All Central American countries have used foreign resources to fill their savings-investment gaps. Yet, they have attained very different levels of foreign indebtedness. Table 1 shows some of the key indicators of the foreign debt burden in 1998 for each of the five Central American countries as well as for the rest of Latin America. The table shows the seriousness of the foreign debt problem in both Honduras and Nicaragua.

The top part of Table 1 shows that the magnitude of Nicaragua's stock of external debt at the end of 1998 was clearly excessive—more than three times its GNP and more than five times its total exports. The burden of foreign debt in Honduras is around one hundred percent of GNP. Although this figure is lower than that for Nicaragua, it is also excessive. The external debt of Costa Rica, El Salvador and Guatemala, which is between 26 and 40 percent of their annual GNP, is more moderate and appears manageable with sound budgeting and macroeconomic policies.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> This situation is rapidly changing with the adoption of export processing zones regimes throughout Central America (see Jenkins, Esquivel and Larraín, 1998). More recently, Costa Rica has attracted important amounts of non-agricultural foreign direct investment into the region. Larraín, López-Calva, and Rodríguez-Clare (2000) discuss the highly successful example of Intel's investment in Costa Rica.

<sup>&</sup>lt;sup>4</sup> The World Bank uses the ratio of total external debt as a percent of GDP as a classification criterion. Countries with a debt to GDP ratio lower than 48% are "less

The middle of Table 1 shows some indicators on the magnitude of the resources that Central American countries use to serve their external obligations. Not surprisingly, the service costs are much higher in Honduras and Nicaragua than in the rest of the region. For example, whereas the other countries in the region devote between 2 and 5 percent of their annual GNP to serve their external obligations, Honduras and Nicaragua have to forgo 10 and 14 percent of their GNP, respectively, for the same purpose. It is unlikely that any country can achieve sustainable economic growth while devoting so many resources to the service of their external debt.

#### Central America: Convergence or Divergence?

To investigate whether the divergent trend mentioned above is a structural phenomenon or not, we have computed the dispersion of per capita income in Central America since 1970. Figure 2 shows the standard deviation of (the log of) per capita income for two groups of Central American countries for the 1970-98 period. The first group consists of the three less-indebted countries of the region: Costa Rica, El Salvador and Guatemala. The second group includes all five nations, that is, it adds Honduras and Nicaragua to the first group.

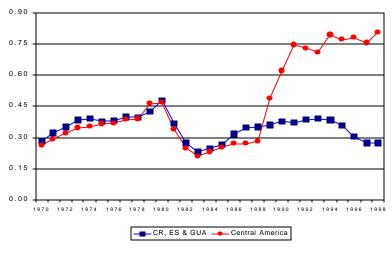


Figure 2. Dispersion of Per Capita Income

Source: Own calculations based on data from The World Bank (1999b)

indebted", countries with a ratio between 48% and 80% are "moderately indebted", and countries with a ratio above 80% are "severely indebted".

As Figure 2 shows, there has been no major variation in the dispersion of per capita income among the three less-indebted Central American countries between 1970 and 1998. The dispersion of per capita income across the whole region, however, has increased dramatically since 1988. A simple comparison of the two lines in Figure 2 suggests that the increase in the variability of the region's per capita income can be solely attributed to the presence of Honduras and Nicaragua in the larger sample.

Although there is no obvious causality between debt burden and growth, it is certainly suggestive that the two most indebted countries in Central America are also the countries that are lagging behind within the region. The fact that Honduras and Nicaragua are the poorest countries in the region implies that their stagnation has led to a sharp intra-regional divergence in the recent past. Such trend is particularly disappointing because Honduras and Nicaragua, like the rest of the region, have achieved important progress in their structural reform in recent years. (mainly in trade and financial liberalization)<sup>5</sup> With regard to the timing of the divergent trend within Central America, it is crucial to notice that its beginning overlaps with the reversal of net transfers to Honduras (see Figure 3).

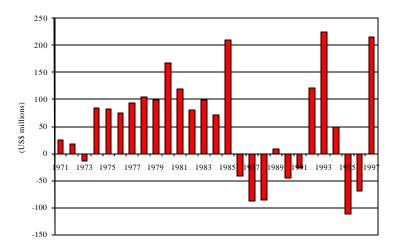


Figure 3. Honduras: Net Transfers

There are certainly other factors (i.e. political instability, economic distortions, and a lack of infrastructure) that may explain the relatively slow pace of economic growth in Honduras and Nicaragua. However, these factors do not

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<sup>&</sup>lt;sup>5</sup> Honduras and Nicaragua have also began to made progress in tax reform and privatisation, but at a much slower rate and with mixed results so far (IADB, 1996 and 1997). Larraín and López-Calva (2000) review privatisation policies in Central American countries.

adequately account for the trend just described since they tend to pervade most of the region and they are not particular to Honduras and Nicaragua. Therefore, although important, these factors might explain a negative effect on the growth rate of the region and not just on that of specific countries.

The elements just described, as well as evidence drawn from other experiences (i.e. sub-Saharan Africa), supports the idea that the large external debt burden that afflicts Honduras and Nicaragua may be hindering their possibilities of achieving sustained economic growth.

#### 3. A Brief Look at the Foreign Debt of Honduras and Nicaragua

#### Honduras

At the end of 1997, Honduras' foreign debt had reached US\$ 4,698 million, of which almost 89 percent was long-term obligations and 83 percent was public or publicly guaranteed obligations. From 1970 to 1997, Honduras' total foreign debt grew in nominal dollars at a compounded rate of 14.9 percent per year, mostly due to long-term net flows from official creditors.

Conventional measures of the degree of indebtedness of a nation are given by the debt to exports and debt to output ratios. By the end of 1997, the ratio of foreign debt to exports of goods and services in Honduras was 194 percent, while the ratio of foreign debt to GNP was 103 percent.<sup>6</sup> These ratios compare unfavorably with the same indicators for all the developing countries in 1997 (129 percent and 35 percent, respectively).

Figures 4 and 5 show the trend of the two standard stock-of-debt ratios for Honduras during the 1970-97 period. Both figures show a well defined rising trend during most of the period. Interestingly, both ratios continued rising even during the most critical part of the 1980s debt crisis. Of course, this pattern is related to the geopolitical importance of Honduras during those years. This element also explains why, for example, bilateral debt as a percent of total debt increased from 20 to 40 percent between 1980 and 1990.

By 1990, the two debt indicators seemed to have reached a peak. Starting in 1994, following the opening of the economy and the first stabilization attempts of the Honduran economy, the two debt ratios began to show a remarkable downward trend.

<sup>&</sup>lt;sup>6</sup> In this section we use the nominal value of the debt, whereas in other sections of the paper the net present-value equivalent is used. This is in part due to the lack of historical data for the variable in present value terms, since the World Bank started to compute this variable only recently. The debt in present-value terms is usually lower than the nominal value since the former takes into account the concessional component of the debt.

Figure 4. Honduras: Foreign Debt to Exports

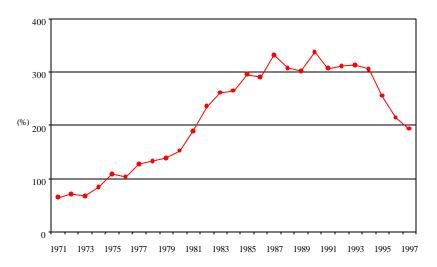
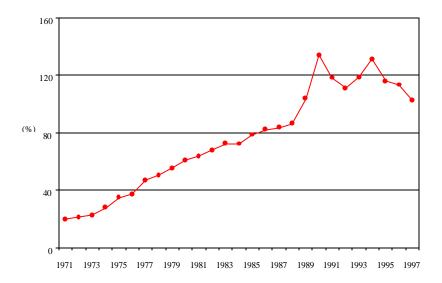


Figure 5. Honduras: Foreign Debt to GNP



In terms of flows, standard debt-burden measures are the ratios of debt service to output and debt service to exports. They indicate the annual effort that a country has to make to cover its foreign obligations. Honduras' total debt service paid in 1997 was US\$505 million, which represented about 21 percent of exports of goods and services and 11 percent of its GNP. The debt service to GNP ratio has been consistently above 10 percent during the last eight years. Meanwhile, debt

service has averaged around 30 percent of the exports of goods and services during the same period. By comparison, the same indicators for all "severely-indebted low-income countries" (according to the classification of the World Bank) are about 4 and 16 percent, respectively. These figures already indicate the magnitude of the economic and fiscal efforts that Honduras has undertaken in the past few years to cover its foreign debt service. In fact, interest on external debt alone has consumed an average of about 12 percent of total exports and 5 percent of GNP during the 1990s.

#### Nicaragua

At the end of 1997, Nicaragua's foreign debt reached US\$5,677 million, of which 85 percent was long-term publicly guaranteed obligations. Short-term debt comprised mainly interest arrears on long-term debt. Accumulation of principal and interest arrears accounted for 37 percent—on average—of total foreign debt stocks between 1988 and 1997.

Between 1971 and 1997, Nicaragua's debt grew at an average compounded annual rate of 12.8 percent in nominal dollars. The rapid accumulation in Nicaragua's foreign debt occurred mainly in two sub-periods: first, between 1971 and 1979, when foreign debt increased fourfold (25 percent annual average growth rate); second, between 1979 and 1989, when it multiplied by a factor of six (20 percent annual average growth rate). Most of the debt increase in the latter period was due to non-voluntary long-term flows from official creditors and to the rapid accumulation of interest arrears.

The ratio of foreign debt to exports of goods and services in Nicaragua at the end of 1997 was 552 percent, while foreign debt represented 305 percent of GNP. Both ratios are depicted from 1971 to 1997 in Figures 6 and 7. These two figures illustrate the rapid increase in foreign debt that took place in Nicaragua during the years of the Sandinista regime (1979-89). Governments sympathetic to the new regime (mainly the former Soviet Union) supplied most of the foreign debt flows that took place in this period. Only five years had passed since the Sandinistas had taken power, when the ratios of debt to exports and debt to GNP had already reached 1000 and 200 percent, respectively. Such debt ratios were by then among the highest in the world.

Between 1987 and 1989, Nicaragua's debt to GNP ratio increased enormously as a result of the combination of two elements. First, due to an important increase in total foreign debt, which went from 7 to 10 billion dollars in this period. Second, due to the huge fall of real output that accompanied the hyperinflation that afflicted Nicaragua in the final years of the Sandinista regime.<sup>7</sup>

conditions during this period.

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<sup>&</sup>lt;sup>7</sup> Ocampo (1991) contains a very precise description of Nicaragua's macroeconomic

As a result, Nicaragua had the doubtful honor of being the most indebted economy in the world between 1989 and 1995, when measured by the conventional debt to GNP ratio displayed in Figure 7.8

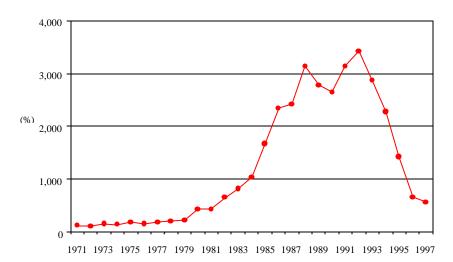
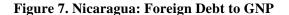
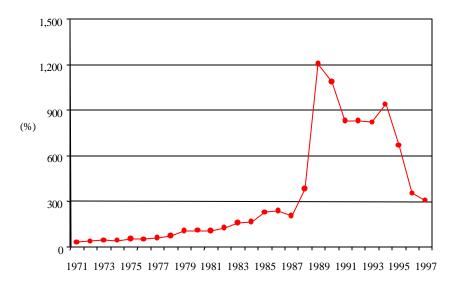


Figure 6. Nicaragua: Foreign Debt to Exports





 $<sup>^{8}</sup>$  By 1996, the most indebted countries in the world were São Tomé and Mozambique. See World Bank (2000b).

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Figures 6 and 7 also show the remarkable decline that has taken place in both debt ratios since 1990. This decline reflects the combination of two elements. First, the relative success of the export-oriented policies implemented by the democratic governments that succeeded the Sandinistas after the 1989 elections. Second, the successful debt-reduction agreements reached by the Nicaraguan government with several of its most important creditors. In fact, by the end of 1998, total foreign debt stocks in Nicaragua amounted to almost six billion US dollars, 40 percent lower in nominal terms than the external debt it had at the end of 1993. This decrease was mainly due to debt relief agreements reached with Russia, Mexico, the Paris Club, and the Commercial Bank.

In recent years, Nicaragua has made an extraordinary effort to cover its external obligations. During 1997, for example, Nicaragua devoted 32 percent of its total exports of goods and services and 18 percent of its national output to service its foreign debt. It is likely that the divergent pattern in Central America described above is related to the tremendous effort that both Honduras and Nicaragua have made in the last eight years to continue servicing as much of their foreign-debt obligations as possible.

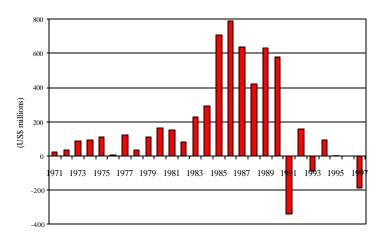


Figure 8. Nicaragua: Net Transfers

Net resource transfers confirm the trends just described. Figure 8 shows the large transfers that Nicaragua received during most of the 1980s as well as their sudden decline since 1990. Data from the most recent years indicates that Nicaragua is no longer benefiting from access to fresh resources from the

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<sup>&</sup>lt;sup>9</sup> A detailed account of Nicaragua's debt negotiations during the period 1990-96 is provided in Ministerio de Cooperación Externa (1997).

international financial community. <sup>10</sup> It is important to stress that Nicaragua has not received positive net transfers from abroad since 1991 (in average), despite having carried out very important economic reforms. This fact is puzzling since it is rather clear that the medium and long-run viability of the economic reforms in Nicaragua require the support of external financing that may help to deepen and strengthen the economic policy changes already adopted.

#### 4. Debt Relief Mechanisms and the HIPC Initiative

Over the past two decades, the international financial community has developed several mechanisms that attempt to alleviate the problems faced by poor countries in fulfilling their external obligations. During most of the 1980s, official and Paris Club creditors saw the debt problem as one of liquidity. Therefore, the typical approach to debt relief was to refinance or reschedule arrears and payments that were due during a period in which the debtor had an IMF-supported adjustment program. The result of this approach, however, was a steady increase in both the stock of outstanding debt and in the debt-burden ratios of many of the poorest countries. <sup>11</sup>

In 1988, after the G-7 summit in Toronto, the debt problem in the poorest countries was widely perceived as one of solvency rather than liquidity. Consequently, Paris Club members agreed to provide up to one-third of debt relief to the poorest rescheduling countries by either forgiving part of the debt or by granting concessional interest rates. These terms, known as the *Toronto terms*, were later modified in the 1991 G-7 summit in London, where the creditors club agreed to provide maximum relief of up to 50 percent on the net present value of the stock of debt (the *London terms*). In 1994, the Paris Club creditors agreed to raise the maximum amount of debt relief to two-thirds of the eligible stock of rescheduling debt for those countries that had a three-year track record of successful macroeconomic management. These conditions became known as the *Naples terms*.

Recently, as a result of rising concerns about the service capacity of some severely indebted poor countries, the World Bank and the IMF launched a new initiative. The objective was to look for a "comprehensive solution" to the unsustainable debt of some of these countries. First proposed at the April 1996 meetings of the IMF and the World Bank, the *Heavily Indebted Poor Countries Debt Initiative* (hereafter referred as "the HIPC initiative") was rapidly endorsed and supported by a large number of countries around the world.

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<sup>&</sup>lt;sup>10</sup> This situation might change after the Stockholm meeting of the Consultative Group of donor countries.

<sup>&</sup>lt;sup>11</sup> See Sachs (1989b) for a critical review of this approach.

#### The HIPC Initiative

This debt relief mechanism was officially approved in September 1996 by the boards of the World Bank and the International Monetary Fund. The HIPC Initiative represents a commitment by the international financial community to act together to alleviate the external debt situation of the needlest countries.<sup>12</sup> At the outset, the HIPC initiative identified forty-one countries as potentially eligible for debt relief.<sup>13</sup>

The HIPC initiative is oriented towards providing debt relief for those countries that have demonstrated strong policy performance and that, after taking full advantage of the traditional debt-relief mechanisms, are still considered to have unsustainable debt levels (as defined below). The traditional debt-relief consists of the following steps: First, the debtor country adopts an economic reform program supported by concessional loans from the IMF and the World Bank. Second, the debtor country may obtain a flow-rescheduling agreement with Paris Club creditors (on concessional terms) in support of the economic program. If the debtor country maintains a good track record with the IMF and follows the rescheduling agreement, the country may obtain a stock-of-debt reduction operation after a three-year period. Third, the debtor country commits to seek at least comparable terms on debt owed to private and other non-Paris Club bilateral creditors. Fourth, the debtor country seeks bilateral forgiveness of official development assistance (ODA) debt by some creditors. Finally, the debtor country may obtain new financing on appropriately concessional terms.

According to the terms of the HIPC initiative, if a country reaches sustainable debt levels after obtaining a stock-of-debt reduction with other creditors it is not eligible to benefit from the initiative. If, however, the debt reduction is not enough to bring the debtor country back to sustainable debt levels, then both the Paris Club and the multilateral organizations commit themselves to grant further relief until the debtor country achieves debt sustainability.

Under the original HIPC initiative, the Paris Club creditor countries agreed to provide debt relief of up to 80 percent in net present-value (NPV) terms on a case-by-case basis. Similarly, multilateral creditors committed themselves to reduce the present value of their claims so as to guarantee a sustainable debt level—also defined on a case-by-case basis. Generally, a sustainable debt to exports ratio lay in the 200-250 percent range (in present-value terms), and in the 20 to 25 percent range for the debt-service to exports ratio. Specific targets are

<sup>&</sup>lt;sup>12</sup> For more details about the origins and goals of the HIPC initiative see Boote and Thugge (1999).

<sup>&</sup>lt;sup>13</sup> The original list included Nigeria. Subsequently, Nigeria was eliminated and Malawi was added, keeping the list at 41.

identified for each country depending on the concentration and variability of exports and on the fiscal burden of the debt service.

On April 24, 1997, the Boards of the World Bank and the IMF agreed to modify the interpretation of the HIPC initiative for highly open economies. The boards of these organizations considered that the previously specified ratio of debt to exports (200 percent to 250 percent) might not lead to debt sustainability for very open economies. In consequence, they reduced the debt to exports target (in net present-value terms) below 200 percent for those economies satisfying the following criteria. First, a ratio of fiscal revenues to GDP above 20 percent, and second, a ratio of exports to GDP of at least 40 percent (hereafter, these two conditions will be referred as the fiscal and openness criteria). For countries satisfying both criteria, the NPV debt to exports target is set at a level that achieves a 280 percent ratio of the NPV debt to fiscal revenue at the completion point.

In June 1999, the G8 (the G7 plus Russia) leaders met in Cologne to discuss, among other issues, a revision to the original HIPC Initiative. At the end of the meeting, the G-8 leaders suggested several modifications to the HIPC Initiative. This statement is now known as the Cologne Debt Initiative and the boards of the IMF and The World Bank approved it in August 1999. <sup>14</sup> The main changes to the HIPC Initiative are as follows:

- The Paris Club will provide debt relief of up to 90 percent, and more in individual cases if needed (up from the 80 percent limit in the original HIPC initiative).
- Debt is now considered sustainable if the net present-value of debt is lower than 150 percent of total exports of goods and services (down from a 200 percent to 250 percent range in the original HIPC initiative).
- A new sustainability criterion and lower thresholds for the ratios of exports to GDP and fiscal revenues to GDP were defined for highly open economies. Now, countries may qualify for the HIPC initiative if they have a ratio of exports to GDP above 30 percent (compared to 40 percent) and a ratio of fiscal revenues to GDP above 15 percent (compared to 20 percent). The new sustainability criterion is a net present value of debt below 250 percent of fiscal revenues (down from 280 percent).
- The G-8 leaders suggested a considerable shortening of the second stage of the initiative. They also suggested that "the amount of debt reduction should be determined at the 'decision point'" rather than at the "completion point". The G-8 leaders also suggested that "interim relief" by the International Financial

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<sup>&</sup>lt;sup>14</sup> See Sachs et al. (1999) for a critical evaluation of the Cologne Debt Initiative.

Institutions should be provided before the completion point. In general, these proposals are intended to provide faster debt relief to qualifying countries.<sup>15</sup>

#### First Results of the HIPC Initiative

By April 2000, nine low-income countries had reached debt reduction agreements with the Paris Club (in chronological order): Uganda, Bolivia, Mali, Guyana, Burkina Faso, Benin, Senegal, and Mozambique. All these countries were considered to have successfully completed the first stage of the HIPC initiative and had reached the decision point. As of May 2000, resolutions under the HIPC initiative were reached for eleven countries. Nine of them were deemed eligible to benefit from the initiative: Uganda, Bolivia, Burkina Faso, Guyana, Cote d'Ivoire, Mozambique, Mali, Mauritania, and Tanzania. Two countries, Benin and Senegal, were considered able to achieve sustainable debt levels through traditional debt-relief mechanisms and therefore were not eligible to benefit from the HIPC initiative. <sup>16</sup>

Table 2 summarizes the benefits obtained by each of the nine qualifying countries. It also shows both decision and completion points, as well as the preliminary results of a debt sustainability analysis carried out by the World Bank in early 1996. This table shows that the net present value of the debt reduction granted by the HIPC Initiative (that is, in addition to the traditional debt relief mechanisms) ranges from 6 percent in the case of Cote d'Ivoire, to 72 percent for Mozambique under the enhanced HIPC Initiative. Results in Table 2 also show that Guyana, Cote d'Ivoire and Mauritania were the first countries to benefit from the fiscal and openness criteria introduced in April 1997. This explains the low debt to exports target set for these countries (107, 141, and 137, respectively), which compare favorably with previous ratios established under the initiative.

<sup>&</sup>lt;sup>15</sup> The "Decision Point" occurs at the end of the first period of good macroeconomic performance under multilateral institutions' supervision. During this period, multilateral organizations provide support under adjustment programs and Paris Club creditors reschedule debt flows. At this point, the World Bank and the IMF, together with the country authorities, carry out a Debt Sustainability Analysis that will determine whether a country qualifies to receive support from the HIPC Initiative. The "Completion Point" occurs at the end of the second period of good macroeconomic performance under multilateral institutions' supervision. At this point, Paris Club creditors provide a stock of debt reduction and, if necessary, multilateral organizations take additional measures to ensure that a country reaches sustainable debt levels.

<sup>&</sup>lt;sup>16</sup> These countries, however, are eligible for a reassessment under the 1999 enhanced HIPC framework.

# 5. Honduras, Nicaragua and the HIPC Initiative

## **Eligibility**

According to the terms of the HIPC initiative, forty-one countries, including both Honduras and Nicaragua, were deemed potentially eligible for benefits. Although a further restriction of the initiative was that IDA-only (International Development Assistance) eligible countries could apply to the HIPC initiative, both Honduras and Nicaragua satisfy this criterion as well.

#### Preliminary Debt Sustainability Analysis

A preliminary assessment concluded that Nicaragua's foreign debt level was unsustainable, whereas that of Honduras was deemed to be sustainable (World Bank, 1997). The latter result seems to imply that Honduras may not qualify for the HIPC initiative because its foreign debt could reach sustainable levels after a stock-of-debt operation with the Paris Club. The results of the preliminary debt sustainability analysis, however, should not be considered definitive. For example, the preliminary analysis of Burkina Faso, a country that has already benefited from the initiative, concluded that its foreign debt was sustainable. Similarly, debt sustainability analyses for three other countries that have already benefited from the initiative (Bolivia, Uganda and Guyana), were originally classified as "possibly stressed" (see Table 2). Therefore, while the results of preliminary debt sustainability analysis confirm that Nicaragua will surely qualify for the HIPC initiative, Honduras still needs to convince multilateral organizations that it requires additional debt relief.

#### Good Record of Macroeconomic Performance

According to the terms of the HIPC initiative, qualifying countries must acquire three years of satisfactory macroeconomic performance under the supervision of the IMF before they may actually become eligible to benefit from the initiative. Let us quickly review the stance of Honduras and Nicaragua in this regard.

<u>Honduras</u>. This country signed letters of intent with the IMF in 1992 and 1995. In both cases, however, Honduras failed to meet some of the specified targets and the IMF regarded Honduras as "off track" in 1993 and 1996. In early 1997, Honduras agreed to follow a program monitored by the staff of the IMF and established new macroeconomic targets. During 1997, Honduras made important efforts to comply with the new program and also made several attempts to sign a third letter of intention with the IMF. Despite progress shown in the monitored program, Honduras was unable to reestablish the last part of the agreement with the IMF.

In early 1998, a new government took office in Honduras and immediately attempted to reach an agreement with the IMF. In October of that year, however, Hurricane Mitch hit Honduras (as well as other parts of Central America). The magnitude of the damages, and the urgency to provide food, medicines and shelter for the thousands of homeless and displaced persons, became a national priority. As part of the recovery efforts, Honduras and the IMF signed an initial letter of intent in November 1998. This initial agreement was later ratified and extended in March 1999, when the IMF approved a three-year Enhanced Stability Adjustment Facility (ESAF) arrangement with the government of Honduras.

If Honduras meets the first-year targets of the new ESAF agreement, it can then make a case for a substantial reduction in its probation period. If this is the case, Honduras may receive a considerable shortening of the period needed to reach the decision point under the HIPC initiative. In fact, Honduras may reach this point by the end of the year 2000.

<u>Nicaragua</u>. Throughout the 1990s, Nicaragua made an extensive set of structural macroeconomic reforms. Trade and exchange rate systems were liberalized, inflation was brought under control, and an incipient process of privatisation began. Most of these reforms were done under the supervision of the IMF (a Stand-By arrangement in 1991-92 and an Enhanced Structural Adjustment Facility arrangement, ESAF, in 1994-97). In general, Nicaragua complied with both arrangements at least until mid-1995. During 1996 and 1997, Nicaragua had several problems in fulfilling the objectives of the ESAF arrangement.

In March 1998, Nicaragua signed a second ESAF Program with the IMF. Later in that year, Hurricane Mitch hit Central America and the Paris Club granted Nicaragua a debt service moratorium until February 2001. As per the agreement reached with the IMF, it seems clear that it will take Nicaragua at most two years of compliance with the ESAF before obtaining access to a stock-of-debt reduction agreement with the Paris Club. Therefore, Nicaragua could reach the decision point by the end of the year 2000. If this occurs, the completion point could be reached as early as 2001. Otherwise, Nicaragua's completion point could be delayed until 2002 or 2003. The latter schedule is not recommended because any delay in the reduction of Nicaragua's debt could endanger many of the structural reforms that have been implemented in the last decade. Furthermore, the relatively good economic performance of Nicaragua in the last years (modest economic growth together with low inflation rates and relative macroeconomic stability) suggests that it should receive partial credit for some of the previous years of sound economic management.

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<sup>&</sup>lt;sup>17</sup> See Gobierno de Nicaragua (1998a, 1998b).

## Alternative Debt Reduction Scenarios for Honduras and Nicaragua

The net present value of debt to exports ratios for Honduras and Nicaragua at the end of 1997 were 181 percent and 510 percent, respectively. IMF preliminary estimates show that the net present value of debt to exports ratios at the completion point, after having taken full advantage of traditional debt-relief mechanisms, would be 158 for Honduras and 447 for Nicaragua. These ratios imply a debt reduction of around 13 percent for each country.

However, because the debt to exports ratios would still exceed the 150 percent ratio considered as sustainable by the HIPC initiative, both countries would qualify to receive additional debt relief through the initiative. Thus, under the standard terms of the initiative, Honduras would receive an additional 5 percent debt relief whereas Nicaragua would be entitled to receive an extra 66 percent debt reduction (see Table 3). These additional debt cancellations would bring the debt to exports ratios of these countries to the 150 percent level considered to be sustainable by the initiative.

IMF/World Bank estimates show that both Honduras and Nicaragua satisfy the fiscal and openness criteria established in the mid-1999 modification of the HIPC initiative. More specifically, Honduras' exports and fiscal revenues represent, respectively, 47 percent and 18 percent of its total output. The corresponding ratios for Nicaragua are 43 and 25. Therefore, these countries would be entitled to receive additional debt relief based on the fiscal and openness criteria. To get an estimate of the additional benefits that Honduras and Nicaragua could obtain under this condition, we have calculated the debt ratios that are compatible with alternative values of the fiscal and openness criteria. These results are shown in Table 4.

Using the exports and fiscal revenue ratios for Honduras mentioned above, together with the results in Table 4, we obtain a debt to exports target of 96 percent for this country. Nicaragua, on the other hand, would be set a 145 percent debt to exports ratio. Hence, the highly open economy status would represent an additional 36 and 3 percent debt reduction for Honduras and Nicaragua, respectively, as compared with the standard application of the HIPC initiative. Considering Nicaragua's strong fiscal position, it is puzzling that it would obtain such a small debt relief as a result of the strict application of the fiscal and openness criteria. In our opinion, such result calls into question the whole usefulness of the new criteria. The next section provides a critical assessment of these criteria.

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<sup>&</sup>lt;sup>18</sup> We use 1997 data as a reference point. The actual debt reduction process uses three-year average values.

<sup>&</sup>lt;sup>19</sup> See IMF and The World Bank (1999).

## 6. A Critical Assessment of the Fiscal and Openness Criteria

One of the most recent modifications to the HIPC initiative is the introduction of fiscal and openness criteria to determine alternative levels of debt sustainability. This modification is relevant for this study because Honduras and Nicaragua satisfy both criteria and they may obtain additional benefits if they qualify for the HIPC initiative under this condition. As shown below, this modification fails to address the concerns of highly indebted open economies in terms of debt sustainability. Furthermore, the strict application of the criteria induces a moral hazard problem in terms of the fiscal effort undertaken by potentially qualifying countries. In this sense, if the HIPC initiative truly aims to provide substantial debt relief to poor highly indebted and fiscally responsible economies, the use of these two criteria must be modified.

As mentioned above, the fiscal and openness criteria were introduced in response to growing concerns about the debt sustainability of highly open economies. The basic idea underlying this change was that establishing sustainability thresholds based on debt to exports ratios could seriously overestimate the paying capacity of very open economies. These economies could therefore end up with relatively high debt to GDP ratios in spite of having a "sustainable" debt to exports ratio. On the other hand, the fiscal criterion was introduced "to avoid moral hazard" problems in fiscal revenue collection and to ensure that potentially qualifying countries had a good record of fiscal performance. To eliminate the problem of using a debt to exports target, this modification establishes that the targeted net present value of debt would be the lower of 250 percent of fiscal revenues or 150 percent of exports.

To analyze the debt alleviation implications of the fiscal and openness criteria, it may be convenient to translate them into easily comparable measures of the debt burden. Thus, we obtain estimates of the debt to exports and debt to output ratios implicit in different combinations of the fiscal and openness criteria. Appendix 1 explains the methodology used and Table 4 shows the debt ratios that are compatible with alternative values of the fiscal and openness criteria. <sup>21</sup>

Table 4 shows several interesting results. For example, it shows that the introduction of the fiscal and openness criteria imply that an economy that exactly matches both criteria will be set to target (in net present value terms) debt to output

<sup>&</sup>lt;sup>20</sup> As discussed in the working paper upon which this work is based, Honduras was in a borderline situation under the original terms of the highly open economy status (Esquivel, Larraín and Sachs [1998]). As a result of the modifications suggested in the Cologne Debt Initiative, Honduras now satisfies both criteria.

<sup>&</sup>lt;sup>21</sup> The working paper version of this paper shows the equivalent to Table 4 using the original fiscal and openness threshold values (20 percent and 40 percent) and a D/T target of 280 percent (see Esquivel, Larraín and Sachs [1998]).

and debt to exports ratios of 37.5 and 125, respectively, at the completion point. The latter represents an additional 20 percent debt reduction over the most advantageous agreement that could have been obtained under the original terms of the HIPC initiative (a 150 debt to exports ratio).

Also, as expected, Table 4 shows that the implicit debt to exports ratio decreases with the level of openness, whereas the implicit debt to output ratio does not depend on the share of exports on total output. Interestingly, both debt ratios increase with the level of fiscal effort. In fact, there are some combinations of fiscal effort and openness that do not render any additional benefit in terms of debt reduction when compared to the standard classification of debt sustainability. The shaded area in Table 4 shows the combinations of debt and fiscal ratios that would lead to an implicit debt to exports ratio above 150 percent. Since this is exactly the debt to exports target under the standard version of the HIPC Initiative, these fiscal and openness combinations do not lead to any further debt relief.

The latter result clearly contradicts the spirit of the modification to the HIPC Initiative. It shows that a simple implication of the new fiscal and openness criteria tends to penalize those economies that are currently making a substantial fiscal effort by imposing them relatively large debt ratios. In other words, there is an obvious moral hazard problem in revenue collection since some countries would obtain a much larger debt reduction had they had a ratio of fiscal revenues to output just slightly above the required threshold.

A numerical example illustrates the inequity of this implication. Consider two highly indebted and very open economies each with a 40 percent share of exports on total output. Now, let us assume that country A has implemented and enforced a structural fiscal reform that allows the government to collect taxes equivalent to 31 percent of total output. Country B has just made minor improvements to its fiscal policy, so that these changes have led to fiscal revenues equivalent to 15 percent of total output. Applying the sustainability criterion of the HIPC initiative for open economies, foreign debt for these countries would be considered sustainable at a debt to exports ratio of 150 and 94 for Country A and B, respectively.<sup>22</sup> Thus, whereas the high fiscal-effort country does not receive additional benefits from the initiative, the low fiscal-effort country receives an extra 30 percent reduction in its total external debt with respect to what it would have received under the standard sustainability criterion. In terms of the ratio of debt to output, Country A would end up with a ratio of 60, while Country B's ratio would be only 37.5. That is, Country B would save 22.5 percent of its total output by not incurring in a high fiscal-effort!

Note that the assumed combination of values for Country A lies in the shaded area of Table 4. Therefore, the standard sustainability criteria are used.

Now, compare the results just described with those that would be obtained by a highly-indebted relatively-closed economy that has fiscal revenues and exports equivalent to only 10 percent of its total output. By assumption, this economy satisfies none of the two fiscal and openness criteria. In consequence, it would not qualify to receive "additional" benefits from the HIPC Initiative. If this country receives the standard HIPC treatment, its external debt would be set at a debt to exports ratio of 150 percent. It is easy to see that this debt target implies a ratio of debt to output of 15 percent, which is much lower than the 37.5 ratio that would have been obtained in the best scenario by an economy that satisfies the fiscal and openness criteria!

In terms of the debt to fiscal revenues ratio, our hypothetical closed economy would end up with a 150 percent ratio, which is also much lower than the 250 percent ratio that applies for open economies with a relatively high fiscal-effort. Therefore, our simple numerical example sheds light on the fact that as the fiscal and openness criteria stand right now, they tend to provide the wrong incentives. Furthermore, these criteria still discriminate against very open economies as compared with relatively closed economies.

#### Implications for Honduras and Nicaragua

Now, consider what would happen if both Honduras and Nicaragua choose to reduce their fiscal revenues collection to exactly 15 percent of their total output. This is the lowest fiscal revenue level that would still allow them to qualify to the HIPC initiative with a highly open economy status. In this scenario, Honduras would have a debt to exports target of 80 percent, whereas Nicaragua would be set an 87 percent debt to exports ratio. These ratios represent a 17 percent and 40 percent additional debt reduction for Honduras and Nicaragua, respectively, as compared to what they would receive if they opted for keeping their current level of fiscal effort unchanged.

A summary of the alternative scenarios is shown in Table 3. This table also shows the total debt reduction that would be achieved under the alternative scenarios. These results show, for example, that Honduras could get a 56 percent debt reduction in its best-case scenario. Nicaragua, on the other hand, would receive up to 83 percent of total debt cancellation in its most advantageous situation. A strict application of the current terms of the HIPC initiative, however, would only imply a debt cancellation of 47 and 72 percent for Honduras and Nicaragua, respectively.

This example clearly illustrates the moral hazard problems implicit in the current definition of the fiscal and openness criteria. Right now, eligible countries are penalized for any additional fiscal revenue effort beyond the "bliss-point" of 15 percent of total output. This result contradicts the spirit of the criteria and must be modified in the near future.

There is an additional reason to ask for a deeper debt reduction for Honduras and Nicaragua beyond of what it is implied by the strict application of the criteria established by the HIPC initiative. And this is the fact that the foreign debt-service in these countries implies a substantial drain of resources from the public sector. This is shown in Figure 9, which plots the public sector debt service due in 1996 as a percent of total government expenditures for Honduras, Nicaragua, as well as for the first three countries that benefited from the HIPC Initiative. The difference in this indicator between Honduras and Nicaragua, and the other three countries is striking. While service due on the public sector external debt of the latter countries was equivalent to around 15 percent of their government expenditures in 1996, the corresponding figures for Honduras and Nicaragua were close to 60 percent and 100 percent, respectively. Not surprisingly, the latter countries have been unable to serve their external obligations in full in the last years.

Figure 9 also reveals an issue that has been widely discussed in the literature on debt and solvency-namely, that the standard criteria applied to decide whether or not a country is solvent are not necessarily correct. There are situations in which the governments themselves are insolvent.<sup>23</sup> In cases like this, the right approach to the external debt problem of some countries should be from a fiscal perspective. Therefore, when discussing the sustainability of Honduras and Nicaragua's foreign debts, this perspective should certainly be taken into consideration.

(as a percent of government expenditure) 120 100 80 40 20 Bolivia Uganda Burkina Faso Honduras Nicaragua

Figure 9. Public Sector External Service Due, 1996

Source: Boote and Thugge (1999).

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 $<sup>^{23}</sup>$  See Agenor and Montiel (1996) for a summary of the different approaches to the debt problem.

## 7. Summary and Conclusions

Honduras and Nicaragua have a serious debt overhang. Several indicators suggest that their foreign debt has reached an excessive level and that it has become a serious impediment to economic growth in both nations. Honduras and Nicaragua, the poorest countries of Central America, have lagged behind the rest of the region, leading to an increase in regional inequality during the 1990s. These elements suggest that Honduras and Nicaragua require alleviation of their foreign debt as a prerequisite to achieve sustained economic growth. If the burden of the debt remains at current levels, it is unlikely that these countries will be able to grow at the rates necessary to increase the standards of living of their populations in the next decades (6 percent per year at a minimum). Honduras and Nicaragua meet most of eligibility criteria to qualify for the multilateral initiative aimed at assisting highly indebted poor countries (the HIPC Initiative). The main obstacle for both countries is demonstration of a successful macroeconomic performance under the supervision of the multilateral organizations.

In the case of Nicaragua, in addition to fulfilling the good macroeconomic performance requisite, it should negotiate a shorter period of evaluation with the multilateral organizations (possibly one-year long instead of the usual three years). Such special treatment is allowed by the HIPC initiative and has already been granted to Uganda and Guyana. Nicaragua may argue that it has implemented a consistent structural reform policy since 1990.

Nicaragua, who qualifies for the HIPC initiative with a highly open economy status, should also forcefully make the case that it should not be punished because it has been fiscally responsible. In fact, as a matter of fairness, Nicaragua should have a debt to exports target similar to the one that would be set if it only had a fiscal revenues to output ratio of 15 percent. That is, Nicaragua's foreign debt should be reduced by as much as 83 percent.

On the other hand, in order to qualify for the HIPC Initiative, Honduras should comply with its agreement with the IMF. Honduras should emphasize that the right approach to analyze its external debt burden is from a purely fiscal perspective. It is clear that the external debt service imposes a tremendous pressure on Honduras' public finances and that it limits resources available for social expenditure.

Finally, we consider that it is necessary to ponder the debt burden of the poorest economies from a truly fiscal perspective. As shown in this paper, the fiscal and openness criteria recently introduced in the HIPC initiative do not grant additional benefits to countries that have made substantial efforts to increase their fiscal revenues as a share of GDP. Instead, such criteria discriminate against countries with relatively high fiscal revenues by setting higher debt to exports targets than those that would be set if they had had moderate fiscal revenues.

Therefore, it is necessary to reformulate the HIPC initiative in such a way as to guarantee greater benefits for those countries that are making important fiscal efforts and for which the fiscal burden of the debt has reached unsustainable levels. This is undoubtedly the case of Honduras and Nicaragua.

Table 1. Central America: Key Indebtedness Ratios, 1998

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Other Latin American Countries *
Total External Debt (percent of GNP)	39	31	24	97	336	39
Present Value of External Debt (percent of GNP)	37	27	23	62	295	38
Present Value of External Debt (percent of exports of goods and services)	53	77	106	119	534	221
Total External Debt Service (percent of GNP)	5	4	2	10	14	7
Total External Debt Service (percent of exports of goods and services)	8	10	10	19	25	38
Interest Payments (percent of GNP)	2	1	1	4	9	3
Interest Payments (percent of exports of goods and services)	3	4	5	8	17	16
Classification by Income	Lower-Middle	Lower-Middle	Lower-Middle	Low	Low	-
Classification by Indebtedness	Less-Indebted	Less-Indebted	Less-Indebted	Severely Indebted	Severely Indebted	-

<sup>\*</sup> Includes Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, and Peru.

Source: The World Bank (2000b)

	Table 2. Debt Relief under the HIPC Initiative										
Country	Decision Point (1)	Completion Point (1)	Preliminary Assessment (2)	NPV Debt to Exports Target (1)	NPV Debt Reduction (1) (3) (in percent)						
Uganda	Apr. 1997 Feb. 2000	Apr. 1998 Apr. 2000	Possibly Stressed	202 150	20 40						
Bolivia	Sept. 1997 Feb. 2000	Sept. 1998 Floating	Possibly Stressed	225 150	13 30						
Burkina Faso	Sept. 1997	Apr. 2000	Sustainable	205	14						
Guyana	Dec. 1997	May 1999	Possibly Stressed	107	24						
Cote d'Ivoire	Mar. 1998	Mar. 2001	Possibly Stressed	141	6						
Mozambique	Apr. 1998 Apr 2000	June 1999 Floating	Unsustainable	200 150	63 72						
Mali	Sept. 1998	Mar. 2000	Unsustainable	200	10						
Mauritania	Feb. 2000	Floating		137	50						
Tanzania	April 2000	Floating		150	54						

Notes: (1) Whenever two dates are given, the first one refers to the original terms of the HIPC Initiative, and the second one to the enhanced terms of the Cologne Revision.

<sup>(2)</sup> Based on a preliminary evaluation of the World Bank at the outset of the HIPC Initiative (World Bank, 1997).

<sup>(3)</sup> Source: IMF and The World Bank (1999) and The World Bank (2000b)

Table 3. Alternative Scenarios of Debt Reduction for Honduras and Nicaragua

_		Honduras		Nicaragua Nicaragua				
	NPV of debt to exports ratio	Percentage in NP	V Debt Reduction	NPV of debt to exports ratio	Percentage in NPV Debt Reduction			
		w/respect to previous scenario	w/ respect to initial debt level		w/respect to previous scenario	w/ respect to initial debt level		
nitial Situation (end of 1997)	181			510				
Situation after having taken full advantage of traditional debt relief mechanisms	158	12.7	12.7	447	12.4	12.4		
Situation after standard HIPC initiative treatment	150	5.1	17.1	150	66.4	70.6		
Situation under highly open economy status assuming unchanged values at decision point)	96	36.0	47.0	145	3.3	71.6		
Situation under highly open economy status assuming a 15 percent fiscal revenues-to-output ratio)	80	16.7	55.8	86	40.7	83.1		

 Table 4. Implicit Debt Ratios for Highly Open Economies under the HIPC Initiative

		Implicit Debt to Exports Ratio  Exports to Output Ratio											Implicit Debt to Output Ratio	
		30	32	34	36	38	40	42	43	45	47	49		
	15	125	117	110	104	99	94	89	87	83	80	77	37.5	
	17	142	133	125	118	112	106	101	99	94	90	87	42.5	
	19	158	148	140	132	125	119	113	110	106	101	97	47.5	
Tax Revenues to	21	175	164	154	146	138	131	125	122	117	112	107	52.5	
Output Ratio	23	192	180	169	160	151	144	137	134	128	122	117	57.5	
-	25	208	195	184	174	164	156	149	145	139	133	128	62.5	
	27	225	211	199	188	178	169	161	157	150	144	138	67.5	
	29	242	227	213	201	191	181	173	169	161	154	148	72.5	
	31	258	242	228	215	204	194	185	180	172	165	158	77.5	
	33	275	258	243	229	217	206	196	192	183	176	168	82.5	
	35	292	273	257	243	230	219	208	203	194	186	179	87.5	

Note: Shaded area indicates combinations that do not yield extra-benefits under the highly-open-economy status.

# **Appendix**

#### **Debt Ratios and the Fiscal and Openness Criteria**

To analyze the debt alleviation implications of the fiscal and openness criteria of the HIPC Initiative, it is convenient to translate them into easily comparable measures of the debt burden. In particular, we are interested in obtaining the debt to exports and debt to output ratios that are implicit in alternative combinations of the fiscal and openness criteria. In this appendix we show how to obtain them.

We proceed as follows. Let us define D as the net present value of total external debt, X as total exports of goods and services, T as fiscal revenues, and Y as output. The Cologne fiscal and openness criteria define lower bounds for the share of exports in total output (X/Y) and for the ratio of fiscal revenues to output (T/Y) for qualifying countries (0.30 and 0.15, respectively).

Now, consider the following identity:

$$\frac{D}{X} \equiv \frac{D}{T} \cdot \frac{T}{Y} \cdot \frac{Y}{X}$$

where D/X is the debt to exports ratio (in net present value terms) and D/T is the debt to fiscal revenues ratio. For qualifying countries, the Cologne modification to the HIPC initiative sets a D/T ratio of 250 percent. Therefore, the implicit debt to exports ratio for qualifying countries is given by

$$\left(\frac{\hat{D}}{X}\right) = 2.5 \cdot \frac{T/Y}{X/Y}$$

Similarly, the implicit debt to output ratio is given by

$$\left(\frac{\hat{D}}{Y}\right) = \frac{D}{T} \cdot \frac{T}{Y} = 2.5 \cdot \frac{T}{Y}$$

Therefore, we can obtain the two implicit debt ratios by using different combinations of the fiscal and openness criteria, provided that the ratios T/Y and X/Y are greater than 0.15 and 0.30, respectively. Table 4 shows the debt ratios that are compatible with alternative values of the fiscal and openness criteria.

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