



## The Effects of Adjustment on Education: A Review of Asian Experience

*The social costs of adjustment and considerations of distributional equity seem to have been universally neglected in World Bank-supported adjustment programmes. Where distributional outcomes were relatively benign, they were accidental.*

(Helleiner 1991, p. 535)

### 16.1 THE CONTEXT

The importance of human resource development in general, and human capital in socio-economic development in particular, has been well recognised ever since the ‘human investment revolution in economic thought’ was initiated by Theodore Schultz in 1960 (Schultz 1961). Of the various components of human capital, education and health have been found to be the most important. Accordingly, several developing and developed countries have invested huge resources in education. Education witnessed a ‘golden period’ during the 1960s with a substantial flow of

---

Published in *Prospects* (UNESCO) 27 (1) (March 1997): 85–107; expanded version in *Education, Development and Underdevelopment* (eds.: Sureshchandra Shukla and Rekha Kaul), Sage, New Delhi, 1998, pp. 99–137. © UNESCO and Sage Publications.

public investments. Both the rates of growth in enrolments and public investments in education were highest during the 1960s. This phase was followed by a decade of setbacks, with the human capital theory being jolted by critics who argued that the role of education in productivity was negligible, and that education served only as a screening device and a mechanism for awarding credentials (Arrow 1973; Spence 1973).

But the setback proved to be only temporary. The screening and credentialism theories lacked empirical support, and the ‘hardcore’ aspects of human capital theory remained intact. Accordingly, the basic tenets of human capital theory have been the least questioned. A slow and steady re-emergence of faith in human capital marked the 1980s. Both developing countries and international agencies began paying serious attention to investment in human capital. The contribution of education to economic growth is found to be positive and significant, when measured not only in monetary terms, but also in physical terms, such as agricultural efficiency, labour productivity, etc. The contribution of education has also been found to be significant not only for economic growth, but for poverty reduction, improvement in income distribution, and for various dimensions of social, demographic and political development (Tilak 1989a, 1994a). The relative significance of human capital has also been found to be higher in developing countries and among poor people, than in developed countries and rich people (Psacharopoulos 1984, 1994). But, as national and international agencies began expressing their commitment to education and their faith in human capital for development, the world economic crisis was unveiled with the first and the second oil crises, inflation, mounting foreign debt, structural adjustment and readjustment policies, and recessionary trends. Very soon it was realised that the last decade of the century—the 1990s—was going to be the decade of containment.

The decade of containment in certain Asian countries, such as India, began with the introduction of new economic policies, commonly known as ‘adjustment policies’, associated with the World Bank and the International Monetary Fund (IMF). It is strange that, while many countries had adopted these policies after long periods of economic problems, including balance of payments crises, India had to resort to such policies rather suddenly became an adjusting country with the introduction of a package of sweeping policy reforms in July 1991. These policies have been hailed by some as the most promising ones to

make economies like that of India into 'a tiger', and at the same time criticised by others as a signal of derailment from the Nehruvian path of planned development and welfare in India.

Such reforms are being implemented in as many as 105 countries. But, unfortunately, these policies are neutral to time as well as to space. *Inter alia*, they seem to question the dominant role of the State in development, and to encourage an increased role for the market mechanism. They also specifically stress reductions in government expenditures. The most direct consequence would be a drastic reduction in public subsidies across the board, although reduction need not necessarily be—and most often is not—uniform across all sectors. These economic policies are feared to have an adverse effect on all sectors of the economy. The effects of these reforms were found to vary significantly across the three major developing continents: Africa, Asia and Latin America. Latin America fell into a debt trap and Africa suffered very severely in standards of living and levels of educational development in particular. The experience of Asian countries, however, is generally believed to be different, and that of East Asian countries indeed favourable. Due to this, many countries seem to be keen on emulating the East Asian experience. Hence, a review of Asian experience may be of particular use.

But a majority of studies have focused their attention on African and Latin American countries, and not much documentation exists on Asian countries. This chapter is an attempt to fill this gap in research and information. Such a review may also benefit the Asian countries that have just adopted, or are likely to adopt, similar adjustment policies, as well as countries in other regions of the world. It may also benefit the financial lending institutions that may be examining the need for a modification of their policies in Asian countries.

With the help of some readily available data collected from UNESCO and World Bank publications, and some recent research studies, a few comparisons are made in the following sections between the adjusting and the non-adjusting countries in the development of education, following the classification of countries made by Kakwani et al. (1990). The aim is to examine whether there is any discernible difference in educational development trends between the adjusting and the non-adjusting countries. For this purpose, a select list of indicators on educational development has been chosen, concentrating on the allocation of financial resources, growth in enrolment ratios, and on quality and equity. The focus of discussion is

also biased in favour of primary education. But, first, a brief discussion on how education is generally treated during periods of crisis and austerity.

## 16.2 EDUCATION UNDER ECONOMIC AUSTERITY

### 16.2.1 *Investment in Education*

Generally, *the relationship between investment in education and the state of the economy is not simple and straightforward*. Under normal conditions of economic well-being (including situations of economic progress), the allocation of resources to education is generally found to be the least significantly influenced by economic factors. Economic ability factors, such as gross national product (GNP) per capita and public spending on education, are not significantly related. Economically poorer societies, like Kerala in India and Sri Lanka in South Asia, spend a higher proportion of their GNP on education than many economies that enjoy higher GNP or higher income per capita (Tilak 1984, 1986). Efficiency criteria, such as the rate of return on educational expenditure, are not significantly related to levels of public spending on education (Tilak 1982). Further, neither the manpower needs of the economy nor even social factors, such as constitutional directives on the universalisation of elementary education and widespread levels of illiteracy, guide educational planners in their decisions on investment in education (Tilak 1980).

On the other hand, there seems to be a strong and positive relationship between economic conditions and public investment in education during crisis periods, such as adjustment periods. Worsening economic conditions do have a strong influence on the allocation of resources to education, as policymakers find education an easy scapegoat under such circumstances. Moreover, the nature of investment in education is not widely recognised. Expenditure on education is still treated not as investment that needs to be expanded, but as consumption, a social burden, even as social welfare where economies need to be made, and the tighter the general problems the more needs to be saved. That the benefits of education are not tangible and not immediately evident contributes to the tightening of the flow of resources to education. As a result, education becomes a highly vulnerable sector under deteriorating economic conditions (see Tilak 1989b, c, 1990b).

Thus, while under normal economic conditions there does not seem to be any significant relationship between the economic situation and public investment in education, under worsening conditions there seems

to be a strong positive relationship, with a deterioration in both the economy and investment in education.

### 16.2.2 *Priorities*

*During periods of economic deterioration, priorities become distorted, and some desirable aspects of education are traded off for some avoidable and unacceptable aspects.* In most modern political systems, popular pressures are important. No modern welfare State can afford to face popular unrest and the associated consequences of closing down the human development sector, such as educational institutions, even during a severe economic crisis. Gripped by the two forces, i.e., worsening economic conditions on the one hand, and sociopolitical popular pressures for educational expansion on the other, policymakers make a few trade-offs.

First, *the quality of education gets traded off for quantitative expansion.* Policymakers find a compromise solution for apparently maintaining the status *quo* by satisfying the quantitative demand fairly well, by diluting the quality of education as reflected through the inadequate allocation of physical and monetary resources for programmes and activities that are related to improvement in quality. More and more schools, colleges and even universities get opened, but with insufficient teachers and inadequate allocations for buildings, classroom materials, books, libraries, laboratory materials, etc. As a result, not only schools, but also colleges and universities are found to be under-funded, in impoverished physical conditions, opening in dilapidated buildings and in sheds and open spaces with no furniture. Underqualified or untrained teachers would get appointed. Brief crash courses receive preference over long-duration programmes, and short-term training programmes over long-term training programmes, and so on. In other words, resources get spread very thinly, adversely affecting the quality of education.

Secondly, *equity in education is traded off for quantity.* Although total enrolments increase due to the existence of a large unmet demand for all levels of education (particularly higher education), the internal composition of enrolments undergoes a drastic change. The distribution of student enrolments moves in favour of higher income groups to the detriment of socially and economically weaker segments of society. Although total public expenditure on education might increase, the allocation for items such as scholarships for the disadvantaged and student welfare in general is reduced. Total numbers of schools might increase, but special schools exclusively intended for poorer sections, such as

*Asbaram* schools in India, and hostels for the disadvantaged, etc., will not increase; they may in fact decline. Equity thus appears to be sacrificed in favour of quantitative expansion.

Thirdly, under economic austerity, it is mostly the sectors that benefit the relatively middle and upper income groups get protected, *even at the cost of the sectors relating to mass education* (see Tilak 1990a). Investment priorities generally shift from primary education, adult education and other mass education programmes to higher education. Literacy programmes may pass into oblivion in favour of expansion of the university sector. In societies where higher education is relatively democratised, with a large number of students coming from lower- and middle-income groups, higher education also suffers. This is due to several factors, including the vested interests of the ruling class- the politicians and the bureaucracy. Thus, even during periods of economic crisis, the rates of growth in elite higher education institutions would be higher than those in mass education.

Fourthly, *apparent expansion takes place along with hidden erosion in public investments*. Although increases in total allocation for education may be reported, they tend to be in current market prices, whereas in real prices there could be a significant decline. This has happened in annual budgets, and also (quite unbelievably) between the third, fourth and fifth five-year plan outlays for education in India (see Tilak 1995, 1996). Due to popular pressures and populist strategies, the wages and salaries of teachers and other staff in educational institutions increase, but only in monetary terms, and the increase would normally be less than the increase in prices, resulting in a decline in real terms. Thus, hidden erosion actually takes place in public investments although, on the face of it, one may find significant increases.

### 16.2.3 *Undesirable Policies*

Thirdly, *in the process of seeking new strategies and methods of funding education, certain undesirable methods get approved and legalised*. Recent policies and policy shifts with regard to foreign assistance to education (see Tilak 1995) and privatisation in India testify to this. Countries that have previously refused external assistance on political, social, economic and educational grounds, relax their policies and seek external assistance (see Tilak 1993). The whole approach towards foreign aid for education changes, as is the case in India.

Privatisation of education of all different forms (see Tilak 1991, 1994c) takes place in a big way, including: (a) an 'extreme' degree implying total privatisation of schools, colleges and universities managed and funded by the private sector, with little government intervention, and motivated by profit (e.g., capitation-fee colleges in India); (b) a 'strong' form of privatisation, which implies recovery from students of the full or very substantial cost of even public education; (c) a 'moderate' form of privatisation, implying public provision of education but with a reasonable level of financing from non-governmental sources through increased student fees, student loans, taxes, etc.; and (d) 'pseudo' privatisation, characterised by private schools and colleges receiving nearly all of their expenditure from the government, thereby causing distortions in the allocation of public resources. All these forms of privatisation get approved and encouraged by the government and society at large.

### 16.3 ADJUSTMENT IN ASIA

Due to the consistently worsening economic situation, and deteriorating financial conditions and of governments in particular, together with long-term and extremely complicated problems, since the beginning of the 1980s several countries have embarked on adjustment policies. These policies have produced mixed effects on various social and economic sectors of the countries concerned. It has been mainly found that the effects of this 'blunt instrument' are adverse and 'heavier' on social sectors, notably education, than on other sectors. Decline in public investment in education (total, and per student-in real and sometimes in current prices, and as a proportion of GNP, and of total government expenditure), decline in gross enrolment ratios, particularly at the primary level, and a decline in indicators pertaining to quality and equity in education have been found to be strongly associated with structural adjustment policies in several developing economies. Within the education sector, it has also been found that the axe falls more severely on primary education than on higher education, on capital budgets as compared to recurrent budgets, and on equity and quality as compared to quantitative expansion.<sup>1</sup>

What is the experience of developing countries in Asia? Although Asian countries were less severely affected by the global economic crisis of the 1970s and the 1980s, several countries were to adopt adjustment, including structural adjustment policies, having received adjustment

loans from the World Bank/IMF and also from other bilateral and multilateral institutions that insist on similar adjustment policies. The Philippines was one of the first Asian countries to adopt structural adjustment programmes, starting in 1980. Pakistan was to follow suit in 1982. Even the newly industrialising countries of East Asia that have achieved rapid economic growth 'have not been free of necessary structural adjustment' (Koo and Nam 1990, p. 261). The Republic of Korea and Thailand took their first structural adjustment loans in 1981 and 1982 respectively. In 1987, Nepal had to resort to the same practice. India is the latest entry into this arena of structural adjustment and the positive effects of adjustment are yet to be observed.

There are thus more than half-a-dozen major countries in Asia that have had some experience of structural adjustment. Several other countries, such as Bangladesh, China, Indonesia and Sri Lanka, had also taken other (sectoral/programme) adjustment loans, beginning with Bangladesh in 1980. Pakistan had taken sector adjustment loans in 1980, followed by structural adjustment loans in 1982, while in many other countries, structural adjustment loans preceded sectoral adjustment loans (see Nicholas 1988; Noss 1991, pp. 51–55). Some countries adopted adjustment-like policies 'voluntarily'. In Indonesia, for example, a series of 'adjustment' programmes were undertaken starting in the early 1980s, with currency devaluations first in 1983, and later in 1986 (Azis 1990, p. 242). Singapore underwent a phase of 'economic restoration' during 1979–84, but the programme included policy components such as wage increases, fiscal incentives and training activities that are somewhat different from other 'adjustment' programmes (Tan 1990, p. 400). Many other East Asian economies had adopted some sort of adjustment programmes even in the 1970s, if not earlier (see Agrawal et al. 1992; Kohsaka and Ohno 1996).

The remainder of the present chapter concentrates primarily on the effects of the World Bank/IMF structural adjustment programmes, since these programmes are clearly distinct from others in their nature and effects, and it is the structural adjustment programmes that have no direct reference to education or to any social sectors, but whose effects are generally found to be the most severe. With respect to these adjustment programmes, it was claimed that 'Asia as a whole achieved better results in adjustment and growth than have other regions, its experience nevertheless comprises a range of successes and failures' (Karaosmanoglu 1991, p. 412).



As in many other countries, structural adjustment policies in Asian countries did not express any explicit policy towards education. Nevertheless, educational adjustment programmes that ‘could parallel and reinforce the larger economic strategies of structural adjustment’ (King 1990) do have policy conditions on education attached to them.<sup>2</sup> During the whole process of adjustment, several Asian countries did try to protect education from the negative impact of adjustment policies; many succeeded, some achieved ‘limited success’, some ‘partial success’ or some ‘semi-success’, while others failed in their efforts.

As a consequence of the adjustment policies, while public expenditure in general, and on social sectors like education in particular, declined in many regions/countries, it has been found to have risen in most countries of the Asian region due to—or in spite of—adjustment policies. It was found, for instance, that the share of health and education in government expenditure increased between 1980–81 and 1985–87 in nine out of the ten Asian countries studied (Cornia and Stewart 1990, p. 16). Generally, it is felt that the impact of adjustment policies in Asian countries has not been as severe as in African and Latin American countries. This is partly because many of the Asian countries had adopted ‘inward’-looking policies, with less reliance on foreign debt. Other similar policies included reduction in imports (e.g., South Asian countries), penetration into export markets (e.g., mainly the newly industrialising countries of East Asia), and reliance by countries such as India and China on the expansion of domestic demand. Other countries (e.g., Philippines and Thailand) adopted policies ‘neutral’ to inward- and outward-looking strategies (see International Labour Office 1987; Lo et al. 1989; Asian Development Bank (ADB) 1992/1994).

In the long list of Kakwani et al. (1990),<sup>3</sup> Asian countries figured in only three groups: the *intensely adjusting countries* (Pakistan, Philippines, Republic of Korea and Thailand), the *post-1985 adjusting countries* (referred to here simply as *adjusting countries*, Bangladesh, China, Indonesia and Nepal), and *non-adjusting countries* (of type I) that did not need World Bank/IMF type policies and loans (Myanmar [Burma], India, Sri Lanka and Malaysia). The former two categories together are also referred to here as *adjusting countries*. Following this classification, in the present analysis, India is regarded as a non-adjusting country, although since 1991 India has adopted adjustment policies. Sri Lanka is also regarded as a non-adjusting country, although it had adopted IMF-World Bank stabilisation and adjustment policies since 1965 (Jayalath 1995).<sup>4</sup>

### 16.3.1 *Changes in Public Expenditure on Education*

One of the strongest effects of stabilisation and structural adjustment policies is found to be a reduction in public expenditure in general, and on social sectors like education in particular. This is due to the fact that stabilisation and adjustment policies aim at a reduction in deficits in public budgets, and envisage a reduced role of the State and a correspondingly enhanced role for the market mechanism. Paradoxically, some governments declare that the adequate financing of social sectors, like education and health, are 'precisely the objectives of [our] stabilisation-cum-structural reform programme' (Singh 1992, p. 31). It is argued that macroeconomic stabilisation and structural reforms release funds for public investment in sectors like education. However, with the introduction of adjustment policies, education budgets were slashed and the role of the State began to diminish in many developing countries. Asian countries are not a strong exception, as shown in Table 16.1. In Indonesia, an *adjusting* country (of the post-1985 phase), the share of education in GNP declined steeply, from 2.2% in 1985 to 1.3% in 1993. Expenditure on education as a proportion of total government expenditure also declined from 9.3 to 4.3% in 1988. Even in absolute terms and in current market prices, the 'development' expenditure on education declined from Rp. 1413 billion in 1985–86 to Rp. 1076 billion in 1988–89 (Azis 1990, p. 250). In contrast, in the Philippines, another intensely adjusting country, there has been a steady increase in the priority being accorded to education in GNP since 1980: from 1.6% in 1980 it was nearly doubled to 2.9% in 1991, but later decreased to 2.4% in 1993. In a few other intensely adjusting countries, decline did take place, but not so steeply as in the case of Indonesia. The share of education in GNP declined from 3.2% in 1987 to 2.7% in 1991 in Pakistan, and in South Korea from 4.5% in 1985 to 3.5% in 1990. In South Korea, the share of education in total government expenditure also declined from 28.2% in 1985 to 14.8% in 1992. Decline of a lesser order can be noted in Thailand: from 3.9% of GNP in 1985 to 3.2% in 1989 (it then increased to 4% in 1992), and from 20.6% in 1980 to 16.6% of total government expenditure in 1988. In China also the share of education in GNP declined, though marginally, during the post-1985 period. Among the non-adjusting countries, in Malaysia, the share of education declined from 7.8% in 1986 to 5.6% in 1991. The changes in other countries, including declines, are marginal, and somewhat normal, than could probably have happened even in the absence of adjustment operations.

**Table 16.1** Trends in public expenditure on education

|   | 1975 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|------|------|------|------|------|------|------|------|------|------|------|
| <b>As percent of GNP</b>                          |      |      |      |      |      |      |      |      |      |      |      |
| <i>Intensely adjusting countries</i>              |      |      |      |      |      |      |      |      |      |      |      |
| Pakistan  | 2.2  | 2.0  | 2.7  | 3.0  | 3.2  | 2.6  | 2.6  | 2.6  | 2.7  | –    | –    |
| South Korea                                       | 2.2  | 3.7  | 4.5  | 4.0  | 3.9  | 3.3  | 3.6  | 3.5  | 4.0  | 4.2  | –    |
| Thailand  | 3.6  | 3.4  | 3.9  | 3.8  | 3.6  | 3.2  | 3.2  | 3.6  | 3.5  | 4.0  | –    |
| Philippines                                       | 1.9  | 1.6  | 1.3  | 1.7  | 2.0  | 2.2  | 2.9  | 2.9  | 2.9  | 2.3  | 2.4  |
| <i>Adjusting countries</i>                        |      |      |      |      |      |      |      |      |      |      |      |
| Bangladesh  | 1.1  | 1.5  | 1.9  | 2.2  | 2.0  | 2.1  | 2.2  | 2.0  | 2.2  | 2.3  | –    |
| China   | 1.8  | 2.5  | 2.7  | 2.1  | 2.4  | 2.3  | 2.4  | 2.3  | 2.2  | 2.0  | 1.9  |
| Indonesia   | 2.7  | 1.7  | 2.2  | –    | –    | 0.9  | –    | 1.1  | 1.2  | 2.2  | 1.3  |
| Nepal   | 1.5  | 1.8  | 2.8  | 2.6  | –    | –    | –    | 2.0  | 2.7  | 2.9  | –    |
| <i>Non-adjusting countries</i>                    |      |      |      |      |      |      |      |      |      |      |      |
| India   | 2.8  | 2.8  | 3.3  | 3.5  | 3.2  | –    | 3.2  | 4.0  | 3.8  | 3.7  | –    |
| Sri Lanka   | 2.8  | 3.1  | 3.0  | 3.5  | 3.7  | 3.0  | 3.0  | 2.7  | 3.2  | 3.3  | 3.1  |
| Malaysia  | 6.0  | 6.0  | 6.6  | 7.8  | 6.9  | 6.1  | 5.7  | 5.5  | 5.6  | 5.5  | 5.1  |
| <b>As percent of total Government expenditure</b> |      |      |      |      |      |      |      |      |      |      |      |
| <i>Intensely adjusting countries</i>              |      |      |      |      |      |      |      |      |      |      |      |
| Pakistan  | 5.2  | 5.0  | –    | –    | –    | –    | –    | –    | –    | –    | –    |
| South Korea                                       | 13.9 | 23.7 | 28.2 | 27.3 | 26.6 | 23.2 | 23.3 | 22.4 | 25.6 | 14.8 | –    |
| Thailand  | 21.0 | 20.6 | 18.5 | 19.4 | 17.9 | 16.6 | –    | 20.0 | 19.1 | 19.6 | –    |
| Philippines                                       | 11.4 | 10.3 | 7.4  | –    | –    | 12.7 | 11.5 | 10.1 | 10.5 | –    | –    |
| <i>Adjusting countries</i>                        |      |      |      |      |      |      |      |      |      |      |      |
| Bangladesh  | 13.6 | 8.2  | 10.5 | 10.5 | 9.9  | 10.3 | 10.5 | 10.3 | 11.3 | 8.7  | –    |
| China   | 6.3  | 9.3  | 12.2 | –    | 11.1 | 12.1 | 12.4 | 12.8 | 12.7 | 12.2 | 12.2 |
| Indonesia   | 13.1 | 8.9  | 9.3  | –    | –    | 4.3  | –    | –    | –    | –    | –    |
| Nepal   | 11.5 | 12.7 | 10.8 | 10.8 | –    | –    | –    | 8.5  | 12.3 | 13.2 | –    |
| <i>Non-adjusting countries</i>                    |      |      |      |      |      |      |      |      |      |      |      |
| India   | 9.4  | 10.0 | 9.4  | –    | 8.5  | –    | –    | 10.9 | 11.9 | 11.5 | –    |
| Sri Lanka   | 10.1 | 8.8  | 8.0  | 9.4  | 10.9 | 7.8  | 7.8  | 8.1  | 8.4  | 8.8  | 7.8  |
| Malaysia  | 19.3 | 14.7 | 16.3 | 16.9 | –    | 18.5 | 18.2 | 18.3 | 18.0 | 16.9 | –    |

– Not available

Source UNESCO-a (1995 and earlier years)

On the whole, expenditure on education, as monitored by the proportion of GNP allocated to it, diminished in six out of eight adjusting countries and in four out of six such countries on which data are available, the expenditure as a proportion of total government expenditure also declined. The steepest decline is to be noted in the adjusting country of Indonesia and to a lesser degree in the intensely adjusting

countries of Pakistan (1987–91) and the Republic of Korea (1985–90). The share of education in GNP declined to a lesser extent in Thailand in the late 1980s (with a subsequent increase between 1989 and 1992) and more marginally in China during the post-1985 period. In a number of these countries on which data are available, public investment in education as a proportion of total government expenditure also declined.

However, it is not only the cut in total expenditure on education, but also the nature and quality of the expenditures subject to being cut that are important. In situations of economic hardship, it is not uncommon for current expenditure to increase at the cost of capital investments in education, as current expenditures (comprised primarily of the salaries of teaching and related staff) cannot be reduced even during adjustment and economic restructuring. Accordingly, there tends to be an increase in the relative share of current expenditure in total expenditure on education.<sup>5</sup> A similar trend is noted in some of the Asian countries (Table 16.2). This does not seem to be the case in all Asian countries considered here, as only marginal changes may be observed in the composition of educational expenditure. One notable exception is China where the share of current expenditure has increased sharply from 80.9% in 1986 to 93.9% in 1991. In contrast, in the Philippines there was a decline in the corresponding proportion for some period, followed by an increase of around 90%. In most other adjusting and other countries only marginal changes could be noted.

### *16.3.2 Allocation to Primary Education*

Under adjustment conditions, the general pattern of intra-sectoral allocation seems to favour higher education and to discriminate against primary education, as demonstrated by the decline in the relative share of primary education in educational budgets in a number of developing countries. In a few Asian countries also, similar changes can be noted, though not very consistently (Table 16.3). According to UNESCO figures, this was the case in Bangladesh where the relative share went down by 7% points from 51% in 1985 to 44% in 1992, and, to a lesser degree, in Pakistan (from 39.4% in 1980 to 36% in 1987); it however, increased in Pakistan to 47% in 1989. The decline in the Republic of Korea from 50% in 1980 to 42.2% in 1992 need not be a matter of concern, given that primary education is nearly universal.

**Table 16.2** Current expenditure on education as percentage of total expenditure on education

|                                      | 1975 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| <i>Intensely adjusting countries</i> |      |      |      |      |      |      |      |      |      |      |      |
| Pakistan                             | 69.6 | 73.1 | 74.3 | 75.1 | 75.8 | 77.0 | 76.1 | 82.7 | 86.7 | –    | –    |
| South Korea                          | 74.4 | 84.3 | 79.7 | 81.9 | 86.4 | 86.2 | 84.6 | 89.2 | 78.8 | 79.8 | –    |
| Thailand                             | 73.3 | 70.6 | 85.9 | 87.0 | 87.1 | 86.5 | –    | 83.6 | 82.0 | –    | –    |
| Philippines                          | –    | 96.0 | 93.4 | 92.0 | 89.2 | 88.6 | 84.7 | 92.4 | 88.8 | –    | –    |
| <i>Adjusting countries</i>           |      |      |      |      |      |      |      |      |      |      |      |
| Bangladesh                           | 67.4 | 66.8 | 77.2 | 74.8 | 76.7 | 77.3 | 77.4 | 79.1 | 76.0 | 79.7 | –    |
| China                                | 92.9 | 90.7 | 87.9 | 80.9 | 89.6 | 91.8 | 91.8 | 93.2 | 93.9 | 91.7 | –    |
| Indonesia                            | 77.6 | –    | –    | –    | –    | 88.5 | –    | 69.0 | 63.2 | 65.4 | 63.1 |
| <i>Non-adjusting Countries</i>       |      |      |      |      |      |      |      |      |      |      |      |
| India                                | 99.1 | 98.8 | 97.6 | 98.4 | 98.5 | –    | –    | 98.8 | 98.5 | 98.9 | –    |
| Sri Lanka                            | 93.6 | 85.3 | 76.7 | 74.5 | 79.6 | 82.9 | –    | 81.5 | 73.6 | 76.3 | 81.2 |
| Malaysia                             | 84.9 | 83.0 | 85.4 | 84.1 | 87.5 | –    | 79.1 | 77.3 | 80.2 | 86.4 | 87.8 |

– Not available

Source UNESCO-a (1995 and earlier years)

However, Pakistan and Bangladesh have a long way to go to make primary education universal. Among the other adjusting countries, one finds some increase in the share of primary education in China and Nepal. Among the non-adjusting countries, India has made a concerted effort to provide an increasingly higher share of total educational expenditures to primary education.<sup>6</sup> Finally, the share of higher education did not increase remarkably during the same period in any country of the region except India and Malaysia. In many other countries, it even declined. The decline in the share of higher education is found to be remarkable in India during the 1990s, i.e., after the adjustment policies were introduced.

More importantly, the real expenditure per pupil in primary education (as a multiple of GNP per capita) did not show any decline between 1980 and 1988 in any country, though the increase is very small; but there is a modest decline between 1990 and 1992 in China, Malaysia, Nepal, Pakistan and Thailand (Table 16.4). In contrast, higher education suffered between 1980 and 1990, with a decline in all the countries, except Pakistan, an intensely adjusting country, and India during the non-adjusting phase. More clearly, current expenditure at the primary

**Table 16.3** Percentage of intra-sectoral allocation of public expenditure on education

| <i>Country</i>                       | <i>Year</i> | <i>First level</i> | <i>Second level</i> | <i>Third level</i> |
|--------------------------------------|-------------|--------------------|---------------------|--------------------|
| <i>Intensely adjusting countries</i> |             |                    |                     |                    |
| Pakistan                             | 1980        | 39.4               | 31.0                | 18.8               |
|                                      | 1985        | 36.0               | 33.3                | 18.2               |
|                                      | 1986        | 36.0               | 31.2                | 18.2               |
|                                      | 1987        | 36.0               | 31.2                | 18.2               |
|                                      | 1989        | 47.4               | 19.1                | 18.3               |
| South Korea                          | 1980        | 49.9               | 33.2                | 8.7                |
|                                      | 1985        | 46.7               | 36.7                | 10.9               |
|                                      | 1988        | 54.1               | 31.8                | 7.0                |
|                                      | 1989        | 46.5               | 31.5                | 8.0                |
|                                      | 1990        | 44.3               | 34.1                | 7.4                |
|                                      | 1991        | 43.6               | 38.6                | 7.2                |
| Thailand                             | 1992        | 42.2               | 39.4                | 6.9                |
|                                      | 1981        | 55.1               | 25.3                | 13.3               |
|                                      | 1985        | 58.4               | 21.1                | 13.2               |
|                                      | 1987        | 59.0               | 22.9                | 11.5               |
|                                      | 1988        | 58.2               | 23.3                | 11.9               |
|                                      | 1990        | 56.0               | 21.6                | 14.6               |
| Philippines                          | 1991        | 53.9               | 21.2                | 16.3               |
|                                      | 1980        | 61.4               | 15.7                | 22.1               |
|                                      | 1985        | *                  | 74.0                | 22.5               |
|                                      | 1987        | *                  | 68.7                | 16.8               |
| 1988                                 | *           | 73.1               | 15.1                |                    |
| <i>Adjusting countries</i>           |             |                    |                     |                    |
| Bangladesh                           | 1980        | 45.3               | 29.2                | 23.0               |
|                                      | 1985        | 51.0               | 37.1                | 10.1               |
|                                      | 1988        | 46.4               | 42.3                | 8.7                |
|                                      | 1989        | 45.0               | 43.4                | 8.3                |
|                                      | 1990        | 45.6               | 42.2                | 8.7                |
|                                      | 1992        | 44.2               | 43.3                | 7.9                |
| China                                | 1980        | 27.1               | 34.3                | 20.0               |
|                                      | 1985        | 28.6               | 33.2                | 21.8               |
|                                      | 1986        | 28.5               | 33.6                | 21.0               |
|                                      | 1988        | 30.8               | 34.1                | 20.6               |
|                                      | 1989        | 31.5               | 34.4                | 18.6               |
|                                      | 1993        | 34.0               | 38.0                | 17.8               |
| Nepal                                | 1985        | 35.7               | 19.9                | 11.0**             |
|                                      | 1992        | 44.5               | 17.7                | 28.1               |
| <i>Non-adjusting countries</i>       |             |                    |                     |                    |
| Sri Lanka                            | 1980        | *                  | 91.9                | 8.9                |
|                                      | 1985        | *                  | 90.2                | 9.8                |
|                                      | 1990        | *                  | 84.3                | 13.4               |
|                                      | 1991        | *                  | 85.7                | 12.1               |
|                                      | 1992        | *                  | 81.6                | 13.7               |

(continued)

**Table 16.3** (continued)

| <i>Country</i> | <i>Year</i> | <i>First level</i> | <i>Second level</i> | <i>Third level</i> |
|----------------|-------------|--------------------|---------------------|--------------------|
| India          | 1980        | 36.9               | 24.2                | 13.5               |
|                | 1985        | 37.1               | 25.2                | 15.5               |
|                | 1986        | 35.6               | 26.0                | 15.6               |
|                | 1987        | 41.8               | 29.1                | 17.0               |
|                | 1988        | 44.1               | 31.5                | 19.8               |
|                | 1989        | 43.9               | 38.9                | 19.6               |
|                | 1992        | 38.5               | 27.0                | 14.4               |
| Malaysia       | 1980        | 35.0               | 34.0                | 12.4               |
|                | 1985        | 37.8               | 37.1                | 14.6               |
|                | 1987        | 37.9               | 37.7                | 14.9               |
|                | 1989        | *                  | 72.3                | 14.9               |
|                | 1990        | 34.3               | 34.4                | 19.9               |
|                | 1991        | 34.0               | 34.9                | 19.9               |
|                | 1993        | 34.3               | 38.7                | 17.3               |

Source UNESCO-a (1995 and earlier years)

Notes Totals may not add up to 100, as 'others not distributed' are not included here

\*Included in secondary

\*\*Includes all others

**Table 16.4** Expenditure on education per student as a multiple of GNP per capita

|                                      | <i>Primary*</i> |       |      | <i>Secondary</i> |        |      | <i>Higher</i> |       |      |
|--------------------------------------|-----------------|-------|------|------------------|--------|------|---------------|-------|------|
|                                      | 1980            | 1990  | 1992 | 1980             | 1990   | 1992 | 1980          | 1990  | 1992 |
| <i>Intensely adjusting countries</i> |                 |       |      |                  |        |      |               |       |      |
| Pakistan                             | 0.09            | 0.13  | 0.09 | 0.18             | 0.29   | –    | 1.17          | 1.57  | –    |
| South Korea                          | 0.11            | 0.12  | 0.13 | 0.10             | 0.11   | 0.13 | 0.16          | 0.06  | 0.05 |
| Thailand                             | 0.09            | 0.13  | 0.12 | 0.10             | 0.16   | 0.14 | 0.36          | 0.26  | 0.26 |
| Philippines                          | 0.05            | 0.06  | –    | 0.04             | 0.03** | –    | 0.13          | 0.11  | –    |
| <i>Adjusting countries</i>           |                 |       |      |                  |        |      |               |       |      |
| Bangladesh                           | 0.05            | 0.06  | 0.09 | 0.10             | 0.22   | 0.23 | 0.86          | 0.37  | 0.29 |
| China                                | 0.04            | 0.05  | 0.04 | 0.13             | 0.15   | 0.11 | 3.62          | 1.93  | 1.40 |
| Nepal                                | 0.10            | 0.19+ | 0.11 | –                | –      | 0.15 | 2.44          | 2.22+ | 1.61 |
| <i>Non-adjusting countries</i>       |                 |       |      |                  |        |      |               |       |      |
| India                                | 0.09            | 0.11  | 0.12 | 0.15             | 0.15   | 0.16 | 0.46          | 0.83  | 0.70 |
| Sri Lanka                            | 0.10            | 0.16  | –    | –                | –      | –    | 0.69          | 0.53  | 0.54 |
| Malaysia                             | 0.11            | 0.15  | 0.11 | 0.22             | 0.26   | 0.21 | 1.49          | 1.24  | 1.17 |

\*Includes pre-primary level

\*\*Around 1990/1988

– Not available

Source UNESCO-b (1991, 1993 and 1995)

**Table 16.5** Expenditure on primary education, 1985 (in US dollars)

|                                      | 1980  | 1985  | % Change |
|--------------------------------------|-------|-------|----------|
| <i>Intensely adjusting countries</i> |       |       |          |
| Pakistan                             | 23.6  | 28.0  | 19.13    |
| South Korea                          | 162.1 | 310.9 | 91.80    |
| Thailand                             | 53.5  | 101.7 | 90.09    |
| Philippines                          | 39.2  | 26.9  | -31.38   |
| <i>Adjusting countries</i>           |       |       |          |
| Bangladesh                           | 7.4   | 16.4  | 121.62   |
| Nepal                                | 19.6  | 13.7  | -30.10   |
| <i>Non-adjusting countries</i>       |       |       |          |
| India                                | 22.5  | 30.6  | 36.00    |
| Sri Lanka                            | 17.3  | 20.8  | 20.23    |
| Malaysia                             | 205.1 | 282.2 | 37.59    |

Source Lockheed et al. (1991)

level registered a significant increase in real terms in almost all countries of the region on which such data are available for the period 1980–85. The exceptions are only the Philippines and Nepal, where there was about a 30% decline between 1980 and 1985 (Table 16.5). In all other countries, the growth is positive and rather substantial.

### 16.3.3 Growth in Enrolments

One of the most significant and dominant effects of adjustment policies on education that is well documented is a consistent decline in gross enrolment ratios in primary education. Even Kakwani et al. (1990), who found no ‘discernible evidence’ of the adverse impact of adjustment on various social indicators, discovered that regressive trends in enrolment ratios were a notable exception. Enrolment ratios declined during the adjustment process.

Growth in enrolments (in absolute terms) in primary schools in Asian countries is mostly positive (though the rate of growth itself may be decreasing), except in those countries where (a) primary education is nearly universal, and/or (b) where the rate of growth of the population of the relevant age group is negative, which is understandable. However, a significant decline in enrolment ratios can be observed in those countries, where one expects the ratios to increase. Adjustment policies in Pakistan can be found to be associated with decreasing enrolment ratios.



**Table 16.6** Percentage of gross enrolment ratios in primary education

|                                      | 1975 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| <i>Intensely adjusting countries</i> |      |      |      |      |      |      |      |      |      |      |      |
| Pakistan                             | 41   | 39   | 48   | 44   | 45   | 44   | 44   | 44   | -    | -    | -    |
| Thailand                             | 84   | 99   | 96   | 96   | 95   | 87   | 86   | 88   | 99   | 98   | -    |
| <i>Adjusting countries</i>           |      |      |      |      |      |      |      |      |      |      |      |
| Bangladesh                           | 73   | 62   | 60   | 60   | 59   | 70   | 70   | 77   | -    | -    | -    |
| Nepal                                | 51   | 88   | 82   | 82   | 83   | 82   | 95   | 103  | 105  | 109  | -    |
| <i>Non-adjusting countries</i>       |      |      |      |      |      |      |      |      |      |      |      |
| India                                | 81   | 83   | 96   | 98   | 99   | 99   | 98   | 98   | 99   | 101  | 102  |
| Malaysia                             | -    | 93   | 101  | -    | -    | -    | 96   | 93   | 93   | 93   | 93   |

*Notes* Countries with 100% gross enrolment ratios in 1980–85 and continue to be above 100% are excluded

- Not available

*Source* UNESCO-a (1995 and earlier years)

The ‘gross’ enrolment ratio at primary level in Pakistan declined rapidly from an already low level of 48% in 1985 to 44% in 1990 making it one of the lowest enrolment ratios in the world, and only better than Afghanistan and Bhutan in the Asian region (Table 16.6). Net enrolment ratios would be expected to be even lower. The intake level<sup>7</sup> in Grade I in Pakistan has also decreased from 74% in 1980 to 69% in 1988, while in many other countries it is above 100%, and was on the increase during the period 1980–88 (except in Thailand). Indeed, both the primary enrolment ratio and the apparent intake level declined in Thailand (from 98% in 1980 to 85% in 1988) although the gross enrolment ratio seems to have increased remarkably in the subsequent years. This is not a matter of great concern as Thailand is well on the way to achieving fast the goals of ‘Education for All’ (WCEFA 1990),<sup>8</sup> compared to Pakistan (see Haq 1988; World Bank 1984).

Declining enrolment ratios or in the demand for education during adjustment and economic restructuring may be explained by the diminishing real incomes of households. Even though the unit opportunity costs also fall, the need to increase the supply of labour (including child labour) increases in an attempt to boost the falling levels of household income.<sup>9</sup> Although this might be the case in Pakistan, the opposite is true of Bangladesh, another adjusting country. In the latter case, the gross enrolment ratio has registered a significant increase from 60% in 1985 to 77% in 1990. Even the net enrolment ratio in Bangladesh increased significantly from 54 to 69% during the same period, which is

indeed a significant increase. Moreover, Bangladesh was able to maintain a stable enrolment ratio at the secondary level, though at the very low level of below 20%.

Enrolment ratios increased in all other countries where primary education is still not universal; and it stabilised in those countries where the ratio is above 100%. After all, a decline in the gross enrolment ratio, say from 130 to 120, may not mean any decline in enrolments. It might, in fact, suggest an improvement in efficiency levels, as the difference between gross and net enrolment ratios narrows. This is also referred to as 'age-efficiency' (Psacharopoulos and Nguyen 1986).

### 16.3.4 *Quality of Education*

While there are several aspects to the quality of education, one standard indicator that is commonly used is the number of pupils per teacher (pupil-teacher ratio). In the absence of data on other indicators of quality, and despite a school of thought that argues that pupil-teacher ratio or class size is irrelevant to quality, the pupil/teacher ratio continues to serve as the single best measure of quality. This is particularly true in countries where such ratios are rather alarmingly high. Perhaps a threshold level (or a range) of the pupil/teacher ratio may be identified whereby a ratio higher than the threshold could indicate an erosion in the quality of education. Inversely, a pupil/teacher ratio much below the threshold may be indicative of economic inefficiency, or inefficiency in the utilisation of teaching manpower, though it may also reflect an increase in the quality of teaching.

Although the Republic of Korea and Bangladesh had similar pupil/teacher ratios of around 50:1 in 1975, the former was able gradually to reduce it to 31:1 by 1993. The ratio in Bangladesh, however, has consistently increased ever since 1985 when it was 47:1 to become (at 63:1) the highest in the region and one of the highest in the world in 1990 (Table 16.7). Surprisingly, there has been a simultaneous increase in gross and net enrolment ratios in primary education in Bangladesh, but at the same time Bangladesh seems to have been traded off quality for quantity. Indeed, the number of teachers in primary schools in Bangladesh has been declining over the years. With a growth rate in the number of teachers of 4.3% per year during 1980-85 as compared to -0.4% during 1985-89, the total number has been brought down from 191,000 in 1987 to 187,000 in 1989.

**Table 16.7** Pupil–teacher ratio in primary schools

|                                      | 1975 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| <i>Intensely adjusting countries</i> |      |      |      |      |      |      |      |      |      |      |      |
| Pakistan                             | 40   | 36   | 39   | 39   | 41   | 41   | 41   | 41   | –    | –    | –    |
| South Korea                          | 52   | 48   | 38   | 38   | 37   | 36   | 36   | 36   | 34   | 33   | 31   |
| Thailand                             | 28   | 23   | 19   | 20   | 20   | 19   | 18   | 22   | 20   | 20   | –    |
| Philippines                          | 29   | 31*  | 31   | 31   | 32   | 33   | 33   | 33   | 33   | 34   | 33   |
| <i>Adjusting countries</i>           |      |      |      |      |      |      |      |      |      |      |      |
| Bangladesh                           | 51   | 54   | 47   | 48   | 48   | 58   | 60   | 63   | –    | –    | –    |
| China                                | 29   | 27   | 25   | 24   | 24   | 23   | 22   | 22   | 22   | 22   | 22   |
| Indonesia                            | 29   | 32   | 25   | 24   | 24   | 24   | 23   | 23   | 23   | 23   | –    |
| Nepal                                | 29   | 38   | 35   | 35   | 35   | 37   | 40   | 39   | 39   | 39   | –    |
| <i>Non-adjusting countries</i>       |      |      |      |      |      |      |      |      |      |      |      |
| India                                | 42   | 43   | 46   | 46   | 46   | 46   | 46   | 46   | 47   | 48   | 48   |
| Malaysia                             | 32   | 27   | 24   | 23   | 22   | 21   | 21   | 20   | 20   | 20   | 20   |

Source UNESCO-a (1995 and earlier years)

\*1981

–Not available

In other countries the changes—both increases and decreases in the pupil–teacher ratio—are not very significant; but many countries experienced falling teacher numbers or a decline in the growth of teacher numbers. A country that has experienced falling teacher numbers is Pakistan where the number of teachers declined by  $-3.42\%$  per year between 1985 and 1987, compared to an annual rate of growth of  $5.9\%$  between 1980 and 1985. In Thailand the rate of growth was also negative ( $-3.03\%$  between 1985 and 1988, compared to  $-0.67\%$  between 1980 and 1985). Moreover, the proportion of underqualified and untrained teachers in the total number might have increased.

Internal efficiency at the primary level, in terms of repeaters and drop-outs, does not seem to have been affected by the adjustment and economic restructuring policies adopted by several Asian countries (Table 16.8). According to the coefficient of efficiency,<sup>10</sup> there has been a remarkable increase in Bangladesh, and a negligible increase in other countries. On the whole, in only few Asian countries did internal efficiency deteriorate in primary education. This may be largely due to policies such as automatic promotion or non-retention of students adopted by many countries.

**Table 16.8** Internal efficiency in primary education

|                                      | 1980 | 1990  |
|--------------------------------------|------|-------|
| <i>Intensely adjusting countries</i> |      |       |
| Pakistan                             | –    | 0.74* |
| South Korea                          | 0.97 | 1.00  |
| Thailand                             | 0.78 | 0.95  |
| Philippines                          | 0.82 | 0.84  |
| <i>Adjusting countries</i>           |      |       |
| Bangladesh                           | 0.34 | 0.68  |
| China                                | –    | 0.86  |
| Indonesia                            | 0.72 | 0.78  |
| <i>Non-adjusting countries</i>       |      |       |
| India                                | –    | 0.74  |
| Sri Lanka                            | 0.86 | 0.91  |
| Malaysia                             | 0.98 | 0.97  |

\* Includes secondary education

– Not available

Source UNESCO-b (1991 and 1993)

### 16.3.5 *Composition of Enrolments*

During the adjustment process, living standards are adversely affected rendering economically and socially weaker sections of the population more vulnerable, thereby reducing their levels of participation in education. However, no detailed data are available on temporal changes in the socio-economic characteristics of students during the adjustment and economic restructuring phases to examine whether enrolments from poorer groups fell and, thereby whether or not equity in access to education was affected.

However, data on female enrolments and gender disparities are available.<sup>11</sup> Gender disparities in educational levels of the adult population seem to have widened in three out of four intensely adjusting countries (Pakistan, the Republic of Korea and Philippines), and in two adjusting countries (Indonesia and Nepal) (Table 16.9). In Pakistan, the coefficient of discrimination (defined as the ratio between male and female enrolment ratios minus one) increased from 2.8 in 1980 to 3.3 in 1990. In Indonesia, the Philippines and the Republic of Korea it has also increased marginally. In contrast, in all of the three non-adjusting countries the evidence suggests the contrary; there was a significant improvement in Malaysia and a marginal improvement in India and Sri Lanka.

**Table 16.9** Changes in mean years of schooling of adult (25+) population and gender discrimination

|                                      | 1980  |      |        |                               | 1990  |      |        |                               |
|--------------------------------------|-------|------|--------|-------------------------------|-------|------|--------|-------------------------------|
|                                      | Total | Male | Female | Coefficient of discrimination | Total | Male | Female | Coefficient of discrimination |
| <i>Intensely adjusting countries</i> |       |      |        |                               |       |      |        |                               |
| Pakistan                             | 1.7   | 2.7  | 0.7    | 2.8571                        | 1.9   | 3.0  | 0.7    | 3.2857                        |
| South Korea                          | 6.6   | 8.1  | 5.1    | 0.5882                        | 8.8   | 11.0 | 6.7    | 0.6418                        |
| Thailand                             | 3.5   | 4.1  | 2.9    | 0.4138                        | 3.8   | 4.3  | 3.3    | 0.3030                        |
| Philippines                          | 6.6   | 6.8  | 6.4    | 0.0625                        | 7.4   | 7.8  | 7.0    | 0.1143                        |
| <i>Adjusting countries</i>           |       |      |        |                               |       |      |        |                               |
| Indonesia                            | 3.1   | 3.9  | 2.3    | 0.6957                        | 3.9   | 5.0  | 2.9    | 0.7241                        |
| Nepal                                | 1.8   | 2.7  | 0.9    | 2.0000                        | 2.1   | 3.2  | 1.0    | 2.2000                        |
| <i>Non-adjusting countries</i>       |       |      |        |                               |       |      |        |                               |
| India                                | 2.2   | 3.3  | 1.1    | 2.0000                        | 2.4   | 3.5  | 1.2    | 1.9167                        |
| Sri Lanka                            | 5.5   | 6.2  | 4.8    | 0.2917                        | 6.9   | 7.7  | 6.1    | 0.2623                        |
| Malaysia                             | 4.0   | 4.7  | 3.3    | 0.4242                        | 5.3   | 5.6  | 5.0    | 0.1200                        |

Source Tilak (1994a)

At the same time, female enrolments as a proportion of total enrolments increased in all the countries. Also gender discrimination in enrolments, in terms of coefficients of discrimination, decreased in all countries at primary, secondary and higher levels of education (Table 16.10) with the exception of higher education in Sri Lanka (UNESCO-a; Tilak 1994a).

### 16.3.6 *Effects on Other Policies*

Adjustment policies are generally associated with ‘conditionalities’. But rarely have structural adjustment policies included conditions on educational policies, although educational adjustment policies do contain such conditions (see Stevenson 1991, pp. 53–55). Educational loans/credits in Bangladesh contained conditions on quality, access and institution building. Conditions that are feared to have adverse effects on education include: (a) privatisation; and (b) measures relating to cost recovery, such as the introduction or enhancement of fees in schools. Both of these conditions result in significant changes in educational policies.

**Table 16.10** Gender disparities in enrolment ratios in education: coefficients of discrimination

|                                      | 1980   | MRE      |
|--------------------------------------|--------|----------|
| <i>Intensely adjusting countries</i> |        |          |
| Pakistan                             |        | 1990     |
| Primary                              | 0.889  | 0.900    |
| Secondary                            | 1.500  | 1.154    |
| Higher                               | 1.286  | 1.333    |
| South Korea                          |        | 1994     |
| Primary                              | -0.018 | 0.000    |
| Secondary                            | 0.141  | 0.010    |
| Higher                               | 1.840  | 0.705    |
| Philippines                          |        | 1985     |
| Primary                              | 0.000  | 0.009    |
| Secondary                            | -0.116 | -0.015   |
| Higher                               | -0.065 | -0.284*  |
| Thailand                             |        | 1992     |
| Primary                              | 0.031  | 0.010    |
| Secondary                            | -      | 0.027    |
| <i>Adjusting countries</i>           |        |          |
| Bangladesh                           |        | 1990     |
| Primary                              | 0.652  | 0.151    |
| Secondary                            | 1.889  | 0.923    |
| Higher                               | 4.750  | 4.250    |
| China                                |        | 1993     |
| Primary                              | 0.175  | 0.345    |
| Secondary                            | 0.460  | 0.177    |
| Higher                               | 2.000  | 1.304    |
| Indonesia                            |        | 1992     |
| Primary                              | 0.150  | 0.036    |
| Secondary                            | 0.522  | 0.231    |
| Higher                               | 1.600  | 0.743    |
| Nepal                                |        | 1992     |
| Primary                              | 1.346  | 0.494    |
| Secondary                            | 2.667  | 1.000    |
| Higher                               | 3.300  | 2.148**  |
| <i>Non-adjusting countries</i>       |        |          |
| India                                |        | 1993     |
| Primary                              | 0.463  | 0.242    |
| Secondary                            | 0.864  | 0.553    |
| Higher                               | 1.605  | 1.143*** |
| Sri Lanka                            |        | 1993     |
| Primary                              | 0.050  | 0.010    |
| Secondary                            | -0.070 | -0.090   |
| Higher                               | 0.292  | 0.420    |

(continued)

**Table 16.10** (continued)

|           | 1980  | MRE      |
|-----------|-------|----------|
| Malaysia  |       | 1993     |
| Primary   | 0.011 | 0.000    |
| Secondary | 0.087 | -0.082   |
| Higher    | 0.677 | 0.088*** |

Sources Based on UNESCO-a (1995 and earlier years), and Tilak (1994a)

Notes MRE: most recent estimates, around 1990-94, available in the *Statistical Yearbook, 1995* (UNESCO-a)

\*1993

\*\*1991

\*\*\*1990

**Table 16.11** Enrolments in private schools as a percentage of total enrolments

|                                      | Primary |      |      |      | Secondary |      |      |      |
|--------------------------------------|---------|------|------|------|-----------|------|------|------|
|                                      | 1980    | 1985 | 1990 | 1992 | 1980      | 1985 | 1990 | 1992 |
| <i>Intensely adjusting countries</i> |         |      |      |      |           |      |      |      |
| South Korea                          | 1       | 2    | 1    | 2    | 46        | 40   | 41   | 39   |
| Philippines                          | 5       | 6    | 7    | 7    | 48        | 42   | 36   | 35   |
| Thailand                             | 8       | 9    | 10   | 10   | 13        | 20   | 11   | 10   |
| <i>Adjusting countries</i>           |         |      |      |      |           |      |      |      |
| Bangladesh                           | 15      | 11   | 15   | 14   | 95        | 93   | 90   | 90   |
| Indonesia                            | 21      | 17   | 17   | 17   | 49        | 50   | 50   | 44   |
| Nepal                                | 1       | -    | 4    | 6    | -         | -    | -    | 24   |
| <i>Non-adjusting countries</i>       |         |      |      |      |           |      |      |      |
| Sri Lanka                            | 1       | 1    | 1    | 2    | 2         | 2    | 2    | 2    |

Sources UNESCO-b (1991, 1993, 1995), Lockheed et al. (1991), and Tan and Mingat (1992, p. 18)

- Not available

It is believed that economic restructuring contributes to the growth of private schools, as public expenditure is reduced. According to the available data on growth of enrolments in private schools (Table 16.11), the role of the private sector seems to be limited to primary education in several Asian countries. Private schools include privately managed, but not necessarily privately funded, schools. A large number of private schools are financed by the State. Hence, the distinction between private and public schools refers mainly to management. In Sri Lanka, a non-adjusting country, the share of private enrolments in primary and secondary education is negligible, and has remained rather constant at

those low levels over the years. The corresponding figure for primary education in Nepal, however, was the same (1%), but increased four-fold between 1980 and 1990 and to 6% in 1992. In the Republic of Korea, the Philippines and Thailand, enrolments in private primary schools constitute a small percentage of total enrolments at primary level. However, in all of these three intensely adjusting countries, there has been an increase in the relative share of private schools. In Bangladesh and Indonesia, the other adjusting countries, the relative proportions are higher. Between 1985 and 1990–92, the more relevant period, the corresponding proportions have increased in Bangladesh, and remained stable in Indonesia.

With respect to secondary education, the share of enrolments in private institutions declined in several countries, except in Indonesia. Indonesia is exploring the possibility of enhancing the role of the private sector by having the government assist the private education system, which operates on a full cost recovery basis (Julius and Alicbusan 1989, p. 48).<sup>12</sup>

In Thailand, the share of private enrolments in higher education increased from 5.1% in 1980 to 6.4% in 1985. It may be noted that, though the relative shares are small, the absolute numbers of enrolments in private schools may be sizeable, and there might have been significant growth in absolute enrolments. Furthermore, there could also have been growth of ‘unrecognised’ private schools, data on which might not be available. In Pakistan, after the lifting of the ban on private schools in the mid-1980s, private institutions were booming again (World Bank 1986, p. 34). As Tilak (1992) has argued, private enrolments might increase, but the increase would not balance the decrease in enrolments in public institutions, and as a result, social investments in education would be suboptimal.

Fees are the most important cost recovery measure. However, there is not much elaborate information available to determine whether fees were introduced or enhanced as part of or due to adjustment and economic restructuring programmes. But reforms in fees are generally consistent with the adjustment policies of the World Bank/IMF. The World Bank’s loans to Bangladesh, for example, included covenants for cost recovery in the textbook programme (Julius and Alicbusan 1989, p. 48). China introduced an ‘additional educational fee’ in 1986, contributions from which were double the contribution from the earlier forms of fees (Ahmed et al. 1991). Though reforms in fees are largely expected to be



confined to higher education, primary and secondary education have also been subject to such reforms, and the contribution of fees in primary education—which is expected to be ‘free’—may be rather substantial and ranges from 7.4% in Bangladesh, 7.1% in Indonesia, to 3.7% in Malaysia (Tan and Mingat 1992, p. 190; and on China, see also Burki and Yusuf 1992, p. 44). Furthermore, the contribution of fees to total (government and non-budgetary) expenditure on primary schools in China increased from 4.8% in the early 1980s (Tan and Mingat 1992, p. 190) to 24.6% in 1988 (that includes the revenue from the additional educational fee). There was an 83% increase in the total fee contributions in primary schools between 1986 and 1988 compared to a rate of growth of only 3.5% between 1986 and 1987.<sup>13</sup>

Although a one-to-one relationship between fees and enrolments cannot be established from these figures, it is interesting to note that primary enrolments in China decreased at an annual rate of 2.34% between 1987 and 1988, and this was the highest negative annual rate of growth since 1975. Indeed, there was a consistent pattern of declining enrolments in primary education in China between 1975 and 1989 (from 151 to 123.7 million). Compared to a rate of growth of  $-1.75\%$  during 1980–85, enrolments declined at a rate of growth of  $-1.92\%$  during 1985–89 (UNESCO-a 1991). Similarly, the rate of growth of primary enrolments in Pakistan declined from 7.16% during 1980–85 to 2.7% during 1985–89.<sup>14</sup> It should be noted that Pakistan’s Sixth Five-Year Plan (1983–88) proposed ‘user charges at *all levels* of education to recover a sizeable part of the costs of education through the introduction or enhancement of fees’. World Bank (1995, p. 120) expressed an opinion in favour of fees in primary education in India after the adjustment process began.

It may be argued that, in general, reduction in public subsidies in primary education and the introduction of cost-recovery measures, such as fees, will have a serious adverse effect on enrolments and on the goals of ‘Education for All.’

## 16.4 SUMMARY AND CONCLUSIONS

In this chapter some fragmentary evidence that is readily available is presented to examine the effects of policies of adjustment and economic restructuring on education in Asian countries. It is difficult to isolate the effects of adjustment policies on education. Even elaborate country

studies could not properly assess the definitive effects of adjustment. As Stanley Fischer (1991, p. 526) observed, 'the evaluation of adjustment lending is not only extremely difficult, but also essential. None of the methods of evaluation are entirely satisfactory'. Here, an attempt has been made to examine the association between adjustment and the development of education. The effects identified can, at best, be treated as *probable* effects. While no causal relationship could be found, intense adjustment is generally associated with declines in a variety of indicators on educational development in Asian countries, similar to patterns observed in many other countries and regions. At the same time, it should also be noted that, while on the whole, on the average, while the education sector in Asian countries suffered during adjustment, it also seems to have been relatively well protected from the brutal effects of adjustment in several countries, compared to other developing countries in other regions that have undergone (or have been undergoing) the process of adjustment.

It does not mean that the effects of adjustment, however, have not been uniform on all countries of the Asian region, and several economies suffered severely. For the purpose at hand, the Asian countries on which data are available have been grouped into three categories: 'intensely adjusting', 'adjusting' and 'non-adjusting' countries; depending upon the duration of experience with the World Bank/IMF structural adjustment policies. It has been found that, during the adjustment processes, the proportion of GNP or of total government expenditure allocated to education declined in a majority of the adjusting (including intensely adjusting) countries, even though the corresponding figures also point to a decline in some of the non-adjusting countries. In a large number of the adjusting countries, the relative share of capital expenditure on education declined and that of current expenditure increased.

The allocation of resources to primary education seems to have been protected in most countries, except in Pakistan and Bangladesh. This is also true of non-adjusting countries, such as India and Malaysia, where the relative share of primary education actually increased. More importantly, the real expenditure per student in primary education increased significantly in all countries, with the exception of the Philippines and Nepal, during the first half of the 1980s (the only period for which these data are available). Expenditure per student in primary education as a ratio of GNP per capita also increased in all countries, while the corresponding proportion relating to higher education declined in

all countries, except in India. All this indicates that concerted efforts have been made by the adjusting as well as the non-adjusting countries in Asia to protect primary education—a remarkable achievement, when compared to other developing countries of the world (see Berstecher and Carr-Hill 1990). Adjusting countries could have protected primary education from budget cuts through social safety net programmes introduced as a part of adjustment policies in several countries, as in India during the 1990s.

However, enrolment ratios in primary education declined in Pakistan and Thailand, two intensely adjusting countries, where it was expected to increase. Although the gross enrolment ratio in Pakistan is deplorably low (44% in 1990), Bangladesh registered remarkable progress with increases not only in gross but also in net enrolment ratios, which went up from 54% in 1985 to 69% by the end of the 1980s. The number of pupils per teacher in Bangladesh, however, has increased to one of the highest levels in the region, suggesting that quality was traded off for quantitative expansion.

Internal efficiency also increased in all countries of the region. While gender discrimination has been found to have increased as far as the stock of the educated people is concerned, gender discrimination in enrolments has been coming down in all the countries.

Lastly, the relative share of the private sector, although limited at present, seems to be increasing. Fees appear to have been introduced even in primary schools in some countries and have had a negative effect on the demand for education and on total enrolments. Increases in the degree of privatisation and the introduction/increase of fees in education have been dominant, though not necessarily explicit, components of adjustment policies.

While, on the whole, the effects of adjustment on education seemed to be mixed, and no striking difference could be observed between adjusting/intensely adjusting and non-adjusting countries in short-term educational development trends in Asia, the tentative evidence from a few countries does suggest a strong association between adjusting policies and a deterioration in educational situations. Such a strong association is clearly discernible with respect to several important indicators of educational development, although not with respect to all. It would be useful to look into this association more closely in one or two selected countries to clearly understand the effects of adjustment on education. Though the problems that will be found and the associations observed in

a particular country may be unique, and may not be relevant for others, such country studies would be valuable to draw lessons, not only for the countries concerned, but also for others, on how to proceed and how not to proceed.

The experience of both the Asian (and even other) countries, as well as of international agencies with structural adjustment programmes is short (about 10 or 15 years). As 'adjustment' is a long on-going process, analysis of its effects over a short period of time would be premature and problematic, as quick results cannot be expected. More importantly, it is probable that the 'positive impacts are realized with a considerable time lag, while its adverse effects are immediate and highly visible... [but these programmes] may not be sustainable, economically and politically, if their immediate [negative] impacts are not mitigated' (Yanagihara 1989, pp. 319–321). Otherwise, programmes may not be taken to their logical conclusion. Further, gradual adjustment policies have been generally found to be successful in the East Asian economies, rather than a 'big bang' approach involving shocks and sudden simultaneous shifts in all policies in an attempt to move forward quickly (Agrawal et al. 1992, p. 182). The latter approach can, in fact, be counter-productive.

As a result of the growing research in the area and the interest of international organisations, such as UNICEF, the adverse effects of structural adjustment on social sectors are being monitored by both the donor agencies, such as the World Bank/IMF, and the countries concerned. Accordingly, structural adjustment programmes are being supplemented in a number of countries with sectoral adjustment and 'social safety nets' and other contingency programmes, so that the poor are not severely affected. Primary education is one of the important components of such programmes. In general, it is necessary that structural adjustment programmes and education sector adjustment programmes be integrated, and that the adjustment programmes include agreements on increasing public expenditure on education. Structural adjustment policies without such education sector adjustment programmes and social safety net programmes that guarantee increases in public expenditure on education are likely to cause serious adverse effects. Hence, 'it is important that structural adjustment agreements recognize the need for countries to commit new resources and reallocate existing resources toward investment sectors, such as basic education, which affect both social welfare and medium- and long- term economic growth' (Organisation for Economic Co-operation and Development 1992, p. 63).

Further, it is necessary for the success of the adjustment programmes that the primary responsibility for the conception of structural adjustment programmes lies with the national authorities that will implement and sustain the programme; imposed programmes may not work (Malan 1991, p. 539). The Republic of Korea is a good example of how structural adjustment programmes could succeed because it was undertaken on the basis of its own conviction. This will also help in reducing the political costs of adjustment programmes. With the level of expertise and competence available in the Asian countries one should expect that shifting the primary responsibility to the national governments is perfectly possible, compared to those regions that do not have indigenous expertise.

Of late, some flexibility in and softening of the World Bank/IMF's hardline views of precisely what an ideal package of structural adjustment reforms should consist of are visible (Ranis 1987, p. 97), though it may have to be further improved (Tilak 1992). Lastly, it should be realised by all—the lending institutions and the countries concerned—that education becomes an important input in the success of the adjustment programmes, and hence investment in education is necessary for the very success and sustenance of structural adjustment programmes.

**Acknowledgements** This is an expanded version of the author's article published in *Prospects* Vol. XXVII, No. 1, March 1997. UNESCO's permission to use the paper here is gratefully acknowledged. The original version was prepared as a Background Paper for the UNESCO Policy Discussion Paper on 'The Impact of Austerity, Adjustment, and Restructuring on Education: Options for Policy Makers, Donors and International Cooperation.' Paris: UNESCO

## NOTES

1. See Tilak (1992) and Stewart (1994) for a recent summary of the effects of adjustment on education. Research in this area is rather limited. Important recent studies include several World Bank studies, particularly, Kakwani et al. (1990), Noss (1991) and Stevenson (1991). See also International Labour Conference (1992) and Jayarajah et al. (1996).
2. See Jones (1992) for a detailed discussion on the World Bank's lending policies for education and the policy conditionalities attached to the loans. See also Tilak (1994b).
3. In the context of studying the impact of the World Bank/IMF adjustment policies on standards of living, Kakwani et al. (1990) classified

eighty-six developing countries of the world into five categories, based on their adoption of adjustment policies: (a) 'intensely adjusting' countries that have relatively long periods of experience with adjustment policies and processes, having taken three or more structural adjustment loans by 1989, having started on or before 1985 (twenty-five countries); (b) 'pre-1986 adjusting' countries that have received less than three structural adjustment loans, but were included in the programme before 1985 (eleven countries), (c) 'post-1985 adjusting countries' that received adjustment loans between 1986–88 (nineteen countries); (d) 'non-adjusting countries' (of type I) that did not need IMF/World Bank types of adjustment measures, and which had an increase in average annual growth in GDP per capita during 1980–87 (seventeen countries); and (e) 'non-adjusting countries' (of type II) that were 'potential candidates' for World Bank adjustment loans with a decline in the average annual growth of GDP per capita during 1980–87, and were 'probably the closest one can get to a counter-factual' (fourteen countries).

4. For a brief account of trends in growth in education, including expenditures in education in particular in Sri Lanka, see Tilak (1996b).
5. Traditionally, international assistance to education used to concentrate on capital investment items. But, of late, items of current expenditure (e.g., provision of textbooks and teacher training) have received priority.
6. The share of primary education seems to have declined in India (down to 38.5% in 1992 from much above 40% in the 1980s) only after adjustment policies were adopted.
7. The 'apparent intake level' is defined as the number of new entrants in Grade I, regardless of age, and expressed as a percentage of the population of official admission age to first grade. See UNESCO-a (1991, p. 102).
8. The total gross enrolment ratio at all levels of education in Thailand (age group 4–23) also declined from 45% in 1980 to 43% in 1988.
9. In Indonesia, the urban population living below the poverty line increased from 9.3 million individuals in 1984 to 9.7 million in 1987. Further, the adverse impact of adjustment included an increase in open unemployment and a fall in earning levels (see Azis 1990 and Ahmed et al. 1991, p. 377). In India, the level of employment was estimated to have declined and unemployment to have increased as a result of the structural adjustment policies adopted (see Mundle 1992).
10. The 'coefficient of efficiency' (at the primary level) is obtained through the 'reconstructed cohort method'. It is the ratio between the normative number of pupil years that it would have taken the graduates to complete the cycle of education, had there been no repetition or drop-out, and the number of pupil years actually spent by the cohort (UNESCO-b 1991, p.

- 103). The value of the coefficient varies between zero (maximum inefficiency) and one (maximum efficiency).
11. Rose (1994) concentrates on the effects of adjustment programmes on female education. Based on the evidence on a large number of developing countries, she argues that 'there has been a slowdown in the increase in female enrolment rates at the combined first and second level in countries that have agreed to World Bank adjustment operations' (1994, p. 1940).
  12. It is not clear regarding the nature and rationale of government assistance, if these schools run on full cost recovery basis.
  13. These are the author's calculations based on Ahmed et al. (1991, p. 203).
  14. In general, declining enrolments or a decline in the growth of enrolments in primary education may not be inexplicable in countries where enrolment ratios are very high (e.g., 90% or above), as the children to be covered would be small in number. Also it may be due, inter alia, to declining population growth of the relative age group. Declining growth in enrolments in Pakistan, however, should be a matter of concern since Pakistan has low gross enrolment ratios and a high rate of population growth.

## REFERENCES

- Agrawal, P., et al. 1992. Learning from Tigers and Cubs: Economic Restructuring in East Asia: Lessons for India. Discussion Paper, No. 83, Indira Gandhi Institute of Development Research, Bombay.
- Asian Development Bank. 1992/1994. *Asian Development Outlook*. Manila.
- Ahmed, M., et al. 1991. *Basic Education and National Development: Lessons from China and India*. New York: UNICEF.
- Arrow, Kenneth J. 1973. Higher Education as a Filter. *Journal of Public Economics* 2 (3) (July): 193–216.
- Azis, I.J. 1990. Economic Development and Recent Adjustment in Resource-Rich Countries: The Case of Indonesia. In *Perspectives on the Pacific Basin Economy*, ed. T. Fukuchi and M. Kagami, 233–260. Tokyo: The Asian Club Foundation and the Institute of Developing Economies.
- Berstecher, D., and R. Carr-Hill. 1990. *Primary Education and Economic Recession in the Developing World Since 1980*. Paris: UNESCO.
- Burki, S., and S. Yusuf. 1992. The Sectoral Foundations of China's Development. Discussion Paper, No. 148, World Bank, Washington, DC.
- Cornia, G., and F. Stewart. 1990. The Fiscal System, Adjustment and the Poor. INNOCENTI Occasional Paper, No. 11, Spedale degli Innocenti, Florence, Italy.
- Fischer, S. 1991. Lessons of Experience and the Future of Adjustment. In *Restructuring Economies in Distress: Policy Reform and the World Bank*, ed. V. Thomas, et al., 526–529. New York: Oxford for World Bank.

- Haq, K. 1988. Human Resource Development in Pakistan. In *Managing Human Development*, ed. K. Haq and U. Kirder, 167–184. Islamabad: North-South Roundtable.
- Helleiner, G. 1991. Lessons of Experience and the Future of Adjustment. In *Restructuring Economies in Distress: Policy Reform and the World Bank*, ed. V. Thomas, A. Chhibber, A. Dailami, and J. DeMelo, 533–538. New York: Oxford for World Bank.
- International Labour Conference, Seventy-Ninth Session. 1992. Adjustment and Human Resources Development-Report VI. Geneva.
- International Labour Office. 1987. *Structural Adjustment: By Whom, for Whom: Employment and Income Aspects of Industrial Restructuring in Asia*. ILO-ARTEP: New Delhi.
- Jayalath, B.A. 1995. Stabilization Policies and Income Distribution in Sri Lanka 1965–1985. In *Sustainable Development: Policy and Practice*, ed. R. Moore and J. Ryan, 203–227. New Delhi: New Age.
- Jayarajah, C., W. Branson, and B. Sen. 1996. *Social Dimensions of Adjustment: World Bank Experience, 1980–93*. Washington, DC: World Bank.
- Jones, P.W. 1992. *World Bank Financing of Education*. London: Routledge.
- Julius, D., and A.P. Alicibusan. 1989. Public Sector Pricing Policies: A Review of Bank Policy and Practice. PPR Working Paper, No. 49, World Bank, Washington, DC.
- Kakwani, N., E. Makonnen, and J. van der Gaag. 1990. Structural Adjustment and Living Conditions in Developing Countries. PRE Working Paper, No. WPS 467, World Bank, Washington, DC.
- Karaosmanoglu, A. 1991. Comments on Asia. In *Restructuring Economies in Distress: Policy Reform and the World Bank*, ed. V. Thomas, et al., 412–413. New York: Oxford for World Bank.
- King, Kenneth. 1990. *Aid and Education*. London: Longman.
- Kohsaka, A., and K. Ohno. 1996. *Structural Adjustment and Economic Reform: East Asia, Latin America, and Central and Eastern Europe*. Tokyo: Institute of Developing Economies.
- Koo, B.-H., and W.-W. Nam. 1990. Economic Development in Resource-Poor Countries: The Case of Korea. In *Perspectives on the Pacific Basin Economy*, ed. T. Fukuchi and M. Kagami, 261–274. Tokyo: The Asian Club Foundation and the Institute of Developing Economies.
- Lo, F., B.-N. Song, and S. Furukawa. 1989. Patterns of Development and Interdependence Among the East and Southeast Asian Economies. In *Global Adjustment and the Future of Asian-Pacific Economy*, ed. M. Shinohara and F. Lo, 108–277. Kuala Lumpur: Asian & Pacific Development Centre; Tokyo, Institute of Developing Economies.
- Lockheed, Marlaine, Adrian Verspoor, and Associates. 1991. *Improving Primary Education in Developing Countries*. New York: Oxford for World Bank.



- Malan, P.S. 1991. Lessons of Experience and the Future of Adjustment. In *Restructuring Economies in Distress: Policy Reform and the World Bank*, ed. V. Thomas, et al., 538–540. New York: Oxford for World Bank.
- Mundle, Sudipto. 1992. The Employment Effects of Stabilization and Related Policy Changes in India 1991–92 to 1993–94. *Social Dimensions of Structural Adjustment*, 25–40. New Delhi: ILO-ARTEP.
- Nicholas, P. 1988. The World Bank's Lending for Adjustment: An Interim Report. Discussion Paper, No. 34, World Bank, Washington, DC.
- Noss, A. 1991. Education and Adjustment: A Review of Literature. PRE Working Paper, No. WPS 701, World Bank, Washington, DC
- Organisation for Economic Co-operation and Development. 1992. *Development Cooperation 1992 Report*. Paris.
- Psacharopoulos, George. 1984. Contribution of Education to Economic Growth: International Comparisons. In *International Comparisons of Productivity and Causes of the Slowdown*, ed. J.W. Kendrick, 335–360. Ballinger: Cambridge.
- Psacharopoulos, George. 1994. Returns to Investment in Education: A Global Update. *World Development* 22 (9) (September): 1325–1343.
- Psacharopoulos, G., and N. Nguyen. 1986. The Age-Efficiency of Educational Systems. Education and Training. Discussion Paper, No. 55, World Bank, Washington, DC.
- Ranis, Gustav. 1987. Macro Policies, Adjustment and Human Development. In *Human Development, Adjustment and Growth*, ed. K. Haq and U. Kirder, 96–111. North South Roundtable: Islamabad.
- Rose, Pauline. 1994. Female Education and Adjustment Programs: A Cross Country Statistical Analysis. *World Development* 23 (11): 1931–1949.
- Schultz, Theodore W. 1961. Investment in Human Capital. *American Economic Review* 51 (1): 1–17.
- Singh, Manmohan. 1992. After One Year of Structural Reforms in Indian Economy. In *Recent Development in Indian Economy with Special Reference to Structural Reforms, Part I*, ed. U. Kapila, 27–35. Academic Foundation: Delhi.
- Spence, A.M. 1973. Job-Market Signaling. *Quarterly Journal of Economics* 7 (3) (August): 355–374.
- Stevenson, G. 1991. Adjustment Lending and the Education Sector: The Bank's Experience. PHREE Background Paper, World Bank, Washington, DC.
- Stewart, Francis. 1994. Education and Adjustment: The Experience of the 1980s and Lessons for the 1990s. In *Market Forces and World Development*, ed. R. Prendergast and F. Stewart, 128–159. New York: St. Martin's Press.
- Tan, A.H.H. 1990. Government Intervention and the Private Sector: The Case of Singapore's Industrialization. In *Perspectives on the Pacific Basin Economy*,

- ed. T. Fukuchi and M. Kagami, 391–412. Tokyo: The Asian Club Foundation and the Institute of Developing Economies.
- Tan, Jee-Peng, and Alian Mingat. 1992. *Education in Asia: A Comparative Study of Cost and Financing*. Washington, DC: World Bank.
- Thomas, Vinod, et al. (eds.). 1991. *Restructuring Economies in Distress: Policy Reform and the World Bank*. New York: Oxford for World Bank.
- Tilak, Jandhyala B.G. 1980. Allocation of Resources to Education in India. *Eastern Economist* (New Delhi) 75 (9) (29 August): 530–542.
- Tilak, Jandhyala B.G. 1982. Educational Planning and the New International Economic Order. *Comparative Education* (Abingdon, UK) 18 (2): 107–121.
- Tilak, Jandhyala B.G. 1984. Political Economy of Investment in Education in South Asia. *International Journal of Educational Development* 4 (2): 155–166.
- Tilak, Jandhyala B.G. 1986. Political Economy of Investment in Education in South Asia: A Reply. *International Journal of Educational Development* 6 (3): 209–214.
- Tilak, Jandhyala B.G. 1989a. Education and Its Relation to Economic Growth, Poverty and Income Distribution. Discussion Paper, No. 46, World Bank, Washington, DC.
- Tilak, Jandhyala B.G. 1989b. Economic Slowdown and Education Recession in Latin America. *IDS Bulletin* (Brighton, UK) 20 (1) (January): 31–40.
- Tilak, Jandhyala B.G. 1989c. The Recession and Public Investment in Education in Latin America. *Journal of Inter-American Studies and World Affairs* (Florida, USA) 31 (1–2) (Spring/Summer): 125–146.
- Tilak, Jandhyala B.G. 1990a. The Political Economy of Education in India. Special Studies, No. 24. Buffalo, Comparative Education Center, State University of New York.
- Tilak, Jandhyala B.G. 1990b. External Debt and Public Investment in Education in Sub-Saharan Africa. *Journal of Education Finance* (Blacksburg, VA) 15 (4) (Spring): 470–486.
- Tilak, Jandhyala B.G. 1991. Privatization of Higher Education. *Prospects* (Paris, UNESCO) 21 (2): 227–239.
- Tilak, Jandhyala B.G. 1992. Education and Structural Adjustment. *Prospects* (Paris, UNESCO) 22 (4): 407–422.
- Tilak, Jandhyala B.G. 1993. External and Internal Resource Mobilisation for Education for All. Discussion Paper, Education for All Summit of Nine High Population Countries, New Delhi.
- Tilak, Jandhyala B.G. 1994a. *Education for Development in Asia*. New Delhi: Sage.
- Tilak, Jandhyala B.G. 1994b. External Financing of Education: Review Article. *Journal of Educational Planning and Administration* (New Delhi) 8 (1) (January): 81–86.

- Tilak, Jandhyala B.G. 1994c. South Asian Perspectives. *International Journal of Educational Research* 21 (8): 791–798.
- Tilak, Jandhyala B.G. 1995. Costs and Financing of Education in India: A Review of Issues, Trends, and Problems. Discussion Paper. UNDP Research Project on Strategies and Financing of Human Development, Centre for Development Studies, Tiruvananthapuram.
- Tilak, Jandhyala B.G. 1996a. Higher Education Under Structural Adjustment. *Journal of Indian School of Political Economy* 8 (2) (April–June): 266–293.
- Tilak, Jandhyala B.G. 1996b. *Costs and Financing of Education in Sri Lanka*. Manila: Asian Development Bank.
- UNESCO-a. (Various years). *Statistical Yearbook*. Paris [Latest year: 1995].
- UNESCO-b. 1991, 1993, 1995. *World Education Report*. Paris.
- WCFEA. 1990. *Meeting Basic Learning Needs: A New Vision for the 1990s*. New York: World Conference on Education for All at Jomtien.
- World Bank. 1984. *Pakistan: A World Bank Country Study*. Washington, DC.
- World Bank. 1986. *Financing Education in Developing Countries*. Washington, DC.
- World Bank. 1995. *Economic Development in India: Achievements and Challenges*. *World Bank Country Study*. Washington, DC.
- Yanagihara, T. 1989. The Debt Problem and Structural Adjustment. In *Global Adjustment and the Future of Asian-Pacific Economy*, ed. M. Shinohara and F. Lo, 295–321. Kuala Lumpur: Asian & Pacific Development Centre; Tokyo, Institute of Developing Economies.