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## The growth performance of developing countries in the last thirty years: Who gained? - Who lost?

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**Kiel Working Paper No. 1280**

**The Growth Performance of Developing Countries in the  
Last Thirty Years. Who gained? Who Lost?**

by

**Horst Siebert**

June 2006

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## **The Growth Performance of Developing Countries in the Last Thirty Years. Who gained? Who Lost?**

*Abstract: This paper answers the question which developing countries have gained and which have lost in the international division of labor during the last thirty years. The indicators used are GDP per capita in constant purchasing power parity and relative distance to the United States. Nearly all developing countries have improved in absolute terms over the last thirty years; many, among them China and India with large populations, have also reduced their relative distance to the United States. The paper classifies developing countries and discusses impediments to economic development and core elements of a growth strategy.*

*Keywords:* Economic development, growth, GDP per capita, stages of development, classification of developing countries, newly industrializing countries, core elements of a growth strategy, growth and equity, impediments to growth.

*JEL classification:* F, O, O40, N

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# **The Growth Performance of Developing Countries in the Last Thirty Years. Who gained? Who Lost? <sup>1</sup>**

Nearly two fourth of the world's population lives in low-income countries. A little less than half lives in middle income countries while only a little more than one tenth belongs to the high-income group. Different countries have reached different stages in their development process (section1). Least developed countries are frequently considered to be caught in a poverty trap from which they cannot escape (section 2). Several factors are at the root of low levels of development and a sluggish development process (section 3). Newly industrializing countries represent a specific group of countries, displaying strong dynamics, while newly industrialized countries have already joined the club of developed countries (section 4). Nearly all developing countries have improved in absolute terms over the last thirty-five years; many, among them China and India, have reduced their relative distance to the US (section 5). The core elements of a growth strategy consist in the accumulation of capital, both physical and human, and of acquiring technological knowledge developed elsewhere in the world (section 6). Different trade strategies, including import substitution and export diversification, have been adopted (section 7). Multilateral cooperation can support the effort of the individual countries (section 8). Whether growth and equity are complementary or conflicting objectives remains an important issue in development strategies (section 9). A high external debt burden exposes countries to higher risks of external shocks and impairs development in the long run and can cause disruptions (section 10). Macroeconomic instability poses a further severe economic impediment (section 11). Finally, real depreciation is discussed as a hard policy instrument to be used (section 12).

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<sup>1</sup> This paper is a revised version of chapter 10 of my forthcoming book "The World Economy. A Global Analysis" (Routledge, 2007). I appreciate research support from Holger Wilms, especially for the collection of data for figures 3 and 4, and to Doina Cebotari. I am also grateful

## **1 Countries in different stages of development**

Looking at the world economy, we find countries at different stages of their development process. A group of so-called least developed countries are trapped in a situation with a low and more or less stagnant GDP per capita or at best very small increases. Any GDP growth is almost immediately absorbed by a population increase. Malnutrition, poor health (expressed for instance by the under-five child mortality rate), a low literacy rate and inadequate secondary school enrollment are typical characteristics to be found in these countries.

In developing countries, an increase in GDP per capita is taking place, based on a growth process that is under way. Quite a few of these developing countries have already experienced a stark sector change away from agriculture towards industry with a strong built-up of competitiveness in the export sector. These countries are referred to as newly industrializing countries or the threshold economies. Some of the former developing countries, the newly industrialized countries, now rank alongside the developed countries, i.e. the traditional industrialized countries. Newly industrialized countries have reached a stage of development similar to most industrial economies, having often leap-frogged to new technological sectors such as IT and also exhibiting a strong service sector. These countries which are now at par with the traditional industrial economies were the NIE's, the newly industrializing economies of the 1980s. What used to be called developing countries some forty years, now exhibits a broad spectrum of countries being in different stages of development.

The available classifications of countries into different development stages are not uniform since different authors and different international organizations use a variety of varying criteria. Accordingly the term developing countries is often applied in a broader sense (than described here) to also include least developed countries. International organizations use different definitions and income levels for their classification. The United Nations distinguishes least developed, developing and developed countries and applies, apart from the income criterion, a human asset index (including characteristics of nutrition, health, literacy and school enrollment) to

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for critical comments to Rolf Langhammer.

identify the least developed countries. The WTO uses the same classification. UNCTAD, the OECD and the World Bank apply different income thresholds. The levels applied change over time. Using the World Bank classification, we distinguish low-income (with a GNI per capita of US\$ 825 or less in 2004), medium income countries (between US\$ 826 and US\$ 10065) and high-income countries (with a GNI per capita of US\$10,066 or more). All low-income countries in the World Bank classification are least developed economies. The OECD distinguishes LDC's and other low-income countries as categories.

Using the World Bank approach, more than a third of the world's population (36.8 percent, 2.3 billion out of 6.4 billion people) lives in 59 low-income countries (2004). These are countries with an annual gross national per capita income of US\$ 825 or less. Actually, the average income per capita is US\$ 510. All the low-income countries taken as one group together produce 3 percent of world GDP. About 3 billion people, 47.4 percent of the world's population, belong to 94 middle-income countries, with an annual per capita income of US\$ 825 - 10,065. Their average income per capita stands at US\$ 2,190, their share in world production measures 17 percent. In the middle-income group, the average is US\$ 1,580 for the lower middle income countries and US\$ 4,770 for the upper middle income countries. About 1 billion, 15.8 percent of the world's population, live in 56 high-income countries, with an annual per capita income of US\$ 10,066 and above. Their average income per head is US\$ 32,040; all high-income countries together produce 80 percent of the world's GDP. Information on which country belongs to which category can be found in the appendix to the World Development Report 2006 (World Bank 2005d, Table 1-5, p.291).

## **2 Characteristics of the least developed countries**

The least developed countries are characterized by very low income levels and poverty (Table 1). Indicators are malnutrition, diseases, high infant mortality, low life expectancy, and an inefficient supply of public goods in, for example, the public health sector, schools and universities. Further characteristics include illiteracy, few opportunities to earn a sufficient income, and inadequate living and housing conditions. In some of these countries, people live on one US\$ a day,

calculated at nominal exchange rates and market prices, and on two to three US dollars in purchasing power parity.

On the production side of gross national product, a low-income country is often characterized by a primary sector (agriculture, exploitation of natural resources) contributing a relatively high proportion to total national income and of employment. Agriculture has a relatively low productivity and is often economically discriminated against in favor of other sectors, namely manufacturing. Frequently, agricultural production is concentrated on just a few products (single-crop farming). Far too often, the natural resource sector represents an export enclave, i.e. it is not intensively linked to the rest of the economy, and therefore does not exert noticeable economic spillover effects. The high value-added stages in the chain of vertical production are missing. In other cases where industry accounts for half or more of GDP (as in the Democratic Republic of Congo with 56 percent, Angola with 65 percent and Nigeria with 49 percent, all with a low per capita income of less than US\$ 1,030 or where manufactured exports make up the overwhelming part of merchandise exports (as in Bangladesh 89 percent), industry or manufactured exports do not generate a high national income and strong enough prices on the world market to move the country to higher income levels. Often the high share of industry is based on some processing activities of the primary sector (i.e., oil refinery) which in a dual economy do not have spillovers on the rest of the economy. In the least developed countries, the tertiary sector, especially domestic commerce and public services, binds many employees.

Table 1 The ten poorest countries in the world, 2004

Countries	Gross National Income, \$ per capita	
	at nominal exchange rates	at purchasing power parity
Burundi	90	660
Ethiopia	110	810
Congo, Dem. Rep.	120	680
Malawi	170	620
Eritrea	180	1050
Sierra Leone	200	790
Rwanda	220	1300
Niger	230	830
Mozambique	250	1160
Chad	260	1,420
For comparison:		
Portugal	14,350	19,250
Germany	30,120	27,950
United States of America	41,400	39,710
Switzerland	48,230	35,370
Japan	37,180	30,040
Singapore	24,220	26,590

Source for data: World Bank, *World Development Report 2006*, Table 1, p.292.

As in developing countries in general, real income is unevenly distributed in the least developed countries. This means that the Lorenz curve of income distribution deviates significantly from the 45° line. Most of the population is characterized by a low income per capita. No middle class exists, causing a wide gap to open between the rich and the poor. This implies that an important condition for political stability is absent from the system. However, the relationship between the level of development and an uneven income distribution is not altogether clear. For similar development levels, Sub-Saharan and Latin America countries display higher degrees of inequality than most Asian economies. Any analysis is made difficult by statistical problems, since measuring the distribution of personal income remains one of the most unreliable fields in development economics. There is hidden income and hidden unemployment, the latter



being marked by many employees having a marginal productivity close to zero. Their work could be abandoned without a noticeable reduction of production.

The expenditures of the majority of the population are directed towards the necessities of life. Too often poor countries remain subsistence economies. Due to low incomes, it is alleged that savings are nearly impossible; this, however, is not correct since quite a few low-income countries have high savings rates. Groups with a high income exhibit a traditionally high propensity to consume and a low savings rate. They spend their income on conspicuous durable consumer goods without productive capacity. If there are savings at all, they frequently flow into capital exports. Very often the desire to be an entrepreneur is missing due to a mixture of adverse and volatile conditions for the private sector. Institutional aspects play a significant role in explaining the development performance of the least developed countries (see below).

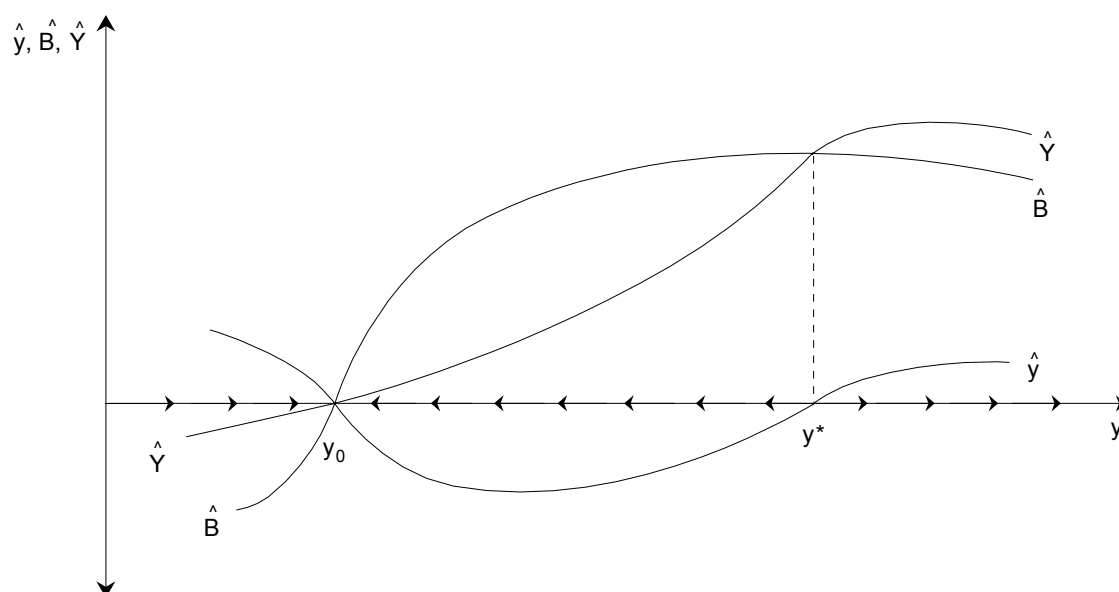
### **3 Reasons for slow development or underdevelopment**

Several factors have to be considered as possible reasons for slow development or for underdevelopment. Some of these factors do not only apply to low-income countries but to countries that are developing.

#### **Excessive population growth**

Even if the gross national product increase significantly, the growth of per capita income can be low or even negative, due to rapid population growth. This is shown in Figure 1 (Nelson 1956).

Assume that there is a positive growth rate of gross domestic product ( $\hat{Y}$ ), induced by savings and capital formation, that becomes possible once a threshold level per capita income is surpassed. Simultaneously, the expansion rate of the population ( $\hat{B}$ ) increases with rising per capita income; it later stays constant (or even decreases in 'mature' economies). Above the income level  $y_0$ , the mortality rate falls quickly and the population expands rapidly, due to a higher life expectancy at birth and especially a far lower infant mortality as a result of better medical conditions. Eventually, with a higher income per capita the birth rate falls, inducing the population to be stable (or even to shrink). Below an income per capita  $y_0$ , the population decreases.



**Figure 1** The development trap

From the definition of income per capita,  $y = Y/B$ , the rate of change of income per capita can be derived as  $\hat{y} = \hat{Y} - \hat{B}$ . As long as the population is growing more rapidly than domestic product, income per head decreases ( $\hat{Y} < \hat{B}$ , i.e.  $\hat{y} < 0$ ). Only when gross domestic product increases more than the population ( $\hat{Y} > \hat{B}$ , i.e.  $\hat{y} > 0$ ), will income per capita rise. The income per capita at  $y_0$  constitutes a low level steady-state equilibrium. To see this consider income levels below  $y_0$ , there income per capita tends to rise, since national income growth exceeds population growth. The economy moves to the point  $y_0$ . Above  $y_0$ , at first the population grows more than domestic product. This is the reason why the economy tends to go back to the point  $y_0$ . Only when the level  $y^*$  is exceeded does income per capita rise, because then national product rises more than the population. Between  $y_0$  and  $y^*$  the economy is always drawn back to  $y_0$ . The country remains on a low level and is captured in a trap of underdevelopment. It requires a push, either through strong internal efforts with a change in the incentive structure or a positive external shock, to get out of this situation. The economy has to move beyond the threshold  $y^*$ .

### **Missing institutions**

In many developing countries, there are no institutions that ensure that necessary long-term concerns, i.e. long-term opportunity costs, are taken into consideration. As a result, politicians are very often satisfied with short-term and populist solutions that impose damaging long-term costs for the country. A typical example is the lack of adequate rules preventing budget deficits. Due to the lack of an efficient tax system and too small a tax base, some states finance themselves partly through the central bank monetizing part of the public debt.

### **Corruption**

In some countries corruption takes the place of markets or rule-based decisions. This means that incumbents and the status quo play a large role, that power is vested in groups that influence economic decisions, that new solutions are less likely to be found, and that higher transaction costs arise. This causes inefficiency. Conditions typical for developing countries such as a narrow tax base, a weak tax administration, and lack of accountability of policy-makers facilitate corruption. Yet, as high corruption strongly correlates with low per capita income, the causality is difficult to identify. Are countries corrupt because they are poor or are they poor because of high corruption? As high corruption always coincides with bad public governance, the same causality issue arises for the relationship between poverty and governance.

### **Internal Wars**

In Sub-Saharan Africa, some countries are involved in internal civil wars, tribal conflicts and religious clashes. In such an environment, uncertainty and the short-run prevail, negatively affecting economic decisions. An important prerequisite for economic development, confidence in the future, is missing. All economic decisions, among them consumption, investment, human capital formation and entrepreneurship are taken on the wrong basis of uncertainty.

### **Lack of capital formation**

Low savings result in a small capital stock which implies that production remains low. Usually, new physical capital embodies new technological knowledge. Thus, weak capital formation results

in hardly any new technological knowledge being realized. Little capital formation, i.e. only little abstinence from consumption, also means that human capital formation does not sufficiently take place, for example, by training on the job. Impediments to capital formation are also due to a low income per head. If a government tries to finance its expenses through an inflation tax, the high inflation will work against savings, since people escape into unproductive inflation-proof uses of their income.

### **No entrepreneurship**

Developing countries often lack entrepreneurship, for several reasons. One is that the role of the entrepreneur is not highly valued in society and that value orientation does not assign a special importance to achievement. Another reason is that the country has no entrepreneurial tradition, for instance because of its educational system.

### **National debt**

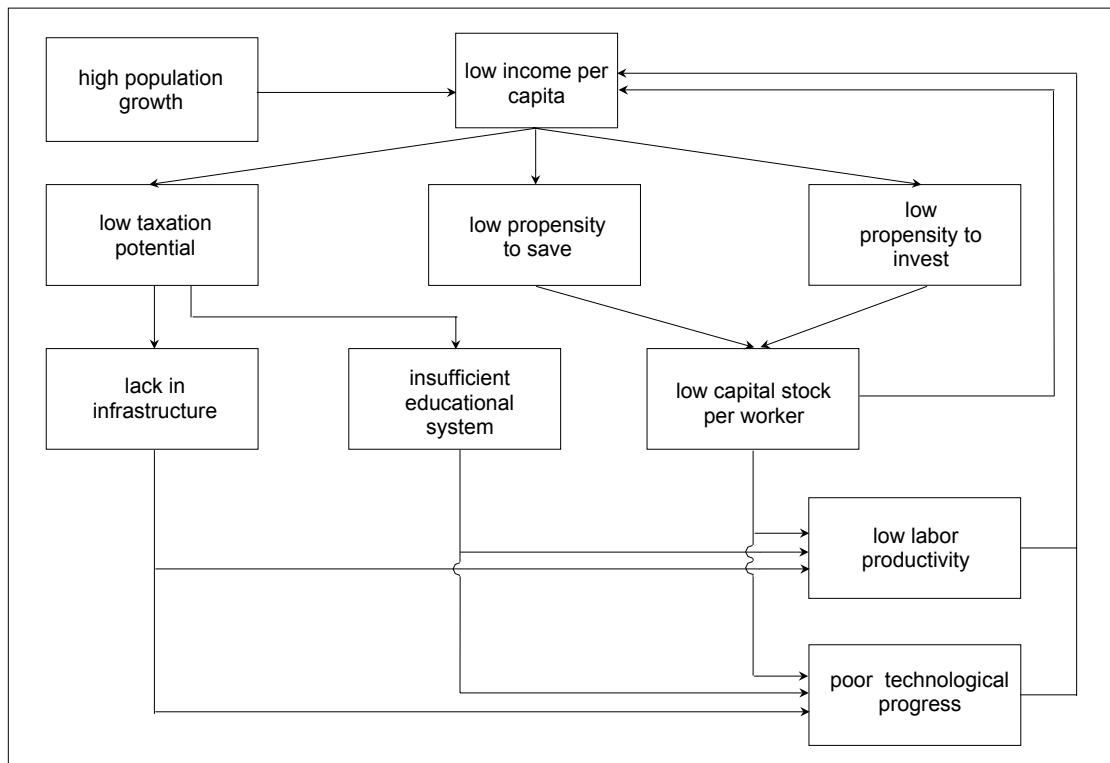
Some developing countries, especially in Latin America, have accumulated a high foreign debt ( $V$ ) on the international financial markets for several reasons, but mainly because of high budget fiscal deficits. This requires high interest payments ( $rV$ ) and leads to a negative balance of services. Ignoring other positions of the balance of services and transfer payments, the financing restriction for an open economy is given by

$$S - I + (T - G) = Z^H - rV - \dot{V} \quad (1)$$

where  $Z^H$  is the trade balance and  $-\dot{V}$  is the reduction of foreign debt or the increase in foreign assets. For highly indebted countries, the trade balance minus the interest payments is negative, with low domestic savings and an often prevalent budget deficit of the government. This means that indebtedness rises ( $\dot{V} > 0$ ). It is hard for such an economy to reduce consumption in order to balance the public budget, to achieve positive net financial investment and a positive trade balance in the end.

## Vicious circle

A multitude of factors can keep developing countries on a low-income level. Strong growth of the population, a low savings rate, a small stock of real capital (including infrastructure capital) and of human capital lead to a small output, which itself does not allow a sufficient formation of capital (Figure 2). High inflation rates and high foreign debt accelerate this vicious circle, which has to be broken through for economic development to take off. Instead of 'vicious circle' or 'cumulating effects', this phenomenon is also called a 'low-level equilibrium'. Such a low-level equilibrium can be characterized as hysteresis. It is path-dependent in the sense that once such a situation is reached it is extremely difficult to escape from it. Similar considerations define the so-called economics of thresholds (*'économie des seuils'*) which has to be overcome before economic development can take place.



**Figure 2** Vicious circle of underdevelopment

### **Different endowment conditions**

Yet another aspect is that the countries of the world are characterized by different conditions for economic growth. Some of these conditions are determined by nature, like access to the oceans (coastal country versus landlocked country, tropical conditions, etc.), others are synthetic (acquired comparative advantage). These conditions can lead to different growth rates.

### **4 The newly industrializing and the new industrialized countries**

The picture of developing countries described above corresponds to those countries where the developing process has not yet really started (least developed countries) or where it is slow. A number of African economies south of the Sahara and very few South Asian countries (like Bangladesh) belong to this category. It would however be wrong to place all countries that are typically labeled 'developing countries' in this category.

Within the broad group of developing countries a distinct group of newly industrializing countries have displayed strong growth processes, e.g. most Asian economies. Capital formation in these newly industrializing countries with a low GNI per capita is surprisingly high with investment and savings shares amounting to more than 30 percent of GDP, in some countries even 40 percent – an observation that disputes the widespread belief that poor countries cannot save. Industry accounts for half or nearly half of economic activity, as in China, Malaysia or Thailand. Manufactured exports amount to three quarters or more of merchandise exports, and some countries, in particular China, have a share of technology exports in manufactured exports that compares with technology-oriented developed countries such as Finland. In the case of Malaysia this share is even higher (Table 2). Surprisingly, Turkey appears in this category, although its share of industry is as low as that of India. To put Turkey into this category is also justified by the relatively higher GNI per capita and by the growth prospect that is due to the neighbor effect to the EU.

India, though having a high proportion of its merchandise exports as manufactured exports (77 percent), does not yet belong to this category. Industry accounts for only 26 percent of its economy, and income per capita in purchasing power parity is as low as US\$ 3,100. In Vietnam a strong industrialization process is under way.

Indonesia, although at a higher income per capita level in current prices and in purchasing power than India, does not yet belong to the category of newly industrializing countries. The proportion of manufactured exports ranks as low as 52 percent, and that of high technology exports is similar to that of India. The Philippines too belongs to this intermediate category with a low proportion of the industrial sector. A potential explanation for the position of these two countries may be found in the country's size and its strong natural resource base (Indonesia) and a strong sector of nontradables (Philippines), although China suggests that size is not necessarily a hindrance for a strong export position. Alternative reasons may be seen in high transaction costs of island economies, bad governance and in lack of economic momentum.

Most Latin American countries belong to the upper range of the middle-income group. One cannot say that a strong industrialization process such as in many East Asian economies is under way. Instead, most Latin American economies appear to be already industrialized, albeit not under open market conditions. In recent years, they have to face both increasing competition from East Asian manufacturers and price trends in favour of natural resource extraction due to strong Asian demand. Except for Argentina, industry therefore accounts for a relatively low percentage of GDP. Some countries such as Chile are traditional exporters of resources or resource-based products (agriculture).

Finally, for some economies the term 'newly industrialized countries' is becoming accepted. Cases in point are Korea, Hong Kong, Singapore and Taiwan. These states have succeeded in a broad increase of their industrial exports, and manufactured goods constitute a considerable part of their exports. Most of the economic policy problems to be discussed below have already been solved by these countries. For example, Korea's GNI in purchasing power parity is at US\$ 20,610, industry accounts for 62 percent of GDP and high-technology exports are strong (32 percent). The country has joined the OECD (as Mexico). Hong Kong and Singapore as city-states have taken a position as traders.

Table 2 Categories of industrializing countries, 2004

Countries	Gross national income per head in US dollars		Share of <sup>a</sup>		
	At current nominal exchange rates	In purchasing power parity	industry in GDP	manufacturing exports in merchandise exports	high technology exports in manufacturing exports
Newly industrializing countries with low income per capita					
India	620	3,100	26	77	5
Vietnam	550	2,700	40	50	2
Indonesia	1,140	3,460	44	52	5
Philippines	1,170	4,890	32	90	74
Newly industrializing countries					
China	1,290	7,170	51	91	27
Malaysia	4,650	9,630	48	77	58
Thailand	2,540	8,020	44	75	30
Turkey	2,630	7,310	28	84	2
Traditional industrialized countries in the upper range of the middle-income group (all in Latin America)					
Argentina	3,720	12,460	65	27	9
Brazil	3,090	8,020	32	52	12
Chile	4,910	10,500	34	16	3
Mexico	6,770	9,590	25	81	21
Industrialized countries					
Hong Kong	20,610	31,510	12	93 <sup>b</sup>	13
Korea	13,940	20,400	62	93	32
Singapore	24,220	26,590	35	85 <sup>b</sup>	59
World	6,280	8,760	...	77	18

<sup>a</sup> 2003. - <sup>b</sup> Includes re-exports.

Source for data: World Bank, *World Development Indicators*, March 2005.



### **5 Which countries failed, which succeeded?**

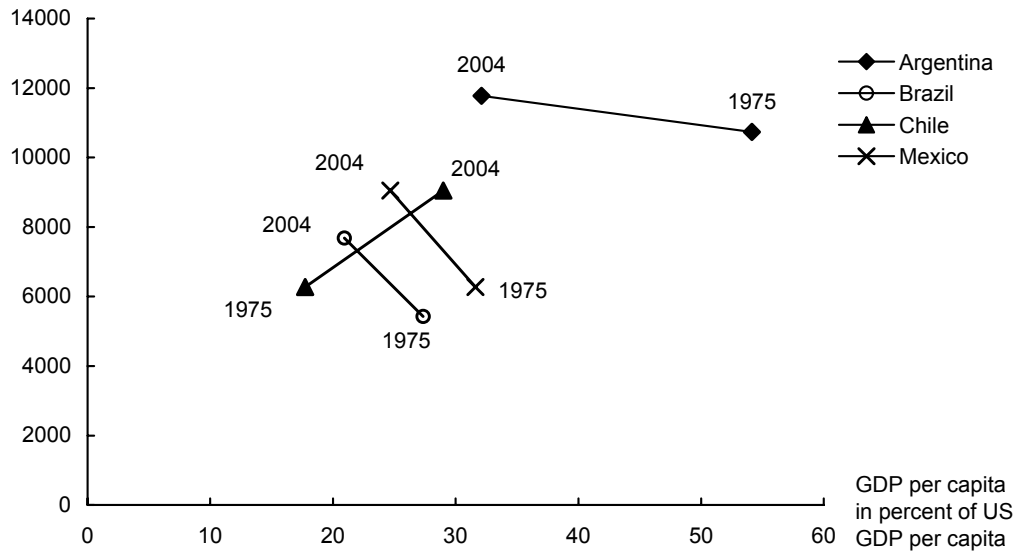
It is heavily debated by non-governmental organizations (NGOs) whether developing countries have benefited from the international division of labor. A number of NGOs advocate the view that the economic situation has worsened for the developing world. In order to shed some light on this question, two different criteria can be used. First, whether real GDP or GNI per capita of developing countries have increased in absolute terms and, second, whether their position relative to the US has improved.

There are several methodological problems with this approach: in order to make a comparison in time and between countries, a common measurement standard has to be applied. This may be constant US dollars where, for international comparisons, market exchange rates are used. Alternatively, constant purchasing power parity rates can be applied. Purchasing power parity (PPP) means that at a point in time one international dollar has the same purchasing power over domestic GDP than the US dollar has over US GDP. Both data sets are provided by the World Bank. We here use purchasing power parity data in constant 2000 US dollar since it is more appropriate for comparisons of standards of living.<sup>2</sup>

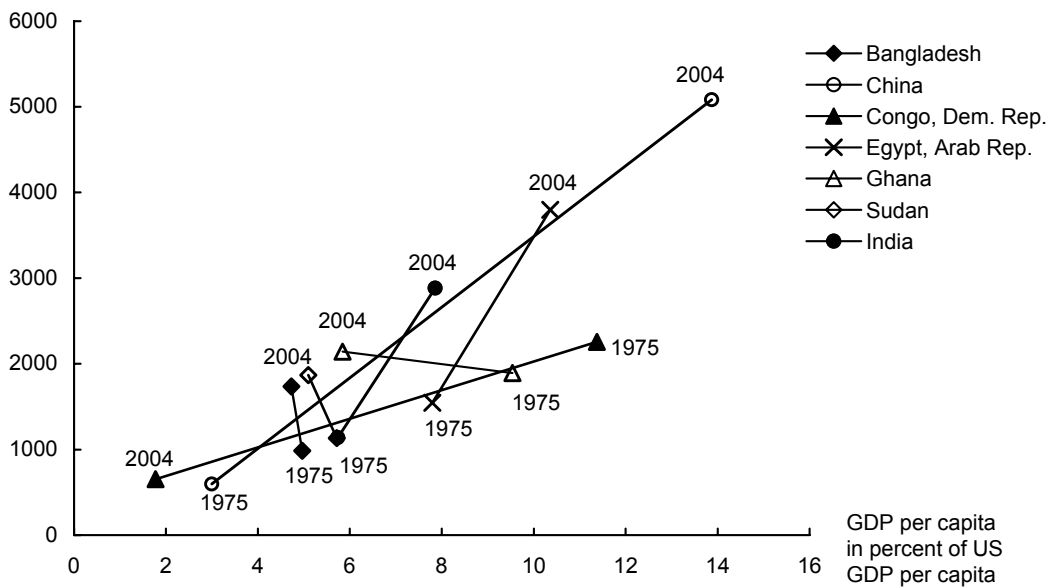
Looking at the period 1975–2004, nearly all countries have improved their situation in absolute constant purchasing power terms. The exception is Sub-Saharan Africa with the Democratic Republic of Congo being a particularly severe case (Figure 3a and b). Other countries, for instance Burundi and Niger, also have lost in GDP in absolute terms but not quite so extreme. Countries like Bangladesh, Cameroon, Ghana and the Sudan are among those who have improved their situation.

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<sup>2</sup> Note that PPP income comparisons put poor countries in a better situation than exchange rate income comparison because of the non-tradable sector in which domestic and international prices are widely decoupled from each other.



(a)



(b)

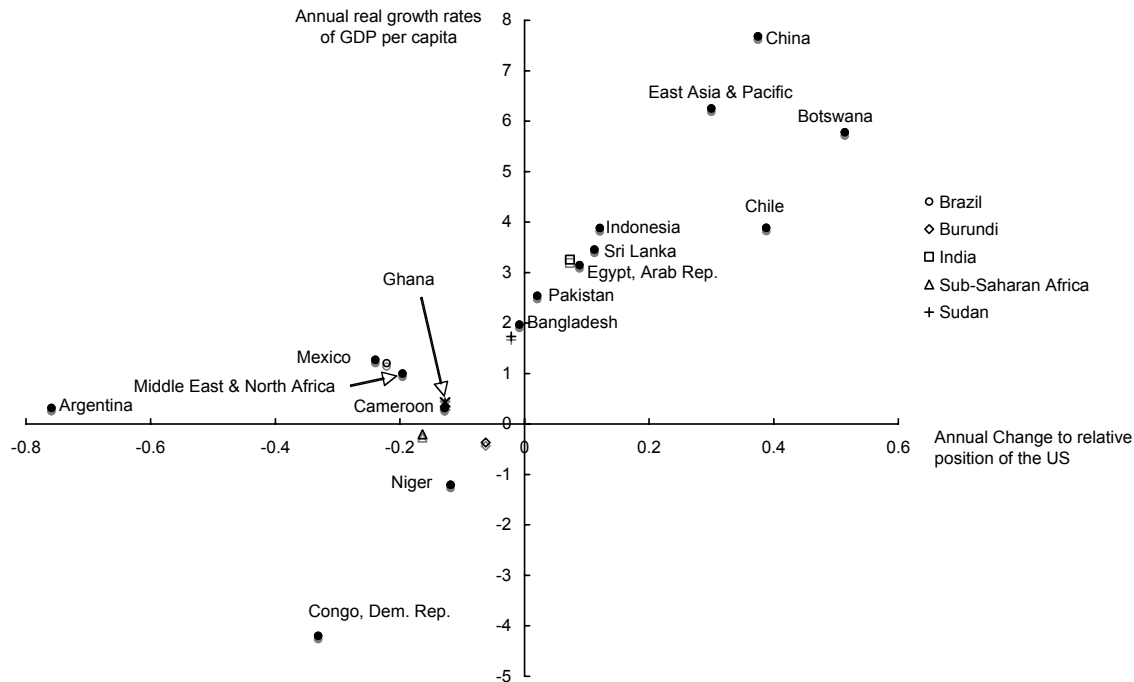
**Figure 3** GDP per capita<sup>a</sup> of (a) Latin American countries and (b) Asian and African countries, in absolute terms and relative to the US, 1975 and 2004

<sup>a</sup> Constant purchasing power parity.

Source for data: World Bank, *World Development Indicators* 2005.

An improvement in the relative position to the US is a strong indicator of a successful development process whereas a relative decline does not necessarily imply that the country has lost relative to its initial situation. Depicting the average annual rate of increase of the absolute GDP level per capita on the vertical axis and the change of the relative position to the US in terms of percentage points on the horizontal axis for the period between 1975 and 2004, the countries can be arranged in three quadrants with the winners on both accounts in the upper right quadrant and the losers in relative and absolute terms in the lower left quadrant (Figure 4).

China, India, Indonesia, Egypt, Botswana, Pakistan, Sri Lanka and Chile have reduced their relative distance to the US (Figure 4, upper right-hand quadrant). Argentina, Brazil (the point is close to Mexico's), Mexico, Cameroon and Ghana have lost in their position relative to the United States. Argentina has even lost half of its relative position to the US, reclining from 54 percent in 1975 to 32 percent in 2004. It should be noted that Argentina was hit by a deep financial crisis in 2001 when the currency board collapsed and people's financial assets depreciated heavily. Most Sub-Saharan countries are located in the lower left-hand quadrant, indicating a loss both in absolute and relative terms. Internal turmoil and civil war are the primary causes for this pronounced decline in economic activity. The per capita income of Singapore and Hong Kong, not shown in Figure 4, has increased by 4.5 percent annually, allowing them to close in on the US position by 1.3 percent per year.



**Figure 4** Real annual changes in the absolute GDP<sup>a</sup> per capita and the relative position to the US between 1975 and 2004<sup>b</sup>

<sup>a</sup> Constant purchasing power parity. - <sup>b</sup> In terms of percentage points.

Source for data: World Bank, *World Development Indicators* 2005.

### 6 Core elements of a growth strategy

Growth and development mean different things, depending on the development stage that countries are in. Consequently, the core elements of a development strategy differ. In the least developed countries, the immediate goal is to improve the living conditions for people, the eradication of poverty and its impact is at the center. In the developing countries, in which poverty has been reduced, the goal is to start a self-sustained growth process and to keep it going. Of course, this distinction is somewhat artificial, since a self-sustained growth process is also the means to eradicate poverty.

## **The Millennium Development Goals**

In the Millennium Development Goals, the United Nations have set development objectives for the least developed countries. The aim is to improve the living conditions for millions of people. This overall goal comprises eight individual targets: halving extreme poverty and doing away with hunger, achieving universal primary education, promoting gender equality, reducing child mortality, combating HIV/AIDs, malaria and other diseases, ensure environmental sustainability and develop a global partnership for development. The target date for reaching these goals is 2015. Table 2 in the appendix of the annual World Development Report informs on most of these goals.

The Millennium Development Goals are part of a multilateral approach to development (see below), and they establish a global yardstick for what should be achieved in a multilateral context. At the same time, these goals serve as frame of reference for national economic policy. They represent a benchmark for the individual country, for its politicians, its elite and all the groups of society. Stating the goals does not specify how they goals can be reached; the goals by themselves do not define the necessary policy instruments.

## **A self-sustained growth process**

A central goal of development policy is to initiate a self-sustained process of economic growth and to keep it going. The core change usually consists in an institutional modification or a revolution that newly defines the incentives for the economic agents. This serves as a decisive stimulus. The incentives must be directed towards production, exporting, investment, innovation, human capital formation, and sectoral change. This institutional change may be done abruptly by implementing a new system of governance as was the case in the post-communist transformation countries when they introduced the market economy. Or it may be done smoothly as in China where the rules of production and investment were gradually altered.

The goal of such a change is an expansion of the production potential, being brought about by the accumulation of stocks that represent the decisive factors of growth, namely physical and human capital as well as technological knowledge. Larger accumulated stocks in these growth determinants allow higher output. Public spending should be redirected towards education, infrastructure investment and health; tax laws should provide sufficient incentives for

investment, both in physical and human capital, and for innovations. Given these conditions, economic agents are needed who organize the production process and combine the growth factors, i.e. the entrepreneurs.

Sectoral change from agriculture to industry and then to services and a knowledge economy is an important aspect of the growth process. Trade provides a crucial stimulus as it forces firms and sectors to adjust to the relative product prices determined on the world market. To have an open economy also defines the relevant incentives for other market participants, including households and workers. An essential decision of development policy therefore is the commitment to an open economy, i.e. to the fundamental decision to let the world market play. This means that all forms of protectionism are to be banned, including quantitative restrictions and subsidies. Openness to foreign investment can help finance the accumulation of capital. In order to attract foreign investment, taxation policy must be credible; taxation rules are not to be changed ad hoc during the game.

Related to an open economy is to accept the working of competition. Institutional arrangements should prevent populist political approaches that will only serve the short run. The institutional set-up should accept the market mechanism and should give priority to competition as the dominant form of organizing the economy. State enterprises should be privatized. Markets should be deregulated where regulations impede entry or restrict competition. Exempted are those regulations that are justified on safety, environmental and consumer protection grounds and prudential oversight of financial institutions. Institutional arrangements play an essential role. If they are reliable, they provide confidence for market participants. Many decentralized decisions of market participants with a longer time horizon require a stable institutional framework, for instance decisions to save, to start up businesses, to invest, to innovate and to build up human capital. Processes that will destroy the economic equilibrium in the long run should be ruled. Institutional arrangements should prevent populist approaches with short-run benefits and long-term damages. The right of ownership, i.e. the acceptance of private property rights, has to be respected. Another crucial prerequisite is a stable tax system preferably with a broad tax base that prevents taxes from being changed frequently and irregularly thus minimizing uncertainty for private investors.

Of utmost relevance is a stable money. Above all, it has to be guaranteed that the state will not balance the budget by printing money, i.e. by obliging the central bank increase monetary expansion and by channeling the increased money supply to the government, for instance by buying government bonds with central bank money. Monetization of the budget deficit is only possible because in many countries the central bank is not independent from political influence. For that reason, another important aspect is the independence of the central bank and the explicitly formulated prohibition of financing budget deficits through monetary policy. Increasing public debt, when used to finance consumption, is not sustainable once a certain threshold is surpassed. It has a negative impact on monetary stability. If these conditions are not satisfied, currency crises with negative repercussions on the real side of the economy are certain to occur. It is therefore necessary to make the country robust against financial crises, especially contagion that may come from abroad, even if the fundamentals of a country may not be a sufficient reason for a crisis to brake out.

A key aspect is to guarantee economic freedom, in order that individuals can rely on the fact that decisions are not annihilated by actions of the government. It remains an open question whether economic freedom is sufficient for growth or whether in the long political freedom must be established as well.

All these approaches rely on the individual country undertaking the decisive steps. Each country has to initiate the growth process and keep it going. Many of these recommendations except for institution building and income distribution were included in the recipes for Latin American countries to stabilize their economies and to recover from the crises of the 1980s. These recipes were labeled Washington Consensus (Williamson 2000). The political left has discredited them as “neoclassical”. Unfortunately, labeling them in this way spawns a whole battery of negative associations. Like it or not, an economy has to respect restraints and it will follow incentives.

## **7 The experience with trade strategies for development**

Concerning trade strategies for economic development, we have to distinguish between import substitution and export diversification. These are opposite strategies that have been used by Latin American and Asian countries.

### **Import substitution**

During the four decades from 1950 to 1990 the development policy of nearly all Latin American countries was characterized by a lack of confidence in the international division of labor as an important source of economic growth. Latin American development policy followed the strategy of import substitution. The starting point of this strategy was the hypothesis of deteriorating terms of trade, which was developed by Prebisch (1950) and Singer (1950). This policy was directed at replacing imports by domestically produced goods. The domestic sectors were supported in their development and shielded against foreign suppliers. An industrial basis was supposed to be built up by the protection of young industries (infant industry argument). In this respect it was significant that traditional trade relations had been interrupted by the Second World War. Unlike the European countries, Latin America did not place its hope on a closer integration of the world economy.

Typical instruments of such a policy were protectionist measures like import licenses or import duties, which increased with the vertical level of processing and thus protected the domestic producers of finished goods. This development strategy, which was predominant in the 1950s and 1960s, at first seemed to be successful in Latin America, but from the mid-1960s onwards, the problems became visible. Above all, the industrial sector developed very poorly. One reason was that the policy of import substitution was associated with considerable distortions. Domestically produced goods used as intermediate inputs became more expensive because of import protection, and this in turn reduced the competitiveness of the export sector which needed these goods as inputs. Import protection is thus equivalent to a tax on exports. The price structure was distorted in favor of the domestic import substitutes so that this sector expanded too much and attracted too many resources. Due to the protection from international competition, domestic producers did not feel the necessary pressure to cut costs and innovate. In



the long run, they lost their competitiveness and the system of import licenses opened the doors for political deal making and corruption. To compensate for this distortion, domestic producers have often asked for export subsidies which the national budgets could not finance without resorting to the inflation tax. In the end, the strategy of import substitution caused serious misallocation and created more market failure – and also political failure – than had existed initially.

### **Export diversification**

While the strategy of import substitution is rather inward-oriented, the strategy of export diversification, which was pursued by most Asian countries, can be seen as an outward-oriented development strategy. The objective was and still is to expose the export sectors to international competition and not to distort the allocation between the export sector and the domestic sector of import substitutes. To compensate for this distortion, domestic producers have often asked for export subsidies which the national budgets could not finance without resorting to the inflation tax. At first, detrimental effects of import protection for exports were compensated by special export promotions. Owing to high domestic savings this was not harmful to a balanced budget for the state. In short, the Asian approach tried to enhance domestic production, investment and innovation by allowing intensive competition from the world market and by using this pressure to develop a sustainable economic basis. The predominant philosophy was that the world markets would offer interesting opportunities to the domestic producers. The exchange rate policy could prevent massive overvaluations. There is no proof for undervalued currencies over a longer period of time, with the possible exception of China. The real exchange rate was mainly left to the markets and could be stabilized, at least till the mid-nineties before the outbreak of the Asian crisis. There have been almost no bureaucratic restrictions for currency-related questions in the commercial area.

## **8 Multilateral strategies for development**

### **Poverty Reduction**

Poverty reduction can be interpreted as an obligation of the international community.

Development aid corresponds to a Kantian imperative and the Rawlsian principle: those in a poor position receive help in form of income transfers in order to advance their situation, i.e. alleviate poverty and improve the conditions for growth. Development aid can be spent to build schools and hospitals, pay teachers and doctors, upgrade water quality and improve the infrastructure. For the least developed countries foreign aid can represent a high percentages of their GDP. For instance, in 2003 Eritrea and Sierra Leone saw aid account for 37 percent of their GNI. The industrial countries have pledged to support the developing world at least with 0.7 percent of the individual countries' GNI. Despite this pledge, the average for the countries that are members of the Development Assistance Committee, the OECD department responsible for development issues, was only 0.25 percent of GNI in 2004. The US and Italy are the laggards on this count, with 0.16 and 0.15 percent of their individual GNIs devoted to development aid. EU aid was only 0.36 percent of the union-wide GNI (World Bank 2005d, Table 1).

Even if the developed countries were to provide the financing that they have pledged to, there is no guarantee that the intended development goals would be achieved. Unfortunately, good intentions are not sufficient to achieve the intended goals. First, income transfers may be siphoned off by corrupt politicians and bureaucrats so that development aid may be ineffective. Whereas an empirical observation says that one percent of GDP in development aid reduces poverty and infant mortality by one percent, when good institutions and policies prevail (World Bank 2005d), funds may actually leak like water in the sand of a desert, having no stimulating effect at all. Aid then remains ineffective. For instance, there may be no increase in social spending despite a country receiving aid. It is puzzling that bilateral aid has often been giving over-proportionally to countries with undemocratic and poorly managed governments rather than to countries with sound institutions and a good governance record. This reflects selfish motives of the donors such as to secure access to natural resources. The record for multilateral aid is somewhat better with respect to the governance quality of the recipients than that of bilateral donors. Second, governments may use the funds for politically visible “white elephant projects”

that might impress the population, but end up having a zero effect on productivity. Third, the country may be less keen to use its own efforts to improve its economic situation, feeling secure the knowledge that help is forthcoming. Fourth, there is an economic mechanism: the income received from abroad may be spent on nontradables, thus raising their price and making it less attractive to produce for exports. This is reminiscent of the often observed “Dutch disease” - a phenomenon first observed in the Netherlands when the discovery of natural gas deposits led to a shift in demand in favor of non-tradables, to real appreciation and de-industrialization. This experience is not unrealistic. For instance, Bhutan and Tanzania received annual aid averaging 20 percent of their GDP in the 1980s, and in both countries the tradable sector contracted by 15 percentage points of GDP (IMF 2002, p.2).

A more important aspect than aid is trade (aid through trade). This requires developed countries to open up their markets for the exports from low-income countries. Unfortunately, developed countries still protect some of their markets with tariffs, anti-dumping measures, quantitative restrictions and subsidies. This applies in particular to the agricultural sector and to sensitive labor-intensive industrial sectors. For instance, the European Union spends about three euros per day on subsidizing a cow (in milk production) whereas people in some low-income countries live on one euro per day. The US heavily subsidizes its cotton production, to the detriment of cotton producers in Brazil and countries in Sub-Saharan Africa. The effect of these subsidies is not only that the industrial countries’ markets are de facto closed. The subsidies lead to excessive production, and the rich countries dump the excessive output on the world market, lowering prices artificially and reducing the production incentive for low-income countries. It is amazing that in the policies of the high-income country, the equity target – often at the root of trade barriers and subsidies – is only interpreted within a purely national (or EU) context.

A heavily debated question is whether intellectual property rights such as patents can be used as a policy instrument in a multilateral approach or whether they simply contribute to draw resources out of a developing economy. This would mean to allow low-income countries to produce certain products without respecting the property right. This is an issue that has been heavily discussed with respect to medicines, for instance against AIDS. The principal position on this issue is that property rights have to be respected. If the international community wants to grant the production rights to some countries, it should be prepared to pay a royalty to the

companies that own the patent. Otherwise the incentive to discover new technological knowledge is reduced.

### **The Role of the World Bank**

The World Bank, founded in 1944 as „International Bank for Reconstruction and Development“ during the Bretton Woods Conference, at first had the task to provide financial support in the reconstruction of the regions destroyed by World War II. Today its role is to promote economic development in the least developed countries through the financing of key investment projects. In 1956 the International Finance Corporation (IFC) and in 1960 the International Development Association (IDA) were founded. Together these three organizations constitute what is known as the World Bank Group. The IDA primary role is to administer loans to least developed countries. Loans are typically interest free and have longer amortization periods than IBRD loans. The IFC is the private sector arm of the World Bank Group. It encourages private sector investment and assist private enterprise to finance projects in developing countries.

In addition to its financing role the World Bank coordinates the work of international organizations, donor countries and development agencies in developing countries. In this capacity the World Bank also advises developing countries on questions of economic policy, use of technology and organizational and administrative issues. In recent years the World Bank has increasingly worked with the governments of developing countries to create an environment that encourages and sustains foreign investment.

### **9 Growth and equity - complementary or conflicting?**

The issue of equity is interlinked with development in two ways. One is the line that developing countries have a low-per capita income, i.e. that income distribution is uneven between countries. We have looked into this aspect already. The other is that in each country equity is an issue. Thus, in low-income countries a larger proportion of the population lives below \$ 1 (purchasing parity power) dollar per day, for instance 70.8 percent in Nigeria, 72.3 percent in Mali and 35.3 percent in India. The question is how growth and equity are interrelated.

In a historic perspective, economic growth has been the vehicle through which the economic situation of the overwhelming majority of groups in society has improved in the development process of the industrial countries over the last two hundred years. Real income rose, working time was reduced considerably, living conditions improved, health care was introduced and enhanced, access to education (including university education) was opened up and the vertical mobility of people in an open society helped to dissipate the benefits of growth to a wide part of the population. Governmental schemes such as social security, initiated for instance in Continental Europe in the last quarter of the 19<sup>th</sup> century, significantly reduced unprotected risks in particular in the cases of illness and old age, later on extended to unemployment. Redistribution through taxation and government spending was included later on. Growth came first, equity corrections followed later. In this direction, growth and equity were complementary. Groups and generations had to offer sacrifice so that their children could have a better life. Or they had to offer a sacrifice in the first stages of their lives to have a better life at old age. The Pareto criterion, according to which a situation represents an improvement if people are better off and no one is worse off, unknown in the 19<sup>th</sup> century, was not an orientation for growth policy. Even in the reconstruction of Germany after World War II, the target of economic growth came first, “*Wohlstand für alle*” (Prosperity for all) was an implication of growth. Economic expansion was the means through which the lives of people improved.

The 19<sup>th</sup> century proposition of Marx to abolish private ownership and to expropriate the capital owners - an attempt for a political answer to the issue of poverty and deprivation - failed. Eventually, the communist countries were not able to adequately provide their citizens with goods. In the developing world of the 1960s and 1970s, where communist ideas were attractive to the intellectuals, where they provided a guiding philosophy for economic policy as in India and where they represented the ideological power base of dictators as in Africa, the ideas of communism eventually lost appeal when it became apparent that the implementation of communist concepts did not perform in the Soviet Union and the COMECON countries. In the industrial countries, the process of growth was fostered by democracy, which as an institution helped to open up society and to respond with institutional changes. New entrants including minorities such as immigrants as to the United States and redefined the position of the group of incumbents (land owners, capital owners relative to workers in Europe). In this interpretation,

the approach was successful. Admittedly, these institutions were unable to prevent two World Wars, Nazism in Germany, and – more closely related to economics – the great depression in the early 1930s and – at the actual rim – the excessive welfare state with its shockingly high unemployment rate.

In spite of these political failures, growth continues to be the way out of poverty and low income. However, today more explicit requirements on the growth process are put forward. Equality of starting conditions in a person's life or the principle of equal opportunity is such a widely accepted obligation. It demands that a person's economic, social or political success should not be predetermined by the conditions of birth, race or gender, but should reflect his or her efforts and talents (World Bank 2006b, p.18). Access to health care and education, the quality of the services available and most generally, the openness of institutions and the vertical social and income mobility in a society are seen as major factors in determining to what extent equal opportunity exists. The principle of equal opportunity helps to make optimal use of all the talents in society and to bring into play all the potential effort that is available. It therefore should have a positive impact on economic growth. It is more explicit than asking for an open society with vertical income and social mobility. Admittedly, inequality traps exist. Often, discretionary decisions controlled by groups in the access to services, for instance to university education, are at the root of inequality traps. In contrast, markets with an anonymous allocation decisions as a rule allow free entry.

Equality of starting conditions does not mean equality of outcome. The goal of equality of outcome for each individual, irrespective of talent and effort, would induce the wrong incentives into the economic system. People would rely on others to provide effort and to improve the general outcome so that they can benefit, without making a proportional effort themselves. Nevertheless, societies may opt to exclude outcomes that they do not want, even if they give all individuals or groups their fair chance according to the equal opportunity principle. The World Bank (2005b, p.19) calls this the avoidance of absolute deprivation. With respect to this principle, the relationship to growth is less clear. It can be argued that absolute deprivation is inhuman, it can be argued that the protection of the neediest is an expression of the Rawlsian principle of inequality aversion, and it can be argued that a society without some minimal form

of social protection is politically unstable. At the same time, the principle is open to interpretation.

A core question in the context of equity and growth is to what extent some groups have to lose in order to encourage growth. In an intergenerational context, the parent generation may be willing to sacrifice in order to allow a better life for the generation of their children. The institutional change necessary for growth often does not satisfy the Pareto criterion that no person (or no group) loses. For instance, in the change from Communism to a free society, the old power elite had to go. The civil rights movement in the US had to tear down privileges of others. Overthrowing apartheid in Africa meant that groups had to give up their positions as incumbents.

Markets are often segmented, especially capital and labor markets. Even informal markets are segmented, the reasons being social and cultural origins, clan or tribal membership and economic factors such as a lack of risk evaluation through infant financial markets. Consequently, groups are excluded from market processes. Human resources are not used. Privileged positions of incumbents gives rise to political risks of governments being overthrown instead of a due accepted democratic process. This increases uncertainty and reduces capital formation. Privileges mean a privileged access to life resources such as water. This hampers the health of people and lowers the growth potential. For all these reasons it is important that market segmentations be abolished.

### **10 A high external debt burden as an impediment for growth**

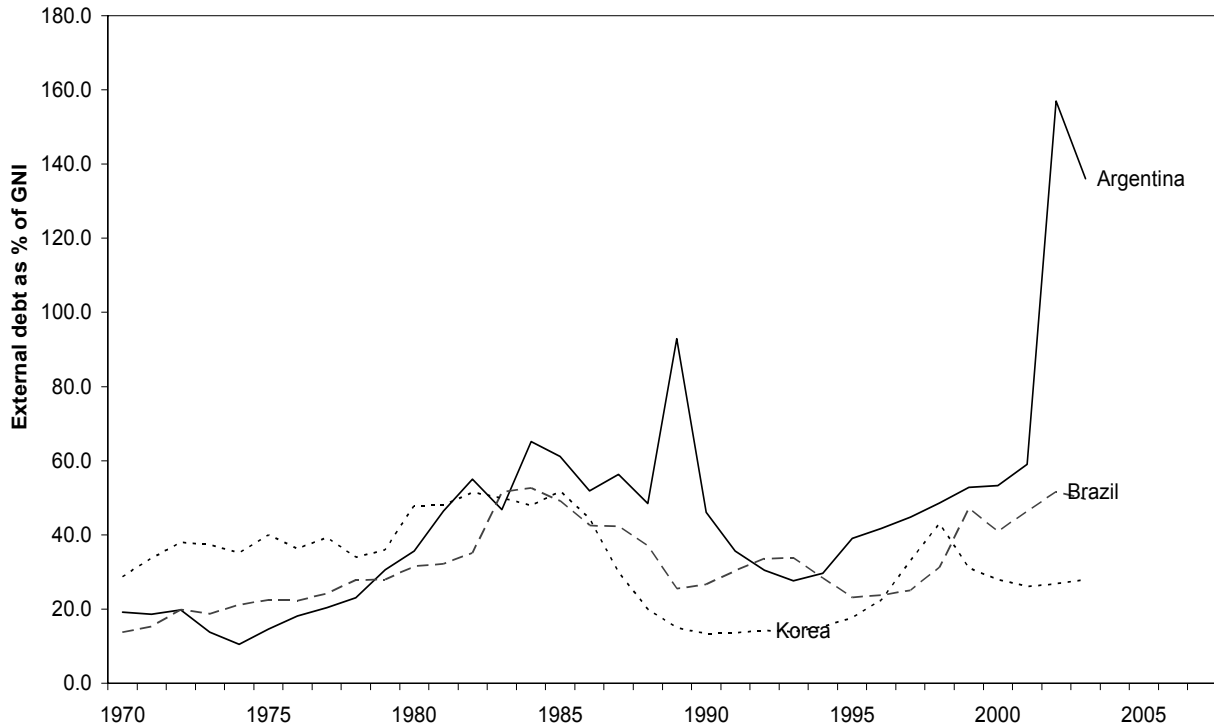
A high level of foreign debt represents a hefty burden for a country. It includes an obligation to pay interest and to repay the debt. Export receipts cannot be used to finance the import of investment and consumption goods. It thus reduces a country's maneuvering space. Besides, indebted countries have to pay a risk premium on their loans. Moreover, a country with high debt is vulnerable. Usually, external debt of developing countries is denominated in foreign currency (so-called "original sin" problem). If the foreign currency appreciates and if the interest rate in

international market rises, for instance because of a shift in monetary policy, the debt burden increases. Finally, external debt can lead to a currency crisis. If financial markets lose confidence in the performance of a country, capital inflows may stop and capital flows may even reverse, forcing the domestic currency to devalue abruptly and markedly. This has severe repercussions on the real side of the economy.

Latin American countries experienced a severe debt crisis in the 1980s. For example, the volume of foreign debt in Argentina reached 61 percent of its gross domestic income in 1985; Brazil was at 49.1 percent (Figure 5). Net foreign debt in relation to exports of the 17 most indebted countries was at 384 percent, in comparison to the 200 percent which is considered to be acceptable by some analysts (Cline 1995). Interest payments are one important reason for a negative current account. New credits have to be raised so that countries are able to pay interest. The new credits are used to finance the budget deficits of the state rather than to create a new capital stock. They are used for consumptive purposes and not for investment.

Once the financial markets realize that a country is not able to service its interest and repayment commitments, then the markets lose the willingness to provide the country with credits, i.e. capital. A minor disturbance can cause the financial markets to no longer provide fresh capital. With the expectation of a devaluation, capital flight sets in. The prices of bonds of highly indebted countries fall. Normally, bank syndicates and international organizations have to provide a fresh starting position for new capital. Creditors lose a considerable amount of their claims by accepting a write-off on their debt (Brady Plan).





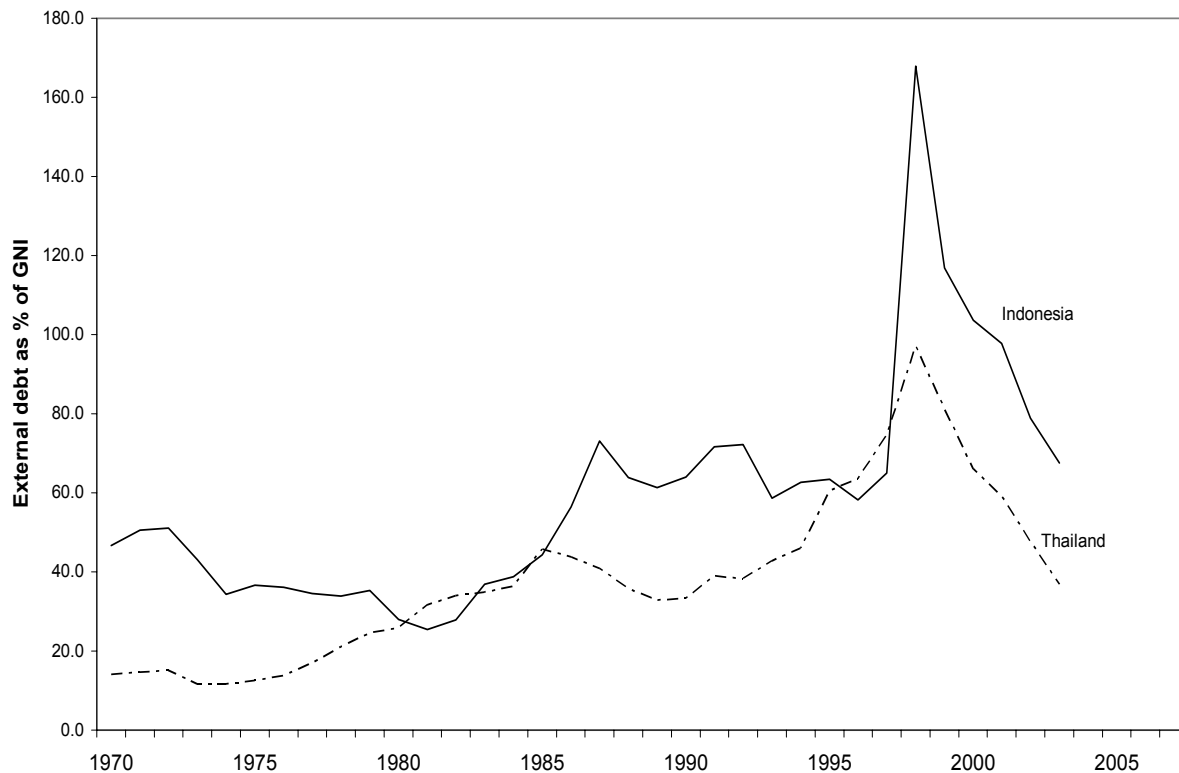
**Figure 5** Debt of Argentina, Brazil and South Korea, 1970–2003 (in percent of GNI )

Source for data: World Bank, *World Development Indicators*. CD Rom 2005.

The debt crisis of the 1980s is no longer in the spotlight, if it is interpreted as a crisis of insolvency (rather than lack of liquidity) of the middle-income countries. But debt is still a major issue for the indebted Latin American countries. In 2001, Argentina defaulted on its \$ 100 billion foreign debt. Argentina has reached nearly double the level of foreign debt in GNI (with 136 percent of GNI in 2003) in the aftermath of its currency board crisis. Its debt is 576 percent of its export revenue and it uses 38 percent of its export revenues to pay the interest on its net foreign debts and repay the principal. At the current rate, Argentina needs 15 years until its debt is repaid. For Brazil, the debt level with 54 percent of GNI is higher in 2004 than in the mid 1980s. It has to use 64 percent of its export revenues to for pay for interest. Both countries are in a fragile position if the Fed's increase in the short-term rates transmits into a rise of long-term interest rates.

The Asian countries Korea, Malaysia, Thailand and Indonesia experienced the damaging effects of debt exposure during the Asian Crisis. This crisis differed from Latin American crises in so far as in Asia debtors and lenders were both private agents whereas in Latin America debtors were mostly states or para-states. This did not only bring new causes for the crisis to the agenda, such as private over-investment and imprudent lending of local banks. It also raised new problems when coping with the crisis such as implicit bail out expectations and moral hazard behavior of the private financial sector. Asian countries had similarly high debt levels in percent to GNI as the Latin American countries in 1985 (Korea 51.7, Malaysia 68.8, Thailand 45.8 and Indonesia 44.4). However, they were not affected by such debt crises in the 1980s as the Latin American countries. But in 1996, before the Asian crisis broke out, vulnerability was looming with the debt levels of 63.5 in Thailand and 58.3 in Indonesia. Even Korea and Malaysia were affected with only 22.3 and 41.3 percent of GNI, respectively. Then in the aftermath of the Asian debt crisis, in 1998 the debt levels rose to 167.9 percent in Indonesia, 97.2 percent in Thailand and 43 percent in Korea. Meanwhile, by 2003 the Asian countries have managed to nearly halve their debt levels to 36.9 percent in Thailand, 67.5 percent in Indonesia and 28.0 percent in Korea (Figures 5 and 6). This is in stark contrast to the Latin American countries. But still Indonesia is at a debt relative to GDP higher than those of the Latin American countries during the debt crisis. Note that the transformation countries in Central and Eastern Europe are approaching the 60 percent mark of the euro zone (Czech Republic 40, Hungary 58, Poland 46).

It is an open question how high debt should allowed to be. The euro area has set a limit for public debt of 60 percent to GDP. The concept is to prevent a situation where the debt situation becomes non-stationary so that a spiraling upward of public debt is unavoidable. The euro criterion applies to internal and external debt, but in the euro area most of the debt is internal debt. Taking this mark as a reference value, the limit for external debt should be lower, especially for developing countries, say around 40 percent. Even this limit will not represent a protection in an environment when contagion is likely as in the 1997 Asian financial crisis and when the current account becomes negative, as in the case of Korea.



**Figure 6** Debt of Indonesia and Thailand, 1970–2003 (in percent of GNI)

Source for data: World Bank, *World Development Indicators*, CD-Rom 2005

**Table 3** Foreign debt of selected countries, 2003

Countries	External debt in percent of		<i>Debt service in percent of exports</i>
	GNI <sup>a</sup>	Exports <sup>b</sup>	
Argentina	115	576	38
Bolivia	37	149	21
Brazil	54	296	64
Chile	67	169	30
Mexico	25	88	21
Korea	28	70 <sup>c</sup>	12.5
Malaysia	56	43	8
Indonesia	71	185	26
Philippines	81	172	22
Thailand	41	54	16

<sup>a</sup> Present value of external debt. – <sup>b</sup> Calculated as debt/ (export share x GDP). – <sup>c</sup> Total debt in percent of exports

Source for data: GNI: World Bank, *World Development Report 2006*, Table 4; Debt service: World Bank, *Development Indicators*.

***11 Macroeconomic instabilities as an impediment to growth. The experience in Latin American countries***

Macroeconomic instability has been a special problem for the newly industrializing countries in Latin America, for example with exorbitantly high inflation rates of 3,006 percent in 1990 for Argentina or 2,954 percent in the same year for Brazil. Such high inflation rates are correlated with an unusually high expansion of the money supply, for instance of 4169 percent in the case of Argentina. The devaluation of the currency was similarly high, with 4736 percent. The second half of the 1980s was characterized by high inflation rates (Table 4). Besides the high inflation rate another major problem is the volatility of the inflation rate, i.e. massive shifts in the rate. Most of the time, high public deficits and current account deficits occur simultaneously. This can be explained by insufficient institutional conditions for macroeconomic stability!

*Table 4* Macroeconomic instability in selected countries, 1985–2004

	<i>Expansion of the money supply<sup>a</sup></i>	<i>Inflation rate<sup>a</sup></i>	<i>State budget<sup>b</sup></i>	<i>Current account balance<sup>b</sup></i>
<i>Argentina</i>				
<i>1985-1990</i>	<i>181.1</i>	<i>192.9</i>	<i>-2.1</i>	<i>-1.2</i>
<i>1991-1995</i>	<i>19.5</i>	<i>9.9</i>	<i>-0.5</i>	<i>-2.5</i>
<i>1996-2000</i>	<i>1.0</i>	<i>-0.2</i>	<i>-2.0</i>	<i>-3.9</i>
<i>2001-2004</i>	<i>42.0</i>	<i>13.3</i>	<i>-0.5</i>	<i>3.8</i>
<i>Brazil</i>				
<i>1985-1990</i>	<i>201.5</i>	<i>204.5</i>	<i>-12.7</i>	<i>-0.3</i>
<i>1991-1995</i>	<i>219.9</i>	<i>214.7</i>	<i>-4.9</i>	<i>-0.3</i>
<i>1996-2000</i>	<i>14.3</i>	<i>5.2</i>	<i>-4.9</i>	<i>-4.0</i>
<i>2001-2004</i>	<i>15.2</i>	<i>9.4</i>	<i>- 3.9<sup>c</sup></i>	<i>-0.9</i>
<i>Mexico</i>				
<i>1985-1990</i>	<i>52.3</i>	<i>52.8</i>	<i>-8.5</i>	<i>-0.7</i>
<i>1991-1995</i>	<i>8.4</i>	<i>15.1</i>	<i>1.4</i>	<i>-5.0</i>
<i>1996-2000</i>	<i>20.4</i>	<i>14.6</i>	<i>-1.1</i>	<i>-3.1</i>
<i>2001-2004</i>	<i>55.1</i>	<i>46.1</i>	<i>-1.2</i>	<i>-1.8</i>

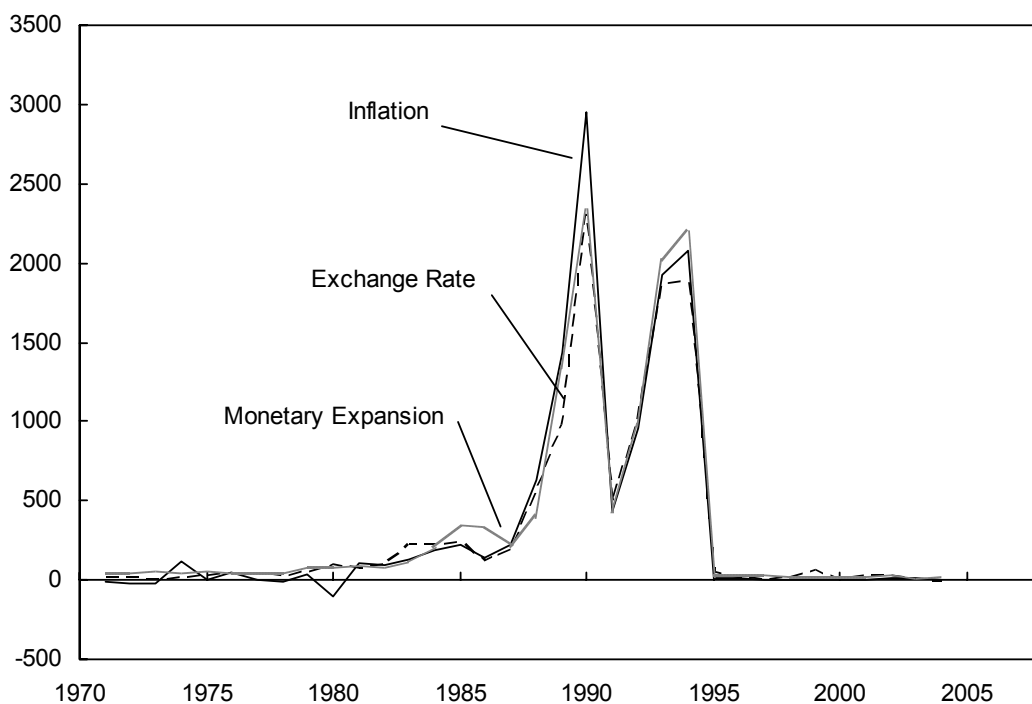
<sup>a</sup> Expansion of the money supply and inflation rate in percent.- <sup>b</sup> Budget deficit and current account balance in percent of GDP.- <sup>c</sup> Budget deficits for 2003 and 2004 Central Bank of Brazil.

Source for data: IMF, *International Financial Statistics*, September 2005.

## Money expansion and inflation

The correlation between the expansion of the money supply and inflation can clearly be seen for Argentina and Brazil (Figure 7). Argentina managed to get the expansion of the money supply under control and stabilize the price level with the introduction of the currency board in the 1990s and to keep the price level stable. Yet, dollarization always remained high in Argentina even during the first half of the 1990s when the currency board was not yet under pressure thanks to a positive development of fiscal revenues after privatization. However, the currency board, having been started in April 1991, had to be given up in December 2001 after the fiscal position had massively deteriorated.

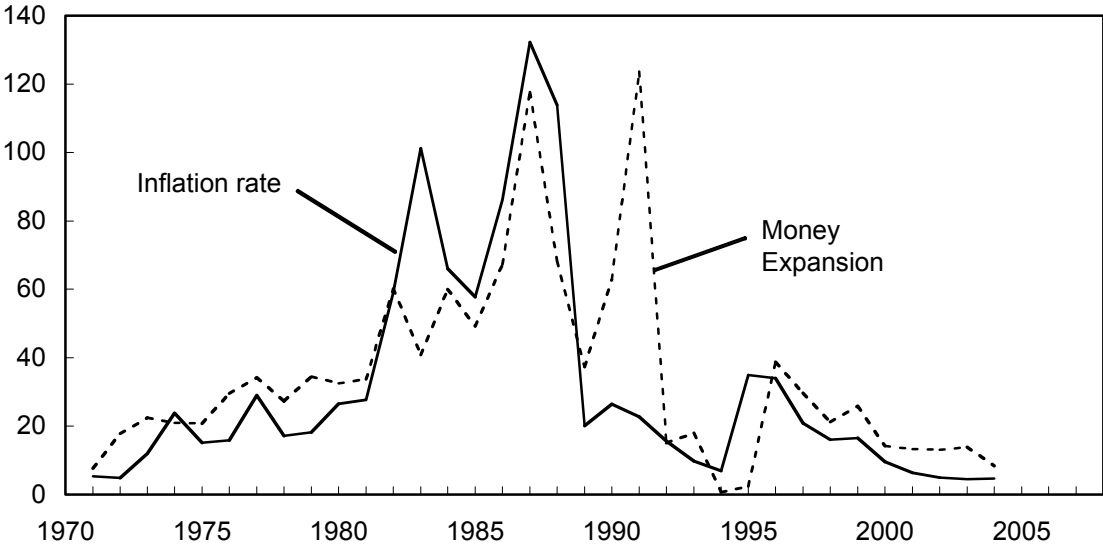
Usually, inflation has an effect on the exchange rate, although the impact might be delayed temporarily. This results from the purchasing power parity  $w = \hat{P} - \hat{P}^*$ . For instance, the peak of the inflation rate in Argentina in 1989 and 1990 is related to a visible devaluation of the peso).

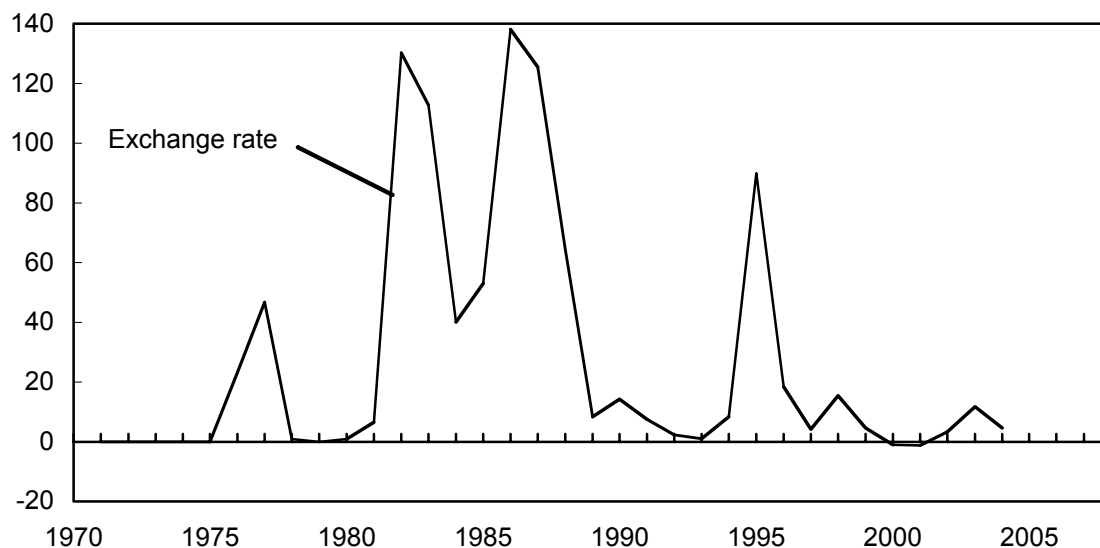


**Figure 7** Money expansion, inflation and the exchange rate change (in percent), Brazil, 1970–2003

Source for data: IMF, *International Financial Statistics*, September 2005; IMF, *Country Report Brazil* (2003); Annual Report by the Central Bank of Brazil (2005).

Brazil has seen several bouts of currency devaluation. At the beginning of the 1980s a strong devaluation took place. The money supply continued to expand and the price level kept rising. This was the time when the debt crisis began. The other phases of devaluation were marked by currency reforms. In the mid-1980s the cruzeiro was replaced by the cruzado. Its exchange rate was regularly devalued in the framework of a crawling peg. The cause of the monetary reform was an internal imbalance with a budget deficit of 11 percent of GDP in 1985, financed by the Central Bank of Brazil. In 1990, the cruzeiro was introduced once again and was devalued by floating. Now, the cause was an external imbalance accompanied by a drop of foreign capital inflows. Finally, with a new monetary reform in 1993 the real was introduced. The Brazilian financial crisis of 1999, in which the real was devalued by 64 percent, shows up in Figure 7 with a tiny peak only because this devaluation of the real was low relative to the Brazilian long-run experience.





**Figure 8** Money expansion, inflation and the exchange rate change (in percent), Mexico, 1970–2004

*Source for data: IMF, International Financial Statistics, September 2005.*

In Mexico (Figure 8) the connection between the expansion of the money supply and the inflation rate is also evident. Thus, during the debt crisis in the beginning of the 1980s, the increase in the inflation rate was high while at the same time – as in the case of Brazil – a strong devaluation took place. A drop in the inflow of foreign capital was visible in the mid-1980s and in connection with the peso crisis at the end of 1994. Unlike Brazil, the strong expansion of the money supply in the early 1990s surprisingly had at first neither an effect on the price level nor on the exchange rate. This might be the temporary result of the policy of an active crawling peg, attempting to stabilize the expectations on the foreign exchange markets. But if for a period of time the rate of change of the price index is higher than in the reference country (i.e. the US) as in 1983 and 1984 and in the period from 1988 to 1994, there has to be a realignment of the nominal exchange rate (compare also with Figure 8.4). In 1994, the peso crisis occurred and the peso devalued drastically (by 47 percent). After 1995, money expansion was much lower, the inflation rate declined and the exchange rate remained more or less stable, except for 2003.

Chile pursued different exchange rate policies. During 1980–1981, a policy of fixed exchange rates was followed. This was combined with a real revaluation. This approach could no longer be

sustained after the outbreak of the debt crisis. After a period of flexible exchange rates, Chile moved on to a passive crawling peg with an exchange rate band, in which since 1989 real economic realignments were regarded as more important than the fight against inflation. The parity of the peso was regularly adjusted to a basket of currencies. In between interventions were used to keep the exchange rate within a band. In comparison to a constant exchange rate, a crawling peg has the advantage of preventing abrupt adjustments if it is applied correctly. In 1999, Chile gave up its policy of an exchange rate band and committed itself to a 2–4 percent inflation target.

### ***12 Real depreciation: A hard to use policy instrument***

Developing countries often are in a situation in which a real depreciation is one of the necessary policy instruments. This policy instrument is hard to use, since it requires that the price of non-tradables must fall in order to stimulate the production of tradables. This also implies that the price of immobile factors including wages cannot rise as in the past and often must decline. How hard this choice is becomes apparent in industrial countries, for instance in member countries of the European Monetary Union.<sup>3</sup> In contrast, developing countries can use a nominal depreciation in order to perform a real depreciation, unless they have pegged their exchange rate. But even if the nominal rate is not pegged, a nominal depreciation alone may not be sufficient to bring about equilibrium.

### **Budget deficits and the real exchange rate**

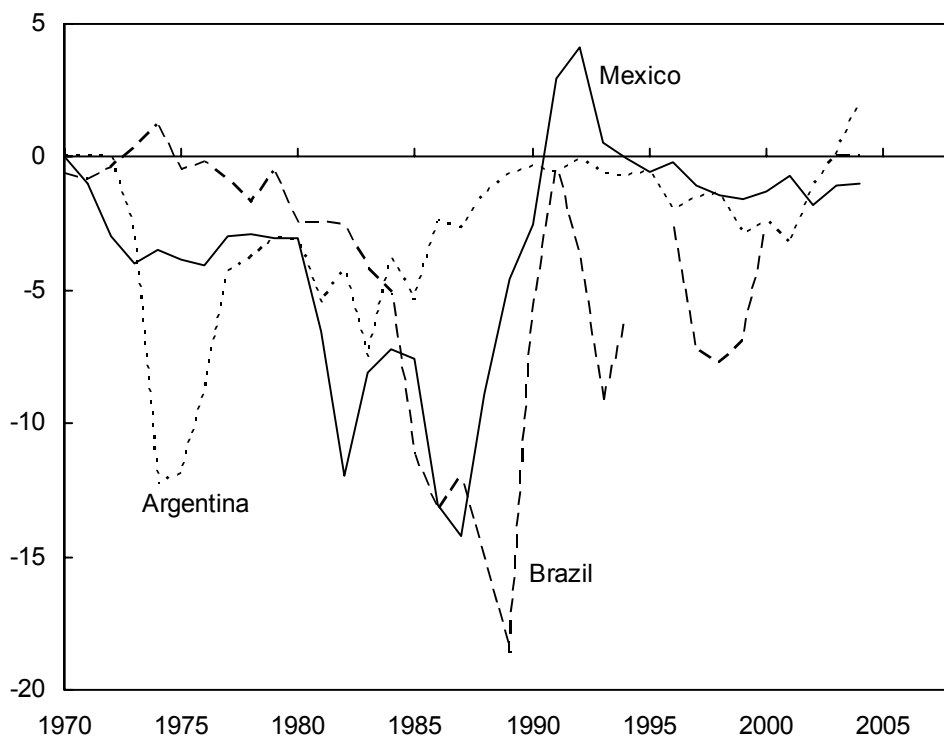
The experience of the Latin American countries shows that a stabilization policy with the exchange rate as a nominal anchor could rarely be sustained, if public budget deficits are not avoided and if inflation expectations cannot be broken due to unkept promises and inconsistent policies in the past. As a result, confidence in the stability of a currency gets lost. For instance, there was a remarkable public budget deficit in Mexico in the 1980s (Figure 9). Combined with

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<sup>3</sup> Compare Italy in 2006.



an expansion of the money supply, this was the cause for the rise of the price level and the subsequent devaluation of the peso. Although the budget deficit had been reduced by the early 1990s, the current account deficit increased after huge short-term inflows of portfolio investment and a massive real appreciation. The collapse occurred in December of 1994, when the capital flow reversed and the peso had to be devalued. At the same time, an international support program became necessary. During the 1980s, Brazil also had a significant budget deficit up to 20 percent of its GDP. Similarly, an increase of the budget deficit became visible in Argentina particularly in the first half of the 1980s. Such budget deficits signal that credible stabilization policies were not carried out. Thus, monetary policy is not the only cause that the nominal exchange rate as an anchor did not function. The nominal anchor will also be affected when populist economic policies prevail, dominated by income distribution considerations and consumptive spending of the government. A lack of flexibility in the labor market as well as wages that do not correspond to labor productivity also make a stabilization policy more difficult in the long run.



**Figure 9** Budget deficits of Argentina, Brazil and Mexico, in percent of GDP

Source for data: IMF, *International Financial Statistics*, 2005

### **Instability and the real exchange rate**

Fixing the nominal exchange rate does not imply a constant real exchange rate. The real exchange rate differs from the nominal exchange rate in that the nominal exchange rate is weighted by a ratio of goods prices. Very often the domestic inflation rate is higher than the foreign one. Then, a real appreciation takes place.  $P$  rises stronger than  $P^*$ . The real exchange rate  $e_R = eP^* / P$  falls. This is also valid for a crawling peg if the devaluation rate does not fully compensate the difference between the internal and the external inflation rate. A real appreciation can turn out to be even stronger if high net capital inflows occur. As we can see in the discussion on currency crises, a stark deviation of the nominal and the real exchange rate will eventually require a correction. Then, a real depreciation has to take place. Normally this means a nominal devaluation and very often a currency crisis in which the peg is given up

Although the Latin American countries have been successful in establishing macroeconomic stability for some time now, the question is whether this stability will last or whether a new crisis will occur, thus making new stabilization efforts necessary. Debt is high in some countries; budget deficits in the early 1990s are low with the exception of Brazil. Because of political constraints, too often there are deviations from the stabilization programs. This happens because institutional changes are insufficient to keep the expansion of the money supply at a low level in order to assure a constant money value. The volatility of the price level and of the exchange rate will remain the Damocles sword of Latin America.

### **Expenditure reduction and expenditure switching**

The real exchange rate is an important variable that influences both the equilibrium of the balance of payments and the internal equilibrium of the goods market. As a relative price, it determines absorption, i.e. consumption and investment, production, exports and imports. If the ratio refers to the prices of foreign and domestic goods, the real exchange rate, i.e.  $e_R = eP^*/P$ , provides information on the production incentives for domestic goods relative to foreign goods. If the real exchange rate is defined alternatively and if the ratio refers to the prices of tradable and of non-tradable products, i.e.  $e_R = eP^*_T/P_{NT}$ , the information signal is on incentives for the production of tradables relative to non-tradables.

## Figure 10 The real exchange rate

A case in point are developing countries with a current account deficit, which they have to reduce. Such a situation can be seen in Figure 10. The real relative price  $eP_T^*/P_{NT}$ , i.e. the real exchange rate ( $Q_{NT}/Q_T$ ) is given by the tangent of the angle  $\alpha$ . The country's production point is  $D$  and the consumption point is  $F$ . The country absorbs more than would be feasible according to its production conditions. There is a trade deficit between demand and supply of the tradable  $DF$ . If the deficit is to be reduced, there are two possible ways.

First, absorption can be reduced (expenditure reduction, movement from  $F$  to  $D$ ). For instance, government demand can be reduced. Higher taxation can cut down private consumption (then, with given relative prices and a homothetic utility function, the point of consumption is on a line  $OF$ , not drawn in the figure).

Second, the country could carry out a real devaluation, i.e. the real exchange rate has to increase in order to reduce the deficit of the current account (expenditure switching, movement from  $D$  to  $G$  along the transformation curve). This implies that the price of tradable goods denominated in national currency rises relative to non-tradable goods resulting in a change of the sector structure in favor of the tradable.

After a real depreciation, it is more profitable to expand the production of tradable goods, and the production of non-tradable goods decreases. Owing to the change of relative prices there is a reallocation of resources towards tradable goods (export goods and import substitutes). The trade account is balanced in point  $G$ . The production of non-tradable goods has decreased and the production of tradable goods has risen. A real devaluation can be brought about by a nominal devaluation; but it can also be induced when the price for the non-tradable goods falls in the home country while prices for tradables remain constant. A reduction of the current deficit can be brought about by a combination of the expenditure reduction and expenditure switching.

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