Chapter 1. Introduction

1. In recent years the international community has taken concerted steps to give more tangible shape to its commitment against poverty. With the Millennium Declaration and the adoption of the Millennium Development Goals, there is now an agenda of basic development targets to which the whole international community has subscribed. This achievement has been accompanied by a series of reforms in the development cooperation system aimed at facilitating the absorption of development assistance on the part of the recipients, securing better coordination and harmonization of policies on the part of donors, and aligning those policies more effectively with the national development strategies of the recipient countries.

2. These important changes have gone hand-in-hand with a greater emphasis on targeting aid more closely at countries and social sectors where levels of poverty are most acute. This is a reasonable goal, not only because extreme poverty implies a radical denial of individual rights, but also because international cooperation needs to be made more effective and efficient. Yet this new thrust could have some unwanted side effects if, in its focus on fighting poverty, the international community were to withdraw its support for the development efforts of that broad and heterogeneous group of countries that the World Bank and the OECD/DAC define as "middle-income countries" (MICs).

3. The effort that the international community has made to refine its forms of cooperation with the poorest countries has not been accompanied by any similar move to define the objectives, strategies and instruments best suited for its support to the MICs. Although the great differences among these countries suggest that no single, universal response would be adequate, there are three aspects that can be said to be crucial to their development strategies: (i) consolidating efficient and credible institutions for bringing coordination and quality to collective efforts, enhancing social cohesion, and lowering current levels of poverty and inequality; (ii) reducing the vulnerabilities associated with their integration into international financial markets; and (iii) improving their competitive capacity through productive transformation and technological progress. While the primary responsibility for moving forward on these fronts undoubtedly lies with the countries concerned, international cooperation can play a role in supporting national efforts and helping to create an international framework that will encourage and stimulate such efforts. This will require sound analysis and an accurate definition of objectives, and the adoption of cooperation mechanisms targeted at MICs.
PART I: MIDDLE-INCOME COUNTRIES AND THE AID SYSTEM

Chapter 2. The characteristics of MICs

2.1. The identification of middle-income countries

4. According to the benchmark used by the World Bank (2005), the middle-income group comprises 93 countries or territories where per capita income lies between $766 and $9,385 (in 2003 dollars). This group is further broken down into two subgroups: lower-middle-income, embracing 56 countries with per capita incomes between $766 and $3,035, and upper-middle-income, comprising 38 countries with per capita incomes between $3,035 and $9,385. Thus, the MIC group as a whole accounts for nearly 60% of what are conventionally regarded as developing countries. Of this total, 77 countries (and seven territories) are also considered as middle-income by the OECD’s Development Assistance Committee (DAC).

5. The MICs are distributed through every region of the developing world. Nevertheless, the regions with the highest proportion of MICs are Latin America (79%) and North Africa and the Middle East (67%) (Chart 1).

![Chart 1: Distribution of MICs by region (%)](image)

Source: Prepared by the author from World Bank data (2005)

6. There is great discrepancy in the size of MICs. Around one-third (33 countries) have fewer than 2 million inhabitants. Moreover, a significant portion (27 countries) are
archipelagos, a factor that poses additional difficulties to them in integrating their domestic markets. At the other extreme, five countries have more than 100 million people and one of them, China, has nearly 1.3 billion. These discrepancies in size pose an additional problem when it comes to preparing common assessments or developing proposals for general application.

7. The MICs account for nearly one-half (47.6%) of the world population; and China alone plays a decisive role, with 19.3% of the world population. Yet the population weighting of the two subgroups is very different: lower-middle-income countries have the greatest demographic burden. With respect to their economic weighting, the MICs account for around 35% of global GDP (at purchasing power parity). Lower-middle-income countries contribute 25 percentage points of this total, and the upper-middle-income countries 10 points (Chart 2).

Chart 2: World income and population distribution

- 3 -
Table 1: *Economic and Social Indicators by income group, worldwide*

<table>
<thead>
<tr>
<th>Year</th>
<th>Income levels</th>
<th>World</th>
<th>Low</th>
<th>Middle</th>
<th>Lower-middle</th>
<th>Upper-middle</th>
<th>High</th>
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<tr>
<td><strong>International weighting of MICs</strong></td>
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<tr>
<td>Exp+Imp of goods &amp; services</td>
<td>2003</td>
<td>100</td>
<td>2.6</td>
<td>21.3</td>
<td>11.6</td>
<td>9.8</td>
<td>76.1</td>
</tr>
<tr>
<td>FDI</td>
<td>2003</td>
<td>100</td>
<td>2.8</td>
<td>23.7</td>
<td>17.4</td>
<td>6.3</td>
<td>73.5</td>
</tr>
<tr>
<td>Geog. allocated ODA</td>
<td>2003</td>
<td>100</td>
<td>54.6</td>
<td>43.2</td>
<td>35.8</td>
<td>7.3</td>
<td>2.1</td>
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<tr>
<td>Remittances</td>
<td>2003</td>
<td>100</td>
<td>30.9</td>
<td>57.8</td>
<td>39.7</td>
<td>18</td>
<td>11.4</td>
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<tr>
<td>CO2 emissions</td>
<td>2003</td>
<td>100</td>
<td>7.7</td>
<td>41</td>
<td>32.2</td>
<td>8.8</td>
<td>51.4</td>
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<tr>
<td>Total external debt</td>
<td>2003</td>
<td>100</td>
<td>16.63</td>
<td>83.37</td>
<td>53.42</td>
<td>29.95</td>
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<td><strong>Growth-related variables</strong></td>
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<tr>
<td>Growth rate of GDP (%)</td>
<td>1990-2003</td>
<td>1.2</td>
<td>2.5</td>
<td>2.3</td>
<td>2.7</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Exp+Imp to GDP (%)</td>
<td>2002</td>
<td>47.6</td>
<td>44.3</td>
<td>61.3</td>
<td>56.6</td>
<td>70.6</td>
<td>45</td>
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<td>Technology Achievement Index</td>
<td>2001</td>
<td>0.4</td>
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<td>0.4</td>
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<td>Digital Access Index</td>
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<td>0.2</td>
<td>0.5</td>
<td>0.4</td>
<td>0.5</td>
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<td>Growth volatility (*)</td>
<td>1980-2003</td>
<td>1.7</td>
<td>3.0</td>
<td>2.0</td>
<td>2.3</td>
<td>1.8</td>
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<td>Domestic savings (% GDP)</td>
<td>1990-2003</td>
<td>22.3</td>
<td>18.7</td>
<td>26.3</td>
<td>28.3</td>
<td>22.4</td>
<td>21.7</td>
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<td><strong>Development-related variables</strong></td>
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<tr>
<td>Telephone lines (per 1,000 residents)</td>
<td>2000</td>
<td>161.0</td>
<td>21.7</td>
<td>127.6</td>
<td>119.4</td>
<td>185</td>
<td>588.5</td>
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<td>Internet users (per 1,000 residents)</td>
<td>2000</td>
<td>64.2</td>
<td>3.5</td>
<td>23.8</td>
<td>17.8</td>
<td>65.6</td>
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<td>R&amp;D researchers (per million residents)</td>
<td>2000</td>
<td>1279.8</td>
<td>182.9</td>
<td>804.1</td>
<td>798</td>
<td>863.6</td>
<td>3179.8</td>
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<td>Access to higher education (per 1,000 residents)</td>
<td>2000</td>
<td>23.8</td>
<td>9.1</td>
<td>20.2</td>
<td>18.6</td>
<td>31.1</td>
<td>59.6</td>
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<td>Primary school enrolment (per 1,000 residents)</td>
<td>2000</td>
<td>86.3</td>
<td>78.5</td>
<td>91.2</td>
<td>91.3</td>
<td>90.9</td>
<td>95.6</td>
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<td>Population growth rate</td>
<td>1990-2003</td>
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<td>2</td>
<td>1.1</td>
<td>1.1</td>
<td>1.3</td>
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<td>Fertility rate</td>
<td>2003</td>
<td>2.6</td>
<td>3.7</td>
<td>2.1</td>
<td>2.1</td>
<td>2.3</td>
<td>1.7</td>
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<tr>
<td>Population under 15 years</td>
<td>2003</td>
<td>28.9</td>
<td>36.9</td>
<td>26.2</td>
<td>25.9</td>
<td>28.5</td>
<td>18.2</td>
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<tr>
<td>Population over 65 years</td>
<td>2003</td>
<td>7.1</td>
<td>4.2</td>
<td>7</td>
<td>6.9</td>
<td>7.4</td>
<td>14.5</td>
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<tr>
<td>Dependency rate</td>
<td>2003</td>
<td>56.2</td>
<td>69.6</td>
<td>49.7</td>
<td>48.8</td>
<td>56</td>
<td>48.5</td>
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<td>Life expectancy at birth</td>
<td>2003</td>
<td>66.8</td>
<td>58.1</td>
<td>69.7</td>
<td>69.2</td>
<td>73.7</td>
<td>78.5</td>
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<tr>
<td>Human Development Index (UNDP)</td>
<td>2003</td>
<td>0.7</td>
<td>0.6</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>2003</td>
<td>56.8</td>
<td>79.8</td>
<td>29.8</td>
<td>31.4</td>
<td>17.8</td>
<td>..</td>
</tr>
<tr>
<td>Adult literacy rate</td>
<td>2002</td>
<td>79.1</td>
<td>58.0</td>
<td>89.9</td>
<td>89.8</td>
<td>91.5</td>
<td>..</td>
</tr>
<tr>
<td>Population with access to safe drinking water (%)</td>
<td>2002</td>
<td>82.1</td>
<td>75.7</td>
<td>83.0</td>
<td>82.2</td>
<td>90.5</td>
<td>99.4</td>
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<td>Gini coefficient</td>
<td>2003</td>
<td>39.4</td>
<td>35.7</td>
<td>43.7</td>
<td>43.1</td>
<td>48.7</td>
<td>34.1</td>
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<tr>
<td>Wealthiest quintile to poorest quintile</td>
<td>2003</td>
<td>8.7</td>
<td>2.2</td>
<td>5.5</td>
<td>4.6</td>
<td>0.9</td>
<td>1.0</td>
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<td><strong>Poverty-related variables</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Poverty rate (1 dollar)</td>
<td>2003</td>
<td>22.1</td>
<td>35.5</td>
<td>13.1</td>
<td>13.9</td>
<td>6.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Poverty gap (1 dollar)</td>
<td>2003</td>
<td>5.8</td>
<td>10.3</td>
<td>2.7</td>
<td>2.8</td>
<td>2.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Poverty rate (2 dollars)</td>
<td>2003</td>
<td>53.8</td>
<td>76.7</td>
<td>38.6</td>
<td>41.3</td>
<td>18.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Poverty gap (2 dollars)</td>
<td>2003</td>
<td>21.9</td>
<td>34.9</td>
<td>13.1</td>
<td>13.9</td>
<td>7.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Human Poverty Index (HPI)</td>
<td>2003</td>
<td>23.7</td>
<td>35.4</td>
<td>13.8</td>
<td>13.9</td>
<td>13.1</td>
<td>6.5</td>
</tr>
</tbody>
</table>

*Source: World Bank and UNDP*

(*) Coefficient of change in annual per capita GDP growth rates during the period 1980-2003.
2.2. Characteristics of MICs

9. Despite their obvious differences, the MICs can be characterized by a number of traits (Table 1):
   - They are at an advanced point along the demographic transition curve, and now have fertility and population growth rates lower than the world median, and a life expectancy at birth that is slightly higher than the world average. The age structure of the population is midway between that of low-income countries (where the younger strata predominate) and those of high-income countries, with older populations.
   - Their technological capacity indicators are very close to the world average, although they still fall short of those in high-income countries. There are moreover notable differences among the countries in the group.
   - The intermediate positioning of the MICs is improved when it comes to social variables: their Human Development Index is above the world median. The same holds for the infant mortality rate, the adult literacy rate, and the proportion of the population with access to drinking water.
   - The above-mention social indicators would be better if these countries exhibited greater equity: as it is, they have high inequality indicators, even greater than those for low-income countries. This high degree of inequality means that poverty rates are above those corresponding to their level of development. In both cases, the average figures conceal highly divergent national situations.
   - Finally, the available indicators on institutional quality, even with their inherent shortcomings, indicate that MICs (especially the lower-income ones) fall well short of high-income countries, and the indicators are dispersed widely around the world median.

10. In recent years, MICs have turned in a relatively good economic performance: their average annual growth rate since 1990, at around 3% per capita, has been slightly higher than the world median. This success was largely due to progress in the lower-middle-income countries, driven to a large extent by China. Yet an important feature of the MICs is the high degree of volatility in their growth, especially among the lower-middle-income countries.

2.3. MIC mobility

11. The break-up of former states (such as the USSR and Yugoslavia) and the emergence of newly independent states have been such that the number of countries recorded by the World Bank has grown in recent years, rising from 151 in 1978 to 208 in 2003. As a result, the number of middle-income countries has risen. Today, in relative terms, there has been some narrowing in the MIC band, in favour both of low-income countries, which have grown the most, and high-income countries. The base and the pinnacle of the distribution pyramid have both widened, to the detriment of the intermediate-income groups.
12. The reduction in the relative weight of the MICs can be analyzed more closely by looking at mobility between income strata. If we take the period 1978-2003, only one country has successfully climbed from the low-income to the lower-middle-income level, while a vastly larger group (up to 25 countries) has moved in the opposite direction. In turn, of the lower-middle-income countries that succeeded in raising their status, only one made the double leap to the high-income stratum, and three others achieved upper-middle-income rank. Of the countries in this last group, 13 dropped to lower-middle-income, while 10 rose to upper-income status. Finally, in the case of high-income countries, all but one remained in that category. This analysis offers some interesting conclusions: first, it is the MIC group that demonstrates the greatest mobility; and second, there have been more cases of countries moving down the scale than in the other direction. These conclusions point to the importance of supporting the development achievements of MICs to prevent them from losing ground.

Chapter 3. Targeting aid at MICs

13. Official Development Assistance (ODA) has followed a slightly upward path over the last nine 5-year periods. Between 1960 and 1991, funding increased by a factor of three (from $28 million to $77 billion in 2003 dollars), and the number of donors also grew. The 1990s saw a sharp cutback in aid, in both current and constant terms. Following that retreat, aid again expanded, and at an intense pace, at the beginning of the new millennium. Although incidental factors (such as major humanitarian undertakings, postwar reconstruction and debt relief) accounted for much of this expansion, it is clear that donors adopted a greater commitment to aid as a result of the Millennium Development Goals and the Monterrey Conference on Finance for Development in March 2002. Even so, the figure for 2005, at $106 billion, is scarcely higher in constant terms than the level achieved in 1991 (Chart 3).

Chart 3: ODA trends

Net disbursements of bilateral and multilateral ODA from DAC member countries. Millions of dollars and ODA as a share of GNP.

14. The slow growth of aid stands in contrast to the performance of other international financial flows to developing countries. In 1989, the four main components were roughly similar in magnitude. After that date, private lending followed a very unstable but rising path; official lending retreated slightly; international aid remained relatively constant, with an increase in recent years; and private capital investment expanded significantly. In fact, this last component, although unstable in its trend and selective in its destinations, has been the principal source of financing for emerging market countries in the last decade, eclipsing the importance of official aid (chart 4).

Chart 4. *Capital flows to emerging markets, by component*

Source: Eichengreen, 2006
Note: international aid does not include technical cooperation

15. Some 37% of geographically allocated bilateral aid from the period 2000-2004 went to the least developed countries (LDCs), but an even higher share (40% of resources) flowed to the lower-middle-income countries. Other low-income countries received 18% of funding, while upper-middle-income countries had only a marginal share, at 4%. In per capita terms, the LDCs have received the most aid, and that trend is rising. The lower- and middle-income countries stand in second place, ahead of the "other low-income countries" and the upper-middle-income group. When aid flows are compared to the GDP of recipient countries, this share follows a more clearly downward trend, within each grouping of development levels. (table 2).

Table 2: *Distribution of bilateral aid by recipient income groups (millions of constant dollars)*

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</thead>
<tbody>
<tr>
<td>Developing countries</td>
<td>34,174</td>
<td>44,487</td>
<td>49,845</td>
<td>42,428</td>
<td>44,183</td>
<td>54,425</td>
<td>49,547</td>
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<td>Least developed countries</td>
<td>9,541</td>
<td>12,265</td>
<td>12,807</td>
<td>10,130</td>
<td>10,334</td>
<td>15,866</td>
<td>13,554</td>
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<td>Other low-income countries</td>
<td>4,759</td>
<td>5,065</td>
<td>6,043</td>
<td>5,642</td>
<td>5,733</td>
<td>6,128</td>
<td>6,505</td>
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<tr>
<td>Middle-income countries</td>
<td>11,552</td>
<td>15,081</td>
<td>19,352</td>
<td>16,159</td>
<td>13,213</td>
<td>15,115</td>
<td>14,481</td>
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<tr>
<td>- Lower-middle-income countries</td>
<td>9,045</td>
<td>12,572</td>
<td>16,159</td>
<td>13,213</td>
<td>13,446</td>
<td>15,115</td>
<td>14,481</td>
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<td>- Higher-middle-income countries</td>
<td>2,507</td>
<td>2,509</td>
<td>3,193</td>
<td>2,116</td>
<td>1,353</td>
<td>1,622</td>
<td>1,513</td>
</tr>
</tbody>
</table>

Source: prepared by the author from OECD data (CAD, 2006)
The missing portion relates to geographically unallocated aid flows.
* Share of geographically allocated bilateral aid in total geographically allocated bilateral aid.
16. If we look at the distribution of aid over time, we find that there is a certain consistency in the relationship of the principal donors with MICs. In absolute terms, the greatest contributions have come regularly from the United States, Japan, France, Germany, Spain, the Netherlands, and the United Kingdom. In relative terms, Greece is the country that devotes the greatest portion (nearly three-quarters) of its bilateral aid to lower-middle-income countries. Next in importance stand Spain, Austria and Japan, where the L MIC share exceeds 40% (Chart 5). The weighting of upper-middle-income countries in the allocation of bilateral aid is much lower: on average they account for barely 3%. The countries that accord the greatest importance to this group of upper-middle-income countries, with shares exceeding 6%, are France, Austria and Spain.

Chart 5: Relative share of middle-income countries in total bilateral ODA flows (average 2000/2004)

Source: Prepared by the author from OECD data (DAC, 2006).

Chapter 4. Aid doctrine and the MICs

4.1. Cooperation with MICs

17. Over the last five years the international community has exhibited a stronger commitment to combating poverty. This new consensus is based on a recognition that extreme poverty not only constitutes an attack on the rights and the dignity of those who suffer it, but also undermines the legitimacy and stability of the international order that tolerates it. To target aid more closely on combating poverty therefore appears justified, not only because this objective now commands greater international consensus, but also because of the desire to enhance the impact of aid spending.
18. Nevertheless, it would appear that this effort has sometimes been approached in an excessively simplified way that unduly narrows the comprehensive perspective that aid should have. While it is reasonable to give preference to countries with the greatest levels of poverty, it may also be appropriate to maintain international support for the efforts of countries that have already moved beyond this threshold. Not only will this avoid any backsliding in their social achievements, it will also support their progress and that of their regional setting, and bring more stable governance to the international system. Just as with the middle class in any society, the presence of a broad group of middle-income economies making sustained progress lends stability and dynamism to the international system.

19. The policy of cooperation with MICs must begin with recognizing the heterogeneity of this group: it embraces countries with widely divergent development possibilities, very different sizes, and contrasting economic and social achievements. Consequently, there can be no single diagnosis of them, nor are they susceptible to any attempt at shared therapy. Nonetheless, there are five reasons that justify an active policy of development cooperation with middle-income countries, compatible with the preference that must be given to the poorest countries.

a) Supporting achievements in poverty reduction
Although they are not the countries with the highest levels of poverty, the MICs are home to 13% of the world’s people who must live on less than a dollar a day, and 41% of those with less than two dollars a day. In some cases, these poverty levels are the result not so much of low average incomes as of the faulty distribution of income within the country. The chief political responsibility for eradicating poverty therefore lies with national governments themselves, which will have to implement the social policies and redistribution mechanisms required to achieve this objective. Yet international cooperation can help in this task, not only by supporting government efforts with international resources and expertise, but also by establishing the incentives needed to give the battle against poverty its proper place of priority on the public policy agenda.

b) Avoiding backsliding in social and economic achievements
One of the characteristics of middle-income countries is that their growth rates are highly volatile. This points to a second reason for a more active policy of cooperation with middle-income countries: to avoid any backsliding in the progress achieved to date by these countries. In the end, one basic purpose of the international cooperation system should be to consolidate development progress and make it irreversible.

c) Centres of growth in the regional setting
A third reason for international cooperation to engage itself actively with MICs is the weight that some of these countries carry in their regional settings. In much of the developing world, a small number of MICs account for between a third and a half of their region’s population and its aggregate output. The stability and health of these economies then becomes a factor for equilibrium and progress in that
setting, acting as an anchor for the subregion. It is reasonable to suggest that international cooperation should take advantage of these externalities through an aid policy that will guarantee maximum impact in inducing progress in that setting.

d) Provision of international public goods
A fourth reason has to do with the crucial role that some MICs play in providing international and regional public goods. Some of these goods relate to such important aspects as the international order, peacekeeping, the prevention of infectious diseases, financial stability, the dissemination of knowledge, trade integration, or environmental sustainability. The reliable provision of these goods therefore constitutes a determining factor of aggregate well-being in the world. Because of the weight of their economies and population, and the natural wealth they harbour, the MICs can make a crucial contribution to the provision of global public goods. It is therefore reasonable for international cooperation to support these countries’ efforts at providing such goods.

e) Creation of an international cooperation system that will produce consistent incentives for development
A final reason in favour of cooperation with MICs has to do with the design of the international cooperation system as a whole. The impact that aid can have on development comes not so much from the limited volume of funding it provides as from the incentives that it offers to promote sound behaviour. This objective would be vitiated by a system that discriminates among potential aid recipients on the basis of their development achievements. To do so would be to argue that only development failures, and not successes, should be compensated by international assistance, a stance that would inject the system with perverse incentives and moral hazard. It is more efficient, then, for the system to graduate its support, avoiding abrupt cut-off lines between groups of potential beneficiaries. In short, what is needed is a system that will work with countries all along the path to development, modifying the intensity and adapting the contents of aid to the specific needs at each stage of that path.

20. Just as there should be no abrupt demarcation between countries eligible to receive aid, there should be no such line drawn among those contributing to international cooperation. In place of an excessively dualistic vision of the system that would segregate donor and recipient functions into neat compartments, MICs should be encouraged to get increasingly involved in the active business of aid, as they themselves progress in their development. This means that, just as high-income countries should maintain cooperation with the MICs, the latter must play an increasingly active role in South-South cooperation, both with low-income countries and with other MICs.

4.2. Aid effectiveness

21. Aid evaluation studies have prompted a degree of scepticism among both policy makers and academics as to the effectiveness of aid. In principle, aid can turn out to be effective, but that outcome is neither immediate nor systematic. Research on this aspect
points to a number of factors that have been recognized as useful for improving the effectiveness of aid:

a) Ownership
The effectiveness of aid depends crucially on its capacity to subordinate itself to the purposes and development strategy of the recipient society. It is important, then, to support a system that will give the recipient a greater sense of ownership over the aid it receives.

b) Stability of aid flows
The unpredictability and variability of aid flows imposes a cost in terms of aid effectiveness, for it impedes programming, disrupts the macroeconomic stability of recipients, and limits the productive use of aid in investment. All of this suggests that aid should be designed as part of a broader programming framework, with commitments that extend well forward in time.

c) Donor coordination
The aid system relies to a great extent on the bilateral action of donors, who frequently fail to coordinate their activities properly. The situation is further complicated by the growing number of multilateral agencies, both official and private, now active in the aid field. To encourage greater coordination among donors is thus a prerequisite for enhancing aid effectiveness, and for reducing the transaction costs of aid.

d) Conditionality
With the intention of limiting recipients' room for discretion in the management of funds, donors have established demanding conditions for the granting of aid. This approach is out of line with the objective of fostering ownership. For that reason, conditionality should be limited to assurances that the recipient will manage aid properly, and should be subordinated to the objectives of a sound development and poverty reduction programme.

e) Dependency and absorption capacity
Studies would seem to confirm that there are declining returns to aid: beyond a certain threshold, the marginal impact of further funding is reduced. The reasons cited for this trend relate to: (i) reduced competitiveness of the economy, through exchange-rate appreciation; (ii) the declining quality of institutions that are highly dependent on international funds; and (iii) the limited capacity of the recipient to absorb and manage the funds efficiently. It is important, then, to ensure that countries do not become overly dependent on aid.

22. Recognizing the importance of these factors, the donor community has been promoting good practices to target aid and make it more effective. Of particular importance are the agreements adopted at the Conferences of Rome (2003) and Paris (2005) organized by the DAC. The latter conference defined five basic principles for improving the impact of aid:
Ownership: this reaffirms developing countries' leadership in decisions on the use of aid.
Alignment: aid should be subordinated to the national development strategies and management approaches of recipients.
Harmonization: this involves developing common procedures among donors in the countries where they are active.
Managing for results: donors and recipients alike must judge policies and efforts in light of results.
Mutual accountability: donors and recipients are publicly accountable for their policies.

23. These principles are also applicable to cooperation with MICs, although in this case the recipients may be in a better position than poor countries to address the problems that limit aid effectiveness. Their higher technical and institutional capacity lets them exert more effective leadership in the development process, and their greater access to financial markets allows them more readily to avoid the problems of dependency on aid.

Chapter 5. Cooperation with MICs: fields and partners

5.1. Development problems in MICs

24. Although many MICs have in the past experienced repeated bursts of accelerated growth, they have frequently been unable to establish a sustained and stable growth pattern over time. Obstacles may surface that will block or hold back their drive for growth. Although these problems are of many kinds, most of those widely found in middle-income countries have to do with institutional weakness and lack of social cohesion, vulnerability associated with integration into international financial markets, and difficulties in pursuing a sustained approach to technological and productive change.

25. The first of these problems reflects the failure to strengthen the institutions that should channel the collective voice of society. Weak institutions do not have the capacity to govern the development process. The country is then ill-equipped to deliver public goods, to manage conflicts over distribution, to deal with external shocks to the economy, or to fulfill the tasks of regulating markets and producing government services. One aspect of these problems relates to the limited credibility of institutions, which citizens do not always consider suitable channels for representing and resolving collective problems. This situation can be exacerbated by the lack of social cohesion or the high degree of inequality that characterizes some MICs. Both aspects, institutional weakness and low social cohesion, are reflected in the fragility of the fiscal pact on which government rests. Consequently, fiscal pressure is low, tax evasion rates are high, and governments face recurrent budget shortfalls. The state's financial inadequacy in turn undermines its social legitimacy.

26. The second type of problem lies in the difficulties that MICs face in integrating themselves in a solid and stable way into international financial markets. Many of the
factors that condition this process have to do with the effects that over-indebtedness has on some financial markets that are highly volatile, in a setting of domestic capital markets that are glaringly shallow. With high ratios of debt to GDP, liabilities denominated in foreign currency and often in short-term securities, countries are hostage to the vagaries of the market. Because of their indebtedness, countries must maintain high primary surpluses, leaving them limited room for independent management of expenditure, and thereby considerably reducing their ability to pursue countercyclical policies. The international financial climate accentuates the pro-cyclical thrust of economic policy in these countries, which is relaxed during boom times when capital is flowing in, and contracts when capital flees the country. This factor has been aggravated as a result of financial liberalization and deregulation on the capital account. To cushion this impact, the regulatory asymmetries of the international financial environment will have to be corrected and countries will have to be given more leeway in designing countercyclical policies, while strengthening their domestic financial markets.

27. The third set of problems reflects countries' difficulties in building technological capacities so that they can encourage change in the composition of their industrial and export production, moving into activities of greater productivity and growth potential. The new regulatory frameworks for international trade and intellectual property have reduced the scope for domestic policies to generate productive capacity and promote dynamic competitive advantages. Under these conditions, some MICs appear content to base their advantages on products that are intensive in natural resource or unskilled labour content, with limited capacity to accumulate domestically rooted technological capacities.

5.2. The role of bilateral cooperation

28. Beyond these three problems, the specific characteristics of MICs suggest five other considerations that need to be taken into account in establishing a policy of international cooperation with them.

- Given their relatively limited weight, the effectiveness of aid will depend to a great extent on its leverage capacity, i.e. its ability to become a factor for mobilizing domestic resources or to attract other sources of international finance.
- Much of the work to be done in middle-income countries has to do with advisory services and technical assistance: support for the preparation of policies, the creation and strengthening of institutions, and the exchange of experience. In this task, maximum use must be made of national capacities and experience emanating from developing countries themselves.
- Just as important as aid are other components of international cooperation that do not count as ODA. Cooperation with these countries should be the result of coordinated action by the government as a whole, and not only by its Ministry of Cooperation, so as to ensure consistency in donors' public policies.
- In the case of countries with high levels of social inequality it may be important for international cooperation to supplement direct action with governments through parallel efforts to strengthen civil society and to support its role in giving expression to social demands.
• Finally, a portion of the benefits that middle-income countries can derive from international cooperation comes from its role in changing the legal and regulatory frameworks that govern international economic relations and in reducing the cost of countries' access to the benefits that the international market offers in the areas of trade, technology and finance.

29. In addition, donor efforts should be designed to involve MICs actively, either individually or through their regional institutions, in the international cooperation effort. This means identifying within the MICs capacities and initiatives that may be useful to the strategy of other developing countries, and promoting mechanisms for the countries involved to exchange experience and to take joint action. This approach can strengthen the feeling of participation and ownership in development initiatives, it can bring those initiatives more closely into line with conditions in the affected countries, and it can produce a "double dividend", whereby both developing countries, the donor and the recipient, can build capacities.

5.3. The Multilateral Development Banks and the MICs

30. According to data available at the end of 2004, the loan portfolio held by the Multilateral Development Banks (MDBs) in the MICs amounted to $237 billion. The bulk of these resources (almost half, or 45%) was contributed by the International Bank for Reconstruction and Development (IBRD), followed by the Inter-American Development Bank (IDG) with 21%. Despite the relative importance of this official financing, the bulk of financial resources flows to MICs through their direct access to private markets. In fact, in recent years, official financing accounted for not much more than 30% of the financial resources received by middle-income countries, with nearly 70% coming from private financing.

31. The activity of the MDBs can be very important to MICs, for at least three reasons:
• Although MICs may have readyer access to capital markets, especially now, not all countries have that possibility to the same degree, nor is it certain that any one country's access will remain unchanged over time. Within the middle-income group there are also countries that have no stable access under acceptable conditions to capital markets.
• In addition to providing loans, the MDBs can work in other ways, such as with indirect financial instruments (providing guarantees, for example) and non-financial instruments (technical assistance, policy advice, and support for capacity development).
• The MDBs can help countries pursue their own development agenda, overcoming both the market failures and the government shortcomings that limit this possibility.

32. As a country moves forward in the development process, it is reasonable to assume that its demands on the MDBs will shift to new forms of financing and to other kinds of activities relating to strategic services and know-how. On this latter point, the MDBs can help to bridge the gap between the increasingly strict domestic and international demands
for good governance and the constraints that a country’s limited institutional and technical capacities may impose. Technical assistance, policy advice, and institutional strengthening measures constitute important fields of work. Equally important are the tasks of designing national development strategies or administering regional or global initiatives for the provision of public goods that will produce a dual benefit, at once local and global.

33. This process can also involve the MDBs in developing new financial services for the MICs, including:

- Tools for mitigating the risks of external disruptions, such as those associated with currency or interest rate fluctuations, volatile prices for basic products, and natural disasters.
- Instruments for financing subnational public institutions.
- Instruments for financing the private sector with more stable conditions and at an acceptable cost, while being careful not to have the MDBs replace private capital. This activity is especially important in new areas of private investment such as infrastructure.
- Finally, developing financial instruments in the domestic currencies of MICs in order to avoid currency mismatches in their debt.

34. The MDBs need to try to correct those factors that now limit access to their financing. These relate in particular to: (i) excessive demands in terms of conditionality; (ii) the resource costs (such as administrative costs and credit and commitment fees) involved in preparing projects and following the procedures required to access financing of this type; and (iii) the inadequate adaptation of institutions of this kind to the characteristics, management procedures and specific needs of each country. These criticisms, of course, do not apply in equal measure to all MDBs. But at the same time, there is a need for more effective coordination among MDBs and a clearer definition of their respective comparative advantages so as to foster a healthy division of labour internationally.

35. The MDBs should also continue to operate as co-financing institutions, blending bilateral and multilateral aid, in areas that are of high priority for a country's development strategy, as in the case of infrastructure. They should also become involved in operations that attract private financing, through cooperation with commercial financial institutions. In this way, the MDBs could fulfill more adequately their function as investment catalysts, while contributing an appropriate combination of technical know-how and social sensitivity. Beyond their activity in individual countries, the MDBs should understand that their responsibility also extends to the regional level, where they can strengthen regional integration efforts and support the provision of international public goods.

5.4. South-South cooperation

36. While development assistance was traditionally characterized by a North-South axis, the late 1970s saw the emergence of South-South cooperation, the main feature of which has been to establish cooperative links among developing countries. This should not be
seen as an alternative to North-South cooperation, but rather as a complementary strategy. With its horizontal structure, South-South cooperation is better positioned to generate a sense of ownership on the part of the recipient, to sponsor initiatives more in tune with the conditions and needs of the countries affected, and to promote activities that will generate a "double dividend" by stimulating the technical and institutional capacities of both the donor and the recipient. There are three areas in particular where this kind of cooperation has been successful: (i) the macroeconomic front; (ii) finance for development; and (iii) technical cooperation.

a) Macroeconomic cooperation

37. The first field for cooperation between MICs is on the macroeconomic front, which is closely related to regional integration experiments, including monetary zones, and the creation of protective bulwarks against financial crises. There are three components to such cooperation: (i) macroeconomic policy dialogue and subsequent surveillance of accords; (ii) the supply of liquidity at times of crisis; and (iii) exchange rate policy coordination. There are three basic benefits to such cooperation mechanisms. In the first place, they create a space for incorporating into the national decision-making process those externalities that macroeconomic policies can exert on neighbouring countries or close trading partners. Second, they foster the emergence of a sounder and better-balanced international system based on precautionary mechanisms and cooperation at different levels, with mutually reinforcing impact. Finally, they allow developing countries greater autonomy in their economic policy: while such autonomy is difficult to achieve in an isolated country, it is much easier in a regional setting, through cooperative efforts.

38. Given the small number of monetary unions in the developing world and the problems that countries have faced in managing their exchange rate, there is little experience to draw upon in the area of exchange-rate coordination. There are however a number of attempts under way at macroeconomic policy dialogue, including the exchange of information, technical meetings, and the joint adoption of convergence objectives. Experience shows that if these attempts are to be sustainable they must be supported by monitoring mechanisms and systematic review of agreements. There are also some interesting experiments with the regional provision of liquidity, such as the Latin American Reserve Fund which covers essentially the Andean area, or the Chiang Mai agreement in East Asia, both of which are cooperative mechanisms designed to forestall crises. Experience with these initiatives shows that even a mechanism with limited funding can have an important impact on financing the balance of payments of countries affected during a crisis. These approaches offer interesting examples of cooperation between MICs, and they deserve donor support to strengthen them institutionally and technically.

b) Finance for development

39. Another interesting financial initiative in South-South cooperation can be found in the creation of subregional development banks and regional bond markets. The European
Union, of course, has an important third mechanism as well, in the form of regional transfers for redistribution purposes, but there are no similar experiments in developing countries, perhaps because of shortcomings in their fiscal systems. The best-tested experiments in this field are the development banks that developing countries have established. Although such institutions are to be found in all regions of the world, the most complete network is that serving the Arab and Islamic countries (Islamic Development Bank, Arab Fund for Economic and Social Development, Arab Monetary Fund, Arab Bank for Economic Development in Africa, etc.) and in Latin America and the Caribbean (Andean Development Corporation, Central American Bank for Economic Integration, and Caribbean Development Bank). More recently, the Asia-Pacific region has seen initiatives designed to create infrastructure in support of national or regional bond markets, and the issuance of regional bonds.

40. The development of South-South cooperation mechanisms for development finance produces benefits of three kinds: (i) it gives countries a greater sense of “belonging” to institutions, and keeps those institutions more closely attuned to the conditions of the countries involved; (ii) it make services more accessible to small and medium-sized countries; and (iii) it makes it possible to coordinate and finance goods with significant regional externalities, such as infrastructure, a mutual trading system, or the exchange of experience. These institutions also suffer some limitations: their ability to grant concessional loans is constrained if their membership is restricted to developing countries, which suggests the need for complementary financing mechanisms that will involve donors in financing for the poorest countries. But even if industrial countries do not participate, financial institutions can play an important role as a mechanism for providing finance, guarantees and risk management. One example can be seen in the Andean Development Corporation, which has achieved an "investment-grade" rating that none of its individual member countries enjoys.

c) Technical cooperation

41. Within South-South technical cooperation, two different approaches can be distinguished: (i) there is strictly "horizontal" cooperation, where one developing country carries out a programme or project in another country of similar or lower income, and (ii) there is “triangular” cooperation, where two developing countries cooperate with the (usually financial) participation of a developed country. Within these approaches, we can also distinguish different types of experience: bilateral, regional or multilateral. All these approaches taken together constitute a sphere of international cooperation of considerable interest for middle-income countries. This is not only because they allow countries that have achieved some degree of development success to put their expertise at the service of other countries of equal or lesser development, but also because these cooperation approaches have inherently valuable traits, including greater proximity among partners, a higher sense of commitment, and the mutually beneficial effects they generate in the countries concerned. Moreover, if the intent is to establish an international system of cooperation that will produce consistent incentives in terms of development, there must not only be an orderly and staged reduction in the support a country receives as it develops, but that country itself must become increasingly involved in international development activities through the promotion of South-South cooperation.
PART II. SPHERES OF COOPERATION

Chapter 6. Social Cohesion and Democratic Governance

42. Development always brings with it distributional tensions that must be channelled through an efficient and credible institutional system. This is a two-way relationship: efficient institutions are needed to manage social conflict, by distributing assets and income in ways that are deemed socially desirable; but at the same time, correcting social inequalities will bolster the international system by enhancing its social legitimacy. Thus one of the core problems in the development of MICs has to do with the weakness of their institutions, the limited degree of cohesion within their societies, and the budgetary problems they face in implementing social policies and income redistribution to overcome inequality and reduce poverty.

6.1. Institutional quality

43. Development is a process that has to be governed. Consequently, the quality of institutions has a decisive impact on a country’s ability to progress. The concept of institution used here refers to the entire set of social factors (rules, beliefs, laws and organizations) that condition the conduct of economic agents and generate regularity in social behaviour. By modulating individual conduct, institutions reduce agents' information needs, lower transaction costs, and facilitate smoother social interaction.

44. Our knowledge of the process of institutional change and our ability to measure it are limited. The available data suggest, in any case, that improving institutional quality should be a priority for MICs. And while knowledge of the process of change is limited, there are some principles that command greater consensus. These can be briefly stated:

- There are no institutional designs that can be considered universally optimal: institutional responses are highly context-specific. Consequently, transplanting institutions to different settings from those where they emerged is not the best way to create efficient institutions.
- The appropriate test for promoting institutional change is not so much to detect some failing in the previous structure but rather to identify whether that failing can be remedied, and this implies the existence of an alternative.
- There is no need to undertake large-scale reforms in order to make a start at sustainable institutional improvement: it is sufficient to make a credible and therefore sustainable change in the conduct of agents.
- Institutions tend to cluster together, which means that reforms must have a certain consistency over time and a vision of institutional inter-linkages.
- The sustainability of any policy depends on how few losers it generates and on how successfully the number of beneficiaries of the change can grow over time: the political economy of reforms is therefore important.
- Finally, the credibility of organizations with the legal power to impose collective behaviour is one of the key elements in explaining the success or failure of institutional change.
45. This set of factors highlights the importance of gradual or incremental reforms as a way of making institutional change feasible and reducing resistance by those social sectors that are likely to see their interests hurt. Incremental reforms can serve agents as an indicator of the direction in which change is moving, and thereby reduce uncertainty over the distribution of gains and losses.

46. An institution constitutes a contract across time, the effectiveness of which is conditioned by two factors. First, by its social efficiency, i.e. its capacity to articulate responses that are compatible with development objectives, and from which everyone emerges a winner (or at least in which the losers can be compensated). Second, by its credibility or legitimacy, i.e. its effective capacity to modulate agents' behaviour, which is closely related to the way in which the institution distributes the benefits of collective action. Thus, institutions that are intended to promote the development of society must have mechanisms that will foster a degree of social cohesion. The sharp social divide in terms of economic or political power limits the effective development of markets and affects development over the long term by generating non-inclusive institutions that are incapable of managing conflicts over distribution.

47. It is difficult to define the institutional spheres that are relevant for the effective development of markets. Nevertheless, the task can be facilitated by identifying the five essential economic functions for which the state is responsible: (i) establishing the legal and regulatory basis of economic life (in particular, property rights and the legal security of contracts); (ii) promoting competition, so that markets will function efficiently; (iii) conducting regulatory activity, so as to correct market failures, including the provision of public goods, the correction of externalities, and problems of coordination; (iv) maintaining macroeconomic stability to cushion the impact of economic cycles; and finally, (v) modifying the distribution of income in the direction of greater equality in order to legitimize institutions and to head off social conflict. In all these spheres, efficient and legitimate institutions are needed.

48. Improving the conditions of market competition requires action in three fundamental areas. First, informal activities must be brought into the formal system: a key element for fostering business opportunities is to improve the system of property registration and to simplify the procedures for starting and winding up a business. The second requirement is to promote a climate of competition by encouraging trade liberalization, regulatory simplification, and the empowerment of consumers and shareholders. Finally, the security of contracts is a key element of any market-based system.

49. Governments play a crucial role in modern societies, and making them more efficient will produce positive fallout in many different institutional spheres. Simplification and impartiality are the basic objectives to be sought for making governments more effective and efficient. Achieving a degree of social consensus in support of reforms can overcome the resistance that is bound to arise against any process for improving the public administrative apparatus.
50. Reducing corruption is one of the priorities for the proper performance of a market economy. While the degree of corruption and the measures to combat it are highly case-specific, one approach is to create an environment that minimizes the possibility of committing illegal acts, such as by simplifying regulations. Transparency is another way to combat corruption. Yet it is important to have in place systems to enforce the law against illegal behaviour: otherwise, greater transparency and public awareness of corrupt practices may simply foster a perception of impunity.

51. While each country must shoulder the responsibility for its own institutional change, international cooperation can support this process in two fundamental ways. First, through dissemination and exchange of potentially replicable experiments, thus reducing the costs of innovation, provided that the specific nature of each experiment is recognized. Second, through efforts at social strengthening and the empowerment of social groups that will cooperate in institutional change and bring pressure to make institutions more inclusive and responsible.

6.2. Economic growth, inequality and poverty

52. The evidence suggests that there is no single, universal relationship between economic growth and social equity. Similarly, the impact that growth can have on poverty seems to be conditioned by a variety of factors, such as the sectoral pattern of output, the elasticity of employment, and prevailing levels of inequality. All of this suggests (i) that there is a diversity of growth patterns and of social protection options, with varying impacts on the levels of equality, and (ii) that governments need a margin of manoeuvre to ensure that economic growth will be of greatest benefit to the poorest groups.

53. International experience shows that redistribution policies do not necessarily reduce the level of market efficiency. In fact, in some MICs redistribution policies, especially those targeted at educational improvements, have helped to reduce poverty without dampening the pace of economic growth.

54. During the 1990s, many MICs had problems in translating growth rates into significant reductions in poverty. Latin America and the Caribbean saw a worsening of their poverty rates, although recent trends in some countries have been more positive. In other geographic areas with a high concentration of middle-income countries, such as parts of Asia, poverty rates have fallen. In the middle-income countries of the Middle East and Africa, the general trend has been a moderate containment of poverty. In Central Europe and Asia there is no single trend apparent in the evolution of poverty, although on average it rose at the beginning of the 1990s and began to subside only recently.

55. One of the distinctive features of the relationship between growth and poverty in MICs is the distributional effect of macroeconomic shocks. The increase in poverty that occurs at times of crisis is greater than the reduction recorded during the growth phase, and this amplifies the social cost of economic volatility. Social safety nets are then
needed to avoid a worsening of the situation of families at times of crisis. Ideally, their
design should combine short-term income maintenance with structural measures to
combat poverty, especially those intended to enhance the educational assets of low-
income families. Experience also shows how complicated it is to develop such safety
nets during a crisis, and suggests that they should be created before a crisis strikes.

56. The need to articulate redistribution policies is forcing MICs to increase social
spending significantly. The potential redistribution effect of this option is limited,
however, by three contrasting circumstances:

- A portion of social expenditure is regressive (or only minimally progressive),
  which requires us to consider not only its dimension but also its distributive
  impact.
- Tax systems do not always have the capacity to finance a desired increase in
  expenditure. The need to increase tax revenues is greater in those countries with
  less-developed contributory protection systems, a common feature in countries
  where the informal sector is significant.
- Contributory protection systems have limited coverage, which means that non-
  contributory protection must be expanded. Such expansion must be designed to
  avoid sharp differentiation between contributory and non-contributory systems.

57. There are a number of possible strategies for avoiding budgetary constraints to
increased social expenditure. On one hand, it would seem essential to strengthen the
universal elements of social protection, in particular those with the greatest potential
impact on economic growth over the long term. In any case, it is important to eliminate
the regressive features of such policies and to make substantial improvements to the
quality of basic services such as health and education. This should be compatible with a
last-resort social safety net that is targeted at the poorest households by selection. The
main advantages of targeting are to contain costs and to reduce the most severe forms of
poverty, recognizing that in this case there is a need for information to identify the
beneficiaries.

58. One important innovation in this field is to make transfers to poor families subject to
specific conditions, such as school attendance and the use of basic health services, two
key factors for short-circuiting the intergenerational transmission of poverty. In some
countries these programmes have gone beyond demand-side incentives to strengthen the
supply of educational and health services, thereby enhancing the effectiveness of the
response. The new generation of conditional transfers, linked to investment in human
capital, has turned such transfers into regular programmes for social protection, with
acceptable degrees of progressivity. Nevertheless, given the resource constraints and the
number of beneficiaries, their impact has been insufficient to produce substantial
reductions in poverty rates. In any case, these programmes must not be seen as simply a
stop-gap to alleviate poverty caused by the lack of resolve to undertake more ambitious
economic and social reforms.
59. A significant aspect is the optimal distribution of responsibilities among the different levels of government involved in combating poverty. In principle, government decentralization should have a positive impact on poverty, although there is not sufficient evidence to confirm this. In the case of MICs, decentralization must not be allowed to undermine the response capacity of income support systems in situations of crisis, which suggests the need for compensation mechanisms managed by central governments.

60. From the viewpoint of international cooperation, action should follow two tracks. In the first place, the provision of basic health and education services should be made less regressive, and their quality should be improved. In the second place, social safety nets should be reinforced, taking into account the advantages and limitations of targeting and of conditional transfers. In addition, financial and technical assistance should be provided to support the adoption of best international practices.

6.3. Fiscal possibilities

61. Taxation is a crucial aspect in the development process, for it affects the economic behaviour of individuals, determines the public sector's capacity for action, and constitutes the social contract on which the concept of citizenship rests. An appropriate taxation system, then, is a prerequisite for countries to progress. Yet designing a tax system that reflects the basic criteria of sufficiency, efficiency, equity, administrative simplicity and flexibility poses some problems in the case of MICs.

62. In fact, the tax systems of MICs differ from those of developed countries both in quantitative terms and in the weighting of the various types of tax. On the first point, public revenues as a proportion of GDP averaged nearly 43% in developed countries in 2000, but only 28% in middle-income countries, and 23% in low-income countries. These gaps reflect in large part the disparities in tax revenues, which amount to 38% of GDP in high-income countries, 25% in middle-income countries, and 19% in low-income countries (Table 3). Besides these quantitative differences, there are also contrasts in the structure of tax revenues compared with high-income countries. In the MICs:

- Taxes on goods and services are relatively more important, and their weighting has increased as a result of tax reforms over the past decade.
- Social security contributions account for a lower portion of revenues.
- Taxes on international trade are relatively more important, although their weight is declining.
- Income taxes account for a much lower share, with a bias in favour of corporate taxation, which is easier to collect.
Table 3: *Taxation by level of national income (year 2000)*

<table>
<thead>
<tr>
<th>Income level</th>
<th>Tax revenues (% GDP)</th>
<th>Taxes on goods &amp; services (% of total taxes)</th>
<th>Social contributions (% of total taxes)</th>
<th>Taxes on international trade (% of total taxes)</th>
<th>Income taxes (% of total taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income countries</td>
<td>13.58</td>
<td>32.62</td>
<td>7.99</td>
<td>23.46</td>
<td>21.57</td>
</tr>
<tr>
<td>Middle-income countries</td>
<td>21.21</td>
<td>39.09</td>
<td>19.5</td>
<td>11.39</td>
<td>25.07</td>
</tr>
<tr>
<td>Lower-middle income</td>
<td>18.94</td>
<td>39.10</td>
<td>15.47</td>
<td>13.9</td>
<td>26.34</td>
</tr>
<tr>
<td>Upper-middle income</td>
<td>24.73</td>
<td>39.07</td>
<td>25.6</td>
<td>7.69</td>
<td>23.32</td>
</tr>
<tr>
<td>High-income countries</td>
<td>38.4</td>
<td>30.04</td>
<td>27.68</td>
<td>2.27</td>
<td>34.67</td>
</tr>
</tbody>
</table>

*Source: Prepared by the author*

63. The personal income tax (PIF) as applied in MICs has traditionally been neither efficient nor equitable. The number of taxpayers is frequently low, there are too many tax brackets, and marginal rates are set high, in an attempt to make the system progressive. Yet real as opposed to nominal progressivity is low because there are so many exemptions and deductions. Moreover, in some countries the marginal PIF rate is much higher than that applied to corporate taxation, and this gives taxpayers an incentive to incorporate themselves for tax reasons. Finally, although the taxing of interest and dividend income poses problems worldwide, the difficulties are especially acute in MICs. The main measures adopted to amend the income tax, in the reforms undertaken to date, have been to raise the lowest rates, reduce the highest rates, expand the basic exemption, and do away with certain deductions and exemptions.

64. Corporate income tax is something with which countries around the world have been experimenting actively. In the case of the MICs, the conventional problems may be summarized as follows: very high top marginal rates; multiple rates for different sectors of activity; inconsistencies in the depreciation systems; unjustified tax holidays; exemptions and deductions for investments that distort the choice of assets and encourage the sale of tax benefits; little control over transfer pricing and under-capitalization; and tax competition among developing countries to attract foreign investment. The reforms of recent years have generally been confined to reducing the number of tax brackets and cutting the highest marginal rates, with much less attention to broadening the tax base and improving the design and management of the tax.

65. Indirect taxation has seen the greatest experimentation in the developing world, where the most significant change has been to replace the general sales tax with a value-added tax (VAT). The intention here has been to broaden the indirect tax base, reduce the number of specific taxes, and reap the advantages that the VAT offers over other general taxes. Yet the VAT also presents some problems because it is very complex to
manage. At the same time, in many developing countries there are important sectors, such as services or retail trade, which are not subject to the VAT. Agriculture constitutes a special case, where transactions often escape control by the tax administration.

66. The importance of taxes on international trade has declined sharply in developing countries in recent years, largely because of more liberal trade policies in those countries. However, replacing customs duties with the VAT requires strengthening the tax administration to avoid losses in revenue collection capacity.

67. Empirical studies on the impact of tax reforms show that the results are mixed. There are five basic reasons for these findings:

- Many tax reforms followed a "standard" scheme in replicating tax systems in the developed world, without taking into account the developing countries' limitations or their particular features.
- Tax reforms have been geared to increasing revenues and achieving greater efficiency, without paying much attention to distributive aspects.
- Institutional weaknesses in many developing countries have often frustrated tax reforms through lack of means, inappropriate legislation, or corruption and evasion.
- Since the 1990s especially, developing countries have engaged in tax competition to attract foreign investment, and this has imposed costs in terms of foregone revenues.
- Finally, the reforms have barely touched the issue of local taxation.

68. Because of these problems, and despite the reforms that have been made, the tax systems of many MICs are gravely deficient and in need of more profound changes. The following tasks would seem most urgent:

- Determine the appropriate level of fiscal pressure: although this is a social choice, it may be said that the current level is too low in many MICs, given the demands for public intervention for reasons both of efficiency and equity.
- Review the appropriateness of the current structure of tax revenues: the reforms have produced a sharp shift in favour of indirect taxes.
- In the direct taxation area, the personal income tax should play a more important role. While the process of rationalizing tax rates is well advanced, there is still much to be done to broaden the tax base.
- When it comes to corporate income taxes, problems with the tax base have barely been addressed: problems that demand thorough reform include transfer pricing, under-capitalization, depreciation methods, and tax incentives.
- With the VAT, the tax base should be broadened to cover services in those countries where services are still exempt. At the same time, the handling of tax refunds needs to be improved. Experience also suggests that the complexity of tax modalities for redistribution purposes requires an efficient tax administration and in-depth analysis of its effects.
- Examine the appropriateness of current taxes on capital, in light of their effects on growth.
Finally, pay greater attention to institutional and distributive aspects that condition the effectiveness of reforms, not only in terms of collection and efficiency but also in terms of the social legitimacy of tax systems.

69. International cooperation has a role to play in tax reform, in at least three areas. First, it can help in the design and technical development of reforms, drawing not only upon experience in developed countries but also upon approaches taken in other MICs. Second, it can assist in the technical and institutional strengthening of tax administration by improving statistics, training staff, and enhancing the institution's operations. Although nearly all developing countries have needs in this area, shortcomings and the cost of overcoming them are lesser in the middle-income countries, and the return on efforts to make these improvements is consequently very high. Finally, cooperation can address the international effects of taxation: the growing integration of economies, the mobility of capital, and tax competition call for greater international coordination in areas such as double taxation, tax evasion, and fraud.

Chapter 7. Financial stability

70. With the liberalization of capital movements, market deregulation, and financial innovation, international financial capital markets have become more efficient, but at the same time the risks of instability, from abrupt capital movements and contagion from crises, have become greater. MICs are familiar with both sides of this coin: while they have become favoured destinations for international financial flows, they have also suffered acute financial crises at great social cost. To reduce these risks will require not only consolidating these countries' economic fundamentals but also allowing them room for countercyclical policies and for strengthening their prudential regulation and financial supervision systems over time. With the current level of market integration, national responses must be supplemented with international steps to strengthen the institutional and normative framework for preventing and dealing with crises.

71. At the present time, the situation on financial markets seems less tight than it was a decade ago, not only because there is more liquidity available internationally but also because of the precautionary measures taken by developing countries, which have tried to preserve their macroeconomic balances, including the current account balance, by building up their international reserves, reducing their external liabilities, and reinforcing their financial systems. In any case, there is no assurance against a repetition of the crises that hit the MICs, in particular the so-called "emerging markets", in the second half of the 1990s.

7.1. International asymmetries and countercyclical measures

72. Progress towards financial security demands effective steps to address the asymmetries and inequalities that exist between countries and markets at the international scale. In an increasingly globalized world, the weakness of any of the parts affects the soundness of the whole. The fundamental problem here lies in the fact that countries do
not have the same capacity or continuity of access to international capital markets, and this in turn has implications on their ability to pursue independent economic policies. In the case of MICs, the combination of volatile capital markets and high rates of indebtedness reinforces the cyclical behaviour of their economies. Maintaining high interest rates makes these emerging markets attractive, and at times of growth they record strong inflows of capital, which tend to drive up the exchange rate. The high level of indebtedness and the short maturity of their debt instruments impose continuous debt rollovers, and this makes these countries extremely vulnerable to any domestic event (a decline in growth rates or a political crisis, for example) or external shock (an adverse shift in the terms of trade, or contagion from a financial crisis). In the case of such a shock, the appreciation of the currency can quickly turn into a rout, imposing even higher interest rates and dampening the prospects for growth. During a crisis, multilateral debt (channelled by the IMF) will gradually replace private capital as it flees the country. If the stabilization effort is successful, the currency will stop depreciating and opportunities will emerge for beginning a new cycle; but if stabilization fails, the country will be plunged into a financial crisis, the length and severity of which will depend on the case.

73. This behaviour of financial markets tends to determine and amplify swings in the national economic policy cycle. In boom times, markets encourage expansionary policies that foster recourse to international financing, while at times of downturn governments must tighten up their responses to save their reputation on financial markets. At these times, the indebtedness ratio usually deteriorates, and this demands an even tighter fiscal policy. On the contrary, during an expansion, fears of a debt crisis will fade and governments will tend to increase their spending. This behaviour exacts a high cost and impacts the country's investment and growth prospects. Hence the importance of giving these countries some room for manoeuvre in designing and implementing countercyclical macroeconomic policies.

74. One important element to this end is the system adopted to manage the exchange rate. Anxious to offer assurances to demanding international markets against intervention by the economic authorities, many MICs have resorted either to a fully flexible (floating) exchange rate, or to pegging their currency to some international reserve currency. Neither of these options is free of criticism. It might in fact be reasonable for MICs to adopt exchange rate regimes somewhere between those extremes, by setting a specific target for the real exchange rate as part of the economic policy framework. In any case, there is no one exchange system that will suit all countries.

75. Fiscal policy is a second field for action towards macroeconomic stability. Yet the scope of action in this area is conditioned by budgetary constraints, given the low level of public revenues and the prevailing inertia of expenditure. Moreover, international instability accentuates the pro-cyclical sign of this policy, which suggests the possibility of designing flexible taxes on some specific revenue sources to dampen its impact. Despite such difficulties, a degree of fiscal policy autonomy vis-à-vis the cycle can be achieved through a tough economic policy stance. One example is to set medium-term fiscal targets (for the deficit or for the maximum rate of public sector indebtedness) that will over time offer the flexibility needed to run a countercyclical policy. In addition, thought could be given to creating stabilization funds that will help temporarily to
sterilize surplus public sector revenues deriving, for example, from spikes in export prices or in other fields of public revenue. A proper system of social protection can have a similar effect, as demonstrated in the stabilizing role that social security plays in many developed countries. Establishing such systems would not only have a countercyclical impact but would also help to reduce the social gap in many MICs.

76. Finally, a significant consideration for a country's autonomy of action is the capacity it reserves to itself to impose regulations on capital transactions. Although the effectiveness of such measures is not guaranteed, maintaining some regulation over the capital account can help give greater effect to a contractionary monetary policy in times of market euphoria, and avoid the costs inherent in an excessive build-up of reserves. At the same time it allows economic agents to restructure their debt towards longer maturities and a more suitable currency mix, both in the public and the private sector. Resort to capital controls also implies costs, the most important of which is the limitation it can place on the growth and depth of domestic financial markets.

7.2. The development of financial markets

77. The development of local financial markets is one of the surest ways for MICs to win a degree of autonomy for their economic policy and to acquire more manoeuvring room in their access to international capital markets. To a large extent, their dependence on international financing is conditioned by the imperfect and shallow nature of their own capital markets. Financial development indicators show that MICs fall short in this respect, and that some of them do not much better than the poorest countries. This is especially the case with the level of capitalization on bond markets, for private and government bonds alike. Moreover, the structure of the financial systems differs from that in high-income countries: in the MICs, the banks are more important than the securities markets. Nevertheless, both components are crucial and complementary in the development of financial systems (Chart 6).

Chart 6: The composition of financial markets

| Source: IMF |
78. Because of its weight in the MICs, the efficiency and competitiveness of the banking system is crucial in determining the borrowing costs of economic agents. Recent years have seen efforts to advance toward this objective via the privatization route. As in other fields, evidence shows that, however desirable privatization may be, it must be done in ways that avoid the establishment of uncompetitive market structures or of practices that accentuate rather than correct the levels of aggregate risk. The process of financial liberalization has also been pursued as a way to stimulate savings, reduce constraints on capital accumulation, and enhance the efficiency of resource allocation. Again in this case there are some possible objections to an excessively doctrinaire implementation of this recommendation, recognizing that reforms have sometimes had the undesired effect of reducing credit to certain sectors, such as small and medium-sized enterprises, which suggests that in some cases selective intervention may be appropriate.

79. One of the main financial problems facing MICs is the absence of a domestic market for long-term private and public bonds. This makes it difficult to finance certain kinds of investment, such as infrastructure, and leads to currency mismatching in the debt structure of some economic agents. Promoting the development of such markets may also require some public stimulus as backing for the activity of market creators (such as insurance and pension funds). The development of these collective savings institutions can also be important for giving depth and efficiency to capital markets and for promoting financial innovation through the rollout of new intermediation and risk diversification products. Regulation of this important market segment is thus an important aspect for the development of financial markets in the MICs.

80. If a country is to develop its financial system, it has to provide its people with access to formal banking services. In this field again there are deficiencies associated with the low levels of banking penetration in many MICs. This situation imposes costs in terms of foregone investment possibilities and economic growth, and it diminishes opportunities for progress by the most disadvantaged groups. Responsibility for correcting the situation lies essentially with the banks themselves, which need to democratize their services and adapt their products and networks to the circumstances of low-income people. Over time, the process can be supported by encouraging the emergence of microfinance institutions, which are better positioned to serve low-income groups and to offer products (such as "solidarity credits", i.e. mutual or joint loans, and non-financial guarantees) that meet the needs of the poorest borrowers.

81. Finally, an efficient and secure financial market depends directly on the existence of a proper legal framework and an effective structure of information, regulation and supervision.

7.3. Changes in the international financial system

82. The international financial system should be reformed with two objectives in mind: on one hand, to enhance the stability of capital flows by preventing crises and offsetting the potential fallout from contagion; and on the other hand, to promote adequate flows of private and public capital to the different categories of developing countries.
83. One area of the international financial system in which the greatest progress has been made in recent years has been the adoption of better mechanisms for prudential regulation and supervision over financial systems in developing countries. The objective is to enhance the capacity of financial agents to internalize the risks inherent in their financing decision. Making better and more transparent information available to markets and establishing early-warning mechanisms should go hand-in-hand. Of course, the process of preparing laws and regulations in this field is subject to four basic constraints: (i) developing countries have little clout in the institutions that set the rules, in particular the Basel Committee on Banking Supervision; (ii) the rules are uniform, and may be ill-adapted to the specific characteristics of individual countries, particularly developing countries; (iii) little attention is paid to the countercyclical role that prudential rules can play (such as forward provisioning for portfolio losses over entire economic cycles, introduced in Spain in 2000) and indeed some of the rules, including the new Basel II standards, carry a pro-cyclical bias; and (iv) regulation does not include the objective of promoting access to adequate levels of bank credit, either for developing countries in the case of international banks, or for SMEs at the national level.

84. The most recent financial crises have highlighted the importance of institutions that have the capacity to inject liquidity into economies that may be facing an acute liquidity crisis even if they have no severe structural problems. In the face of recurrent financial crises, the IMF created new facilities for this purpose: the Supplemental Reserve Facility (SRF) and the Contingent Credit Line (CCL). The latter was never used, and was suspended in 2003. In 2006 the IMF propose an alternative facility, known as the Reserve Augmentation Line, which is now under discussion. In any case, recent crises have shown that the present-day system still lacks the responsiveness required in a world characterized by massive and highly pro-cyclical capital movements. This suggests that the IMF should be given greater capacity as lender of last resort and as guarantor of the international financial system's stability.

85. The MICs' ability to borrow is constrained in many cases by currency mismatches on the balance sheets of both the public and private sectors. The rapid growth of markets for local-currency bonds in many MICs over the current decade has begun to address this situation. But it has also exacerbated the problem of maturity mismatches facing investors in those countries, and may in fact have rendered them more vulnerable to exchange rate speculation, which affects the return on securities denominated in domestic currency compared to those in foreign currency.

86. Reducing financial instability may require not only an effective mechanism for providing liquidity in the face of sudden shifts in expectations, but also instruments to support efforts to reduce countries' indebtedness. With respect to debt, there remains the problem of defining the most appropriate framework for handling cases of "sovereign bankruptcy". It has been suggested in the academic world, and in the IMF itself, that there should be an arbitration mechanism for dealing with such situations. On the other hand, some creditors insist that the initiative should be limited to building a “collective action clause” into debt contracts, and establishing codes of conduct accepted by both
creditors and debtors. Proposals in this direction have received support from the G-10 and from the IMF. The use of collective action clauses has in fact spread rapidly, and in 2005 they were applied to nearly half of bonds issued. Despite their widespread use, it is still too early to judge whether this more decentralized (and market-oriented) route will produce the desired effects over the medium and long term. Other instruments, such as bonds indexed to national growth rates or raw material prices, could also help to avoid liquidity problems of the kind that can turn a crisis into a question of solvency.

87. Yet another aspect that is implicit on the MIC financial agenda has to do with the role of international institutions. The debate currently focuses on two points: the effectiveness of those institutions, on one hand, and the extent to which they are representative and legitimate, on the other. In terms of effectiveness, the MICs argue that there is no adequate institutional framework for dealing with the new problems posed by global financial markets (including the lack of regulation over derivatives, the most innovative and dynamic instruments) and the great payment imbalances that characterize the current international economic system. In the face of these challenges, the field of proposed solutions is very broad, ranging from calls for a new international financial authority or better macroeconomic policy coordination among the major economies (a topic on which the IMF has launched a multilateral surveillance process) to more modest ideas for incremental reforms to existing institutions. A second critical aspect has to do with developing countries' representation (and that of the MICs in particular) in the decision-making bodies and the accountability mechanisms of these institutions. Although this criticism has been directed primarily at the Bretton Woods institutions, it could be generalized to most international financial institutions (including the Bank for International Settlements and the Basel Committee). The IMF is the only institution that has launched a debate and taken decisions on the need to adjust its representation structure to the realities of the present-day economy.

Chapter 8. Trade integration and competitive advantages

88. Experience shows that a country's growth prospects can be greatly enhanced if it integrates itself thoroughly into international markets. Trade liberalization enhances the aggregate efficiency of an economy, facilitates access to international technology, fosters a climate of greater competition on domestic markets, promotes economies of scale, and helps to relax external constraints on growth. Of course, development is neither a spontaneous nor an immediate consequence of a more open economy. If it is imposed abruptly and without appropriate support policies, trade liberalization can be followed by the destruction of domestic production capacities. Not every specialization strategy, no matter how firmly rooted it is in comparative advantages, will put a country on the same growth path. A country that chooses to specialize in products for which demand is sluggish or the competitive advantage is vulnerable will put its growth prospects at risk. Both of these considerations suggest the need for industrial and technology policies as guides for modeling international specialization and promoting an economy's competitiveness.
8.1. International trade

89. Over the last 15 years the MICs have made great efforts to open their economies to the outside world, and have made the conquest of international markets one of the key factors for promoting their progress. As a result, they have cut their levels of tariff protection, they have increased the share of international trade in their GDP, and they have fostered a climate of greater competition on their domestic markets. In addition, the MICs have expanded their share of world trade: they now account for 23% of total exports of goods and services, of which more than half (12.6 percentage points) originates from lower-middle-income countries and the remainder (10.4) from the upper-middle-income group. The bulk of this share corresponds to trade in goods, while services account for a much smaller portion. Moreover, a comparison of their fields of specialization shows that MIC exports are concentrated in products associated with their natural resource endowment (such as mining, agriculture and fuels) rather than in manufactures and services.

90. Within the manufacturing sector, MICs tend to specialize for export in activities that rely intensively on unskilled labor and natural resource processing, while developed countries are more heavily into technology-intensive industries and product differentiation. Consequently, while the MIC share of trade in manufactures has grown significantly (to 19% of total exports), there are still notable differences in the content of their respective specializations. Those differences have implications in terms of economic and technological dynamism, because the productive profile conditions the capacity to promote technical change, to generate value-added, and to create dynamic advantages (chart 7).

Chart 7: Per capita growth of developing countries (105 countries) according to their pattern of specialization

Source: Prepared by the author
91. In addition to their export makeup, the MICs display some other features that require attention:

- Their "trade intensity" is still low: exports per capita amount to barely 10% of the level in high-income countries.
- As a result of their specialization in raw materials, some MICs (i) face high volatility in prices for their exports and (ii) are missing out on opportunities to accumulate technological capacities that will generate dynamic advantages for their areas of specialization.
- Their export patterns are concentrated in two ways: (i) by markets: at least 29 countries ship more than 50% of their exports to a single market; and (ii) by products: for 46% of upper-middle-income countries and 37% of lower-middle-income countries, the weighting of their first three export products exceeds 50% of their total exports.
- Finally, the concentration of exports and the instability of their average prices mean that revenues from international sales fluctuate sharply, and this has sparked concern to find effective compensatory schemes.

92. The characteristics of MICs' trade reveal two very important areas of potential enhancement. First, there is broad scope for improving all those non-price aspects of external competitiveness that have to do with the capacity to differentiate products, either through superior technology or through more active international marketing. A second issue has to do with consolidating the productive transformation process and moving into more dynamic areas of specialization, with a higher technological content and greater value-added. Progress on these fronts is constrained not only by domestic capacities but also by the restrictions that the international system of trade regulation may impose.

93. Of the 82 MICs for which the necessary data are available, 67 are members of the World Trade Organization (WTO), 14 have observer status and are at various stages in the accession process, and only one has no relationship with the WTO. All of this indicates that the international trade of MICs is subject, more or less directly, to multilateral rules. With the exception of the 10 transition countries of Eastern Europe, the remaining 71 benefit in addition from the advantages that fall to developing countries in multilateral negotiations. This should encourage MICs to participate actively in negotiations within the WTO forum. Specifically, it would seem reasonable for them to insist that the body of universal rules should be made flexible enough to leave them some room for manoeuvre in the pursuit of national development policies. Such a move could take two directions that are, in principle, mutually compatible. The first would be to spell out exceptions, such as to certain rules of the TRIMS (Trade-Related Investment Measures) and TRIPS (Trade-Related Aspects of Intellectual Property Rights) agreements that would facilitate the transfer of technology and foster the development of domestic capacities. The second is to set more generous time limits and transitional conditions for MIC compliance, without excluding them from the obligations under these agreements.

94. Agriculture negotiations in the WTO deserve a separate chapter. Here the problems facing MICs relate to the elevated levels of protection in developed country markets,
which combine high tariffs with anomalous systems of output and export subsidies. The support mechanisms of various kinds that developed countries grant their farm exports (subsidies, export credits, government trading enterprises, food aid and countercyclical payments, among others) are incompatible with the objective of open and competitive trade. In August 2005, the European Union offered a gradual build-down of its export subsidies, and this laid the basis for the agreement adopted in Hong Kong, setting the year 2013 as the date for the final elimination of farm export support measures. That agreement must await the outcome of the Doha Round. Besides export support, several major developed countries maintain agricultural production subsidies that affect market competition. The Doha Round should also put an end to such distorting measures.

95. MICs are increasingly becoming party to one or more regional integration schemes, while remaining WTO members, and these arrangements may constitute an effective way for strengthening their export capacities. However, experience in the EU shows that such arrangements must be based on a pragmatic process for the continuous reduction of barriers to intraregional trade, and a shared willingness to cede areas of sovereignty in favour of collective decision-making and policy harmonization.

96. Within the great variety of economies in the middle-income group there are some, especially among the lower-middle-income ranks, that lack the technical means to play an active and advantageous role in international trade negotiations. International cooperation can offer technical assistance to help offset this disadvantage. Cooperation can also serve to support the design of institutions and policies for promoting competitiveness and helping firms to "internationalize", building on the experience of developed countries and other MICs. Finally, another useful area for international cooperation is to address the effects of volatile raw material prices by supporting export revenue stabilization schemes.

97. Over the long term, the best guarantee for improving the trade performance of MICs is to transform their output and trade into products that offer higher and more stable growth and make greater use of technology. Once again, the situations will differ from country to country. But we can identify some areas where assistance would be of great interest. For countries with lesser capacity, normally the smaller countries, many of them island nations, technical cooperation can be a good start for identifying sectors for future development as well as enhancing the potential of existing sectors. Yet many MICs already have the strengths and capacity to complement cooperation, which could focus above all on reinforcing the fundamentals for change and specialization, through investment in infrastructure, human resources and technological capabilities.

8.2. Developing technological capabilities

98. It is the pace at which technological capabilities can be accumulated that conditions an economy's growth performance and its ability to compete on international markets. Hence, the importance of laying a national basis for the sustained accumulation of technological capabilities. When it comes to developing countries, such accumulation generally involves not radical innovations that push the frontiers of knowledge, but rather
a more gradual process of productive change and technological learning. It is by shifting the supply structure towards more productive activities, accessing the international dissemination of knowledge, and acquiring and adopting new technologies that developing countries can promote technological change. In this process, a country's ability to acquire, absorb and adapt technologies is crucial, and this highlights the importance of investment in R&D and in physical and human capital.

99. The MICs exhibit very differing levels of technological development. Some countries are in a position close to that of the world leaders, while others have glaring weaknesses and shortcomings that make it difficult for them to keep up with the international pace of technical change. Both of these trends, differentiation and convergence, seemed to be associated with technological progress through the impact of innovation, on one hand, and of dissemination and learning on the other hand. In any case, depending on their educational achievements and the sophistication of their productive structures, the accumulation of technological capabilities is a key dimension of MIC development strategies.

100. Technological indicators show that this group of countries, varied as it is, occupies an intermediate position on the international stage. That position becomes weaker, however, when viewed in light of the fields that demand the most complex technical capabilities (Table 4), in particular:

- **Human capital.** Literacy and primary school enrolment rates in MICs are higher than the world average, but those countries fall below the average when it comes to secondary education and the proportion of people over 15 years who have completed postsecondary studies.
- **R&D effort:** the MIC record (0.5% of GDP) is only 1/6 that of Japan (3% of GDP) and a quarter that of the European Union (1.8% of GDP).
- **R&D scientists:** the number of scientists per 100,000 inhabitants (964) is around 1/5 the level in Japan (5104) and the United States (4525), but is five times higher than the rate for low-income countries.
- **Patents:** the number of patents per million inhabitants in MICs (2.2) is barely 0.7% of the figure for Japan (306), although it is 4.5 times higher than the rate for low-income countries.
- **Scientific publications:** more than 70% of the world's scientific publications appear in the United States, Japan and the European Union; the MICs account for only 8% of the world total.
- **High-tech exports:** the proportion of high-tech products among manufacturing exports falls short of 11% in both of the middle-income subgroups, while the corresponding figure for the United States is more than 33%, and Japan’s is 28%.
<table>
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<th>R&amp;D spending (% GDP)</th>
<th>R&amp;D spending (per capita)</th>
<th>R&amp;D researchers (per 1,000,000 inhabitants)</th>
<th>Patents (per 100,000 inhabitants)</th>
<th>Publications (per 100,000 inhabitants)</th>
<th>High-tech exports (% Expor. Manuf)</th>
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Source: Prepared by the author from World Bank data (WDI, 2005).

Note: the figures for lower-middle-income and upper-middle-income countries include the transition countries. The average values for “middle-income countries (1)” include transition countries; “middle-income countries (2)” is the average excluding transition countries.

101. The development of digital technologies has defined a new technical and economic paradigm that includes a set of basic technologies that condition economic activity and innovation processes. Yet access to ICTs is uneven, and they must therefore be seen as one more factor of international inequality. The MICs present a highly varied picture in their access to ICTs: the upper-middle-income countries perform above the world average in the number of mobile telephone subscribers, telephone lines, and Internet users. Yet for the more sophisticated dimensions, such as Internet nodes and the number of computers, their indicators are below the world average. The lower-middle-income countries lag further behind, particularly in those aspects that reflect higher qualifications, such as Internet access or the number of computers.

102. The above data show the need to devote greater efforts to developing technological capacities in the MICs. This is a process that seems to be associated with the pace of human capital formation, on one hand, and with processes of capital accumulation and productive change, on the other. The first requires strengthening the levels of individual education, from a comprehensive perspective that considers the quality of higher education and its relevance to the labour market. The second process will rely on the mobilization of domestic resources, efficient import substitution, and the active international marketing of products.

103. The international transfer of knowledge is a mechanism that has allowed many economies to overcome their domestic limitations. Through technical assistance, donors can transmit their technological expertise in fields essential for development such as food technology, biotechnology, renewable energy, or health and education technologies. Bearing in mind the success that some MICs have had in developing their capacities, greater emphasis should also be given to horizontal cooperation in technology among MICs themselves, with donor support.
104. One field that is ripe for such action is scientific cooperation, through joint training and research programmes, the exchange of researchers, and networking between research teams and centres. To make this possible, universities and research centres will need to take a more active role in defining the fields of cooperation, leaving it to government to support individual mobility and strengthen institutional networks. Technical cooperation is another area of activity in which there is experience (as in the EUREKA case) based on technological cooperation between businesses and research centres. Some specific activities can be based on new partnerships between businesses, universities and research centres at the international level, with government support. The technologically more advanced MICs also offer opportunities for technology transfer in which both parties to the transaction can benefit.

105. Technology development strategies have often relied on external factors for promoting technical change. In some countries, foreign investment has played a key role in high-tech manufacturing. For this reason, improving MICs' ability to attract foreign investment may be considered one way to bolster technological capabilities, provided that foreign investment is soundly rooted in the local productive fabric. Experience shows that such attractiveness is conditioned by, among other factors, the presence of an appropriate regulatory framework, a skilled labour force, and adequate infrastructure (both conventional facilities and the ones that provide knowledge-intensive services).

106. One area where developing countries are frequently deficient is that of business or managerial capacities: here there is much room for the mutual exchange of experience between MICs, and as well as support and cooperation from developed countries. Knowledge about the state of the art, the market situation, sound business practices and marketing techniques can be just as important as the availability of technical capacities in developing countries.

8.3. Infrastructure development

107. A country's infrastructure endowment and its quality condition its prospects for growth, for social development, and for international competitiveness. In the short run, investment in infrastructure boosts aggregate demand, spurs growth, and creates jobs. Over the longer term, its impact will be felt in productive efficiency, in stronger regional integration, in the reduction of transportation and communication costs, in greater access to markets, and in an adequate supply of basic social services.

108. Aware of these benefits, MICs have made great efforts over the last two decades to expand and upgrade their infrastructure. As a result, public services coverage is now better. Specifically, between 1980 and 2002, electric generation capacity in MICs tripled, the number of telephone lines per 1000 inhabitants rose by a factor of eight, the population with access to sanitation services grew by more than 50%, and access to drinking water expanded by a similar extent. Despite these achievements, the picture is very uneven, and there are glaring shortfalls in some countries.
109. In addition to the shortage of facilities, there are other problems relating to infrastructure management, including:

- Inadequate, over-dimensioned, or poorly conceived infrastructure, for which maintenance is often abandoned, and which therefore represents investments of doubtful social return.
- Defective operation of infrastructure, whether for technical or economic reasons, which means that the return on investment is again limited.
- Lack of financial criteria in taking investment decisions and in providing services, leading to excessive and non-recoverable expenses.
- Failure to address the specific needs of the poorest population groups and the most vulnerable communities.
- Failure to consider environmental problems, with the result that significant negative impacts are not properly evaluated.

The mere listing of these problems suggests that the quality of infrastructure is another important factor, in addition to securing the necessary financing.

110. Many public utility services were traditionally provided by government-owned enterprises. While public institutions must retain ultimate responsibility for the provision of such services, recent years have seen a shift in the way infrastructure is managed, involving a greater role for private initiative. Among the factors encouraging this shift are: (i) technological advances, which have dissolved the natural monopoly inherent in some activities; (ii) the fragmentation of production into various segments, some of which can be opened to competition; (iii) financial constraints on government's ability to invest and to secure a return on investment; and (iv) the problems that public enterprises face in managing services efficiently. All of these factors have induced a search for new forms of partnership with the private sector, involving outright privatization as well as private participation in financing new facilities. This changed landscape opens the way to new sources for the provision of infrastructure, which will require structural and regulatory reforms that will make markets attractive to private financing. This is a step that MICs will have to take in order to draw full advantage from the market's potential for developing infrastructure.

111. The changes indicated have been accompanied by new contractual forms and the allocation of ownership rights over infrastructure. The options run the full range from full private ownership to absolute public ownership, using all kinds of contractual arrangements, including service contracts, management contracts, and various combinations such as Build, Operate and Transfer (BOT). If these new arrangements are to work properly, there must be an appropriate regulatory framework that will protect the investor from arbitrary government intervention while at the same time protecting users against the dominance or monopoly of private operators. This demands, in the first place, a properly designed concession contract, a sound regulatory framework, and an accurate definition of contractual conditions; and in the second place, the conditions for enforcing contracts.

112. Infrastructure construction generally constitutes an opportunity for expanding capital markets and broadening the portfolio of projects for domestic and foreign
investors. Given the constraints facing developing countries, an infrastructure investment programme can create opportunities for expanding and deepening capital markets. On this point, developing countries need to take steps to make these markets function properly, to strengthen the financial system, and to support the efforts of institutional investors such as pension funds and insurance companies.