SOCIAL DEVELOPMENT IN PAKISTAN

ANNUAL REVIEW 2005-06

Trade Liberalization, Growth and Poverty

SPDC

SOCIAL POLICY AND DEVELOPMENT CENTRE

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KARACHI

Photographs: Akhtar Soomro

Published by Social Policy and Development Centre
Printed in Karachi by Times Press (Pvt.) Ltd.
ISBN 969-8407-03-0

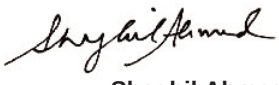
FOREWORD

Globalization and both its positive and negative effects on countries have been intensely debated topics in recent years. The term "globalization" is multifaceted and includes many dimensions. There is the dismantling of trade barriers leading to greater integration in trade of goods and services between countries, also known as trade liberalization. There is also the rapid expansion of international capital flows, the mushrooming of outsourcing activity as well as the easier flow of technology, people, ideas and information across borders among other things. Whatever views one has about the process of globalization, two things are for certain: first that it has revolutionized the way business is done around the world and, second, that globalization is here to stay and that countries have to design policies to reap its potential benefits and minimize any associated costs.

Pakistan is no exception and it too is being affected by rapidly accelerating globalization trends in ways too numerous to be able to cover in a single report. This year's theme for Social Policy and Development Centre's (SPDC) Annual Review, therefore, picks up on one aspect of globalization - trade liberalization - and examines its impact on growth and poverty in Pakistan. To do justice to this aspect of globalization, one cannot ignore some key changes in the external environment that Pakistan has faced since the tragic events of September 11, 2001. We have attempted to incorporate the effects of these changes into the analysis.

Chapter 1 lays out the pace and sequencing of trade liberalization in Pakistan and its effects on trade outcomes - both exports and imports. We also compare Pakistan's trade liberalization policies and trade outcomes to those of other developing countries in Asia. In Chapter 2, we quantify the effects of trade liberalization and the resulting changes in trade outcomes on economic growth and poverty, using both partial equilibrium (single-equation) analysis as well as simulations from the full-blown, large-scale Integrated Social Policy and Macroeconomic (ISPM) model of SPDC. In Chapter 3, we quantify the effects of some post-September 11 external shocks and examine the prospects for Pakistan's trade in the post-textile quota world. Using cross-country analysis, the chapter also focuses on the kind of changes in tariff policy, in quality of institutions and in market access allowed by Pakistan's trading partners that would support the Medium Term Development Framework (MTDF) goal of sustaining high growth through enhancement of exports. Finally, Chapter 4 presents the policy implications of the results obtained in the first three chapters.

Over the years, SPDC has studied the problems of social underdevelopment, poverty and inequality in the country, focusing mainly on the role of domestic factors and policies. This Review is an attempt to further enrich the analysis by adding some much-debated international aspects. It is hoped that the study will benefit all stakeholders - policymakers, parliamentarians, academics, development practitioners and researchers, civil society activists, donors and business leaders - who are interested in an in-depth look at the interactions between trade liberalization, economic growth and poverty in Pakistan.



Shaghil Ahmed
Acting Managing Director
April 2006

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SOCIAL POLICY AND DEVELOPMENT CENTRE

Established in 1995, SPDC is a private sector research organization that serves as a focal point for policy-relevant research on social sector development. Using a multidisciplinary approach, the Centre assists both public and private sector institutions including Non-Governmental Organizations (NGOs) to plan, design, finance, execute and manage social sector programmes in a cost-effective manner. The results of its research are made available to policy makers, interested groups and the general public to promote informed discussion and action on vital social sector issues.

SPDC is independent and non-partisan and cooperates with a wide range of organizations working in related areas, within Pakistan and internationally. It determines its own research agenda within the parameters of its mandate and objectives and maintains autonomy, flexibility and balance between responsive and proactive social sector research. Key activities include research and policy analysis; social sector government database support; pilot project monitoring and evaluation; training of personnel in government, private sector and NGOs; and information dissemination through publications, conferences, seminars and workshops.

SPDC receives core funding from the Canadian International Development Agency (CIDA). In addition, SPDC undertakes significant contract research.

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ACRONYMS

ACGR	Annual Cumulative Growth Rate
ADB	Asian Development Bank
AJK	Azad (Independent) Jammu and Kashmir
AoA	Agreement on Agriculture
ATC	Agreement on Textiles and Clothing
BoPs	Balance of Payments
CBR	Central Board of Revenue
CIDA	Canadian International Development Agency
CMI	Census of Manufacturing Industires
CPI	Consumer Price Index
CPSP	College of Physicians and Surgeons Pakistan
DBCs	Deposit Bearer Certificates
EBS	Export Bonus Scheme
ECNEC	Executive Committee of the National Economic Council
EDI	Export Diversification Index
EU	European Union
FBS	Federal Bureau of Statistics
FCAs	Foreign Currency Accounts
FCDs	Foreign Currency Deposits
FDI	Foreign Direct Investment
FCBCs	Foreign Currency Bearer Certificates
FEBCs	Foreign Exchange Bearer Certificates
FY	Fiscal Year (FY05 is Fiscal Year 2004-05, for example)
FPAP	Family Planning Association of Pakistan
GATT	General Agreement on Trade and Tariffs
GE	General Equilibrium
GoP	Government of Pakistan
GDP	Gross Domestic Product
GMPD	Gender Mainstreaming in Planning and Development
GRAP	Gender Reform Action Plan
GRBI	Gender Responsive Budgeting Initiative
HDI	Human Development Index
HRCP	Human Rights Commission of Pakistan
IBBS	Integrated Behavioural and Biological Surveillance
ICOR	Investment Capital Output Ratio
IDI	Import Diversification Index
IEL	Index of Economic Liberalization
IFIs	International Financial Institutions
IFS	International Financial Statistics
IMF	International Monetary Fund
INAFI	International Network for Alternative Financial Institutions
IS	Import Substitution
IT	Information Technology
ISPM	Integrated Social Policy and Macroeconomic
LCs	Letters of Credit
LDCs	Less Developed Countries

LSM	Large Scale Manufacturing
MAOTRI	Market Access Overall Trade Restrictiveness Index
MDGs	Millennium Development Goals
MFA	Multi-Fiber Agreement
MFN	Most Favoured Nation
MTDF	Medium Term Development Framework
NGOs	Non-Governmental Organizations
NTBs	Non-Tariff Barriers
NADRA	National Database and Registration Authority
NWFP	North West Frontier Province
OTRI	Overall Trade Restrictiveness Index
PC	Principal Component
PIHS	Pakistan Integrated Household Survey
PPAF	Pakistan Poverty Alleviation Fund
PPP	Purchasing Power Parity
PRGF	Poverty Reduction and Growth Facility
PRSP	Poverty Reduction Strategy Paper
PSIC	Pakistan Standard Industrial Classification
REER	Real Effective Exchange Rate
RMG	Ready-Made Garments
SAARC	South Asian Association for Regional Cooperation
SAP	Structural Adjustment Programme
SEMIS	Sindh Education Information Management Systems
SPARC	Society for the Protection of the Rights of the Child
SBP	State Bank of Pakistan
SDC	Swiss Agency for Development and Cooperation
SMEs	Small and Medium Enterprises
SPDC	Social Policy and Development Centre
SROs	Statutory Regulatory Orders
TFR	Total Fertility Rate
TRI	Trade Restrictiveness Index
UAE	United Arab Emirates
UGC	University Grants Commission
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Program
US	United States
USDA	United States Department of Agriculture
VAR	Vector Auto-Regression
WB	World Bank
WDI	World Development Indicators
WHO	World Health Organization
WPI	Wholesale Price Index
WTO	World Trade Organization

Views of a Leading Social Sector Personality

"Overall, Pakistan's performance in social development has been very poor. This may be attributed to two main factors: bad governance and income disparity."

Bilquis Edhi

VIEWS OF A LEADING SOCIAL SECTOR PERSONALITY

Bilquis Edhi is an eminent figure in the field of social welfare in Pakistan. Along with her legendary husband, Abdul Sattar Edhi, she has been working with the Edhi Foundation since the mid 1960s for the welfare of the destitute and the marginalized. A social worker by choice, she joined the Edhi Foundation as a teenager in 1965. A living example of simplicity, humility and compassion, Bilquis Edhi has more than 40 years of experience in serving humanity. She has numerous awards to her credit. She is a co-recipient of the 1986 Magsaysay Award for Public Service, which is termed Asia's Nobel Prize. Presently, she is in-charge of the Bilquis Edhi Foundation, which is exclusively involved in the welfare of battered women and neglected children. As far as women's rights are concerned, she is an outspoken person and feels no hesitation in expressing her views. In a recent conversation with the SPDC team, Bilquis Edhi shared her views on various social matters including women's rights, children's issues, poverty and societal inequality. Her observations, which are paraphrased below, are clearly based on many years of first hand experience.

In her comments, Bilquis Edhi said that gender inequality is a major social concern in Pakistan. She said that Pakistan's patriarchal society does not give equal status to women and puts them in a highly subjugated position, as compared to men.

She was of the view that women do not enjoy basic freedoms in the country, which include even the right to take decisions concerning their own lives, adding that problems related to women have intensified over the years whether they are in the form of honour killings, domestic violence, sexual molestation or public harassment. She said that these issues are perpetuated by the complacency of society as most fundamental rights of women are violated in homes or within communities.

Bilquis Edhi said that even many educated women do not enjoy basic liberties in Pakistan. It has often been the case that qualified women are not permitted by their families to take up paid employment, she commented, adding that this raises the question: why are women

provided education in the first place if they are not supposed to be in-charge of their lives and utilise the skills and abilities that they possess? Bilquis Edhi believes this is in part a reflection of contradicting norms of our society where claims are made to give equal status to women but the gender roles are stereotyped. She said that marriage against choice has also become a grave social problem, which has serious implications for the well-being of women. Despite the freedom provided by our religion, women are compelled to marry against their will, which is a gross violation of an individual's basic right, she noted.

According to her, those who revolt against patriarchal norms often face serious consequences, and these women are either killed in the name of honour or abandoned by their families. Unless women are treated as respectable human beings and social justice is provided to them as individuals, Bilquis Edhi does not foresee any meaningful social development taking place in Pakistan.

This leading social worker said that in Pakistan's male-dominated society, women are brought up in a manner so as to remain dependents. Therefore, in the absence of state support systems, they are inclined to take assistance from their families in their time of need, she noted, giving the example that a divorced woman does not usually have social standing in our society. The taboos associated with divorce lower the self-esteem of the individual, making her a social outcast. This has severe implications for the victims, she said, and elaborated that unless illiteracy and ignorance are rooted out from this society, cultural taboos and so-called societal norms will continue to treat women as chattel.

Bilquis Edhi said that a large number of women come to her for shelter after leaving their homes as a result of a variety of family disputes. Keeping in view the 'power relationship' between men and women in Pakistani society, she said that she tended to advise those women to adopt a pragmatic approach and try to save their family as a unit even if they have to sacrifice their comfort. She justified this by saying that this is because the situation otherwise would be worse for them and for their children.

Another big problem faced by a large number of Pakistani women is domestic violence, which is endemic and its incidence has been increasing over time, noted Bilquis Edhi. She added that it is important to understand that domestic violence is inflicted on women not only by their husbands but also by other members of the family, including other women. She said that her organization receives a large number of cases in which married women are stated to have been burnt while cooking. On

this, she said that her question to those families is: why is it that the daughter-in-law and not their daughter gets burnt in the kitchen? In the majority of such cases, even the parents of the victim usually do not want to pursue any legal action primarily because they are disillusioned and do not have any faith in the judicial system of the country, she noted.

As far as the advocacy for women's rights is concerned, Bilquis Edhi said that she was doubtful about the role of many NGOs that claim to be the custodians of women's rights in Pakistan. She was of the opinion that the majority of these organizations are merely providing lip service to the issues of women without having any serious commitment. According to her, most of them are involved in organizing conferences and workshops in luxurious settings to propagate themselves and also to procure grants and financial assistance from international donors.

Bilquis Edhi said that she is also skeptical about the 33 percent representation of women in the legislative assemblies. She commented that merely increasing the number of seats would not make any tangible difference in the lives of women, unless women legislators are heard and their views are given due importance. Unfortunately, in this male-dominated work, she does not foresee these legislators making a significant contribution to the lives of ordinary women and was of the opinion that their representation is more symbolic and trivial than participatory and effective.

Bilquis Edhi said that she is particularly appalled to see the status of children in our society. Instead of handling children with love, affection and care, many are mistreated and brutalized, she said, adding that it was because of this that her organization took the initiative of placing a cradle outside the Edhi Home(s) so that babies could be treated with respect and dignity. There are many childless couples in the world who are willing to adopt and give these children a better life and brighter future, she noted.

Bilquis Edhi said that overall, Pakistan's performance in social development has been very poor. This may be attributed to two main factors: bad governance and income disparity, she commented, adding if we examine the service delivery systems in Pakistan, we will find that they are blemished and flawed and encourage corruption of various sorts. According to her observations, the provision of basic social services by government is in a miserable state, and the management and administration structures are highly inefficient and extremely corrupt. This apathy is primarily a result of financial corruption and irregularities, she added. Generally speaking, the ultimate objective of the people has

become to make money, irrespective of what costs society has to bear for this and also people have become more inclined towards individualism and therefore, a collective approach to bring change in society is severely lacking, said the social worker.

She was of the view that individuals must go beyond the self and must begin with the community. She blamed the feudal and the highly educated elite of Pakistan, being the most privileged, for this state of affairs. The inefficient governance system is also responsible for sustaining inequality and poverty, she commented, asking: why are the rich in Pakistan getting richer and the poor getting poorer? The system of income distribution is extremely inequitable and resources and opportunities remain in the hands of a few, she commented and said that these are the reasons that she felt disappointed by the system and by society.

In conclusion, Bilquis Edhi said that she saw no light at the end of the tunnel and that as Pakistanis, we have to seriously think about why all this is happening and in which direction we should go from here.

A HISTORICAL RECORD OF TRADE LIBERALIZATION IN PAKISTAN

1

CHAPTER 1

Since the late 1980s, there has been a clear effort to reduce trade barriers and liberalize the economy. This has led to an acceleration of trade but has not resulted in the spurt of trade that is characteristic of many other developing countries in Asia.

A HISTORICAL RECORD OF TRADE LIBERALIZATION IN PAKISTAN

The trend towards greater openness or globalization of economic and financial transactions taking place all over the world has many dimensions to it. One important aspect is the liberalization of external trade regimes. The process by which trade liberalization affects growth, poverty and more broadly the social sector, is complex. Many different channels of transmission are involved and the effects depend crucially on the nature, sequencing and the degree of various liberalization measures that have been undertaken. In order to study the impact of trade liberalization and openness on the economy of Pakistan, the natural place to begin is through a description and evaluation of the country's historical record of trade liberalization. In this context, there are four key questions to consider:

- What are the different measures of trade liberalization and openness of an economy that have been used in the literature?
- What has been the pace and sequencing of trade liberalization by Pakistan as implied by these measures?
- How do Pakistan's trade restrictiveness measures compare to those of other developing countries at present?
- How has Pakistan's trade evolved over time in response to trade liberalization and how does this compare to the evolution of trade in other developing countries of Asia?

This chapter deals with each of these questions in turn, after briefly discussing why we would want to study trade liberalization.

WHY STUDY TRADE LIBERALIZATION?

Many argue that trade liberalization has the potential to significantly and permanently enhance economic growth. And, economic growth, in turn, is generally regarded as a necessary condition for sustained alleviation of poverty.[1]

Cross-country evidence appears to strongly support the link from trade to growth. A well-known study found that countries with a high trade orientation have average growth that is about 2.5 percentage points greater than average growth in countries that are relatively closed (Sachs and Warner, 1995). Another much-cited study concludes that a 1 percentage point higher trade-to-GDP (Gross Domestic Product) ratio is associated

[1] For two excellent surveys of the empirical evidence on both links, see Berg and Krueger (2003) and Winters et al (2004). Dean (2003) discussed the counditions necessary for developing countries to benefit from trade liberalization.

with a 2 percent higher level of per capita income (Frankel and Romer, 1999).[2] This implies that over the last 15 years, if Pakistan's trade as a share of GDP had grown by just 0.5 percentage points per year more than it actually did, per capita income today would be about 15 percent higher.

However, the cross-country evidence on which this implication is based needs to be qualified along several lines. First, the direction of causation in the relationship between trade and growth is difficult to establish (Rodriguez and Rodrik, 2000). Second, it is generally agreed that for trade liberalization to have a sustained positive effect on growth, a degree of macroeconomic stability is required. In other words, trade liberalization works only in combination with other appropriate policies. For example, investment has been identified as a key link through which openness affects growth (Taylor, 1998 and Wacziarg, 2001) and, thus policies that hurt investment could undermine the benefits of trade.[3] Third, even if trade has a positive long-run effect on growth, in economies with certain characteristics the adjustment costs may be large and make the effects on growth negative in the transition period (Winters et al, 2004). Thus, there may be a difference between the short-run and long-run effects.

With respect to the link from growth to poverty, it is not contentious that economic growth can be expected to reduce poverty. Again, cross-country evidence supports this notion with mean income of the poor positively, and poverty rates negatively, related to overall mean incomes. (Dollar and Kray, 2002 and Ravallion, 2001).

But these cross-country studies still leave room for the results in specific instances to be different. In particular, the literature recognizes that for a given country, whether and how much growth reduces poverty depends on the existing distribution of income and how that distribution of income changes as the economy grows. This has been widely discussed in the recent *World Development Report* (World Bank, 2006). Another study categorizes growth episodes into "pro" and "anti" poor experiences and concludes that in over one-quarter of cases, adverse distributional changes offset growth effects to make growth anti poor (White and Anderson, 2001). Thus, the importance of other policies emerges here as well - if the fiscal space that is created from higher growth is used to improve income distribution, growth will reduce poverty more quickly, but if policies instead worsen income distribution, growth may hardly alleviate poverty.[4]

The above discussion suggests that although trade liberalization has the potential to enhance growth and thereby reduce poverty, one cannot rely on cross-country evidence alone to make inferences about specific

[2] Other studies supporting a strong positive link between trade and growth include: Alesina et al (2000), Dollar (1992), Edwards (1992, 1998), Greenway et al (1997), Harrison (1996), and Wacziarg (2001).

[3] Krueger (1990) pushes the interaction between trade policies and other policies as being important in explaining Asian growth. Ades and Di Tella (1997, 1999) provide evidence of a cross-country connection between higher rents (stemming in part from trade restrictions) and higher corruption.

[4] Elsewhere, we have argued that in the case of Pakistan, worsening income distribution has hampered growth from having an as much impact on reduction of poverty as it could have (SPDC, 2004).

instances. Episodes of trade liberalization must be studied on a case-by-case basis and in a country context. It is important to know what other policies accompanied the trade liberalization and what the distributional consequences of the liberalization were. It is the purpose of this study to undertake such an analysis with respect to the experience of Pakistan with trade liberalization.

MEASURING TRADE LIBERALIZATION AND OPENNESS

Measuring a country's trade orientation or openness is not as straightforward as it might seem at first sight. The literature is controversial and many different methods have been used, with each one having some limitations.[5] The different measures are not always highly correlated with each other and occasionally give very different answers. For example, some researchers see South Korea as a very open economy because of its high level of trade but others consider it as an example of a semi-closed economy because of the degree of government intervention (Edwards, 1998).

The measures that will be used in this study can be classified into two groups: outcome-based measures and policy-based measures.[6] These are discussed below in more detail.

Outcome Measures

The simplest, easily available and until recently, the most widely used, measures of trade orientation are based on actual trade flows. Typically, trade-dependency ratios, such as imports and exports as a share of GDP, or the growth rates of imports and exports are used as proxies for outward-orientation of an economy. These are sometimes called outcome-based measures because these variables might be regarded as outcomes of a particular trade regime.

Arguably, recent financial liberalization, both domestic and external, has also played a major role in shaping many developing economies. Moreover, real sector trade integration and financial integration tend to reinforce each other. For these reasons, many researchers incorporate capital flows and finance-based outcome measures as well when computing the degree of openness of an economy. Typical proxies for this include: total foreign liabilities as a share of GDP, total foreign investment as a share of GDP, and the two major components of this investment, namely Foreign Direct Investment (FDI) and foreign portfolio investment.

Although outcome measures are very easy to compute, there are two serious limitations to using them. First, they may only be imperfect proxies for trade policy and the extent to which a country distorts trade. A

Measuring a country's trade orientation or openess is not as straightforward as it seems. Many different measures have been used in the literature, with each one having some limitations.

[5] The following discussion of the literature is primarily based on Das (2002), Edwards (1998), Harrison (1996), Pritchett (1996) and Wacziarg (2001).

[6] The literature also identifies a third type of measure based on the deviation of actual trade from predicted trade that would occur in a free-trade environment based on some model (Leamer, 1988, for example). "Deviation" measures are very model-specific and the determinants of so-called "free trade" in a particular model may, in fact, be highly correlated with trade policy variables.

country can be quite protectionist and yet have a high trade-dependency ratio. Alternatively, a country could have relatively free trade policies but have a low dependency ratio because it is a very large country with big domestic markets. Thus, these measures may not adequately capture policy attitudes toward openness or the institutions that promote outward orientation.

Second, as their very label suggests, outcome measures may suffer from endogeneity problems - that is, they might themselves be a result of things we are trying to explain with them. For example, if growth itself affects trade (the endogeneity problem), then it will be difficult to isolate the *causal* influence of trade policy on growth if trade outcomes are used as a proxy for trade policy.

It is clear, therefore, that outcome measures tend to confuse somewhat policies of trade and financial liberalization per se with the consequences of this liberalization. It is, of course, vital to analyze these consequences, which we will later do in this chapter, for they will inform us about the extent to which increased liberalization has worked in promoting actual trade and financial integration with the rest of the world. However, in our analysis, we will not treat the trade and financial variables as direct measures of liberalization policies *per se,* but rather as their consequences.

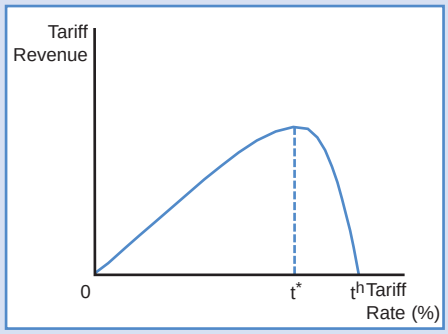
Policy Measures

These are price-based and administrative measures that are intended to more directly represent the stance of trade policy. They include tariff rates, tariff revenues and Non-Tariff Barriers (NTBs) as well as other indicators of the extent to which trade policy may be distorting relative prices, such as the relative price of tradeables to international prices (Bhalla and Lau, 1992), domestic price of investment goods to international prices, effective rates of protection in manufacturing (Heitger, 1986) and black market premium on the exchange rate (Sachs and Warner, 1995).

Box 1.1 Relationship between Tariff Rates and Tariff Revenue

An important deliberation of fiscal policy is the choice of an optimal tax rate that can maximize tax revenue. There is no assurance that revenue is always related positively with the tax rate - meaning that it goes up when the tax rate is increased and goes down when the rate is decreased. Consider the figure below which plots hypothetical tariff revenues against tariff rates to understand this phenomenon. Starting from a zero tariff rate, tariff revenues first rise with an increase in the tariff rate. However, beyond some tariff rate, labeled t^* in the figure, tariff revenue will fall as the tariff rate is increased further. This happens when the disincentive effect - the negative revenue effect as a result of a fall in the tax base caused by less participation in the taxed activities - becomes big enough to more than offset the positive impact on revenue of the rise in the tax rate. Thus t^* is the revenue-maximizing tariff rate. Note also that at some high enough tariff rate, labeled t^h in the figure, the effective price of the import good becomes so high that demand for the good falls to zero and, thus, tariff revenue also becomes zero. This is a version of the famous 'Laffer Curve' postulated by Arthur B. Laffer.

In the case of Pakistan, historically, tariff revenue has decreased as tariff rates have declined. This suggests that, at least in the aggregate we have been on the upward sloping part of the Laffer Curve. Thus aggregate tariff rates and tariff revenues have been positively related in the historical experience of Pakistan. But this does not preclude that for some individual goods we are on the downward sloping part of the Laffer Curve, where tariffs are "prohibitive" in the sense that their high level causes import of that good to be so low as to yield little tariff revenue.



These measures come with their own set of problems. One major issue is that tariff rates and NTBs apply to individual goods and vary widely across goods. It is therefore, difficult to aggregate them and obtain consistent time-series across countries. Simple (or un-weighted) average tariff rates are often used for convenience, but obviously if the data are not weighted by the composition of imports, this will give a flawed measure. Data on aggregate tariff revenues, as opposed to tariff rates, are more readily available, but tariff revenues may not always proxy well for effective rates of protection. This is particularly a problem with goods that have prohibitive tariff rates imposed on them. In such cases, high tariff rates can in the end yield very little tariff revenues through their disincentive effect on the quantity of imports. This is a version of the famous Laffer Curve argument that is discussed in Box 1.1.

It is also difficult to measure the true extent of quantitative restrictions with NTBs. Typically, NTBs are proxied by such variables as coverage rates (a percentage of goods affected by quotas, voluntary export restraints and import licenses). Such measures totally ignore whether those constraints are binding or not, a crucial factor for determining whether trade ends up being distorted or not.

In a similar vein, it has been argued forcefully that although the black market exchange rate premium does represent distortions in an economy, it may be more a proxy for general macroeconomic mismanagement that causes these distortions rather than especially a restriction of the degree of openness.

Another major drawback of administrative measures of trade policy is that the different measures are only weakly correlated with each other, so that no single measure may adequately capture a country's free-trade orientation. This has led to a search for composite trade policy indicators that combine information from the individual indicators in some way.

Finally, there are issues of implementation. Tariff and NTBs may be more or less effective, given how strictly they are implemented, and this is difficult to capture in the data.

In recent years, progress has been made in coming up with appropriate aggregate measures that adequately summarize the policy-induced restrictions on trade imposed by the many different tariffs and NTBs. Conceptually, the idea is simple and has been around for a long time. The appropriate Trade Restrictiveness Index (TRI) is the "welfare-equivalent ad valorem tariff." This is defined as the uniform, across-the-board tariff rate that would convert hypothetical free trade outcomes into those that are actually observed in the presence of all the tariff and NTBs that exist. This simultaneously solves two aggregation problems: aggregation problem of different forms of trade policies (a mixture of tariffs, quotas and other quantitative restrictions) is solved by turning NTBs into tariff equivalents; and the problem of aggregation of tariffs on goods with very different economic importance is solved by using a single equivalent ad valorem tariff rate (Anderson and Neary, 1992, 1994, 1996, 2003, 2004).

However, this is a classic case of 'easier said than done.' Typically, applications of this method require a particular model of the economy to compute hypothetical free-trade outcomes - computable general-equilibrium models have been used in the past, but recently more econometrically intensive approaches have been employed (see, for example, Kee et al, 2006). These approaches have very formidable data and computation requirements and, as such, only measures of trade distortion of very recent years for many different countries are available based on them. This makes it impossible to see the evolution of trade regimes over time in a given country based on these new measures. However, a cross-country comparison of current trade distortions based on these approaches can be very revealing. We will undertake such a comparison later in the chapter, as well as describing the methodology behind these new indices in more detail.

PACE AND SEQUENCING OF TRADE LIBERALIZATION IN PAKISTAN

Pakistan's trade policy over time has been somewhat erratic and characterized by a rather high degree of protectionism on the whole. The discussion here divides the history of trade policy measures into three sub-periods: the pre-1972 period, characterized by ad hoc policies; the period from 1972-1988, consisting the Bhutto and the Zia regimes which were marked by many changes in the trade policy; and the 1988 to the present period over which trade was gradually liberalized at an accelerating pace.[7]

The Pre-1972 Period

From 1947-58, with the country lacking in institutions and expertise after independence, the government dealt with short term crises and challenges on the international front through impromptu actions. The first challenge was the devaluation of the Pound Sterling in 1949, following which Pakistan decided not to devalue, thus making its own currency overvalued in the process. However, the onset of the Korean War in 1950 proved to be a blessing in disguise and rescued the country for a short while from the consequences of an overvalued currency. The war led to an increase in demand for Pakistani exports of jute and cotton, which improved the Balance of Payments (BoPs) position.

But this situation lasted for only about a year or so. As Husain (1999) notes, the start of negotiations to resolve the Korean War led to a plummeting in the world prices of cotton and jute and Pakistan's BoPs position and terms of trade were severely affected after 1951. The terms of trade, defined as the unit value of exports relative to the unit value of imports, fell from 111.3 to 84.7, a decline of about 24 percent, during 1950-53. This reflected a sharp fall in the unit value of exports (Table 1.1). The government initially responded to the pressures on external balances by introducing a new policy of import substitution, which consisted of tight import controls and high tariffs. The average rate of duty on imported goods was quite high during the 1950s. Specifically, it was 35 percent for essential consumer goods, 54 percent for semi-luxury consumer goods, 71 percent for durable consumer and capital goods and 99 percent for luxury consumer goods (Lewis, 1969).

Table 1.1 Terms of Trade (FY49 = 100)

	Terms of Trade	Unit Value Indices	
		Exports	Imports
FY50	111.3	87.9	79.4
FY53	84.7	65.8	77.7
FY56	67.8	81.4	120.8
FY59	53.3	82.5	154.9

Note: FY50 refers to the Fiscal Year 1949-50, and so on. This convention has been used throughout.

Source: Ahmed and Amjad (1984)

[7] The discussion here draws on material from the following: Adam and Iqbal (1987), Ahmed and Amjad (1984), Asian Development Bank (1985), Guisinger (1981), Husain (1999), Islam (1981), Khan (1998), Khan (1990), Lewis (1969), Lewis (1970), Schuler (2004), Riazuddin (1994), World Bank (1988), World Bank (1989) and Zaidi (1999, 2005).

Some have argued that the policy of import substitution did encourage domestic industrialization (Asian Development Bank, 1985).[8] But it also entrenched a rigid system of import licensing and controls, in which the government decided the total value of licenses and their allocation by commodity and by importers (Ahmed and Amjad, 1984). Thus, as Husain (1999) has argued, this system bestowed upon a few category holders and quota holders, excessive profits and a virtual monopoly in the import trade. Thus was laid the foundation of an inefficient system through unproductive administrative controls, which promoted rent seeking and inequality.

In 1955, with the BoPs situation continuing to deteriorate, the government finally devalued the Pakistani Rupee by about 33 percent. But the devaluation failed to boost exports to any significant degree and they remained sluggish. Further, the terms of trade continued to deteriorate as the devaluation increased the unit value of imports much more than the unit value of exports (Table 1.1).

The Ayub Khan government, which came to power in 1958, introduced an Export Bonus Scheme (EBS) - also known as the Bonus Voucher Scheme - in 1959, to provide certain incentives to exporters. This scheme, described in detail in the Asian Development Bank study (ADB, 1985) and Zaidi (2005), was in effect a multiple exchange rate system that gave exporters a more favourable exchange rate than the official rate. Specifically, the scheme allowed exporters of 'bonus commodities' to receive a percentage of their export earnings in the form of transferable Bonus Vouchers in addition to the rupee equivalent of their export earnings converted at the official rate.

[8] Lewis (1969) argues, though, that the tariff structure and quantitative restrictions on imports speeded up the process of industrialization rather than being the central determinant. The central determinant was the "scarcity of all manufactured goods in Pakistan," which "made it profitable to produce almost any kind of manufacture."

With these vouchers, the holders could either: (1) purchase an equivalent amount of foreign exchange at the official rate which could be used to import any item on the Bonus List (thus acting as an import license), or (2) sell the vouchers in an organized market. The scheme compensated exporters for the over-valuation of the rupee, allowing them to compete in international markets. It was an attempt to resolve the tension between export promotion and import promotion of certain critical items by the industry, which devaluation could not simultaneously address. In effect it allowed for three different exchange rates - one for exports, one for imports of capital goods and one for imports of consumer goods.

The EBS did improve the export situation significantly, especially of manufactured goods. For example, the growth rate of cotton and jute textiles increased from 8.3 percent during Fiscal Year 1958-59 (FY59) to 35 percent by FY69 (Zaidi, 2005). EBS also allowed for some flexibility in the import licensing system. But it was also very distortionary in nature and eventually resulted in many exporters selling their products at prices that were even lower than their cost because the losses resulting from that could more than be compensated by selling bonus vouchers in the market, given the market-based prices of these vouchers.

Thus the pre-1972 period was characterized by a rather high degree of protection, ad hoc policies, and distortions on both imports and exports.

1972-1988: The Bhutto and the Zia Regimes

The separation of East Pakistan led to a great loss of export earnings with pressure to find alternatives, as raw jute and jute textiles which were produced in the Eastern wing of the county were Pakistan's main exports at that time. Moreover, the Bhutto government criticized the policies put in place during the Ayub Khan regime for promoting gross inequality and concentration of wealth. As a result, there was a major overhaul of economic policies from 1972, which included not just the widespread nationalization of that period but also the abolishment of the prevailing import licensing system, the multiple exchange rate system and the EBS as well as a ban on the imports of luxury items.

The Ayub and the Yahya governments had been unwilling to lower the exchange value of the rupee against the dollar despite the fact that the behaviour of international commodity prices in relation to domestic prices over the course of several years had created a misalignment of the real effective exchange rate. This resulted in unit values of exports that were not supportive of strong export performance. Therefore, in order to promote exports and unify the multiple exchange rate system, the rupee was devalued 58 percent by the Bhutto government in May 1972, taking it from an exchange value of Rs4.74 per dollar to Rs11 per dollar.[9] By February 1973, following a devaluation of the US Dollar, the Pakistan Rupee partly retraced its losses. There was a new exchange value of the rupee at Rs9.90 per dollar, a rate that remained in effect for about eight years (Zaidi, 2005).

The pre-1972 period was characterized by a high degree of protection, ad hoc policies and distortions.

[9] The devaluation of 58 percent is computed based on the *fall* in the value of the exchange rate expressed as US Dollars per Pakistani Rupee, which is the convention. If instead, the devaluation is computed as a rise in the exchange rate expressed as Pakistani Rupees per US Dollar, then it would be a 132 percent devaluation.

The devaluation of the rupee in 1972 did cause the value of exports to grow at a brisk pace of nearly 40 percent in FY73 (from $591 million to about $817 million) and 25 percent in FY74 (from $817 million to $1.026 billion). But the improvement in the trade balance due to the surge in exports was short-lived. In 1974, world oil prices quadrupled, which thrust the developed world into recession. Pakistan's import bill of petroleum and petroleum products rose sharply. Moreover, bad crops due to floods made the external balance situation worse and the trade deficit increased from 3.1 percent of GDP to 8.4 percent of GDP in FY75 (Table 1.2).

Thus, the devaluation policy failed to have the desired long-run effect on external balances for two main reasons: first, exogenous factors such as the international oil price hike and crop failure were an offsetting factor. Second, exports were ultimately limited by constraints on the supply and production of exportables as well as the uncertain environment created by the loss of East Pakistan.

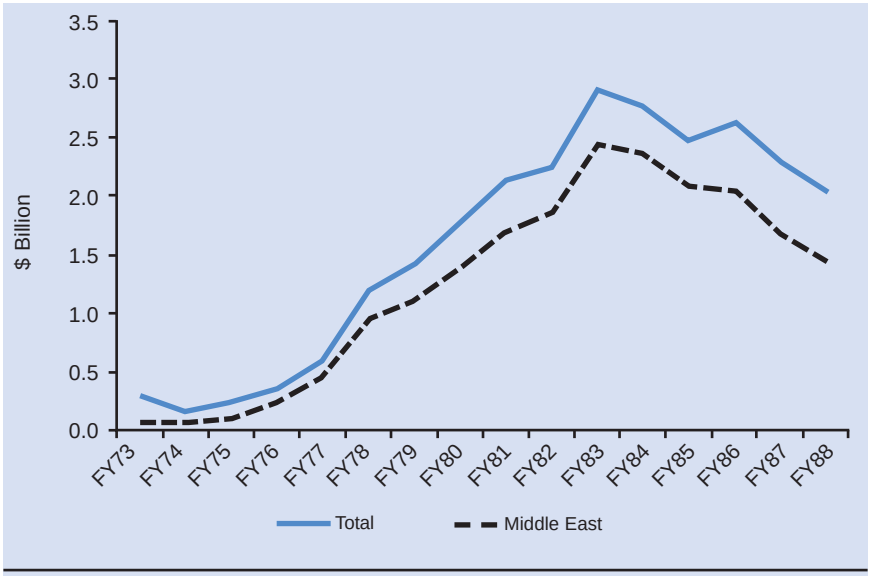
On the import policy side, the Bhutto regime overhauled the import licensing system. The system was liberalized and simplified considerably with a regrouping of entitlements and categories into only two categories - the 'free list' that contained 327 items that could be imported on cash, loans, credit or barter from any source and the 'tied list' that contained 25 items that could be imported only from tied sources (Guisinger, 1981). The rationale behind the revised import policy was to facilitate industrial development by allowing easier accessibility to imported raw materials and capital goods. Imports of a number of consumer durables under the gift scheme were also allowed to help overseas Pakistanis make in-kind remittances.

Table 1.2 External Balances (FY72 to FY88)

	US $ million		% of GDP		
	Exports of Goods	Imports of Goods	Trade Deficit	Net Private Transfers	Current Account Deficit
FY72	591	638	0.8	2.8	5.5
FY73	817	797	-0.2	1.7	1.3
FY74	1026	1362	3.1	1.4	4.4
FY75	978	2114	8.4	1.7	8.6
FY76	1162	2139	6.1	2.2	5.9
FY77	1132	2418	7.0	3.2	5.7
FY78	1283	2751	6.8	5.7	2.8
FY79	1644	3816	9.1	6.3	4.7
FY80	2341	4857	8.8	6.6	4.0
FY81	2799	5563	8.1	6.6	3.1
FY82	2319	5769	11.3	7.9	5.0
FY83	2627	5616	8.6	8.9	1.5
FY84	2669	5993	8.8	8.1	2.6
FY85	2457	6009	9.4	7.1	4.5
FY86	2942	5984	7.9	7.3	3.2
FY87	3498	5792	5.7	6.3	1.8
FY88	4362	6919	5.5	4.9	3.6

Source: Computations based on data from the Government of Pakistan (GoP), Economic Survey (various issues)

Chart 1.1 **Foreign Remittances**



Source: GoP, Economic Survey (various issues)

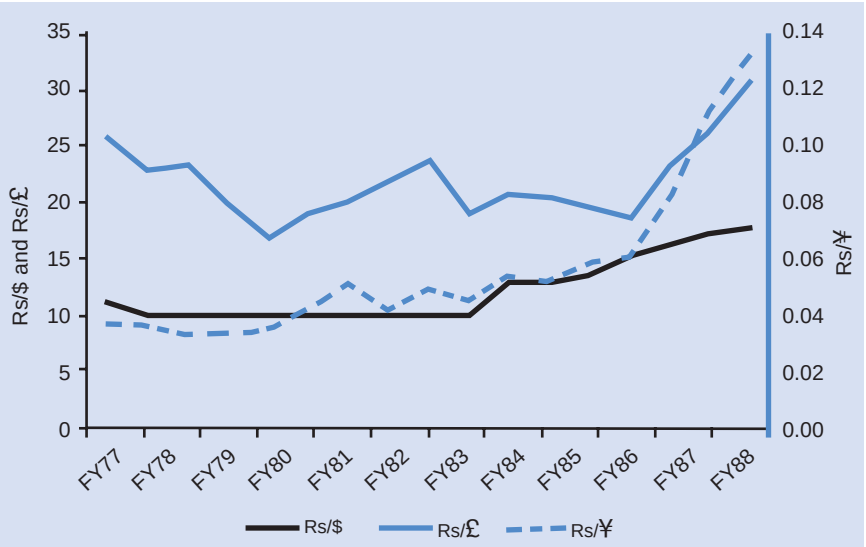
One positive development in the aftermath of the oil prices boom was that remittances increased sharply, accelerating from their value of about $250 million in FY73 to peak at about $3 billion in FY83. The steady rise in remittances over this period largely reflected an increase in remittances from the Middle East (Chart 1.1). Thus, although it caused the import bill to swell, the oil price hike and the resulting Middle East boom also benefited Pakistan over time from increased worker remittances as well as a higher demand for Pakistani exports from the Middle East. This partially compensated for the loss of East Pakistan's exports.

General Zia-ul-Haq came into power in 1977 and started reversing some of the economic policies adopted by the Bhutto government. The Zia government started a policy of denationalization and put emphasis on private sector involvement in growth and development.

The Zia period also marked the beginnings of a move towards greater trade liberalization with the lifting of some bans and other restrictions. Many of the NTBs, which had been imposed following the oil price shocks and foreign exchange scarcity, were removed. The 'free list' of imports was enhanced from 438 to 529 items between 1977 and 1983 (Zaidi, 2005). However, owing to the second oil price shock in 1979, which sharply increased imports again, some of the import liberalization was reversed. This was done by raising the margin requirement for import Letters of Credit (LCs) and constraining the licensing procedures of imports (Husain, 1999). Measures were also taken to try to boost exports, such as export rebates, income tax facilities and concessionary credit for exporters.

The above developments led to an increase in both exports and imports from 1977 to 1982. Between FY77 and FY82, exports increased 105 percent from about $1.1 billion to $2.3 billion and imports increased

Chart 1.2 **Selected Exchange Rates**



Source: GoP, Economic Survey (various issues)

about 140 percent from $2.4 billion to $5.8 billion. However, with import growth outpacing export growth, the trade deficit widened, rising from an already high 7 percent of GDP to 11.3 percent of GDP (Table 1.2).[10]

The deteriorating BoPs position was reaching unsustainable proportions and this put pressure on the currency. However, probably because another devaluation would prove to be unpopular, the authorities decided to experiment with a more flexible exchange rate regime - in 1982 they abandoned the peg to the dollar which had been in place since 1972 in favour of a managed floating exchange rate system. The rationale seemed to be that this would allow the overvalued currency to adjust more gradually as opposed to a sudden one-time adjustment. Indeed, after this regime change, the Pakistani Rupee depreciated against the US Dollar and the Japanese Yen - and later after 1985, against the British Pound Sterling as well (Chart 1.2).

The BoPs situation stabilized with the depreciation of the currency together with Pakistan attracting a large inflow of foreign aid after becoming a front line state, following the Soviet invasion of Afghanistan. The momentum in foreign remittances that had been triggered by the oil boom of the 1970s in the Middle East was also carried forward by the Soviet invasion of Afghanistan, as evidenced by an increase in net private transfers as a fraction of GDP in the early 1980s (Table 1.2).

Despite some moves toward greater trade liberalization during the Zia regime, the World Bank (WB) noted in 1988, that the trade regime "still seems to be biased in favour of import substituting production. Domestic markets are insulated from foreign competition through NTBs

[10] Note that in this report, national income accounts data prior to 2000 has been level-adjusted in the manner described in Box A3.1 of Appendix A3 to make the rebased data since 2000 comparable to the earlier data.

Table 1.3 Import Tax Incidence by Category (percent) (FY77 to FY88)

	Consumer Goods	Capital Goods	Raw Material for Consumer Goods	Raw Material for Capital Goods	Total
FY77	39.5	33.4	42.7	41.7	37.4
FY78	35.0	35.7	43.1	46.7	38.4
FY79	39.8	39.9	42.3	17.4	39.0
FY80	63.6	32.1	32.0	51.1	37.9
FY81	60.3	36.0	33.3	40.9	38.4
FY82	63.8	44.8	48.1	40.1	47.3
FY83	68.9	45.0	52.6	39.6	48.4
FY84	61.8	49.2	53.5	50.5	52.4
FY85	49.5	38.7	42.0	37.7	40.8
FY86	60.6	41.6	45.6	44.9	46.1
FY87	68.9	34.7	50.7	38.9	46.6
FY88	55.9	37.7	40.5	45.3	41.9

Source: GoP, Central Board of Revenue (CBR)Year Book (various issues)

and high tariff rates" (World Bank, 1988). As can be seen from Table 1.3, import tax incidence by various categories of imports (import duties as a fraction of import values) peaked in FY84 (FY83 for the consumer goods category), with an average incidence of more than 52 percent in FY84. Subsequently though, import tax incidence did fall on balance over the next few years.

However, in the 1970s and much of the 1980s when tariff rates were quite high, concessions were granted through Statutory Regulatory Orders (SROs). SROs exempted certain industries and even specific firms from import duties. Their use meant that although tariff rates were high, the dutiable or full duty component of imports was not as high. But it has been argued that SROs were complex, non-transparent, discriminatory and discretionary (Schuler, 2004). They increased the level of distortions in the economy and quickly became another instrument for rent-seeking.

In summary, the Bhutto and the Zia regimes were marked by often-changing and different trade policies that reflected the dissimilar approaches to economic development of the two governments. Both regimes, however, suffered from a rather high degree of tariff and non-tariff protection.

1988-Present: Period of Trade Liberalization

The Bhutto and the Zia regimes were marked by often-changing trade policies. Both regimes, however, suffered from a rather high degree of tariff and non-tariff protection.

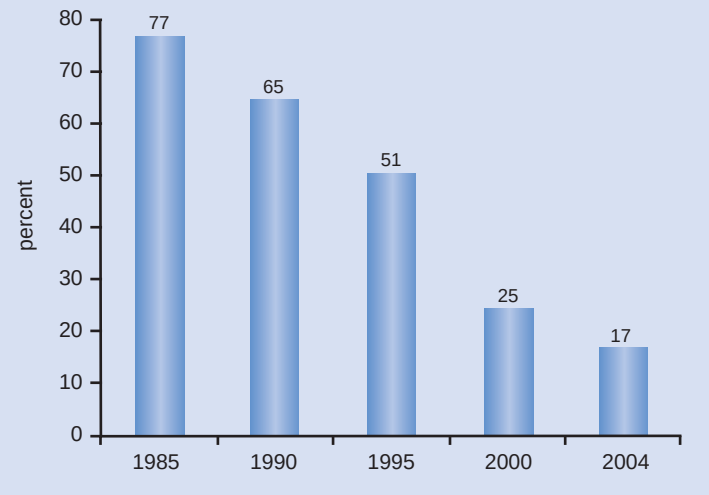
The Structural Adjustment Programme (SAP) initiated in 1988 under an agreement with the International Monetary Fund (IMF) precipitated a number of reforms that promoted general liberalization of the economy. By 1990, significant measures toward privatization, deregulation and liberalization of capital accounts had been introduced. There was a trend towards greater trade liberalization as well including some decrease in tariff rates. There was also a reduction in the number of items on the banned and restrictive list from 300 to 75 and abolishing of industrial licensing (Husain, 1999). Trade liberalization and other liberalization measures went hand-in-hand and were mutually reinforcing.

Trade liberalization in Pakistan has accelerated since 1991. Chart 1.3 shows Pakistan's average unweighted tariff rate at periodic intervals since 1985. The average tariff has declined sharply during this period, falling from 77 percent in 1985 to just 17 percent in 2004.[11]

Moreover, consider the incidence of import duties for different import categories shown in Table 1.4. Since 1990, import taxes have been on a sharp downward trajectory with overall import duty incidence falling from nearly 40 percent in FY90 to under 10 percent in FY04. Similarly, the incidence of import duties has fallen from 40 percent to 11 percent for consumer goods, from 39 percent to 11 percent for capital goods, from 40 percent to 8.5 percent for raw material for consumer goods and from 43 percent to 13 percent for raw material for capital goods. The biggest decreases in average import taxes occurred during FY97 (from 34.6 percent to 22.9 percent), FY92 (from 39 percent to 32.6 percent) and FY03 (from 15.1 percent to 9.3 percent).

The reforms that began during the 1990s also eliminated many of the SROs. This process of less reliance on SROs has continued throughout the liberalization period, although the pace has been highly uneven and mixed. It was only in 2004 that most of the SROs were withdrawn. Thus the system of high tariff rates and high ad-hoc exemptions has been replaced with lower statutory rates which apply across-the-board.

Chart 1.3 Average Tariff Rates (Unweighted)



Source: UNCTAD Trains data (obtained from WB website) for 1985 to 2000 data and Schuler (2004) for 2004 data

Table 1.4 Import Tax Incidence by Category (percent) (FY88 to FY04)

	Consumer Goods	Capital Goods	Raw Material for Consumer Goods	Raw Material for Capital Goods	Raw Material for Total
FY88	55.9	37.7	40.5	45.3	41.9
FY89	46.8	37.9	31.1	41.4	36.0
FY90	40.3	38.9	39.6	42.8	39.7
FY91	37.8	39.3	38.7	40.7	39.0
FY92	36.9	33.6	30.2	38.5	32.6
FY93	40.8	32.4	34.8	44.7	35.3
FY94	38.2	30.3	35.4	43.7	34.7
FY95	43.0	31.2	31.7	46.1	33.5
FY96	45.8	36.0	30.5	48.1	34.6
FY97	22.9	27.9	19.8	34.8	22.9
FY98	25.6	23.5	18.3	27.2	20.7
FY99	18.4	20.7	15.8	24.5	17.7
FY00	19.3	21.6	15.9	21.9	17.7
FY01	16.4	19.9	16.1	20.3	17.0
FY02	17.0	16.1	14.2	16.9	15.1
FY03	11.4	10.7	12.9	8.7	9.3
FY04	11.4	11.2	8.5	13.0	9.4

Source: GoP, CBR Year Book (various issues)

[11] The details of the tariff measures undertaken over the period 1995-2004 as well as the author's recommendation for future tariff policy changes are contained in Schuler (2004).

Table 1.5 Import Duties and Withholding Taxes (as a percent of total tax revenues)

Year	Total of Import Taxes	Withholding Taxes on Import	Withholding Taxes on Exports
FY88	40.5	1.80	-
FY89	35.1	1.02	-
FY90	32.0	1.87	-
FY91	28.9	1.90	-
FY92	27.6	2.19	-
FY93	38.8	2.32	0.78
FY94	35.3	2.18	0.47
FY95	40.3	1.86	0.62
FY96	36.1	4.05	0.50
FY97	34.1	4.46	0.64
FY98	31.3	4.09	0.81
FY99	25.1	4.57	0.84
FY00	24.6	4.23	0.85
FY01	21.2	4.95	1.18
FY02	19.2	4.76	1.31
FY03	19.3	4.51	1.25
FY04	20.5	4.38	1.26
FY05	22.7	-	-

Source: GoP, Federal Budget in Brief and CBR Year Book (various issues)

As a result of the sharp reduction in tariffs, the share of taxes collected from imports (including both import duties and withholding taxes) has also declined sharply since FY95, at least until the surge of imports over the past two years (Table 1.5). This shows that the tariff reduction does have important consequences for government revenues that need to be taken into account in any analysis of their effects. However, withholding taxes on imports (which were introduced in FY80) and on exports (which were introduced in FY93) as a share of total taxes have not declined (also reported in Table 1.5). It should be noted, though, that these withholding taxes were introduced as a partial substitute for direct income taxes to bring some of those who were not filing returns into the tax net. For those filing tax returns, the withholding taxes on imports and exports are adjustable against any income taxes owed.

In the period since 1988, there has also been a commitment to greater export promotion through various measures. These include zero rate of duty for raw materials and intermediate goods predominantly used in the production of exports and the replacement of the uniform income tax rebate system with a graduated one, which encouraged higher valued exports. Export taxes, which had been used during the late 1980s and early 1990s, as shown in Table 1.6 were almost completely abolished in FY95. Additional modes of export financing have also been introduced over the years. Most recently in this context, a scheme for long term

Table 1.6 Export Duties* (Rs million)

	FY89	FY90	FY91	FY92	FY93	FY94
Total Export Duties	3,150	5,000	4,870	4,121	987	870
Of which:						
Cotton Raw	-	3,625	3,440	2,034	500	435
Cotton Yarn	-	975	1,160	1,162	100	-

*Export duties were virtually eliminated from FY95 onwards
Source: GoP, Federal Budget in Brief, (various issues)

financing of export oriented projects that especially target the Small and Medium Enterprises (SMEs) was introduced in 2004, since it was felt that this sector does not have adequate access to medium and long-term facilities at competitive rates.

Another important policy development in the period under consideration was a green signal in 1991 to resident Pakistanis to open Foreign Currency Deposit (FCD) accounts. As a result, the FCDs increased from $1.6 billion in 1988 to $3.7 billion in 1992 and further to $8.7 billion in 1996 (Zaidi, 1999, p.175). The FCDs have no doubt increased the vulnerability of Pakistan's economy to external shocks as was evidenced by the freezing of these accounts after the nuclear tests conducted by Pakistan in 1998. But at the same time, they have contributed to easing Pakistan's BoPs and external financing problems and, on the whole, have been a relief for policymakers.

Summary of the Historical Experience

In the period from independence to 1972, the initial problems of a new country, a massive devaluation of the Pound Sterling and the aftermath of the Korean War were among the factors that contributed to pressures on the BoPs. To address these problems, a policy of import substitution was undertaken and an EBS, which amounted to a multiple exchange rate system, was introduced to stimulate exports. These policies worked to some extent but also created distortions that set back the economy in many ways.

The Civil War of 1971 and the subsequent breakup of Pakistan created a huge BoPs problem which prompted the Bhutto government to devalue the currency. However, external shocks such as the international oil price hike, deteriorating terms of trade and a series of bad harvests prevented any long-lasting improvement in external balances. Domestic economic policies and many of the trade policies of previous regimes were overhauled. The takeover by General Zia in 1977 led to another round of policy reforms, including changes in the trade policy. There was a move towards greater trade liberalization, but the availability of remittances and foreign aid lessened the motivation for addressing the underlying BoPs problem.

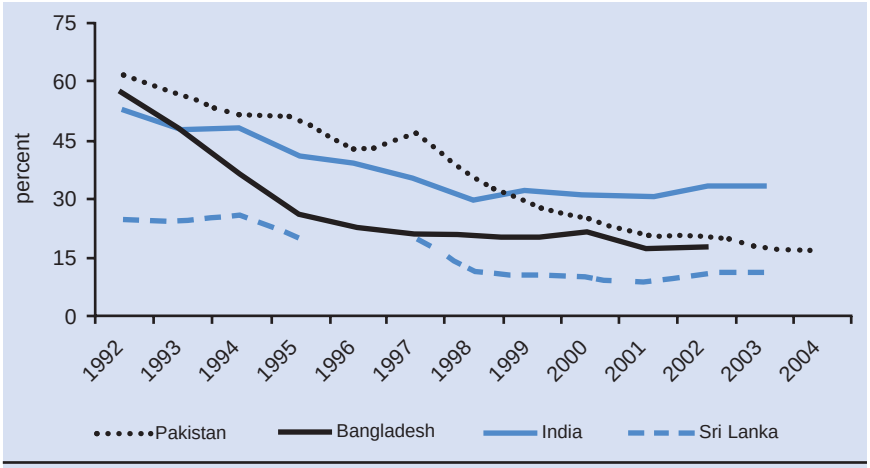
Meaningful and substantial trade liberalization has taken place since 1988, especially from 1991, and at a pace that has been accelerating over time. In particular, import taxes have been reduced sharply, SROs - a major source of trade distortions - have been mostly withdrawn and NTBs have been largely dismantled. These measures were reinforced by greater capital account liberalization and greater opening up to foreign investment as well as more liberal policies on the domestic front.

CROSS-COUNTRY COMPARISONS OF TRADE RESTRICTIVENESS

This section examines where the process of trade liberalization described above has left Pakistan in relation to other developing countries in Asia in terms of its trade restrictiveness.

Substantial trade liberalization has taken place from 1988, especially from 1991. Import taxes have been reduced, SROs mostly withdrawn and NTBs dismantled.

Chart 1.4 Average Tariff Rates in selected SAARC Countries



Source: UNCTAD Trains data taken from the WB website except 2004 for Pakistan, which was taken from Schuler (2004)

Average Tariff Rates

Even though unweighted average tariff rates can be a bit misleading as discussed earlier, they are easy to compute and a natural place to start in a cross-country comparison. Chart 1.4 depicts how Pakistan's average tariff rate has evolved over time since 1992 (the period over the liberalization time frame for which we have consistent data for the different countries) in relation to the other selected SAARC countries of Bangladesh, India and Sri Lanka. Note that in the early to mid-1990s, Bangladesh and India decreased their tariff rates more than Pakistan, but later tariff reduction continued, and even accelerated in Pakistan, whereas, tariff rates flattened out in Bangladesh and India during the late 1990s. Thus Pakistan and Bangladesh now have about equal average tariff rates, while India's rates are significantly higher. There has been only modest tariff reduction in Sri Lanka but during the early 1990s, Sri Lanka's average tariff rate was much below the other countries depicted, including Pakistan, and this remains true today. Sri Lanka had embarked on a policy of tariff reduction much earlier, during the 1970s (World Bank, 2004).

Indices of Trade Restrictiveness

As one turns to richer measures of trade restrictiveness, it becomes more difficult to obtain time-series across different countries that allow us to examine how the pattern of cross-country variation in trade restrictiveness has changed over time. Nonetheless, a pure cross-section comparison across different countries can be made.

In this regard, we focus on two measures computed in a study by the WB researchers, Kee et al (2006): The first index is the Overall Trade Restrictiveness Index (OTRI) which focuses on the trade distortions imposed by a country on its imports. It is measured as the equivalent uniform tariff that would keep its imports at their observed level compared to the level that would exist in the absence of the restrictions. The second index is the Market Access Overall Trade Restrictiveness Index (MAOTRI), which focuses on the trade distortions imposed by trade

policies of the rest of the world on a country's export bundle. It is measured as the equivalent uniform tariff faced by the exporters of a country that would keep its exports at their observed level relative to the level that would exist in the absence of any restrictions by the rest of the world.[12] Each index in turn has been computed in two ways - by incorporating only tariffs as well as by incorporating both tariff and NTBs. The detailed methodology of how these indices are computed is given in Box 1.2.

Box 1.2 Computation of Trade Restrictiveness Indices

We use two of the TRIs that have been computed in a WB study (Kee et al, 2006).* The first index is based upon how much a country restricts its own imports from other countries. The second is based upon how much other countries restrict the exports (market-access) of a given country through their import restrictions. Each index is estimated in two ways: by incorporating both tariff and NTBs as well as by incorporating only tariff barriers. In order to compute these indices, information on tariffs, NTBs and the import demand equation are used to first estimate an overall level of protection.

The Overall Level of Protection

The overall level of protection for a good of category *n* (labeled T_n) is the ad-valorem tariff equivalent of all tariff and NTBs on that good. It is defined as:

$$T_n = ave_n + t_n \qquad (1)$$

where ave_n is the ad-valorem tariff equivalent of non-tariff barriers and t_n is the tariff rate applied on imports of good *n*. The *ave* for each category of good is constructed by estimating the impact of the NTBs on the domestic price of that category of imports. Thus, *ave* converts the NTBs into a "price- equivalent" that is directly comparable to a tariff. To gauge the "price-equivalent" two steps are taken: first, the quantity impact of NTBs on imports is measured by taking deviations between predicted imports using factor endowments with no NTBs and then when NTBs are present; second, this quantity impact is converted into the "price-equivalent" by simply moving along the import demand curve using import demand elasticities.

Armed with this information for each category of goods, the two aggregated indices are then computed as described below.

OTRI

The OTRI focuses on the distortions imposed by a country's trade policies on its import bundle. It is the answer to the following question: What is the uniform level of protection that, if applied to every category of imports, would result in the same level of aggregate imports as actually observed? The answer is obtained by solving for T in the following equation:

$$\Sigma f_n (T_n, ...) = \Sigma f_n (T, ...) = m^o \qquad (2)$$

where m^0 are current aggregate imports evaluated at world prices and f_n is the import demand function for good *n*. Totally differentiating (2), one can solve for the *T* that satisfies equation (2); this solution is the OTRI.

MAOTRI

The MAOTRI focuses on the distortions that the rest of the world imposes on a given country's export bundle. It is the answer to the following question: What is the uniform level of protection that if imposed by all trading partners on all categories of exports by a country would result in the same level of exports as actually observed? The answer is obtained by solving for T in the following equation:

$$\sum_n \sum_p f_{n,p} (T_{n,p}, ...) = \sum_n \sum_p f_{n,p} (T, ...) = x^o \qquad (3)$$

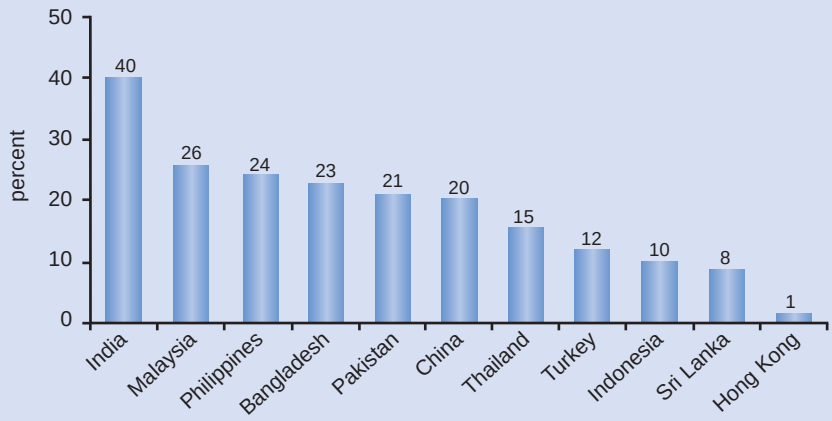
where $f_{n,p}$ are exports of good *n* by a country to trading partner *p*, $T_{n,p}$ is the level of protection for export good *n* imposed by trading partner *p*, and x^0 are current aggregate exports of the country evaluated at world prices. Knowing the import demand functions and using the fact that exports of good *n* by a country to trading partner *p* are the same as imports of good *n* from this country by trading partner *p*, one can solve for the *T* that satisfies equation (3) by totally differentiating this equation. This solution is the MAOTRI.

In cases where these indices are computed by considering tariffs only, *ave* is set to *0* in equation (1); that is, equation (1) reduces to $T_n = t_n$.

*The study also computes a third welfare-based index which is not discussed here.

[12] Kee et al (2006) also estimate a third index which is a welfare-based measure, which they call simply the TRI. It should be noted that these indices developed by WB researchers are not "official" WB indices of trade restrictiveness.

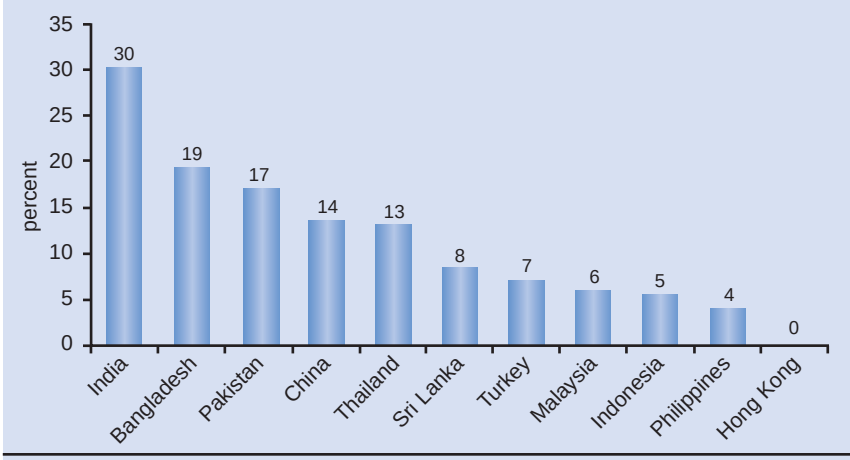
Chart 1.5 **Overall TRI with Tariffs and NTBs* (Tariff equivalent, percent)**



*Latest year for which data are available between 2000 and 2004
Source: Kee et al (2006)

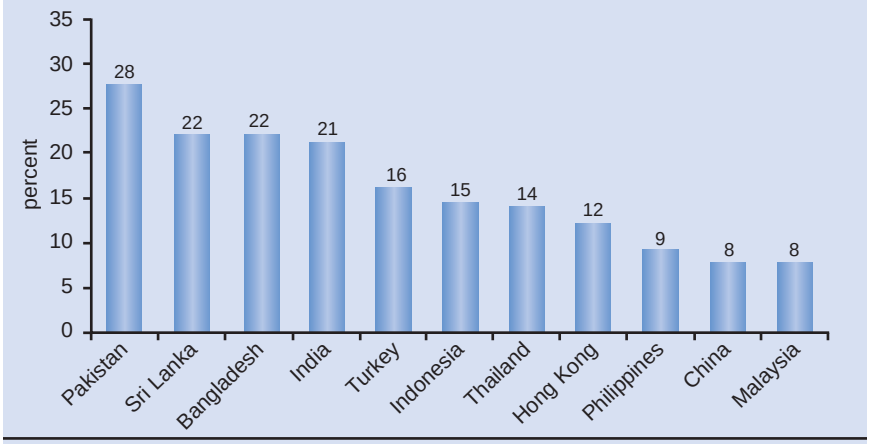
The OTRI (including both tariff and NTBs) is depicted in Chart 1.5 for selected Asian countries. Note that with a uniform tariff equivalent of 21 percent, Pakistan falls toward the middle of the group. Pakistan restricts its imports about as much as China and less than India, Malaysia, the Philippines and Bangladesh, but more than Thailand, Turkey, Indonesia, Sri Lanka and Hong Kong. However, when import restrictions are measured by tariffs alone (Chart 1.6), Pakistan is less restrictive than only India and Bangladesh in the selected group according to this particular tariff equivalent measure. Thus it appears that some East Asian countries like the Philippines and Malaysia prefer to restrict imports more by NTBs than tariff barriers and Pakistan does not appear to rely as much on NTBs as many other countries in Asia.

Chart 1.6 **Overall TRI with Tariffs Only* (Tariff equivalent, percent)**



*Latest year for which data are available between 2000 and 2004
Source: Kee et al (2006)

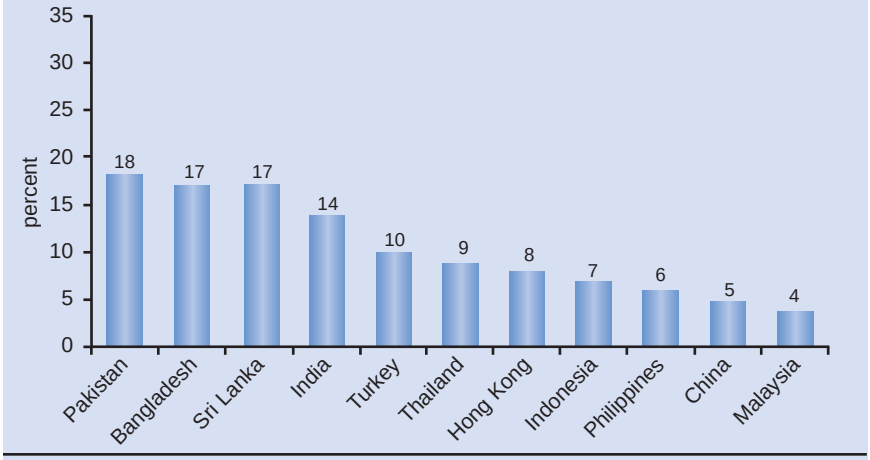
Chart 1.7 Market Access Overall TRI with Tariffs and NTBs* (Tariff equivalent, percent)



*Latest year for which data are available between 2000 and 2004
Source: Kee et al (2006)

Also very telling is the comparison of lack of market access allowed by the rest of the world to a country's goods, as measured by the MAOTRI. As shown in Charts 1.7 and 1.8, Pakistan, among the selected group, is the country allowed least access to its goods by other countries both when using tariff and NTBs as well as just tariff barriers. The imposed tariff equivalent of restrictions imposed by other countries on Pakistan is nearly 28 percent with both tariff and NTBs included (Chart 1.7) and 18 percent with tariff barriers only (Chart 1.8). In fact, of the 91 countries for which the WB study has computed the market access index with tariff and NTBs, Pakistan's ranking is fourth in terms of being denied market access by other countries.

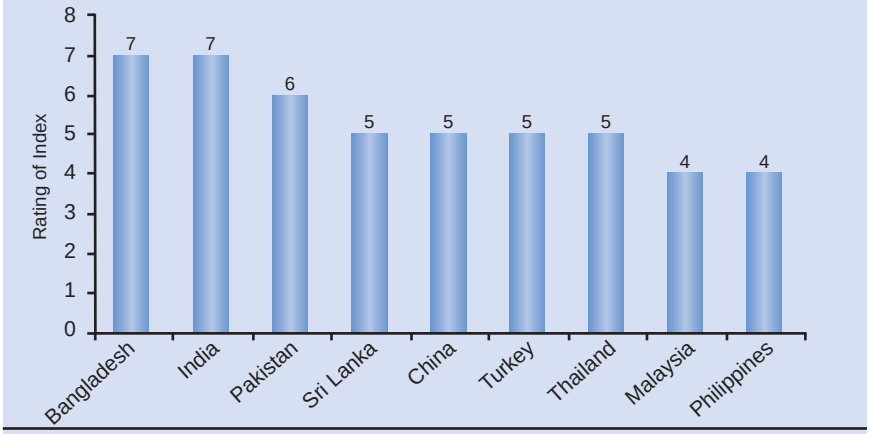
Chart 1.8 Market Access Overall TRI with Tariffs Only* (Tariff equivalent, percent)



*Latest year for which data are available between 2000 and 2004
Source: Kee et al (2006)

Pakistan's trade restrictiveness falls towards the middle of the group of selected developing countries in Asia.

Chart 1.9 IMF's Trade Restrictiveness Index* (Tariff equivalent, percent)



*Based on a 10-point scale, with higher numbers indicating more restricted trade. Combines tariff restrictiveness rating and non-tariff restrictiveness rating. The tariff rating is based on the simple unweighted average of a country's Most Favoured Nation (MFN) applied tariff rates. The non-tariff rating is based on the aggregate amount of trade or production affected by the country's use of non-tariff trade restrictions.

Source: IMF (2005)

The IMF also has a TRI which combines tariff and NTBs to come up with a score based on a ten-point scale, with a higher score depicting more restricted trade (IMF, 2005). As Chart 1.9 shows, Pakistan has greater trade restrictions than many Asian countries, although not as much as Bangladesh and India. Thus, overall, the IMF index seems to give Pakistan a relatively lower ranking in terms of liberalization than the OTRI with both tariff and NTBs included, that was discussed above.

The above cross-section picture that emerges is consistent with the findings of a relative comparison of trade policies in South Asia undertaken by the WB (World Bank, 2004). In particular, according to the study, Pakistan's performance has been better than that of India and Bangladesh in several respects. First, Pakistan eliminated quantitative restrictions on imports (lessening NTBs drastically) much earlier than the other two countries, but imports from India are banned with the exception of items on the positive list. Second, Pakistan largely uses only customs duties as the instrument of taxing imports, whereas Bangladesh and India (and some other South Asian countries as well) have other protective import taxes as well. Third, both Bangladesh and India backtracked on trade policy reform to an extent during the late 1990s, which did not happen in Pakistan.

Where Does Pakistan Stand?

Pakistan has liberalized its trade substantially since the late 1980s and, in recent years at least at an equivalent and perhaps an even greater pace than many other Asian countries. However, because of the high levels of distortions that had been put in place earlier in Pakistan's history, its trade restrictiveness still falls only towards the middle of the group of selected developing countries in Asia. Within South Asian economies though, its trade policy tends to be relatively more liberal than average, although not as liberal as that of Sri Lanka. What has not been

emphasized much previously is that Pakistan also ranks very high among all countries of the world in terms of being denied market access to its goods by other countries both in the form of high tariffs and NTBs.

CONSEQUENCES OF LIBERALIZATION FOR PAKISTAN'S TRADE

The first set of consequences of trade liberalization to consider are those on trade outcomes themselves. In particular what has the process of liberalization that has been occurring since the late 1980s done to exports, imports and their shares in output? We will also examine consequences for composite indicators of outcomes that incorporate both trade variables as well as various types of foreign investment.

Trade in Goods over Time

As discussed earlier, the process of trade liberalization accelerated in Pakistan during the early 1990s. In order to examine the consequences for trade outcomes, we compare a 15-year pre-liberalization period before 1990 with the 15-year period since then, during which the process of trade liberalization has accelerated.

Table 1.7 shows that real imports grew 5.5 percent per annum over the trade liberalization period compared with an increase of 3.8 percent per year in the earlier period. Imports as a share of GDP have risen about 0.3 percentage points per annum since 1990, whereas this ratio had actually decreased slightly over the pre-liberalization period.

Real exports have risen nearly 10.9 percent per annum over the past fifteen years and there has also been an increase in the exports-to-GDP ratio of about 0.2 percentage points per year. However, it should be noted that this is about the same export performance as was observed over the fifteen year period prior to liberalization. These changes imply that trade as a share of GDP has risen by about 0.5 percentage points per year since 1990, which is significantly higher than the increase in this ratio of about 0.1 percentage points per year from 1976 to 1990.

Table 1.7 Trade Performance

	Pre-Liberalization Period FY76 to FY90	Liberalization Period FY91 to FY05
Real Imports Growth*	3.8	5.5
Real Exports Growth*	11.4	10.9
Change in Exports/GDP**	0.2	0.2
Change in Imports/GDP**	-0.1	0.3
Change in Trade/GDP**	0.1	0.5

*Annual Cumulative Growth Rate (ACGR), percent per annum

**Annual Cumulative Change, percentage points per annum

NOTE: Due to a rebasing since 2000, GDP data reported in the Economic Survey are not directly comparable before FY00 and after. To make them comparable, we have level-adjusted the observations before 2000 so as to preserve the growth rates reported in the Economic Survey. This applies throughout to all the data used in the model and in the Tables (see Box A3.1 in Appendix A3 for details).

Source: Computations based on data from the GoP, Economic Survey (various issues)

Table 1.8 reports the data on the same variables as Table 1.7 but over five-year sub-periods during both the pre-liberalization and liberalization periods. It is clear from the Table that real export growth and real import growth slowed in the second half of the 1990s, but that both real exports and real imports have accelerated sharply over the last five years. Over the FY01-FY05 period, real imports have increased 10.9 percent per annum and real exports have increased 11.8 percent per annum. Consequently, the trade-to-GDP ratio has increased by nearly a percentage point per year since 2000. There has been an especially sharp increase in imports over the past two years, which has increased the imports-to-GDP ratio from about 15 percent in FY03 to about 19 percent in FY05. But the rise in imports over the past two years can probably be attributed more to the availability of credit rather than the process of trade liberalization since much of the liberalization had already taken place by 2003.

Table 1.8 Trade Performance (5-Year Periods)

	FY76 to FY80	FY81 to FY85	FY86 to FY90	FY91 to FY95	FY96 to FY00	FY01 to FY05
Real Imports Growth*	16.1	5.1	-6.2	2.6	0.5	10.9
Real Exports Growth*	5.6	3.8	15.6	8.3	3.8	11.8
Change in Exports/GDP**	0.1	-0.3	0.7	0.2	0.1	0.3
Change in Imports/GDP**	0.2	-0.2	-0.3	0.0	0.0	0.9
Change in Trade/GDP**	0.3	-0.5	0.5	0.1	0.1	1.2

*Annual Cumulative Growth Rate (ACGR), percent per annum
**Annual Cumulative Change, percentage points per annum

Source: Computations based on data from the GoP, Economic Survey (various issues)

Table 1.9 External Balances (FY89 to FY05)

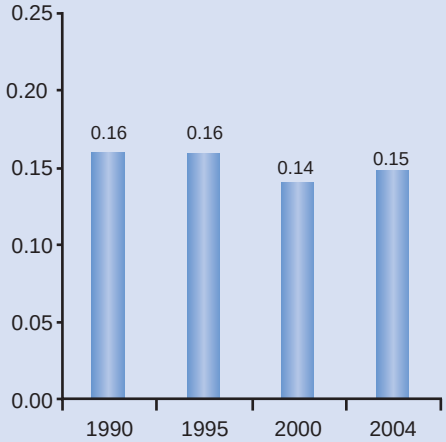
	US $ million		% of GDP		
	Exports of Goods	Imports of Goods	Trade Deficit	Net Private Transfers	Current Account Deficit
FY89	4634	7207	5.3	4.3	4.0
FY90	4926	7411	5.2	4.6	3.9
FY91	5902	8385	4.5	3.8	4.0
FY92	6762	8998	3.8	5.3	2.3
FY93	6782	10049	5.3	3.7	5.9
FY94	6685	8685	3.2	3.8	3.1
FY95	7759	10296	3.5	3.3	3.4
FY96	8311	12015	4.9	3.1	6.0
FY97	8096	11241	4.2	3.9	5.1
FY98	8434	10301	2.5	4.3	2.6
FY99	7528	9613	2.9	3.2	3.4
FY00	8190	9602	1.9	4.2	1.6
FY01	8933	10202	1.8	5.5	0.7
FY02	9140	9434	0.4	5.9	-1.9
FY03	10889	11333	0.5	7.0	-3.8
FY04	12396	13604	1.3	6.4	-1.4
FY05	14371	18724	3.1	5.7	1.6

Source: Computations based on data from the GoP, Economic Survey (various issues)

The fear that liberalization may result in a widening of the trade deficit has not materialized in Pakistan. Up until FY03, the trade deficit-to-GDP ratio had been on a generally downward trend from the mid-1980s (Table 1.9). However, the big surge in imports over the past two years has led to a sharp increase in the trade deficit, and preliminary data indicate that this trend has continued in FY06.

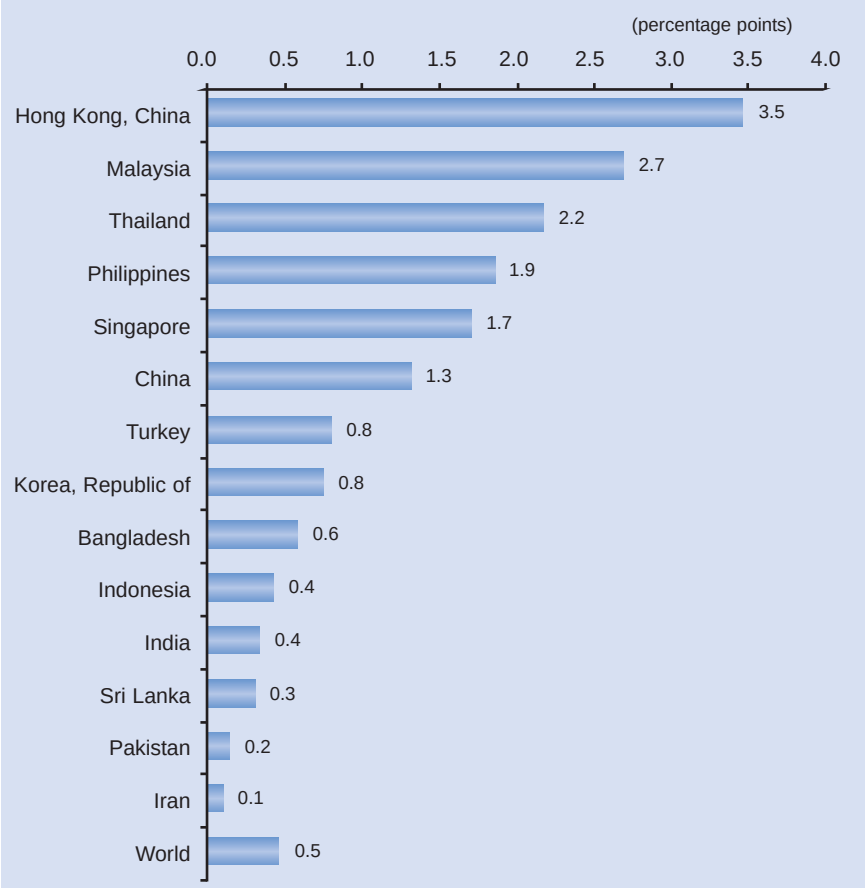
Chart 1.10 shows that Pakistan has not made many inroads in increasing its share in world exports over the liberalization period. Pakistan's exports have remained roughly at 0.15 percent of world exports. It should be noted, though, that this implies that Pakistan's export growth has kept pace with world export growth and it has at least not lost world export market share.

Chart 1.10 Pakistan's Share in World Exports (percent)



Source: World Trade Organization (WTO), World Trade Data.

Chart 1.11 **Average Per Annum Growth in Exports-to-GDP Ratio (1990-2004)**

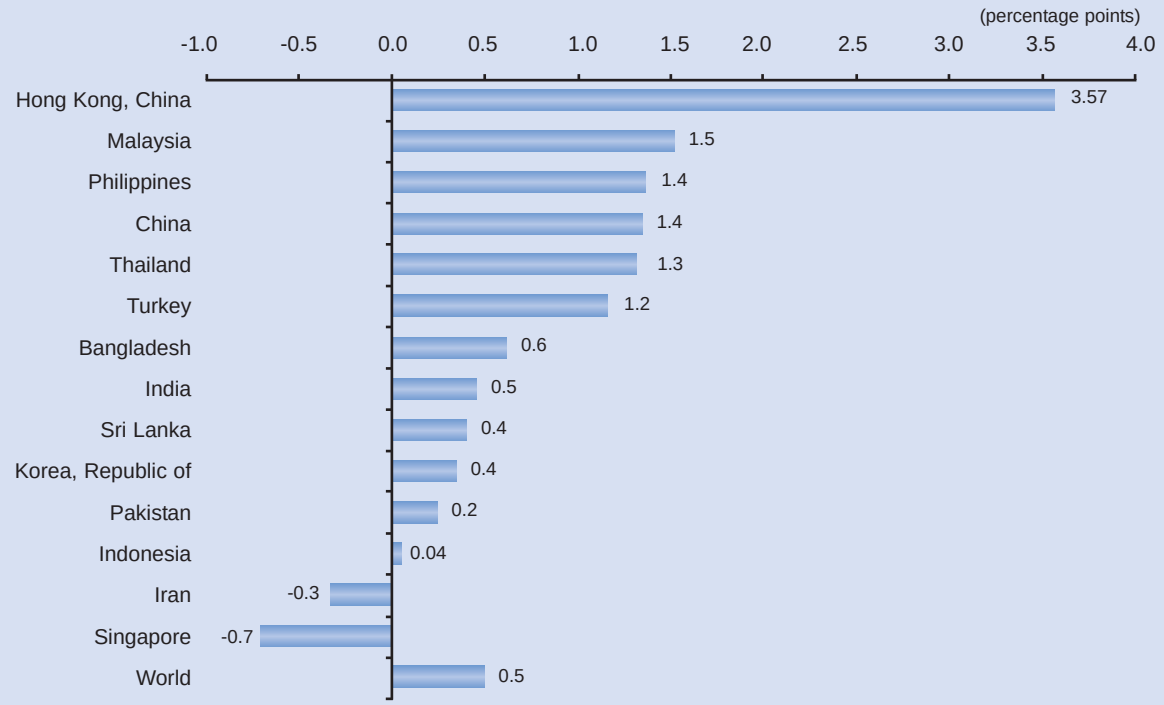


Source: WTO, World Trade Data

Trade Performance Relative to Other Asian Economies

An analysis of how trade has changed over time in comparison to other selected countries in Asia between 1990 and 2004 is revealing. As shown in Chart 1.11, Pakistan's exports have grown an average of about 0.2 percentage points per year as a share of GDP since 1990. This is much lower than the growth in the average share of exports in GDP of all of the Asian countries shown, except Iran. For example, even leaving out the extremely open economy of Hong Kong, Malaysia has registered a yearly increase of 2.7 percentage points in its exports-to-GDP ratio, Thailand 2.2 percentage points and the Philippines 1.9 percentage points. Possible reasons for only a moderate response of Pakistani exports to trade liberalization in comparison with other countries in Asia will be discussed in later chapters. Here it suffices to mention that the potential reasons might include a lack of enough export-oriented FDI and relatively high restrictions in terms of access to markets allowed by other countries. It may be recalled that Pakistan faces nearly the least access among all developing countries for its exports to world markets, according to one study conducted by the WB researchers.

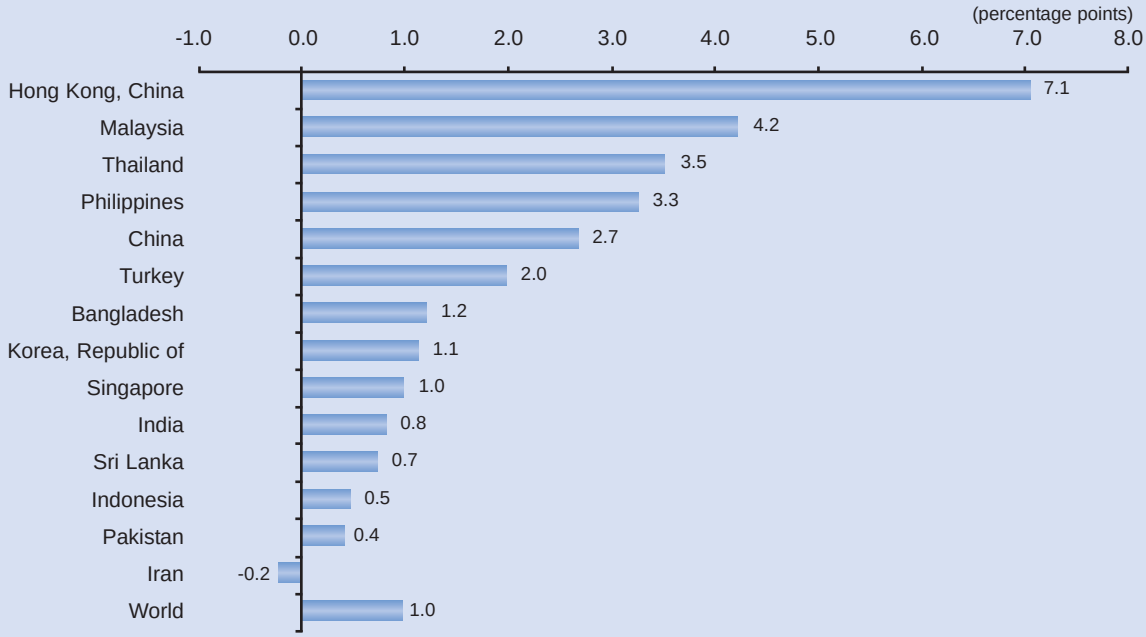
Chart 1.12 Average Per Annum Growth in Imports-to-GDP Ratio (1990-2004)



Source: WTO, World Trade Data

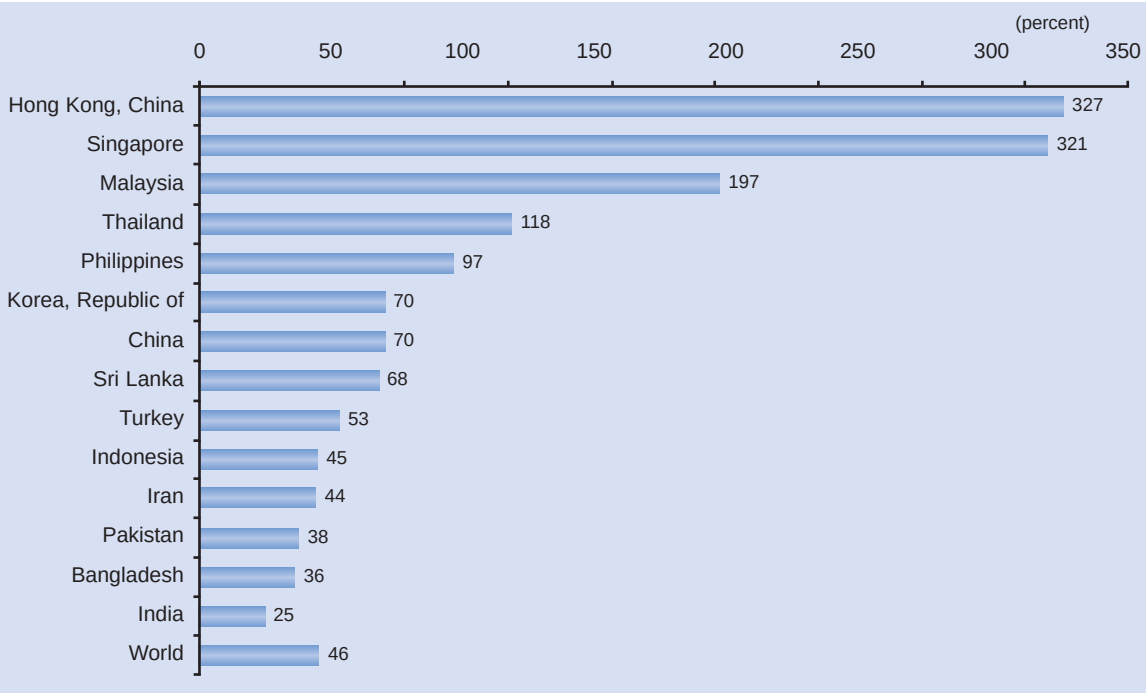
A similar relative picture holds for growth in the imports-to-GDP ratio, depicted in Chart 1.12. Pakistan's imports as a share of GDP rose only to 0.24 percentage points per year from 1990 to 2004 and even that figure is driven by the sharp rise in imports in 2004. Only Indonesia, Iran and Singapore had imports grow less as a share of GDP in the selected Asian economies.

Chart 1.13 Average Per Annum Growth in Trade-to-GDP Ratio (1990-2004)



Source: WTO, World Trade Data

Chart 1.14 Trade-to-GDP Ratio (2004)



Source: WTO, World Trade Data

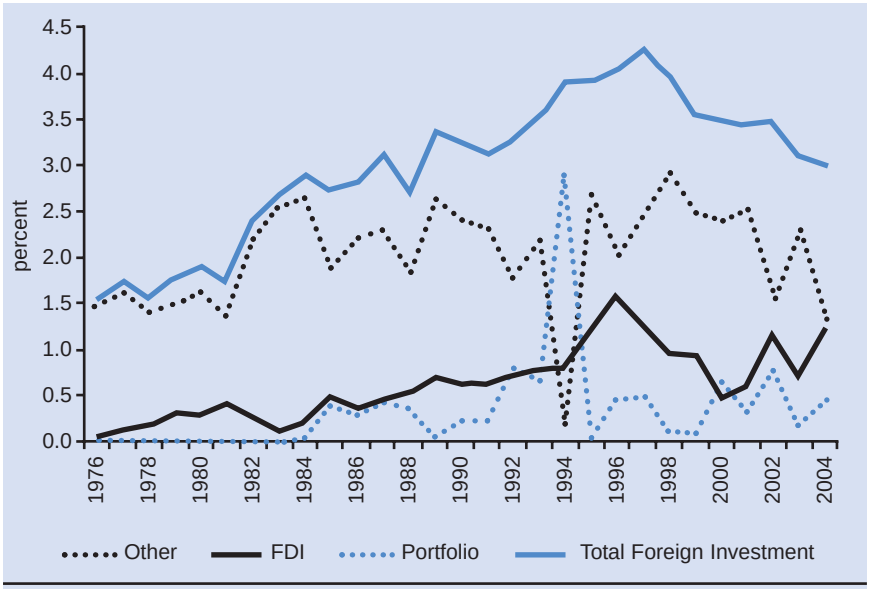
This translates into a rise in total goods trade as a share of GDP of just 0.4 percentage point per annum for Pakistan, which is much less than the vast majority of the Asian countries (Chart 1.13). This makes the trade-to-GDP ratio in Pakistan rather low at 38 percent compared to other developing Asian countries (Chart 1.14). However, among the developing South Asian countries shown, India's share at 25 percent and Bangladesh's share at 36 percent are lower than Pakistan's share.

In summary, Pakistan's trade liberalization has led to a faster increase in trade than in the pre-liberalization period. Exports have grown, but the acceleration in real trade largely reflects acceleration in real imports. Moreover, the liberalization has not led to the spurt of trade that has been observed in many other developing countries in Asia. Thus trade performance relative to many other developing Asian economies has not been impressive.

Foreign Investment and Composite Indicators

Pakistan's gross foreign investment (the sum of inflows and outflows analogous to the case of real trade) as a share of GDP shows an upward trend from the early 1980s to about 1998, rising from under 2 percent of GDP to more than 4 percent of GDP. It seems to have declined since then to 3 percent of GDP (Chart 1.15). Looking at the components, the FDI-to-GDP ratio first rose from 1983 to 1996, although only to a modest level of 1.5 percent. Then it generally fell as a share of GDP until 2000, following which the tendency is towards an increase again. Portfolio investment as a share of GDP has been volatile, rising sharply from the late 1980s to the mid-1990s before plunging and then on a gradual upward trend since then, although with considerable volatility around that trend. Despite a rise in these two components (which largely consist of

Chart 1.15 Gross Foreign Investment-to-GDP Ratio (percent)



Source: The IMF, International Financial Statistics (IFS)

Trade performance relative to many other developing Asian economies has not been impressive.

Box 1.3 A Composite Index of Economic Liberalization

Construction of a composite and decomposable index of globalization is an important research issue. Kearney (2002) was the first comprehensive attempt to construct a database and to compute a composite globalization index. The index is a simple combination of forces driving the integration of ideas, people and economies worldwide. It is composed of four major components: economic integration, personal contact, technology and political engagement, each generated from a number of determinant variables. The total number of variables used in the computation of the globalization index is 13. The Kearney/Foreign Policy Magazine Index sheds light on important questions related to globalization in 62 key advanced and emerging markets worldwide and ranks countries based on their level of economic, social, technological and political integration with the rest of the world. The following Table displays overall and economic liberalization ranking of selected countries for 2003.

Country	Economic Ranking	Overall Ranking
Singapore	1	1
Malaysia	4	19
Thailand	14	46
Taiwan	18	36
China	26	54
Philippines	28	32
Sri Lanka	34	43
South Korea	38	30
Indonesia	50	60
Iran	51	62
Pakistan	53	50
India	59	61
Bangladesh	61	58
Japan	62	28

Note: Rank 1 depicts highest while rank 62 shows lowest globalization level among 62 countries.

Source: A. T. Kearney, Inc and Foreign Policy Magazine, May/June, 2005

To see how liberalization has evolved over time, the Kearney approach is applied to Pakistan time-series data of various outcome measures of economic openness or liberalization. Specifically, the computed Index of Economic Liberalization (IEL) quantifies liberalization by combining data on four key variables namely trade, FDI, portfolio capital flows and income payments and receipts. The inward and outward flows of these variables are added and the sum of each variable is divided by the nominal GDP. The resulting data of each variable is then normalized and summed using an ad hoc weighting system as follows:

$$[IEL]_t = \sum_{i=1}^{4} w_i \left[\frac{X_{it} - X_i^{MIN}}{X_i^{MAX} - X_i^{MIN}} \right]$$

Here *i* and *t* indicate component variables and time periods, *w* the weights attached to each contributing variable, while MIN and MAX are minimum and maximum values of respective variables. Following Kearney, the score of individual variable is summed with triple weighting on FDI and double weighting on trade due to the particular importance of these factors in the ebb and flow of globalization. The data of these variables are collected from international sources such as the World Development Indicators (WDI) of the WB and IFS of the IMF.

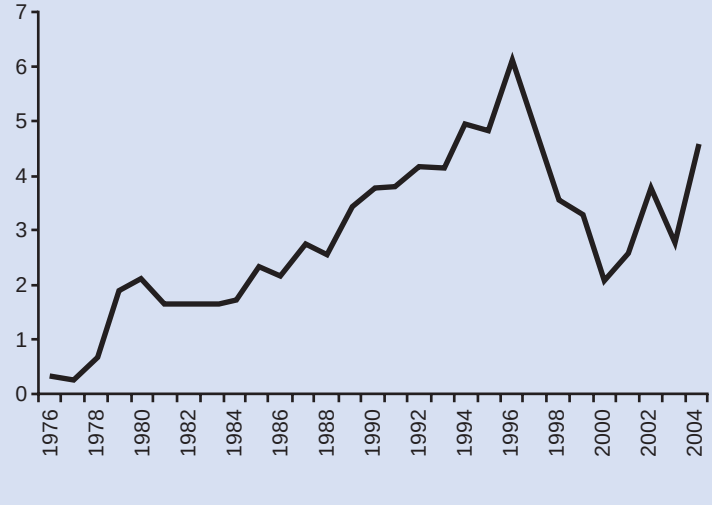
Instead of applying an ad-hoc weighing scheme, an alternative approach could be to use Principal Component (PC) or Factor Analysis for assigning weights to different component variables. PC analysis is a multivariate technique for examining relationships among several quantitative variables and has been used in many areas. Given a dataset with *p* numeric variables, at most *p* PC can be computed; each is a linear combination of the original variables with coefficients equal to the eigenvectors of the correlation of the covariance matrix. The principal components are sorted by descending order of the eigen values, which are equal to the variance of the components. The first (last) component has the largest (smallest) variance of any unit-length linear combination of the determinant variables. The computed eigen values are used to determine the importance (weight) of each component in the principal factor/component. To check the sensitivity of IEL in terms of weighing schemes, the weights derived from the PC method are applied and an alternate index is constructed. However, the two indices have a more or less similar trend and therefore the index based on Kearney's weighing scheme is preferred from the comparability point of view.

The Kearney IEL that we have computed for Pakistan is plotted in Chart 1.16 of the main text.

inflows) since 2000, total gross foreign investment as a share of GDP has actually fallen a little in recent years, reflecting a decline in other components (which largely consist of outflows). The foreign investment-to-GDP ratio appears to be low in Pakistan. And, moreover, although FDI and portfolio investment inflows have turned around and increased as a share of GDP in recent years, it appears that Pakistan has not been able to make the kind of progress on this that might be expected from its privatization and "opening up" policies with respect to foreign ownership which have been adopted in recent years.

One might also want to consider a composite picture that measures progress towards openness taking into account both the liberalization of real trade and liberalization toward foreign investment that has occurred in Pakistan. One such composite measure is based on a weighted average of trade-to-GDP and ratios of different components of foreign investment-to-GDP. The methodology of computing this overall liberalization index is discussed in detail in Box 1.3. The methodology results in the liberalization index shown in Chart 1.16. After the initial acceleration from a very low base, the index depicts four distinct phases since 1980: a moderate upward trend up to 1989; a relatively fast upward trend from 1990 to 1996; a downward trend from 1997 to 2000 (primarily reflecting a fall in gross foreign investment as

Chart 1.16 Index of Economic Liberalization



Source: SPDC estimates based on data from the IMF, IFS (various issues)

a share of output rather than a decline in trade); and then again an upward trend from 2001 to 2004 after the onset of the present government. This suggests that it is important to divide the liberalization period into sub-periods.

CONCLUSIONS

In this chapter we saw that Pakistan's trade policies since independence have been quite erratic on the whole and marked by a high average level of protection. However, since the late 1980s, there has been a clear effort to reduce trade barriers and liberalize the economy through a sharp reduction in import tariffs, dismantling of most of the NTBs and eventual elimination of most of the SROs. This did not right away translate into an increase in the pace of expansion of trade; there were some other factors at work during the 1990s that will be discussed later. But over time, as the policy of trade liberalization has interacted with a more stable macroeconomic and policy environment as well as a more favorable external environment with greater availability of credit, Pakistan's trade has accelerated.

Nonetheless, Pakistan is still relatively a more restricted economy than many developing countries in Asia and also one which ranks as one of the highest among all the countries in the world in terms of a lack of access to markets allowed by other countries. Moreover, the extent of

trade liberalization that has taken place since the early 1990s may have led to an acceleration of trade but has not resulted in the spurt of trade that is characteristic of many other developing countries in Asia. It has also not led to as much increase in the ability to attract foreign investment, particularly FDI, as we have seen in other countries. Thus, the trade performance has not been that impressive when measured against the standards of some other developing economies in Asia.

How the trade liberalization has affected the economy more broadly, in particular its implications for growth, poverty and inflation is the subject of the next chapter.

THE IMPACT OF TRADE LIBERALIZATION ON GROWTH AND POVERTY

2

Trade liberalization has a poverty-reducing impact through growth, productivity, investment and price stability. However, it also has some adjustment costs associated with it, in particular costs related to fiscal adjustment, which are poverty-increasing.

THE IMPACT OF TRADE LIBERALIZATION ON GROWTH AND POVERTY

Freer international trade over the past two decades, together with renewed emphasis on poverty issues around the world, has fueled debate on the interactions between trade liberalization, growth and poverty. The different views that emerge from this debate cover the entire spectrum of arguments. Critics of globalization often argue that dismantling of trade barriers increases poverty, and there is no clear-cut evidence that this process directly promotes growth either. Others, however, see the expansion of trade as a powerful force for enhancing growth and reducing poverty, from which especially developing countries can benefit.

There is also a more middle-ground view which accepts that trade liberalization contributes significantly to growth in the long run. However, the proponents of this view also raise concerns about the adjustment costs of trade liberalization in the transition period. They argue that this period can be quite long and the adjustment costs can harm the poor and leave them lagging behind.

Pakistan, too, has liberalized its trade regime substantially since the late 1980s, as was documented in Chapter 1. Moreover, the GoP is placing greater emphasis on the goal of poverty alleviation. To formulate the appropriate strategy for achieving this goal, it is important to know which of the different views in the literature about the relationship between trade liberalization and poverty is more applicable to Pakistan's experience. This motivates us to ask the following questions in the context of Pakistan's economy:

- What would the economy have looked like if trade had not been liberalized since the late 1980s and, in particular, would the economic growth, inflation and poverty situation been better or worse?
- Empirically, what are the most important channels through which the process of trade liberalization has affected Pakistan's economy?
- Given these channels, how can we guard against adjustment costs of trade liberalization and reap maximum gains from future increases in trade openness?

This chapter focuses on these questions and proceeds as follows. First, it provides a review of the literature concerning the channels of transmission through which trade liberalization can influence poverty. Second, some stylized facts are presented on what has happened to key economic variables in Pakistan over the period of the trade liberalization. Third, it discusses other key factors, apart from trade liberalization, that have shaped economic developments. Fourth, the econometric evidence on the impact of trade liberalization on poverty and inequality is set forth,

including counterfactual analysis and future policy simulations through SPDC's large-scale model of Pakistan's economy. This forms the crux of the chapter which sheds light on the above questions. Finally, the conclusions from the chapter findings are summarized.

CHANNELS OF TRANSMISSION

According to economic theory, greater trade openness can have both positive and negative effects on poverty. By allowing easier imports of capital goods, greater allocative efficiency, technological and knowledge spillovers as well as increased competition, trade can enhance growth and also lead to the availability of a greater variety of goods to consumers at lower prices. But the process of trade liberalization can also entail a loss of government revenues, incur adjustment costs from sectoral shifts in the transition period and can cause increased vulnerability to external shocks.[1]

Before describing these channels of transmission in more detail, two points are worth emphasizing (Wacziarg, 2001). First, researchers in this area tend to pick up a particular trend and interpret the results according to their preferred theory. But, it should be recognized that several different forces emphasized in various theories may be operating simultaneously in the real world. Second, even if the benefits of trade liberalization are found to outweigh the costs, the process of liberalization may involve some dynamic costs. Conversely, if the costs of liberalization outweigh the benefits, this does not necessarily imply that some benefits are not large. Therefore, it is important to empirically pin down the scale of different benefits and costs so that better policies can be designed to maximize the benefits and minimize the costs.

[1] Goldin and Reinert (2006), Ch.2, Wacziarg (2001) and Winters *et al* (2004) represent excellent surveys of the literature.

The literature highlights the following channels of transmission:

The Growth Channel

There are good reasons to expect from economic theory that greater trade liberalization and openness can increase growth through its effects on productivity, investment and possibly employment.

The Productivity Effect:

When trade is unrestricted, countries can specialize in the production of those goods in which they have a comparative advantage. This leads to increased allocative efficiency, which enhances productivity and the overall level of output (The principle of comparative advantage is discussed in Box 2.1). Moreover, technological transmissions, knowledge spillovers, benefits of scale and competition and greater reliance on market signals can also result from increased openness and trade liberalization. These factors also enhance productivity, leading to higher economic growth.[2]

Box 2.1 Gains from Trade: The Law of Comparative Advantage

The Law of Comparative Advantage is attributed to the19th century economist, David Ricardo. It states that countries can gain by specializing in the production of goods in which they have a comparative advantage and then trade in them. A country is defined to have a comparative advantage in a good, if in the production of that good it has most absolute advantage or least absolute disadvantage. Thus, there are gains to specialization and trade for all countries even when one country may have absolute advantage in the production of all goods.

The concept of comparative advantage is best illustrated through an example. Suppose there are only two countries, A and B, and only two goods, wheat and cloth. Using one unit of labour over a given time period, Country A can produce either 6 bushels of wheat or 4 yards of cloth whereas Country B can produce either 2 bushels of wheat or 2 yards of cloth (see Table). Note that country A is more efficient at producing both goods - it has an absolute advantage in the production of both. However, Country B has comparative advantage in the production of cloth because this is the good in which it has least comparative disadvantage - it is only *half* as efficient at producing cloth compared to *one-third* as efficient at producing wheat.

If country B specializes in the production of cloth, it would be willing to trade 1 yard of cloth for 1 bushel of wheat without being worse off. But this would represent a gain for country A - if country A specializes in the production of wheat it is willing to trade 1 bushel of wheat for 2/3 yards of cloth, but it is getting a more favourable terms of trade of 1 yard of cloth for 1 bushel of wheat. Thus, for any terms of trade in between 2/3 to 1 yard of cloth for 1 bushel of wheat, both countries would be better off by country A specializing in the production of wheat and country B specializing in the production of cloth and trading with each other.

Production Possibilities

	Production per unit of labour	
	Country A	Country B
Wheat (bushels)	6	2
Cloth (yards)	4	2

Economic theory leads us to expect that greater trade liberalization can increase growth.

[2] Endogenous growth models emphasizing these channels are discussed in Barro and Sala-i-Martin (1997), Grossman and Helpman (1991), and Lucas (1988) among others.

The Investment Effect:
A reduction in import barriers allows imports of needed intermediate and capital goods that were either previously unavailable or produced locally at a much higher cost. This results in higher physical investment. Further, some theories highlight the size of the market as a constraint on physical investment. Greater openness by relaxing this constraint can act as an impetus for domestic investment. Thus, more open economies are better able to exploit increasing returns to scale and lead to the type of big push in investment that some have argued is essential for less developed countries to move from a low-growth equilibrium to a path of sustained industrialization (Murphy *et al*, 1989 and Wacziarg, 1997).

The Employment Effect:
The effects of trade liberalization on aggregate employment depend on a number of factors (Winters et al, 2004). The resulting shifts in labour demand in different sectors, the magnitudes of the labour demand and supply elasticities and whether labour markets are segmented or not are clearly important. In traditional trade models, where labour supplies are fixed and wages are flexible, labour market adjustments will occur through changes in wages. If, on the other hand, labour is more abundant, the adjustment will take place in terms of employment. Even in this case, the net effect on employment is ambiguous for two main reasons. First, some sectors expand and others contract as a result of trade liberalization. Second, while productivity increases lead to an increase in the aggregate demand for labour, if there is also a substitution of capital for labour involved in the process of liberalization, the overall employment could fall. Thus, the net effect on employment of trade liberalization is theoretically ambiguous and becomes an empirical issue.

Additionally, even if the higher growth from liberalization is accompanied by higher employment on aggregate, the poverty consequences of these employment changes are not clear-cut. These would still seem to depend on whether the unskilled workers (which would include the poorer workers) are employed in the expanding or contracting sectors.

The Price Channel

Price changes are an important pathway through which trade liberalization can affect an economy. The removal of distortions and more competition lead to a greater link of international prices with domestic prices. Consequently, inflation falls. It is generally believed that part of the worldwide trend towards lower inflation seen in recent years can be explained by the greater competition and productivity increases that result from globalization. A permanently lower inflation rate lends macroeconomic stability which can be conducive to growth and, thereby, reduce poverty. In principle, lower overall inflation can also more directly enhance the welfare of the poor by making goods available to them more cheaply.

In practice, though, the transmission of border price effects to poor households depends on a number of factors. These include the extent to which they consume the tradeable goods whose prices are most affected, what the mechanism is for the distribution of goods where the poor live (e.g. relatively competitive structure or marketing boards or private monopolies) and the ability of the poor to respond to the price changes (Winters et al, 2004).

The Public Finance Channel

The Government Revenue Effect:

As tariffs are reduced, it is likely that government revenue will be lost. This will happen unless the initial tariff level exceeded its revenue-maximizing level (Box 1.1). The impact on the poor of the lost revenue will depend on how the government reacts to it. If it seeks alternative non-trade sources of revenue, the burden of that on the poor would be determined by the exact fiscal instrument used. Alternatively, the government can decide just to live with more unbalanced budgets. But this can seriously undermine macroeconomic stability and policy credibility in developing countries, which can hurt prospects for long-term growth.

The Government Spending Effect:

The third possible response for the government is to lower its expenditures. Cuts in public spending on welfare and social-sector programmes that can occur as an adjustment mechanism for the lost revenue after trade liberalization are often cited as being among the key costs of greater trade openness.[3] Evidence is mixed across countries on how much social sector and pro-poor spending is protected in the face of structural adjustment (Winters et al, 2004). But the historical experience of some developing countries, including Pakistan, suggests that often when there is pressure to cut public spending, it is the development expenditures - the most productive and pro-poor kind - that offer the line of least resistance.

The Sectoral-Shifts Channel

The Industrial Structure Effect:

Trade liberalization entails sectoral adjustments, which can have substantial costs. Industries which have comparative advantage and are able to compete will expand while those which cannot compete will shrink or disappear. The poor are relatively less equipped to deal with the resulting shifts in sectoral employment and output patterns because of their meager assets and other resources. For example, they have less means of acquiring skills that might be needed in the expanding sectors.[4] Thus, sectoral shifts can increase inequality and poverty in the transition period, which could last for quite a long time if the response of public policy to mitigate the costs is muted.

The Availability of Goods (Diversification) Effect:

As fresh potential markets develop, producers can get more opportunity to produce new goods. And, of course, one of the key benefits of free trade is that consumers all over the world benefit from a greater menu of goods available at lower prices. The extent to which these benefits

Often, when there is pressure to cut public spending, development expenditures - the most pro-poor kind - offer the line of least resistance.

[3] Killick (1995) provides a review of the effects of structural adjustment in developing countries (including changes in social sector spending) on poverty.

[4] The poor are also less equipped to deal with any new external shocks that trade liberalization may expose the economy to and, thus, become more vulnerable on that count (Winters *et al*, 2004).

extend to the rural areas and spillover to the poorer sections of the population can vary from country to country. But if this happens to some degree at least, poverty is reduced in the sense that the economic welfare of the poor improves.

It should be emphasized that the description above represents what we can expect to happen based on economic theory. And, as Winters et al (2004) note, even theoretically, none of the benefits of trade liberalization discussed above are guaranteed absolutely; it is possible to think of specific alternative models in which the benefits might get reversed. But these would be special models and, by and large, economic theory seems to embed the channels discussed above.

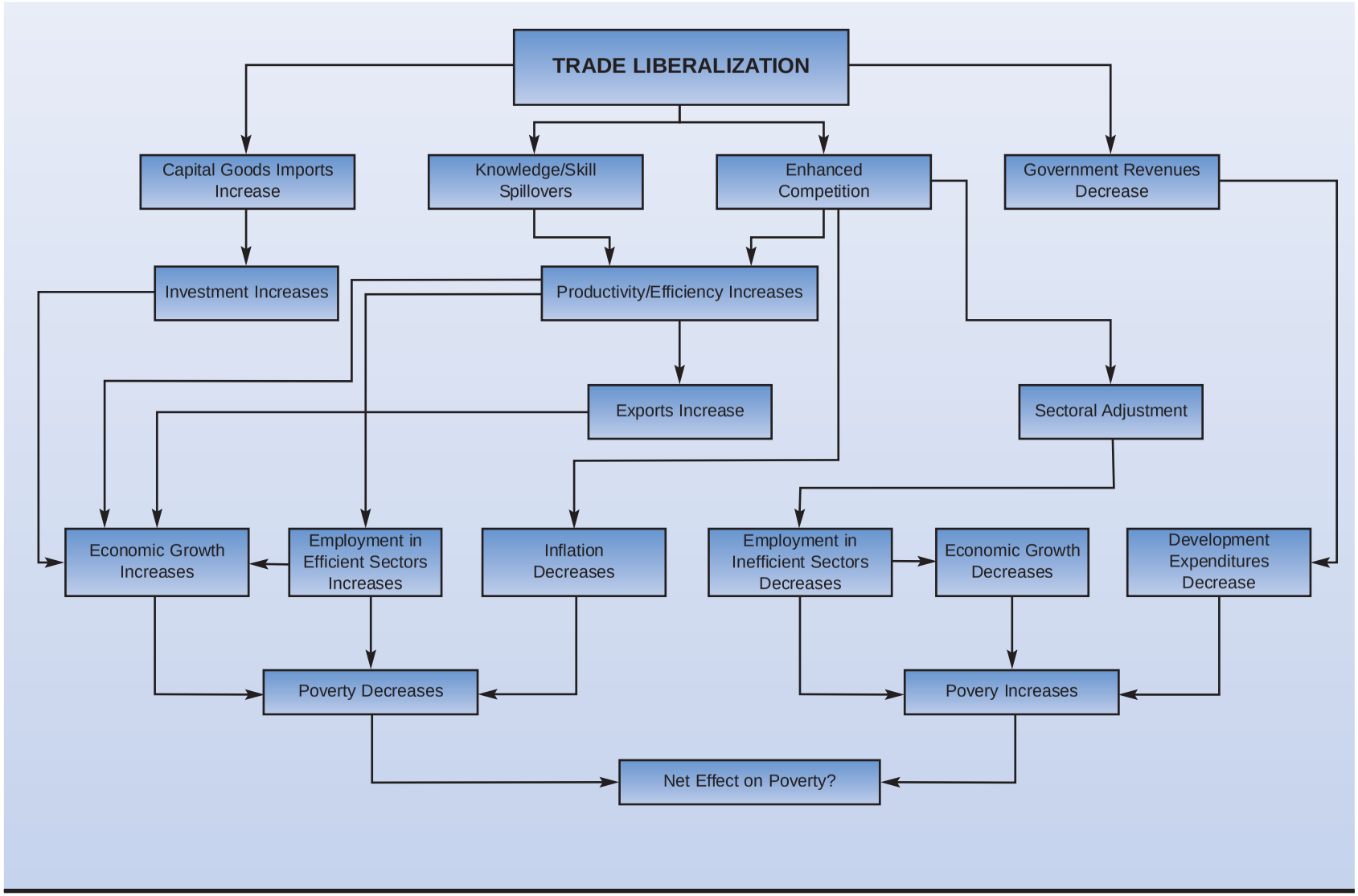
Summarizing the Channels

Based on the above discussion, Chart 2.1 presents a schematic illustration of the key linkages in measuring the effects of trade liberalization on poverty that we are able to capture in our empirical work for Pakistan.

The following are the positive influences:

- Trade liberalization reduces tariff barriers and NTBs, which, directly facilitates the import of capital goods. This enhances physical investment, thereby promoting economic growth and decreasing poverty.
- Greater openness in trade and investment relations lead to knowledge and skill spillovers as well as enhanced competition. These forces increase efficiency and productivity, which enhances economic growth directly as well as through exports, thereby reducing poverty.
- The increases in productivity and efficiency also lead to a rise in employment in the efficient sectors of the economy, which can be poverty-reducing as well.

Chart 2.1 Effects of Trade Liberalization on Poverty



- The removal of price distortions and enhanced competition lead to a decrease in inflation, which also helps to alleviate poverty.

Countering these positive effects are the following negative effects:

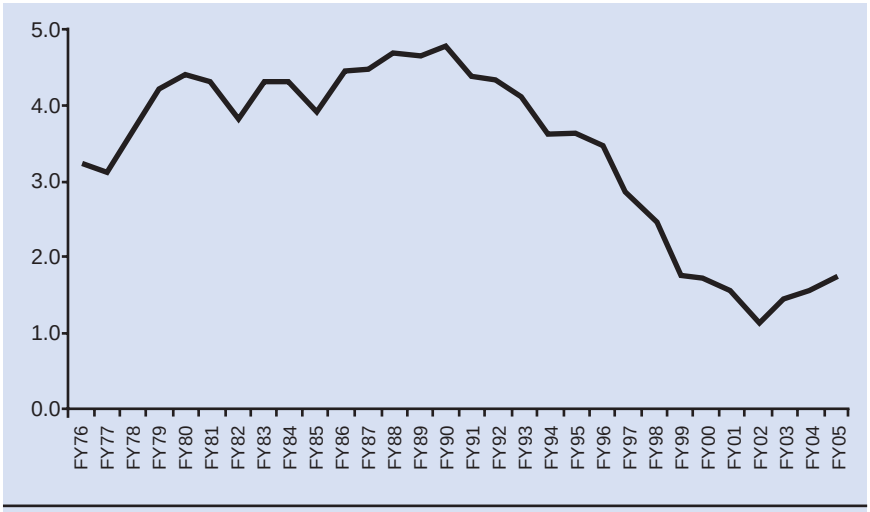
- The enhanced competition can lead to sectoral adjustments which will decrease employment and growth in the inefficient sectors. If the poorer segments of the population work in these sectors mainly, poverty will increase in the transition period until reallocation of resources takes place and the displaced workers are absorbed elsewhere.
- The lost government revenue may require structural adjustment. If this structural adjustment takes place, at least partially, in the form of reduced development expenditures on welfare and social sector programmes, poverty will increase on this count.

In the end whether the benefits outweigh the costs is an empirical matter. We turn next to where the evidence from Pakistan is pointing to in this respect.

STYLIZED FACTS OVER THE LIBERALIZATION PERIOD

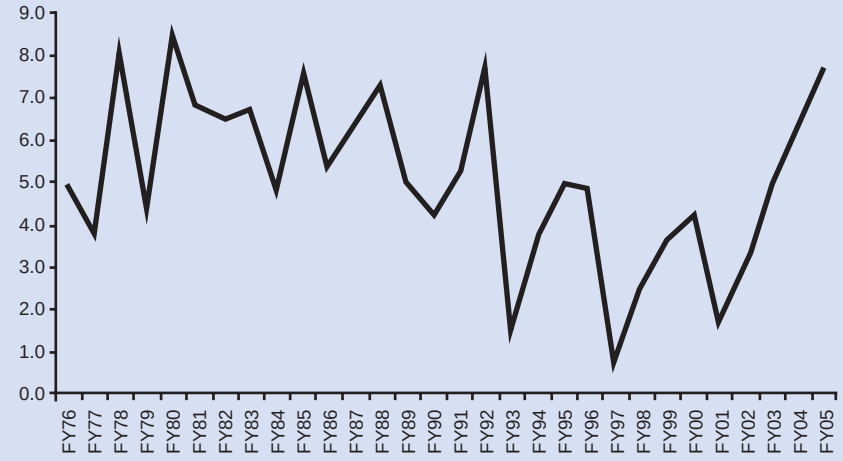
The reduction in tariff rates and the fall in import taxes that occurred as part of the trade liberalization since the late 1980s were detailed in Chapter 1. As shown in Chart 2.2, this resulted in import taxes falling steadily from about 5 percent of GDP in FY90 to just about 1 percent of GDP in FY02 and thereafter rising a bit.

Chart 2.2 **Import Taxes-to-GDP Ratio (percent)**



Source: Computations based on data from the GoP, Economic Survey (various issues).

Chart 2.3 Real GDP Growth (percent)



Source: Computations based on data from the GoP, Economic Survey (various issues).

Real GDP growth performance during the 15-year pre-liberalization period and over the liberalization period from 1990 is shown in Chart 2.3. Although economic growth has been volatile, it is clear that there was a general downward trend over much of the liberalization period, until FY01. Since then, however, economic growth has steadily increased, reaching 8.4 percent in FY05.

Table 2.1 presents the performance of some other key economic and social sector variables in the pre-trade liberalization and trade liberalization periods, with each period subdivided further into three 5-year periods. Note that in the first sub-period of trade liberalization, 1991-95, average inflation was high and average employment growth was low. But after 1995, there has been a sharp reduction in the consumer price inflation rate and an increase in employment growth accompanying the continuation of the process of trade liberalization. The pace of employment growth across sectors has been uneven, however, and it is not clear if the sectoral trends have been especially pro-poor (Box 2.2).

Table 2.1 Period-Wise Performance of Selected Variables

	Average Annual Growth (%) of		Average Level of	
	Consumer Prices	Employment	Poverty (%) (Headcount)	Income Inequality (Gini)
FY76-FY80	9.7	3.5	33.8	0.3288
FY81-FY85	8.2	2.2	25.6	0.3495
FY86-FY90	6.1	2.6	21.4	0.3687
FY91-FY95	11.1	1.1	21.3	0.3863
FY96-FY00	8.1	2.9	25.1	0.4023
FY01-FY05	5.0	3.0	31.0*	0.4140*

*FY01-FY03 as data on these variables are only available until 2003

Source: GoP, Economic Survey (various issues) and SPDC estimates

Box 2.2 Trends in Employment by Sector

In relating employment trends to poverty, two stylized facts are important to note (SPDC, 2004):

1. Incidence of poverty is higher in agriculture than in other sectors.
2. Incidence of poverty is higher in rural than in urban areas.

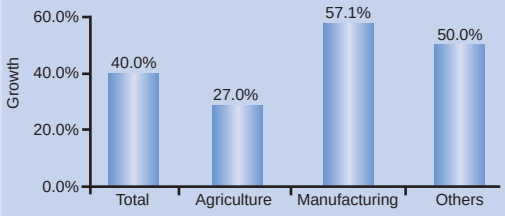
During FY91 to FY04 (the latest year for which the Labour Force Survey is available), many reforms have been undertaken including trade liberalization. The question thus arises whether employment trends have been poverty- reducing or poverty-increasing over this period.

As shown in the chart , over this 14-year time span, total employment grew by 40 percent, reflecting an increase of 57 percent in manufacturing but only 27 percent in agriculture. Thus, the agricultural sector, where most of the poor are employed, has lagged behind the other sectors in employment growth. In the long run, of course, the share of agriculture as an economy develops can be expected to fall.

But note that employment growth in rural areas of 35 percent over 14 years has also substantially lagged behind that of 51 percent in urban areas (see chart).

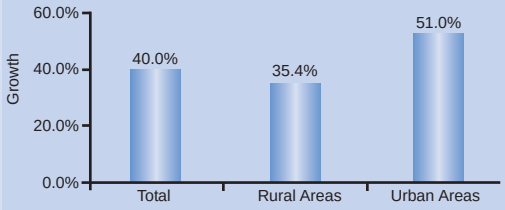
This cannot be explained by migration alone--the share of population has shifted moderately from rural to urban areas (as shown in the chart) but not by enough to fully account for the urban-rural employment growth differences.

Employment Growth by Sector (1990-91 to 2003-04)



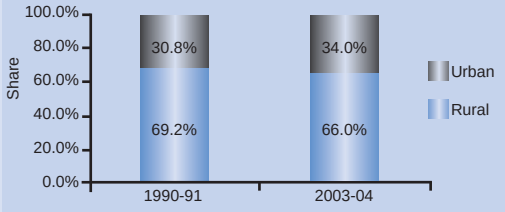
Source: GoP, Labour Force Survey (1990-91 and 2003-04)

Employment Growth by Type of Area (1990-91 to 2003-04)



Source: GoP, Labour Force Survey (1990-91 and 2003-04)

Composition of Population by Type of Area



Source: GoP, Labour Force Survey (1990-91 and 2003-04)

Poverty decreased slightly in the early phase of the liberalization period but appears to have increased after 1995. And income inequality has been increasing throughout the sub-periods as shown in Table 2.1. Note, however, that since the data on poverty and inequality are not available beyond FY03, it is difficult to surmise what has happened to these variables over the especially high-growth period of the past two years.[5]

[5] The government released some preliminary new figures for poverty in March 2006 that were reported in newspapers. According to these figures, poverty has decreased to 25.4 percent in FY05. Since the detailed data have not been released so far, we have not as yet been able to study and analyze these figures.

Thus, while there has been a general tendency for the inflation and employment prospects to improve over much of the liberalization period since the late 1980s, improvements in growth and poverty appear not to have accompanied the process of trade liberalization, at least until recently.[6] From a cursory look at these stylized facts, it would seem that the picture that emerges in the case of Pakistan is not supportive of a strong positive link from trade to growth, which in turn reduced poverty, at least for the 1990s. But two explanations for this observation could be hypothesized. First, a lot else was going on over the last fifteen years in addition to the process of trade liberalization. Second, it always takes time for resources to be reallocated and for the economy to attain efficiency along the production frontier.

Thus, we need to address the question: Was trade liberalization beneficial to the economy with other factors explaining the fall in growth over much of the period and the lack of improvement in the poverty and inequality situation? In other words, would the economy have looked better or worse if trade had not been liberalized, with other influences kept fixed? We will turn to this question in due course, but it is important first to discuss some of the other factors that researchers have found to have influenced the developments of the 1990s discussed above.

DEVELOPMENTS IN THE 1990s[7]

There were several key developments that can potentially help explain the relative decline in growth rates and an increase in poverty during the 1990s.

Lack of Adequate Macroeconomic Stability

Despite a commitment to trade liberalization and other policy reforms in the areas of deregulation, privatization and greater reliance on market forces, an adequate degree of macroeconomic stability eluded the economy. As shown in Table 2.2, from FY89 to FY99 the overall budget deficit averaged nearly 5 percent of GDP, the current account-to-GDP ratio averaged 4 percent of GDP, and average inflation was almost double-digit.

Several factors can help explain the lack of stability. First, the policy makers of that era inherited a difficult situation. Between FY78 and FY88, the budget deficit-to-GDP had averaged 5.6 percent and the current account deficit-to-GDP had averaged 3.3 percent of GDP (Table 2.2). In FY88, the budget deficit was 6.6 percent of GDP and the government's debt servicing had already reached nearly 5 percent of GDP. The cumulative effects of the profligate 1980s had almost reached a boiling point. Second, there was an environment of uncertainty, with political instability and frequent changes in government that would reverse some of the specific policies of the previous government. Third, investor confidence was lacking amid a perception of discretionary excesses and

An adequate degree of macroeconomic stability eluded the economy.

[6] Aziz (2002) and Anwar (2001) also provide a discussion of the relevant stylized facts and their implications for the interrelationship between trade liberalization and some other aspects of globalization and poverty.

[7] The discussion here partly draws on Husain (2003), SPDC (2001) and Zaidi (2005).

Table 2.2 Performance of Selected Stabilization Indicators

	FY78 to FY88	FY89 to FY99	FY00 to FY02	FY03 to FY05
Overall Budget Deficit (percent of GDP)	5.6	4.8	5.0	3.3
Current Account Balance (percent of GDP)	3.3	4.0	0.1	-1.2
Inflation Rate (percent)	7.5	9.9	4.4	7.4
Money Supply Growth (percent)	16.3	15.3	11.3	16.9

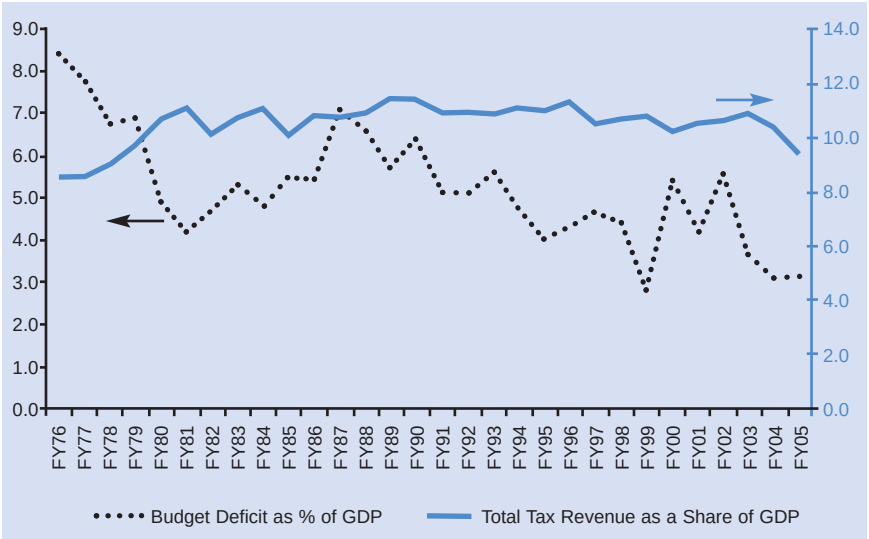
Source: Computations based on data from the GoP, Economic Survey (various issues)

corruption - Pakistan was ranked the second most corrupt country in the world in 1996 by the Transparency International survey. Fourth, there were some negative exogenous shocks, such as the sanctions imposed after the nuclear tests in May 1998, which set back the economy considerably.

Fiscal Adjustment

Although fiscal deficits as a share of GDP remained high on average during the 1990s, considerable fiscal consolidation relative to earlier periods was taking place, partly under an IMF SAP, and this had consequences for the economy. From a peak of about 7 percent of GDP in FY87, the budget deficit came down to about 3 percent of GDP in FY99 (Chart 2.4). This adjustment largely fell on public spending, as the tax-to-GDP ratio, also shown in Chart 2.3, did not change much. Thus, while the loss of import taxes as a share of GDP over the liberalization period was made up, Pakistan's overall tax-to-GDP ratio has not shown an improvement and has hovered at around 9 to 10 percent, which is quite low even by developing country standards.

Chart 2.4 Fiscal Ratios (percent)



Source: Computations based on data from the GoP, Economic Survey (various issues).

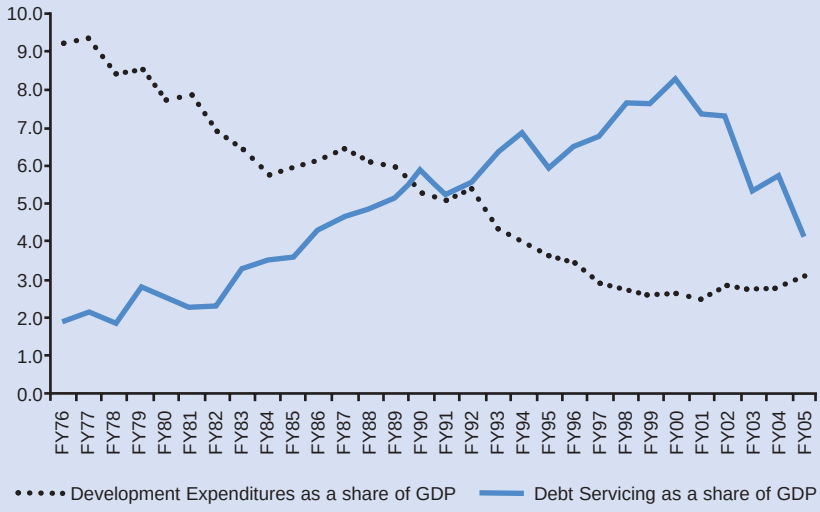
Pakistan's overall tax-to-GDP ratio is quite low even by developing country standards.

Not only did the burden of fiscal consolidation fall largely on public spending, but the brunt of it was borne by the most productive and most pro-poor kind of public spending - development expenditures. As shown in Chart 2.5 over the pre trade-liberalization period of 1976 to 1990, there was a change already in place in the composition of public expenditures from development expenditures toward rising debt-servicing costs. With debt-servicing costs continuing to rise as a share of GDP and overall fiscal consolidation taking place in the 1990s, this trend of a change in composition of expenditures away from development expenditures accelerated. As shown in the Chart, debt servicing costs of the government as a share of GDP rose from 5.8 percent of GDP in FY90 to 8.3 percent of GDP in FY00, while over the same period development expenditures as a share of GDP fell from 5.3 percent to 2.7 percent. However, more recently the fiscal space created by the sharp reduction in debt servicing costs has been used partly to increase the share in GDP of development expenditures.

Monetary Policy

As was seen from Table 2.2, inflation had averaged nearly double-digit during the 1989-1999 period. This was probably in part because of the accumulation of the twin deficits. This, no doubt, explains some of the increase in poverty over this period (see, for example, Amjad and Kemal, 1997). Also, quite correctly, since the international evidence is clear that once inflation gets high enough on a sustained basis it can have very adverse consequences for growth in the long-term, monetary policy was eventually tightened. From FY00 to FY02, the average growth rate of money supply slowed to 11.3 percent and inflation was brought down to an average rate of 4.4 percent per annum (Table 2.2). This much-needed control of inflation probably did have some short-term costs in terms of slower economic growth.

Chart 2.5 Selected Government Expenditure Ratios (percent)



Source: Computations based on data from the GoP, Economic Survey (various issues).

Reduced Inflows of Remittances and Foreign Grants

Some researchers have argued that the reduced inflow of remittances and foreign grants and low interest loans accounted for some of the rise in poverty during the 1990s. Strong remittances were a factor in reducing poverty during the mid-1970s and early 1980s and when these remittances weakened, poverty started going back up (Amjad and Kemal, 1997). The slowdown in foreign grants also hurt the poverty situation through weakened economic growth.

Weak Export Performance

As shown in Table 2.3, the growth rate of real exports averaged just 5.3 percent per annum between 1989 and 1999, compared with an average growth of 9.3 percent in the decade prior to that. This put pressure on the trade deficit and, with net transfers not being available to the same degree as before, the current account deficit was also strained. This experience also illustrates an important point-that it can take some time before the increased investment and productivity generated by a policy of trade liberalization gets translated into exports. Thus, the adjustment

Table 2.3 Performance of Selected Real Sector Variables

Growth Rate* of:	FY78 to FY88	FY89 to FY99	FY00 to FY02	FY03 to FY05
Real Exports	9.3	5.3	11.2	10.3
Real GDP	6.7	4.1	3.1	6.4
Manufacturing Output	9.2	4.2	5.1	11.1
Agriculture Output	4.0	4.5	1.3	4.6

* Percent per annum

Source: Computations based on data from the GoP, Economic Survey (various issues)

costs of trade liberalization may partly show up in increased pressures on external balances in the short run. Later, real export growth picked up, averaging 11.2 percent per annum over the FY00 to FY02 period and 10.3 percent per annum over the FY03 to FY05 period.

Summary

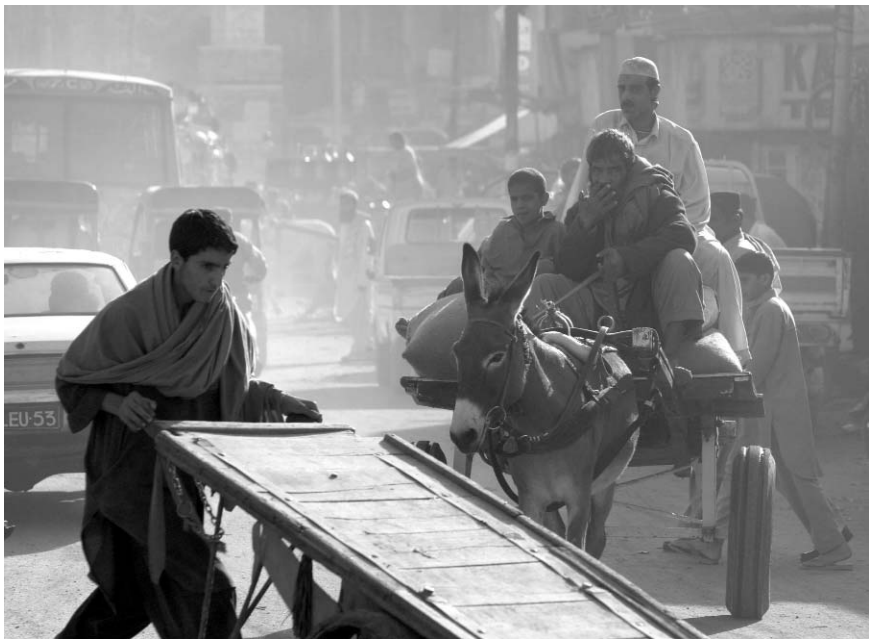
A number of factors hurt economic growth during the period from the late 1980s to 2001. First, the cumulative adverse effects of the twin deficits, the environment of political instability and exogenous shocks, such as economic sanctions following the nuclear tests, made it difficult to achieve a measure of economic stability. Second, fiscal consolidation did take place but without an increase in the tax-to-GDP ratio and with a run-up in public debt and its servicing costs, the brunt of the adjustment fell on the development expenditures. Third, concerns about inflation necessitated a tight monetary policy, particularly during the late 1990s. Fourth, the export performance did not pick up right away as trade was liberalized. These factors contributed to annual economic growth declining from an average of 6.7 percent during the FY78 to FY88 period to 4.1 percent during the FY89 to FY99 period and a further decline to 3.1 percent during the FY00 to FY02 period (Table 2.3); the growth rate of manufacturing was 9.2 percent, 4.2 percent and 5.1 percent, respectively, over the three periods. Agriculture was the only major sector where annual growth increased (to 4.5 percent over the period 1989-1999 from about 4 percent in the earlier decade). The fall in economic growth, the scale-back of development programmes and a rise in inflation increased the poverty rate in the country.

As the process of trade liberalization has interacted with a more stable macroeconomic environment (partly brought about by a relaxation of BoP financing constraints after September 11, 2001), export performance has improved, overall economic growth has picked up to 6.4 percent per annum over the FY03 to FY05 period and manufacturing growth has picked up to 11.1 percent per annum.

TIME-SERIES ECONOMETRIC EVIDENCE ON TRADE LIBERALIZATION AND HOUSEHOLD WELFARE

Until a decade ago, most analysis of poverty and inequality issues focused on the role of national factors and policies and generally ignored the influence of international economic linkages. In recent years, the drive to achieve the Millennium Development Goals (MDGs) and the perception in many circles of the adverse social consequences of economic liberalization have been instrumental in bringing about extensive analysis of the relationship between trade liberalization and household welfare.

If there were many instances in which liberalization could be identified as the main economic shock, it would be easy to isolate the empirical relationship between the openness and poverty. Unfortunately, as noted above, a lot of things were going on at the same time and economists do not have the luxury of being able to do controlled experiments in the laboratory. Thus, we cannot conclude from the



stylized facts and simple correlations in the data alone that the process of trade liberalization exacerbated poverty and inequality in Pakistan. We must dig deeper through econometric analysis, covering both the pre-liberalization and liberalization periods.

The Poverty Equation

We motivate our poverty equation by some recent empirical work that has been done for other countries. A well-known study presented evidence for China (Ravallion, 2004). Time series regressions for China's various poverty measures were used to link trade volume with poverty. The study found a net trade elasticity of -0.2 with respect to headcount ratio - that is, a rise in trade reduces poverty. In another study, researchers presented cross-country evidence on the linkages between openness, GDP growth and different poverty measures (Aisbett, Harrison and Zwane, 2005). They concluded that "all the results which are statistically significant suggest that greater openness is associated with reduction in the percentage of the population living on less than 1 (Purchasing Power Parity) PPP dollar or 2 PPP dollars a day." However, because of limited data availability as well as problems in defining and measuring both poverty and globalization, they cautioned that the cross-country results are fragile and are sensitive to the choice of statistical technique. Hence, these results should be considered a first step. One study, using panel data from developing countries, regressed the poverty index on trade, FDI and other variables describing the role of government (Santareli and Figini, 2002).[8] They concluded that "…although many caveats exist, trade openness and the size of the government seem to be associated with lower poverty levels. Conversely, financial openness, although not statistically robust, tends to be linked to more poverty."

[8] Note that a panel data consists of time-series data on various cross-sections (in this case, countries).

Based on the above studies, the empirical work for Pakistan proceeds by assuming that the measured level of absolute poverty is determined by the following variables:

- The level of per capita GDP
- The inflation rate
- Openness as measured by trade outcomes
- Openness as measured by trade policy

The per capita GDP and the inflation rate directly capture, respectively, the growth and price channels as discussed earlier. It may be recalled that economic growth can be generally expected to reduce poverty. Unless growth seriously worsens income distribution, the proportion of the population living in absolute poverty will fall as average incomes increase. It was also argued that inflation is detrimental for the poor and can hinder the benefits of growth from reaching the poor.

Keeping fixed growth and inflation, what impact will trade directly have on poverty? This is captured by including measures of openness directly. Given our earlier discussion of the different possible liberalization measures, it is important to use both outcome and policy measures of openness in our analysis. For the outcome measure, we use the composite Index of Economic Liberalization (IEL) based on four outcome components (trade, foreign direct investment, portfolio capital flows, and investment income payments and receipts). The construction is described in Chapter 1 (Box 1.3). The average tariff rate is included in addition as a direct policy measure of trade liberalization.

Table 2.4 displays the results of estimating the poverty equation over the 1973-2003 period, using a methodologically-consistent poverty series described in Box 2.3. The coefficients of all the variables and summary statistics are economically

Table 2.4 Trade Liberalization and Poverty [Dependent Variable: Percentage of Population Below the Poverty Line]

Explanatory Variables	Coefficient*	t-Statistic*
Index of Economic Liberalization	-0.078	-1.73
Average Tariff Rate	-0.37	-9.47
Per Capita GDP	-0.60	-3.00
Inflation Rate	0.86	3.14
Constant	10.50	5.088
Adjusted R^2		0.90
Durbin-Watson statistic		1.40
F-Value		64.59

Note: All variables are in logarithmic form, except inflation

*All coefficients are statistically significant using a 10 percent significance level

Source: SPDC estimates

acceptable and statistically significant. The growth elasticity of poverty is estimated at -0.6; this implies that a one percent increase in per capita output will lead to a 0.6 percent reduction in poverty. The elasticity of poverty with respect to inflation is estimated to be 0.9; that is, a one percentage point increase in inflation increases poverty by 0.9 percent.

The IEL, our outcome measure of openness, shows a negative relationship with the headcount measure of absolute poverty. However, the magnitude is economically rather small, although statistically significant. The results imply that a 10 percent increase in openness as measured by the IEL will cause a decrease of 0.7 percent in the poverty level. It must be conceded, though, that the IEL being a composite of four different outcome measures suffers from the weaknesses inherent in any aggregation scheme.

The estimated coefficient on the tariff variable implies that a 10-percent *decline* in the tariff rate through a policy of trade liberalization would cause about a 4 percent increase in poverty, other things equal. This result is not so surprising because the beneficial effects of trade liberalization on poverty are already captured through the growth, inflation and the trade outcome variables. The tariff rate decrease is capturing the loss of government revenues and hence, possibly, the effects of reduced social spending programmes for the poor. This, of course, is one of the key areas of concern about the process of trade liberalization.

Box 2.3 Generating Consistent Poverty and Inequality Time-Series

Malik (1988) generated five poverty observations for selected years from 1963-64 to 1984-85 based on household surveys. He applied a consistent methodology* to compute poverty lines for the selected years. Amjad and Kemal (1999) extended the 1984-85 poverty line forward by adjusting it for inflation. Using the same methodology as Malik, they added three more observations on poverty for the years 1987-88, 1990-91 and 1992-93. Replicating this procedure, SPDC added three more observations for the years 1996-97, 1998-99 and 2001-02. These estimates along with the Gini coefficients and share of bottom 20 percent of population in national income are reported in the following Table.

Poverty and Inequality [Consistent Estimates]

Survey Years	% of Population Below the Poverty Line	Gini Coefficient	Share (%) of Bottom 20 percent of Population
1963-64	40.24	0.386	6.4
1966-67	44.50	0.355	7.6
1969-70	46.53	0.336	8.0
1979	30.68	0.373	7.4
1984-85	24.47	0.369	7.3
1987-88	17.32	0.348	8.0
1990-91	22.11	0.407	5.7
1992-93	22.40	0.410	6.2
1996-97**	27.72	0.400	7.0
1998-99**	24.31	0.410	6.2
2001-02**	29.71	0.399	6.7

Note: **SPDC estimates
Source: Amjad and Kemal (1997)
GoP, Economic Survey (various issues)
GoP, Pakistan Integrated Household Surveys (PIHS), 1996-97, 1998-99, 2001-02

Interpolation techniques applied to the above data are used to get an annual series for our poverty and inequality measures. A simple interpolation technique is to take the change between two points in time and fill the data gaps using a linear trend line. However, a slightly more sophisticated method has been used to generate an interpolated series for poverty and inequality. A quadratic curve was fitted on the actual observations by regressing the log of the poverty measure and inequality measures, in turn, on the time variable and its square. The resulting constructed series for poverty incidence (headcount) and Gini coefficient are what are used in the poverty and inequality equations estimated in this chapter. (These data are reported in the Statistical Appendix.)

* He defined a poverty line based on calorie requirement of 2550 per day plus 'other basic needs of a person'. In the estimation of the non-food consumption, he used the average ratio of food to non-food consumption of the poor.

Table 2.5 Trade Liberalization and Poverty (Alternative Specification)
[Dependent Variable: Percentage of Population Below the Poverty Line]

Explanatory Variables	Coefficient*	t-Statistic*
Index of Economic Liberalization	-0.085	-2.33
Average Tariff Rate	-0.39	-8.03
Human Development Index	-1.03	-3.77
Inflation Rate	0.80	3.5
Constant	3.79	23.85
	Adjusted R^2	0.91
	Durbin-Watson statistic	1.30
	F-Value	63.52

Note: All variables are in logarithmic form, except inflation
*All coefficients are statistically significant using a 10 percent significance level
Source: SPDC estimates

Many have argued that poverty is multi-dimensional and is influenced by human development conditions more broadly than just aggregate economic growth. As such, we also estimated an alternative poverty equation in which the per capita GDP variable in Table 2.4 was replaced by a Human Development Index (HDI). SPDC has constructed a time-series on HDI that incorporates life expectancy and the education-related variables of literacy and enrollments in addition to per capita GDP, along the lines of the methodology used by the United Nations Development Programme (UNDP, 2005). The details of the methodology and the constructed series for HDI are given in the Statistical Appendix. The resulting poverty equation in Table 2.5 shows that a 1 percent increase in the HDI reduces poverty by 1 percent, which is higher than the elasticity of 0.6 with respect to per capita GDP alone, as reported earlier. This result is not only highly intuitive but is supported by recent empirical studies on the positive relationship between human development and poverty reduction in a cross-section as well as time-series framework.

The Inequality Equation

The empirical evidence on the effects of trade policies on income distribution is mixed, reflecting diverse country experiences and methodologies. According to standard trade theory, trade liberalization will benefit a country's relatively abundant factor of production and thus cause a decrease in income inequality. However, this is not borne out by empirical evidence in all cases because many of the underlying assumptions of standard trade theory such as factor mobility and perfect competition are unlikely to hold in developing countries.

The cross-country empirical evidence generally indicates that greater openness, especially in terms of FDI, increases income inequality. For instance, a study utilizing data from household budget surveys to consider the impact of openness and FDI on the relative income shares of low and high *deciles* found some evidence that it is the rich who benefit from openness (Milanovic, 2002). The study concluded that "it seems that openness makes income distribution worse before

A one percent increase in the HDI reduces poverty by one percent.

making it better." Another study, based on regression results from a panel of 119 developing countries, concluded that "…FDI-induced growth promotes economic inequality in developing countries" (Basu and Guariglia, 2003). The underlying logic that can explain these findings is that FDI often flows into extractive, natural resources-based or capital-intensive industries or more recently in high skills-based services industries. This means that the relative returns to the most abundant factor of production - unskilled and semi-skilled labour - are lowered and, thus, income inequality increases.

In order to analyze the impact of various channels of economic liberalization on income distribution in the context of Pakistan, it is assumed that the level of inequality, as measured by the household income Gini coefficient, is determined by the following variables:[9]

- Trade-to-GDP ratio
- FDI-to-GDP ratio
- Money supply-to-GDP ratio
- Per capita GDP growth
- Wage gap between the manufacturing and agriculture sectors
- Government development expenditures-to-GDP ratio

The first two variables measure trade openness and openness towards foreign investment, while the third is a very crude proxy for financial liberalization. A negative relationship between the trade-to-GDP ratio and income inequality is hypothesized, based on standard trade theory. Trade liberalization should benefit the abundant factor of production, which is labour in this case, and thus reduce inequality. The empirical evidence from other countries suggests a positive relationship between income inequality and FDI; that is, an increase in FDI might be expected to increase income inequality as it is likely to exacerbate disparities (discussed above). Little is known about the empirical link between financial liberalization and income inequality. But given a lack of access to financial markets by the poor, it is likely that financial liberalization, keeping all other factors constant, would worsen the income distribution.

It could be argued that income or GDP and income distribution are jointly determined; that is, income is endogenous and its inclusion in the income inequality equation does not tell us which direction the causality is going - whether the estimated equation is capturing the influence of income on income inequality or the reverse. This point is valid, but we view the inclusion of GDP here as capturing the structure of the economy and its relationship to inequality more broadly. Since most of the poor participate in agriculture rather than manufacturing, an increase in the manufacturing-to-agriculture wage gap is likely to raise inequality.

[9] The Gini coefficient is a standard measure of income inequality. It is computed from the Lorenz Curve, which plots the cumulative proportion of income on one axis against the cumulative proportion of population enjoying that income on the other axis. The Gini is twice the area between the Lorenz Curve and the 45 degree line. If the Lorenz Curve was the 45 degree line itself, income would be distributed equally and the Gini would be zero. The Gini coefficient takes on values between 0 and 1, with higher values indicating greater inequality.

Table 2.6 Trade Liberalization and Income Inequality [Dependent Variable: Gini Coefficient]

Explanatory Variables	Coefficient*	t-Statistic*
Trade Volume as Proportion of GDP	-0.073	-1.87
FDI as Proportion of GDP	0.021	3.30
Money Supply as Proportion of GDP	0.094	1.94
Per Capita GDP Growth	-0.30	-2.03
Wage Gap [Manufacturing v/s Agriculture]	0.093	4.63
Development Expenditure as Proportion of GDP	-0.043	-4.40
Constant	3.74	18.12
	Adjusted R^2	0.93
	Durbin-Watson statistics	1.41
	F-Value	65.70

Note: All variables are in logarithmic form, except per capita GDP growth
*All coefficients are statistically significant using a 10 percent significance level
Source: SPDC estimates

Of course, public intervention can play a very important direct role in addressing income inequality and this role is proxied by including government development expenditures as a proportion of GDP; it is expected that an increase in such development expenditures would reduce inequality - that is, have a negative effect on the Gini coefficient.

Table 2.6 presents the results of estimating our income inequality equation. All coefficients have the sign expected according to economic theory and are statistically significant. The equation displays good explanatory power and passes all the required statistical tests.

A rise in money supply or FDI as ratios to GDP increases inequality. Specifically, a 10 percent increase in the money supply-to-GDP ratio increases income inequality by 0.9 percent, whereas a 10 percent increase in the FDI-to-GDP ratio increases it by 0.2 percent. By contrast, a 10 percent increase in the trade-to-GDP ratio decreases income

A 10 percent increase in the FDI-to-GDP ratio increases inequality by 0.2 percent.

inequality by 0.7 percent. The Table also shows that increases in per capita GDP growth and development expenditures as a proportion of GDP decrease income inequality substantially. On the other hand, an increase in manufacturing to agricultural wages leads to a rise in income inequality, probably reflecting urban-rural differences in relative income levels.

The above results from the estimation of poverty and inequality equations for Pakistan suggest that the increased trade that results from trade liberalization can potentially be beneficial for alleviating poverty and inequality, contrary to popular belief. The effects occur directly as well as through any increase in economic growth and a reduction in inflation resulting from the increased trade. However, the beneficial effects are offset by a negative effect on government revenues, which hurts the poor, likely through the resulting spending cuts. Moreover, greater liberalization of foreign investment and greater financial deepening appear to exacerbate income inequality.

MODEL-BASED ECONOMETRIC EVIDENCE ON THE EFFECTS OF TRADE LIBERALIZATION

The above empirical results are based on a partial equilibrium analysis. Partial-equilibrium models analyze the behavior of a particular sector of the economy separately, treating the impact of other sectors as fixed.

In order to analyze the full linkages among various economic agents and sectors, a General-Equilibrium (GE) model is required. For example, our poverty equation estimated earlier does not tell us what part of the effects of growth and inflation on poverty is occurring through the trade liberalization channel. A GE model takes into account the inter-relationships between different sectors of the economy and the knock-on effects that changes in one sector may have on prices, output, employment and wages in the other sectors. The advantages of GE modeling are as follows:

- It allows the relevant counterfactuals and simulations to be done in a rich setting with many different channels of transmission and interaction.
- The effects through the various channels can be quantified to highlight the most important transmission mechanisms.
- The model can be run many times, making different assumptions to examine the effects of various policies.

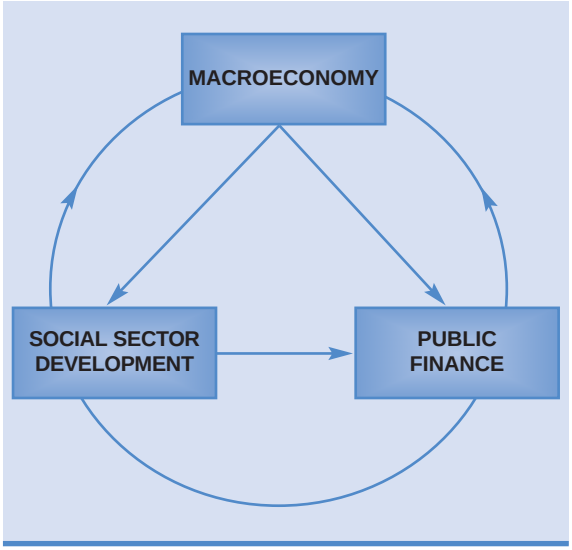
The GE model employed here is the econometric model of Pakistan's economy developed by SPDC and is described below:[10]

Description of ISPM Model

The Integrated Social Policy and Macroeconomic (ISPM) model is a pioneering effort of SPDC. Not only is it one of the very few large-scale models of the economy of Pakistan, but it also stands out in terms of incorporating the social sector. The ISPM model is a quite disaggregated

[10] For an alternative approach to the same questions using a Computable GE model for Pakistan, see Kemal et al (2003). The basic framework of that model is taken from Siddiqui and Iqbal (2001).

Chart 2.6 Basic Structure of the ISPM Model



model and consists of more than 300 equations, consisting of both behavioural equations and identities. The behavioural equations have all been estimated using regression techniques and are based on consistent national level data from FY74 to FY05.

The model emphasizes the inter-linkages between three main components - the macroeconomy, public finances and social sector development. The macroeconomic modules of the model include a trade and BoPs segment that plays a crucial role when considering issues related to trade liberalization.

The interactions between the three major components of the model - the macroeconomy, public finances and social sector development - are depicted in Chart 2.6. The macroeconomy affects the tax base and, therefore, tax revenues. It also affects the demand for social sector facilities - such as schools and hospitals - and, therefore, social sector outputs in equilibrium. Public finances, in turn, affect both the macroeconomy and the social sector. The former is affected through a direct impact of government expenditure on national income as well as through the indirect influence of the budget deficit on monetary expansion and the rate of inflation. The latter is affected because the availability of government resources influences the level of development and recurring outlays to the social sector. Finally, social sector development feeds back into the macroeconomy - through enhancing human capital and through better health standards, both of which have a favourable effect on production; it also feeds back into public finances because social sector spending has consequences for the budget deficit, the stock of debt and debt servicing of the government.

More detail about the model is given in Appendix A3.[11]

Counterfactual Analysis: Where Would the Economy be Without Trade Liberalization?

As discussed in Chapter 1 (Table 1.4), Pakistan saw a steady reduction in import taxes for all categories of imports from the late 1980s to the present. Much of the resulting loss of government revenues was made up by discretionary increases in sales taxes. Our counterfactual simulations of the SPDC model reverse these changes and then ask how different the economy would have looked, relative to baseline if the trade liberalization had not taken place. Specifically, the following two scenarios are considered in the model counterfactuals:

Scenario 1. This involves the following assumptions:

1. The incidence of import taxes for imports of consumer goods, capital goods, raw materials for consumer goods and raw

[11] The full model equations are contained in a supplement that is available on request.

materials for capital goods is fixed at the 1980s average from FY90 onwards. This means that total import tax incidence from FY90 remains at 45.5 percent instead of falling from 39.7 percent in FY90 to just 9.4 percent in FY04.

2. The discretionary changes in sales taxes are set at zero, rather than the positive values that were actually undertaken to make up for some of the lost revenues through import customs duties.

Scenario 2. In Pakistan's trade liberalization experience, the discretionary changes in sales taxes did not fully compensate for the lost revenue from the decline in import taxes. This implies that when we reverse these changes under Scenario 1, government revenues will be significantly higher in that counterfactual. In order to delineate the fiscal channel from the other channels, therefore, we also consider the following alternative scenario that abstracts from the fiscal consequences:

1. The same tariff path as considered above in Scenario 1.
2. Changes in sales taxes and direct taxes (in proportion to their existing shares) that leave the government revenue path approximately unchanged.

Results from Model Simulations

The deviation from baseline of what the economy would have looked like under Scenario 1 - that is, without the trade liberalization that occurred since 1990 - is shown in Table 2.7. The per capita output growth would have been lower, with the deviation from baseline growth increasing in magnitude over time to reach an average deviation of -0.14 percentage points over the FY01 to FY05 period. Inflation would have been a substantial 0.35 to 0.80 percentage points per year higher, depending on the sub-period considered. The poverty rate would have been nearly a percentage point higher on average from 2000 to 2005. Inequality would have been 0.28 percent higher and the current account deficit as a share of GDP would have been nearly 1.4 percentage points lower.

Table 2.7 Counterfactual of No Trade Liberalization since 1990

	Simulation 1*			Simulation 2**		
	FY91 to FY95 Average	FY96 to FY00 Average	FY01 to FY05 Average	FY91 to FY95 Average	FY96 to FY00 Average	FY01 to FY05 Average
Growth Deviations: (Percentage points deviation of growth rates from baseline growth)						
Real GDP at Factor Cost	-0.02	-0.08	-0.14	-0.05	-0.13	-0.28
Per Capita Output	-0.02	-0.08	-0.14	-0.05	-0.13	-0.27
Inflation	0.34	0.80	0.51	0.19	0.75	0.60
Employment	0.03	0.05	0.10	0.01	0.04	0.09
Real Consumption	0.00	-0.05	-0.10	0.01	-0.04	-0.13
Real Investment	-0.17	-0.16	-0.23	-0.35	-0.68	-1.17
Real Private Investment	-0.34	-0.44	-0.46	-0.54	-1.08	-1.48
Real Goods Exports	-0.09	-0.26	-0.54	-0.10	-0.28	-0.61
Real Goods Imports	-0.50	-1.42	-0.87	-0.52	-1.52	-1.06
Real Capital Goods Imports	-1.24	-1.75	-1.50	-1.25	-1.91	-1.79
Real Effective Exchange Rate+	-0.19	-0.42	-0.69	-0.20	-0.44	-0.76
Government Revenue	0.31	0.89	1.11	-0.05	0.03	-0.03
Direct Taxes	0.24	0.57	0.50	-0.29	-1.94	-2.89
Indirect Taxes	0.33	1.29	2.42	-0.09	0.37	1.10
Development Expenditures	0.89	0.54	1.32	0.76	-0.21	0.45
Recurring Expenditures	0.05	-0.15	-0.38	0.13	0.03	0.00
Level Deviations: (Percentage points deviations from baseline ratios, except where otherwise indicated)						
Current Account Deficit-to-GDP	-0.32	-0.68	-1.35	-0.34	-0.71	-1.46
Budget Deficit-to-GDP	-0.16	-0.39	-0.89	0.09	0.09	0.22
Poverty Rate (Headcount)	0.00	0.53	0.92	0.04	0.76	1.73
Income Inequality (Gini)***	0.06	0.16	0.28	0.07	0.18	0.37

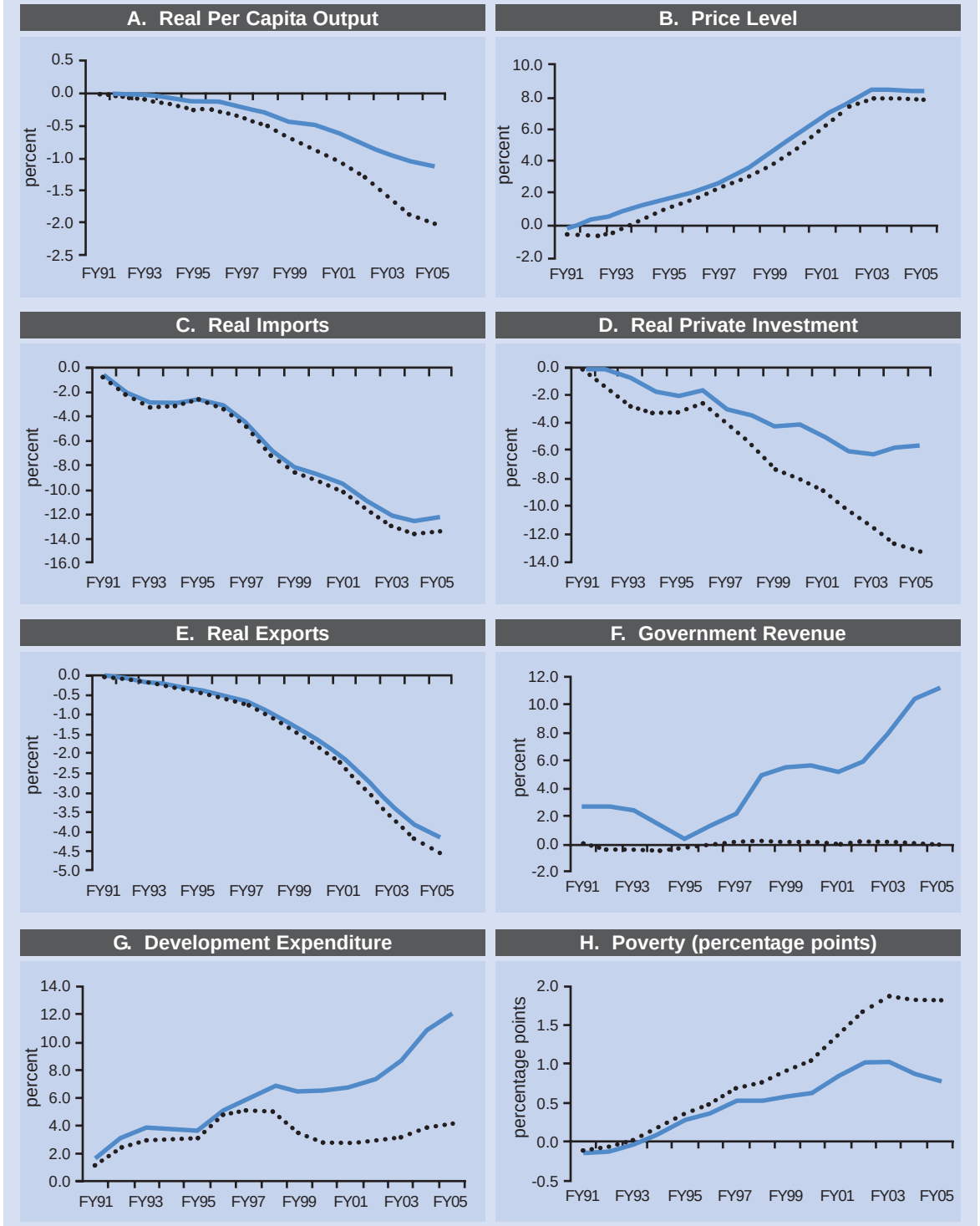
**Simulation 1:* Import taxes from 1990 onwards remain at their 1980s average of about 46 percent and discretionary change in sales taxes set to zero.
***Simulation 2:* Import taxes from 1990 onwards remain at their 1980s average of about 46 percent and adjustment in sales and direct taxes so as to leave government revenue approximately unchanged.
***For income inequality, figures are percent deviations of levels from baseline.
+Negative numbers indicate more appreciated real exchange rate relative to baseline.

Source: SPDC estimates

The time paths of the percentage level-deviations from baseline under this scenario are shown by the solid lines in Chart 2.7. Note that according to this scenario, without the process of trade liberalization taking place over the past fifteen years, per capita real income would have been 1.1 percent lower in FY05, consumer prices would have been 8.3 percent higher and poverty would have been about 1 percentage point higher. Thus, it would appear that trade liberalization in Pakistan has helped contain inflation considerably and has led to improvements in growth, poverty and inequality although the effects on these three variables are rather modest.

There are two mechanisms which are generating the strong inflationary effect in the absence of trade liberalization. First, with higher tariff rates, the landed-cost price of imports would also have been higher, which directly feeds into overall consumer prices. Second, if import taxes had been higher, there would have been less current account deficit pressures in the short run, which would have led to the real exchange rate being more appreciated, relative to baseline (Table 2.7). One way the real exchange rate becomes more appreciated is for the home price level to rise faster than the foreign price level.

Chart 2.7 **Counterfactual of No Trade Liberalization (Deviation from baseline path of selected variables*)**



*3-year centered moving averages are plotted to smooth out year-to-year fluctuations
Counterfactual of no trade liberalization indicated by solid lines
Counterfactual of no trade liberalization with revenue adjustment indicated by dotted lines
Source: SPDC estimates

In addition to the price channel, which is very significant empirically, several other channels of transmission can be seen in the results reported in Table 2.7 and Chart 2.7. If trade had not been liberalized, real private investment would have grown by about half a percentage point less per year and growth of real imports of capital goods would have been about 1.5 percentage points lesser per year over the past five years. This would have put real private investment today at a level about 6 percent lower. Thus the positive investment effect resulting from trade liberalization is evident. Note, that exports too would have been about 4 percent lower without trade liberalization, suggesting that the investment effect does help exports eventually, with the solid line for exports in Chart 2.7 showing that the export effect accelerates after some time.

However, without trade liberalization, aggregate employment growth would have been marginally higher. This suggests that the positive effects of trade liberalization on growth from the investment channel are being partially offset by the negative effects on aggregate employment.

The importance of the public finance channel too is evident. The Chart shows that if the import tax reductions had not occurred and if sales taxes had not increased in response as partial compensation, government revenue would have been about 11 percent higher than baseline in FY05. This means that there would have been less pressure to cut development expenditures and, as such, development expenditures would have been about 12 percent higher, which would have been pro-poor. This suggests that the public finance channel has been an important source of the adjustment costs associated with trade liberalization, significantly offsetting the positive effects on growth and poverty arising from the investment and productivity effects.

In order to assess the significance of the public finance channel, consider the results of the alternative scenario (Scenario 2), in which the import tax changes are accompanied by changes in other taxes so as to leave revenue unchanged. The results of this revenue-neutral hypothetical experiment are also presented in Table 2.7 and shown by the

The public finance channel has been an important source of the adjustment costs associated with trade liberalization.

dotted lines in Chart 2.7. The results imply that if the process of trade liberalization had been accompanied by revenue-neutral policies, there would have been much less compromise on pro-poor development expenditures and the beneficial effects on growth and poverty would have been bigger. Specifically, the charts show that in the absence of trade liberalization, per capita output would have been about 2 percent lower in FY05 and poverty would have been 2 percentage points higher.

FUTURE SIMULATIONS: TRADE LIBERALIZATION INTERACTING WITH PRO-POOR POLICIES

One of the main lessons from the results of the counterfactuals discussed above is that the process of trade liberalization can entail large transition costs in the form of fiscal adjustment. This can offset much of the growth-inducing effects of trade liberalization. Moreover, if the fiscal adjustment falls heavily on pro-poor public spending, the gains on the poverty front can be largely negated as well. This section lays out some scenarios in which trade is liberalized further in the future, but the adjustment costs are contained by explicitly following pro-poor policies. The results suggest that such a policy mix can deliver a significant increase in growth and a substantial reduction in poverty.

Future Simulation 1

Consider the first future simulation using the SPDC's ISPM model which makes the following assumptions:

1. A once and for all across-the-board permanent 50 percent reduction in import taxes which takes the import tax incidence to about 5 percent immediately
2. An increase in development expenditures that brings them to roughly 5 percent of GDP on average and then staying at that level thereafter, consistent with the government's target in the MTDF (GoP, 2005).
3. Resource mobilization through increases in sales taxes and direct taxes to partly finance the development expenditures

In the baseline against which this simulation is evaluated, the path of most of the exogenous variables is set based on their average growth rates over the past five years.

The deviations from baseline that would occur in the growth rates by FY10 are shown in Table 2.8 and the deviation from baseline paths over time are shown by the solid lines in Chart 2.8. The results show that per capita output growth would be about two-thirds of a percentage point higher by FY10. The cumulative effects of the increased growth rates over five years would be an increase in per capita output of about 1.7 percent (Chart 2.8). Moreover, poverty incidence would be about 4.6 percentage points lower by 2010, which would represent significant progress. However, the level of inequality would be only slightly lower.

One problem with the above simulation is that because development expenditures are partly financed by an increased government budget deficit, there is pressure on prices to rise. Inflation by FY10 would be more than 1 percentage point higher.

A scenario in which trade is liberalized further but adjustment costs are contained by following pro-poor policies can deliver a significant reduction in poverty.

Table 2.8 Future Simulations: Trade Liberalization Interacting with Pro-Poor Policies

	Future Simulation 1* FY10	Future Simulation 2** FY10
Growth Deviations: (Percentage points deviation of growth rates from baseline growth)		
Real GDP at Factor Cost	0.68	0.87
Per Capita Output	0.66	0.86
Inflation	1.11	0.27
Employment	0.14	0.11
Real Consumption	0.38	0.54
Real Investment	4.32	5.02
Real Private Investment	3.50	4.48
Real Goods Exports	0.20	0.24
Real Goods Imports	0.95	1.22
Real Capital Goods Imports	1.07	1.41
Real Effective Exchange Rate+	0.22	0.25
Government Revenue	3.38	3.13
Direct Taxes	5.81	5.43
Indirect Taxes	4.97	4.60
Development Expenditures	5.83	5.82
Recurring Expenditures	0.62	-1.67
Level Deviations: (Percentage points deviations from baseline ratios, except where otherwise indicated)		
Current Account Deficit-to-GDP	0.94	1.03
Budget Deficit-to-GDP	0.03	-3.18
Poverty Rate (Headcount)	-4.59	-4.83
Income Inequality (Gini)***	-0.28	-0.31

*Future Simulation 1: Once-and-for-all 50-percent immediate reduction in import taxes to 5 percent, a gradual increase in development expenditures to a share of 5 percent of GDP and resource mobilization through a rise in direct and sales taxes to partly finance the developing expenditures
**Future Simulation 2: Same as above but a 15-percent reduction in recurring federal expenditures in addition.
***For income inequality, figures are percent deviations of levels from baseline.
+Positive numbers indicate more depreciated real exchange rate relative to baseline.
Source: SPDC estimates

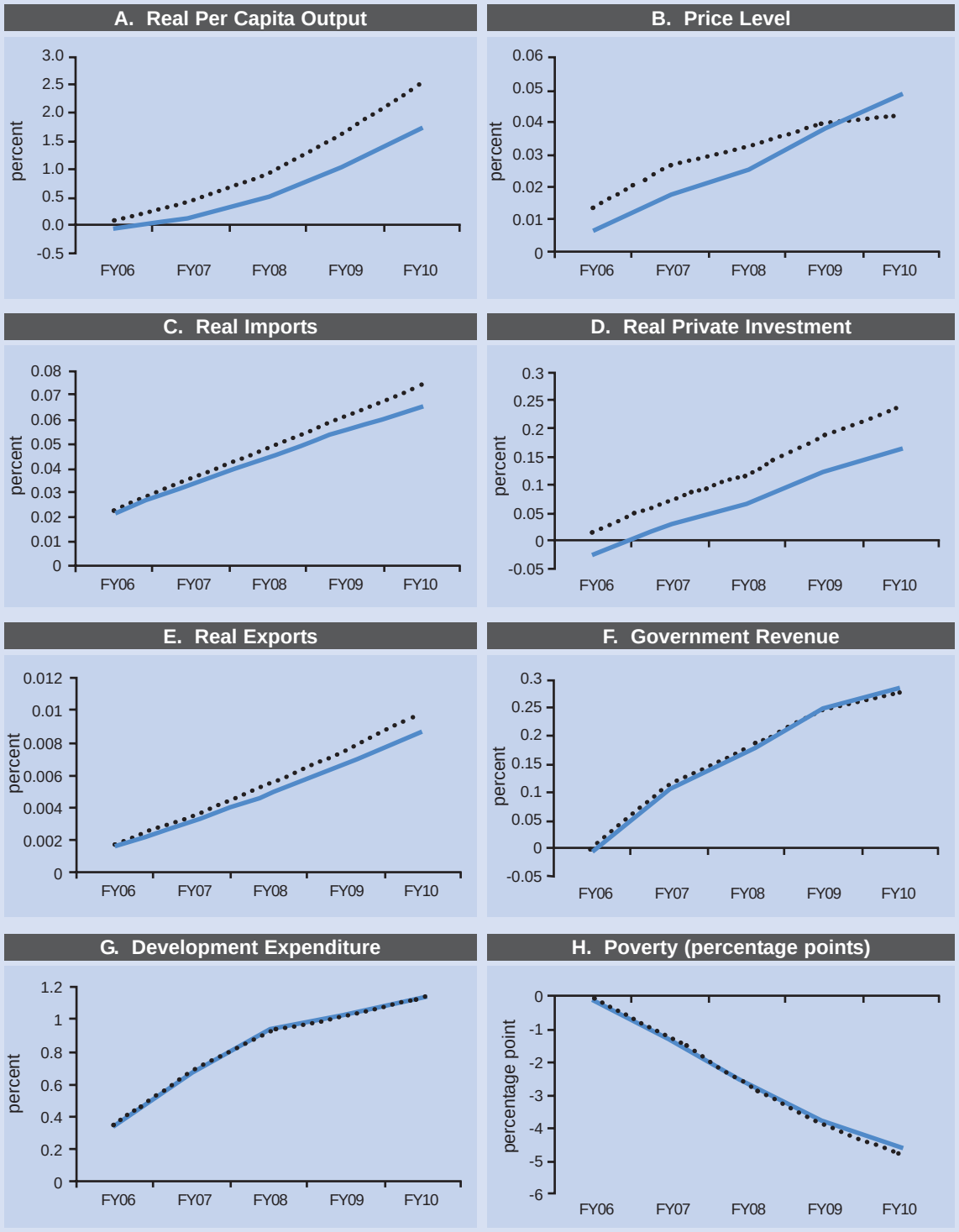
Future Simulation 2

In light of the implications for inflation in the above scenario, assumptions 1-3 are supplemented with a fourth assumption as follows:

1. A 15 percent reduction in federal recurring expenditures

As shown in Table 2.8, this change has the implication that the inflation rate is only about 0.3 percentage points higher by FY10, instead of being more than 1 percentage point higher. The increase in per capita growth and the reduction in poverty are slightly more than in the first future simulation - by FY10 real per capita output is 2.5 percent higher than in the baseline and the poverty rate is 4.8 percentage points lower (see the dashed lines in Chart 2.8). Inequality still improves only slightly in this scenario.

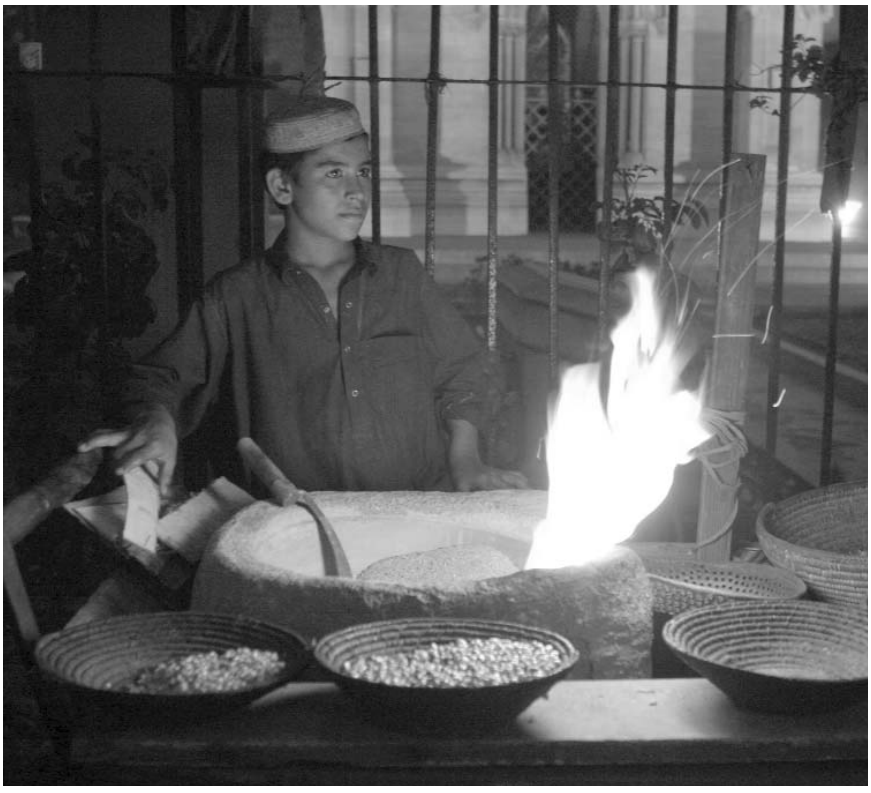
Chart 2.8 **Future Simulations 1 and 2 (Deviation from baseline path of selected variables*)**



*3-year centered moving averages are plotted to smooth out year-to-year fluctuations.
Future Simulation 1: Trade liberalization+increases in development expenditure+increase in direct taxes and sales tax, indicated by solid lines
Future Simulation 2: Future Simulation 1 assumptions+cuts in recurring federal expenditures, indicated by dotted lines
Source: SPDC estimates

It is important to emphasize that in both these simulations, the poverty-reduction is considerable, but the policies required would be a challenge to achieve and will need the government to demonstrate a strong political will. There will be a strong resistance by inefficient domestic producers as their level of effective protection is reduced by a further decrease in import taxes. And, there will be stiff opposition by those businesses and income earners who are used to evading taxes and who will have to be brought under the tax net if the implied revenue targets are to be achieved.

The development expenditures we envisage here are simply an endorsement of the GoP's publicly announced commitment in the MTDF. But we are highlighting the far-reaching changes that will be required to achieve these targets. What would it take for the government to achieve the MTDF goal of increasing development expenditures to 5 percent of GDP? It may be recalled that the dashed lines in Chart 2.8 plot the deviation from baseline paths when the government pursues the MTDF development expenditures target vigorously; the baseline path has been set by assuming a growth rate of exogenous variables equal to average growth over the past five years. The Chart shows that by the end of the five-year planning period, in FY10, government revenues would have to be 28 percent higher and development expenditures would have to be 113 percent greater in the aggressive policy relative to what is forecast with the less aggressive policies embedded in the baseline. Thus, the pro-poor policies contemplated under this scenario are potentially feasible and workable but require the will to raise the necessary taxes and to spend them on development expenditures.



INDUSTRY AND DIVERSIFICATION EFFECTS

As discussed earlier, the sectoral shifts channel is an important conduit of transmission for the effects of trade liberalization. Since much of this transmission works through changes in industrial structure and diversification opportunities, it cannot easily be captured by our poverty and inequality equations or even by the model simulations just discussed.

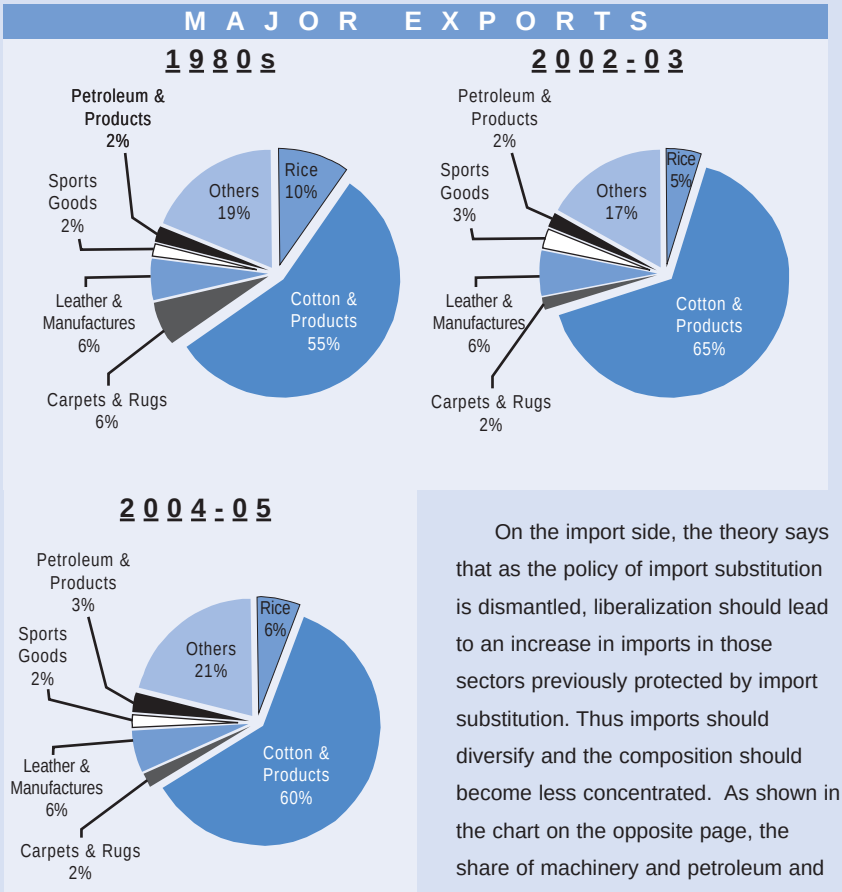
We do not have detailed data to undertake an in-depth analysis of the sectoral shifts. However, if greater openness has resulted in the creation of new markets for exports as well as availability of a greater variety of goods to consumers through easier imports, we should see a greater diversification of imports and exports following trade liberalization. A quick look at the data through construction of standard export and import diversification indices does not seem to provide much evidence of this. (The methodology for constructing these indices, along with other results on the composition of exports and imports, is given in Box 2.4.) The Export Diversification Index (EDI) for Pakistan, depicted in Chart 2.9, stands at about 0.8, showing a clear lack of diversification (0 would indicate that exports are well-diversified, whereas 1 would indicate that exports are completely dependent on a single good). Moreover, except for a slight downward movement in the index very recently, there is not much evidence that export diversification has increased over time.

Pakistan's imports, on the other hand, are much more diversified, with an Import Diversification Index (IDI) of 0.27 in 2004 (Chart 2.10). However, there is not much evidence of a clear increase in import diversification during the trade liberalization period. There have been both up and down movements in the IDI, related mainly to changes in the share of fuel in Pakistan's nominal import bill, driven by oil price fluctuations.

Box 2.4 Trade Composition and Diversification

A. Changes in Composition

Economic theory holds that as trade barriers are reduced, exports in inefficient industries that were previously being protected would fall and new export opportunities would arise. Thus we expect that the composition of Pakistan's exports would change with the liberalization of trade. Between the 1980s and 2002-03, there has been a change in composition of Pakistan's exports away from rice, carpets and rugs and some others towards cotton and cotton products. However, this has made exports less diversified since textiles were already a strong component of exports (see the chart below). In the last two years, though, there appears to have been some shift from cotton and cotton products to other non-traditional exports.



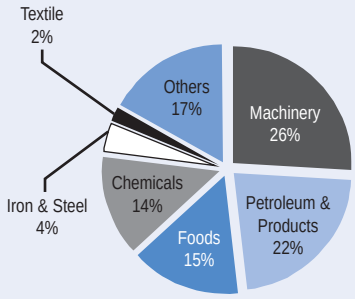
Source: SBP Annual Report (various issues)

On the import side, the theory says that as the policy of import substitution is dismantled, liberalization should lead to an increase in imports in those sectors previously protected by import substitution. Thus imports should diversify and the composition should become less concentrated. As shown in the chart on the opposite page, the share of machinery and petroleum and petroleum products in Pakistan's total imports was 48 percent during the 1980s and the share of other-non-traditional items was 17 percent. During FY03 the share of two major import items, machinery and petroleum and petroleum products, increased to 54 percent and the share of other non-traditional items dropped to 12 percent. Over the last two years, the other non-traditional categories of imports have expanded. Thus, there is only very recent evidence of import diversification.

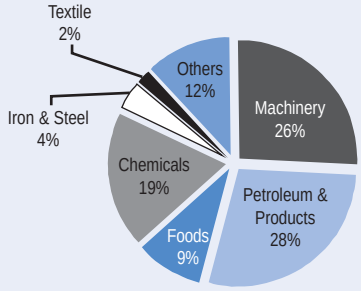
Box 2.4 (...Contd.)

MAJOR IMPORTS

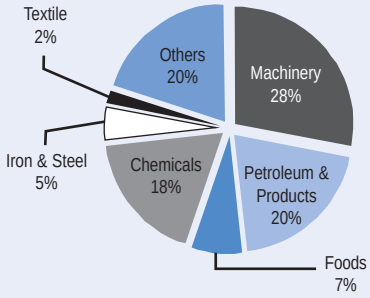
1980s



2002-03



2004-05



Source: SBP Annual Report (various issues)

B. Computation of Trade Diversification

There are various versions of the EDI. In the case of Pakistan, since we are interested in the extent to which Pakistan is dependent on a few large export items, for instance textiles, the following commonly used formula has been applied:

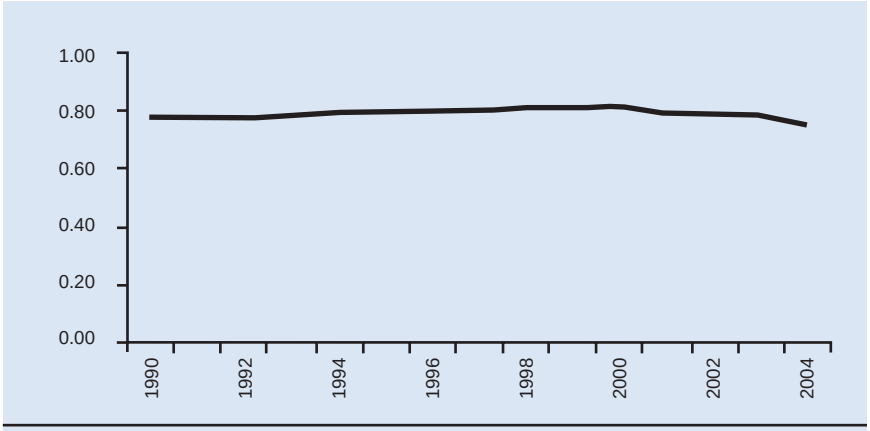
$$EDI = (\Sigma \ |h_{ip} - h_{iw}|)/2$$

where h_{ip} is the share of product category 'i' in the total exports of Pakistan (p) and h_{iw} is the share of same product category in world (w) exports. So '$h_{ip} - h_{iw}$' is the difference between the share of product category 'i' in Paksitan's exports and the world average of the share of product 'i' in all countries' total exports. Adding the absolute values of the differences in shares of all product categories and dividing by 2 gives us a value, which is between 0 and 1. If a country has an index of 0, it means that the country's export diversification is the same as the world diversification. An index value of 1 indicates that the country is totally dependent on one product category. So the closer the index number is to 1, the less diversified the country's exports are relative to world exports.

To compute the index of export diversification we have used the WTO's broad classification of commodity (product) groups, which classifies the trade items into three broad categories: agricultural products, fuels and mining products and all manufactures. Manufactures are further classified into iron and steel, chemicals, machinery and transport equipments, automotive products, office and telecom equipment, textiles, and clothing. The resulting series is shown in Chart 2.9.

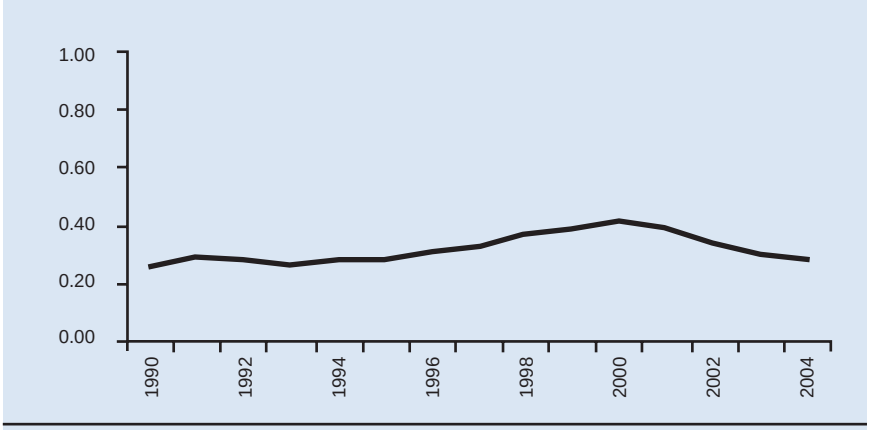
The computation of the IDI is exactly analogous. The resulting series for IDI is shown in Chart 2.10.

Chart 2.9 **Export Diversification Index***



Source: SPDC estimates based on WTO trade data
*0 indicates well-diversified exports; 1 indicates no diversification

Chart 2.10 **Import Diversification Index***



Source: SPDC estimates based on WTO trade data
*0 indicates well-diversified exports; 1 indicates no diversification

Performance of Potential Import Substitution Industries

It has also been argued that removing a policy of Import Substitution (IS) and allowing easier access to imports can adversely affect the performance of domestic industry. Using such limited data as are available, we discuss below to what extent this appears to have happened in Pakistan.

IS refers to the strategy of substituting importable products, mostly finished goods, with locally produced substitutes. Such a policy is often rationalized on the grounds that it is needed for rapid industrialization to occur in a developing country. Under a policy of IS, the government determines the sectors it considers best-suited for local industrialization and provides protection to these sectors by raising barriers on imports in these sectors. The policy usually has 3 major tools: (1) an active industrial

policy to subsidize and arrange production of strategic substitutes; (2) protective barriers to imports in the selected sectors; and (3) a monetary policy that keeps the domestic currency overvalued to discourage imports in general. Clearly, import substitution is a strategy that argues against free trade.

In Pakistan, as was discussed in Chapter 1, there were early attempts after independence toward rapid industrialization through IS policies. Later, during the 1970s, Pakistan started moving away from this strategy and since the late 1980s, has liberalized its trade considerably.

We attempt to identify the industries in Pakistan which might be given the status of potential IS industries before the period of liberalization, using 3-digit level of the Pakistan Standard Industrial Classification (PSIC) Codes. Only the Large-Scale Manufacturing (LSM) sector is considered for this purpose given our constraint of using data reported in the Census of Manufacturing Industries (CMI). An industry is *not* considered a potential import substitution industry if (1) its import share in total imports was already above 1 percent during 1985-86 before the period of rapid trade liberalization and (2) the import share did not decline between FY86 and FY01 (the latest year for which CMI data are available). All other industries are considered potential import substitution industries, but, among these, we select only those which were important to begin with in the LSM sector before trade liberalization, with a share in total value added of above 1 percent.

This procedure identifies nine industries, shown in Table 2.9, as potential IS industries. The performance of these industries is compared between FY86 and FY01 using the shares of each of these industries in total value added, in gross investment and in employment.

The Table reveals that in six of these industries (with the exception of apparel, beverages and ginning), the share in total value added was significantly less in FY01 than in FY86. In five of the six industries (with the exception of tobacco), the share of investment has also gone down,

Table 2.9 Performance of Potential Import Substitution Industries

Code	Potential Import Substitution Industries	Percentage Share in Total					
		Value Added		Gross Investment		Employment	
		FY86	FY01	FY86	FY01	FY86	FY01
322	Wearing Apparel except Footwear	1.1	3.0	0.4	4.4	1.8	7.4
323	Leather and Leather Products	1.6	1.5	0.7	0.2	1.1	1.2
313	Beverage Industries	2.1	2.2	0.7	0.9	1.2	1.1
314	Tobacco Manufacturing	9.5	4.9	0.4	0.9	1.9	0.6
325	Ginning, Pressing and Baling of Fibers	2.0	2.9	0.3	0.1	2.2	2.2
342	Printing and Publishing	1.1	0.3	0.7	0.4	1.8	0.6
352	Other Chemical Products	7.2	2.2	0.7	0.5	2.0	1.5
355	Rubber Products	3.7	0.5	0.6	0.1	2.3	0.6
369	Other Non-Metallic Mineral Products	6.1	4.7	4.0	1.7	3.5	2.0

Source: GoP, CMI, FBS

and again in five of the six (leather being the exception), the share of employment has decreased. The share of the six highlighted industries in total value added of LSM has halved from about 30 percent in FY86 to about 15 percent in FY01. Thus, there is some casual evidence that doing away with the IS policy may have hurt some industries, particularly tobacco, chemicals and rubber products. Unfortunately, the latest data we have in the CMI are for FY01 and cannot speak to what has happened since then in these industries.

CONCLUSIONS

The results of the empirical work carried out in this chapter to assess both the partial equilibrium and the general equilibrium impact of trade liberalization and the simulations for the future are all consistent with a priori theoretical predictions. The specific quantitative results obtained, offer several useful insights in the case of Pakistan.

First, contrary to popular beliefs and perceptions, the process of trade liberalization in Pakistan does not appear to have had a significant adverse impact on poverty and income inequality. The results indicate that, trade liberalization has, if anything, reduced poverty and inequality, although only modestly so on balance. The main channels of transmission leading to this outcome are growth, productivity, investment and price stability. FDI does appear to increase income inequality, however, and as we promote this type of investment further in the future, its nature and distribution consequences must be guarded against. Also, some industries do seem to have suffered from trade liberalization, but such restructurings in the transition period are a natural consequence of trade liberalization.

Second, it is obvious that trade liberalization has had some adjustment costs associated with it, in particular costs related to fiscal adjustments. Had the lower government revenue collection arising from a reduction in import tariffs been fully neutralized by other modes of direct and indirect taxation and had the brunt of the fiscal consolidation that was taking place not fallen on development expenditures, the impact of trade liberalization on poverty and income inequality reduction would have been larger. Thus, trade liberalization policies should only be pursued in conjunction with government revenue-neutral policies. This linkage between trade liberalization and development expenditures is not fully understood or widely appreciated. The present study is perhaps one of the few attempts to systematically explore this important link.

Third, the economy can potentially gain from further trade liberalization but only if it is accompanied by other appropriate pro-poor policies. Going forward, our simulations show that if average tariff rates are further cut back to 5 percent, development expenditures achieve the level incorporated in the MTDF and recurring expenditures of the federal government are reduced by 15 percent, there can be sizable gains in poverty reduction and economic growth. The potential growth-inducing tendencies of both trade liberalization and development expenditures can interact to generate positive synergies. But this requires the political will to raise taxes and tap other sources of potential revenues, particularly at the provincial and the local government levels; eliminate waste, inefficiencies and corruption in public expenditures; and reallocate these savings on appropriate development programmes such as rural infrastructure, education, health, water supply and sanitation.

It should be emphasized that the results do not indicate that trade liberalization is a panacea that can solve the problem of poverty by itself without direct interventions from the government.

THE EXTERNAL ENVIRONMENT SINCE SEPTEMBER 11, 2001

3

External shocks resulting from the events of September 11 have contributed to a relaxation of BoPs financing constraints for Pakistan, which have played a significant role in the strong recent growth performance. Structural changes, including policy changes, have also played a significant role.

THE EXTERNAL ENVIRONMENT SINCE SEPTEMBER 11, 2001

There are two main sources of fluctuation in economic variables. One is a change in the structure of the economy and the other is a change in the nature and volatility of the shocks hitting the economy. In the first two chapters we have considered trade policy and its consequences, which affect the structure of the economy. Another important aspect of greater economic and financial integration with the rest of the world is an economy's increased exposure to external shocks. This includes the exposure of the economy to the vicissitudes of international capital markets in the case of a developing country like Pakistan which relies heavily on external borrowing.

The May 1998 nuclear tests and the resulting sanctions on Pakistan brought to the forefront the vulnerability of the country's economy to the external environment. Pakistan was squeezed by the sanctions, and the resulting pressure forced the government to freeze Foreign Currency Accounts (FCAs) which further undermined confidence in the economy. The return of the military government on October 11, 1999 led to more sanctions, making matters worse on the economic front.

But the events of September 11, 2001 led to a drastic change in the environment that Pakistan was facing. Initially, it seemed as if the fallout of September 11 would be largely negative. However, with the decision of the GoP to quickly side with the United States, the general perception of Pakistan in the west quickly changed from an almost radical Islamic state possessing nuclear weapons to a front-line state in the “war against

terror." Thus, the events of September 11, tragic as they were - and Pakistan's response to them - precipitated a series of external shocks that from an economic viewpoint, at least, proved to be favourable for Pakistan, including a waiver of sanctions and a large inflow of foreign remittances.

On the negative side, the discouraging travel advisories, the fear of terrorist attacks on Westerners and the high insurance premiums have made it difficult for foreign buyers and investors to source their supplies from Pakistan.

There have been two other important recent developments as well, independent of the events of September 11. Firstly, quotas on imports of textiles were eliminated globally with effect from January 1, 2005. Secondly, the northern areas of Pakistan were jolted by a devastating earthquake on October 8, 2005. The first development is directly a change in the external environment. The second is purely a domestic shock, but it does have some consequences - such as for inflows of capital and foreign assistance - that clearly have an external dimension.

This leads us to focus on the following important questions in this chapter:

- How have the changes in the external environment and the policy responses resulting from the tragic events of September 11, 2001 shaped Pakistan's economy?
- How are the effects of the textile quota removal likely to play out on Pakistan's exports going forward?
- Given the answers to the above questions, what strategies would work best for the GoP's avowed objective in the MTDF of enhancing exports to achieve sustainable high growth and making maximum use of opportunities created by globalization?

While these questions have been raised and discussed before, there has been relatively little quantitative analysis which is our goal to provide, wherever possible.

DOCUMENTING THE CHANGES[1]

Pakistan's decision to side with the United States after the events of September 11 led to several favourable external shocks. These included:

- A waiver of sanctions imposed after the nuclear tests of 1998
- Resumption of bilateral assistance by the United States
- Forgiveness of some bilateral debt by the United States
- Huge inflow of foreign remittances from abroad

[1] Chapter 16 in Zaidi (2005) also provides a detailed discussion of how some key events since 1998 have affected the economy.

In addition, at about the same time, the following developments also occurred:

- A much softer posture by multilateral agencies such as the IMF and the WB
- Rescheduling of bilateral Paris Club debt on improved terms

There is some debate about whether these two developments can be directly attributed to the September 11 events. Policy makers argue that the measures were an integral part of the Debt Exit Strategy of the GoP. This was reflected in the Report of the Debt Management Committee of 2000 and the measures were negotiated by the IMF in the context of the Poverty Reduction and Growth Facility (PRGF) after the successful completion of the Stand-By Programme. This was well before September 11, 2001.[2] The skeptics, however, believe that the generous terms granted to Pakistan by the Paris Club in December 2001 and the larger volume of concessional assistance provided by multilateral institutions only became possible because Pakistan opted to side with the United States and become a front line state in the "war against terror."

There is no doubt that the policy changes intertwined with the external shocks helped to shape the economy. Besides the continuation of the trend towards increased trade liberalization, which is already documented, other policy changes were also implemented. Some of these were successful and some less so. These policy changes included (Husain, 2003):

- Fiscal consolidation, leading to a reduction in the budget deficit-to-GDP ratio
- Tax administration reform, including a simplification of assessment procedures and a reorganization of the CBR - these reforms have failed to raise the tax-to-GDP ratio, however
- A revitalization of the privatization program, including the sale of commercial banks
- A more liberal and open foreign investment policy
- Financial sector reform, including deregulation of interest rates and promotion of competition
- Deregulation of pricing and trading, but only to a limited degree

The shocks (listed earlier) operating in the environment of the policies described above, resulted in rapid changes in some key variables.

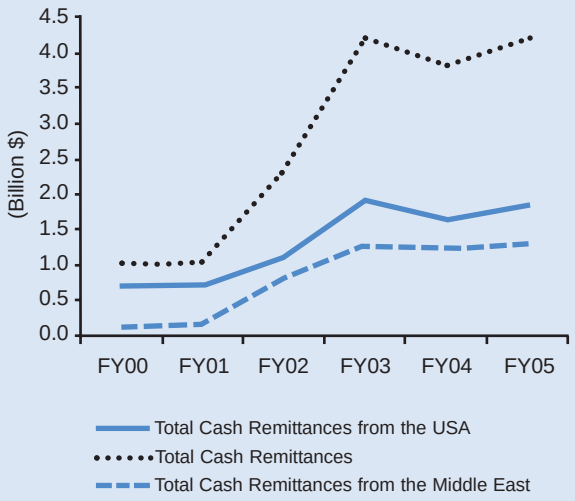
Policy changes intertwined with the external shocks to shape the economy.

[2] See, in particular the SBP's then Governor, Dr Husain's two speeches titled "Why Perceptions About Pakistani Economy Differ?" and "Pakistan's Development Challenges," made in July 2001 (available at www.sbp.org.pk).

Remittances

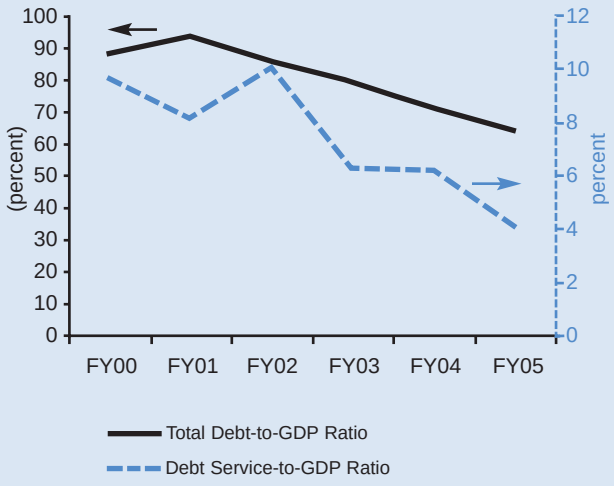
Total inward cash remittances from abroad increased by 130 percent during FY02, the fiscal year which included the date of September 11, 2001. There was a further 80 percent rise in remittances during FY03. In levels, they rose from about $1 billion in FY01 to $2.3 billion in FY02 and to $4.2 billion the following year (Chart 3.1). There was an especially pronounced, almost five-fold, increase in remittances from the United States during FY02. Remittances from the Middle East also rose, largely reflecting a sharp increase in flows from the UAE. The main reason for the run-up in remittance flows during this period appears to have been a greater scrutiny by the US government on the bank accounts of Pakistanis and Muslims in an attempt to trace funding for Al-Qaeda-type organizations (Zaidi, 2005). However, there was also some shift from informal (*Hundi* system) to more formal banking channels by expatriates in sending money back to Pakistan. In addition, the SBP's action to transform unregulated money changers into regulated Exchange Companies also increased the flow of remittances coming through official channels. The level of remittances continues to remain high, although recently there has been only a "very weak rise" (State Bank of Pakistan, 2005, p.59).

Chart 3.1 Foreign Remittances



Source: SBP Annual Report (various issues)

Chart 3.2 Debt and Debt Service

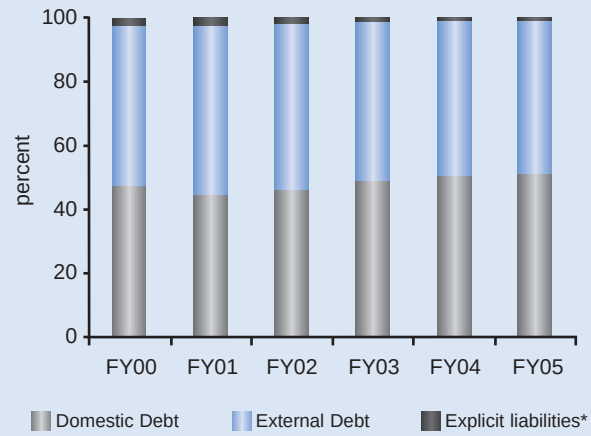


Source: SBP Annual Report (various issues)

Debt and Debt Servicing

The removal of sanctions by the United States against Pakistan created a very favourable environment for bilateral and multilateral donors to resume their assistance to Pakistan. It is quite possible that this may have also contributed to the softening of the terms at which the Paris Club rescheduling (which was already in progress) was granted. These changes were instrumental in bringing down Pakistan's debt-to-GDP ratio from 86 percent in FY02 to 71 percent in FY04 and the debt service-to-GDP ratio from 10 percent to 6 percent over the same period (Chart 3.2).

Chart 3.3 Composition of Debt



*Explicit liabilities include Special US Dollar Bonds, FEBCs, FCBCs and DBCs; of which special US Dollar Bonds is a foreign liability, while FEBCs, FCBCs and DBCs are also foreign liabilities payable in rupees

Source: SBP Annual Report (various issues)

With policies promoting macroeconomic stability, the debt ratios have continued to fall, and Pakistan's debt stood at 64 percent of GDP in FY05, while debt service was down to 4 percent of GDP. The composition of debt has also changed, with the share of domestic debt in the total rising from about 45 percent in FY02 to about 51 percent in FY05 (Chart 3.3).

External Balances

After stagnating in FY02, export earnings also recovered in the aftermath of September 11. This was helped by an increase in European quotas for Pakistani products. As shown in Table 3.1, exports as a share of GDP recovered from 12.5 percent in FY01 to 13.2 percent in FY03. This, together with the rise in the net transfers-to-GDP ratio as a result of the surge in remittances, led to a current account surplus of nearly 4 percent of GDP in FY03. Since then, the sharp increase in imports has renewed pressure on external balances, with the current account turning into a deficit of nearly 1.6 percent of GDP in FY05 (Table 3.1). The data thus far from FY06 show a further deterioration.

Table 3.1 Current Account Balance: Key Indicators (% of GDP)

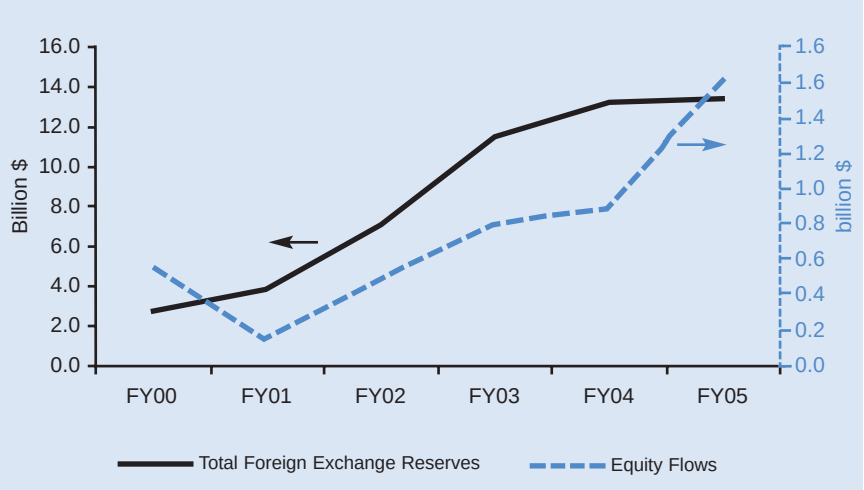
	FY00	FY01	FY02	FY03	FY04	FY05
Exports	11.2	12.5	12.7	13.2	12.9	13.0
Imports	13.1	14.3	13.1	13.7	14.1	16.9
Trade Balance	-1.9	-1.8	-0.4	-0.5	-1.3	-3.9
Net Private Transfers	4.2	5.5	5.9	7.0	6.4	7.6
Net Services and Other Invisibles	-3.8	-4.4	-3.6	-2.6	-3.7	-5.3
Current Account Balance	-1.6	-0.7	1.9	3.8	1.4	-1.6

Source: GoP, Economic Survey (various issues) until FY04, SBP Annual Report for FY05

Foreign Exchange Reserves

The post-September 11 surge in remittances, lower external debt servicing costs and a recovery of exports resulted in an unprecedented increase in Pakistan's foreign exchange reserves. It should be noted that the SBP's own reserves had already risen by about 70 percent in FY01 because of the SBP's purchases from the open market, specifically from $991 million in June 2000 to $1.7 billion in June 2001. This took the overall banking system reserves from $1.9 billion to $3.2 billion. As depicted in Chart 3.4, international reserves rose 85 percent from $3.8 billion to $7.1 billion during FY02, and the trend towards an increase has

Chart 3.4 International Reserves and Equity Flows

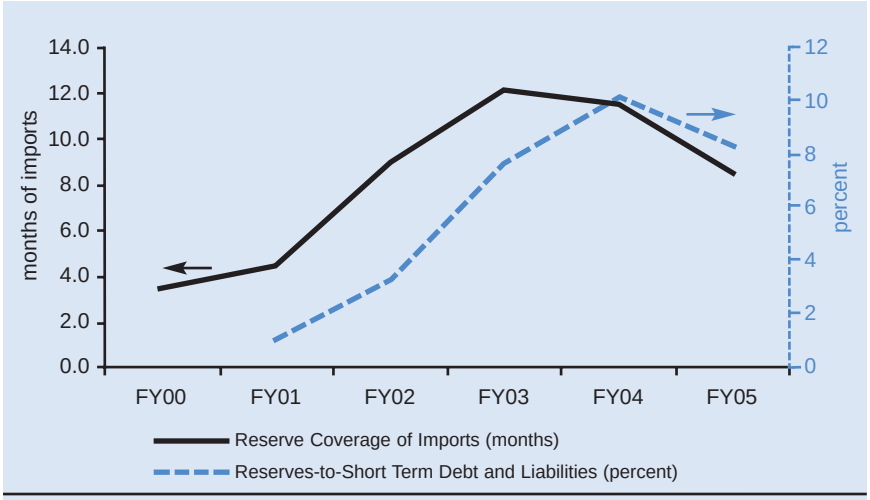


Source: SBP Annual Report (various issues)

continued since then, with reserves reaching a level of $13.3 billion in FY05 - there has, however, been some slippage in the current FY06 so far (SBP, 2005). Equity flows to Pakistan have also increased sharply during the last five years, rising from about $150 million in FY01 to $1.6 billion in FY05.

However, the reserves coverage of imports has fallen over the past two years because of an acceleration of imports. As shown in Chart 3.5, in FY03 reserves had increased to the point where they could finance more than 12 months of imports, but in FY05 this was down to about 8.5 months of imports. The Chart also depicts that the ratio of reserves to short-term debt and liabilities has now started falling, from 10.1 percent in FY04 to 8.3 percent in FY05.

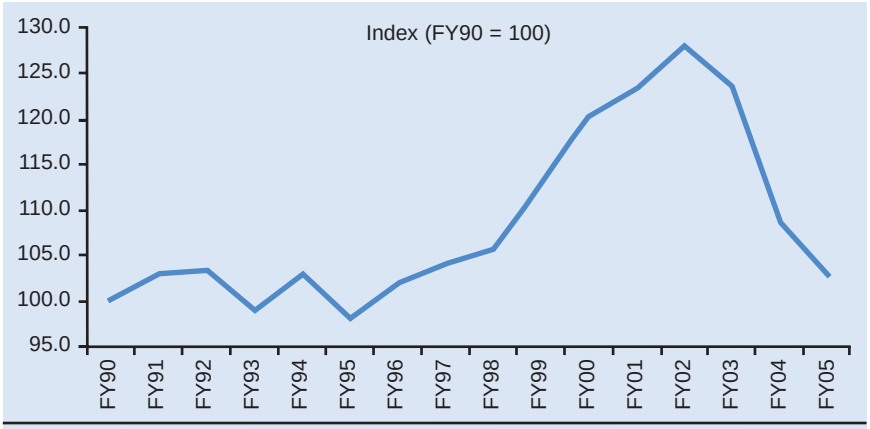
Chart 3.5 Reserves Coverage



Source: SBP Annual Report (various issues)

There has been an improvement in traditional indicators of vulnerability such as debt-to-GDP ratio, reserves coverage of imports and reserves coverage of short-term liabilities.

Chart 3.6 Real Effective Exchange Rate*



*Trade-weighted, CPI-based REER, expressed as units of domestic goods that have to be given up to get one unit of the foreign good. Thus, a rise in REER constitutes a real depreciation of the domestic currency and a fall in REER, a real appreciation.

Source: SPDC estimates

Real Effective Exchange Rate

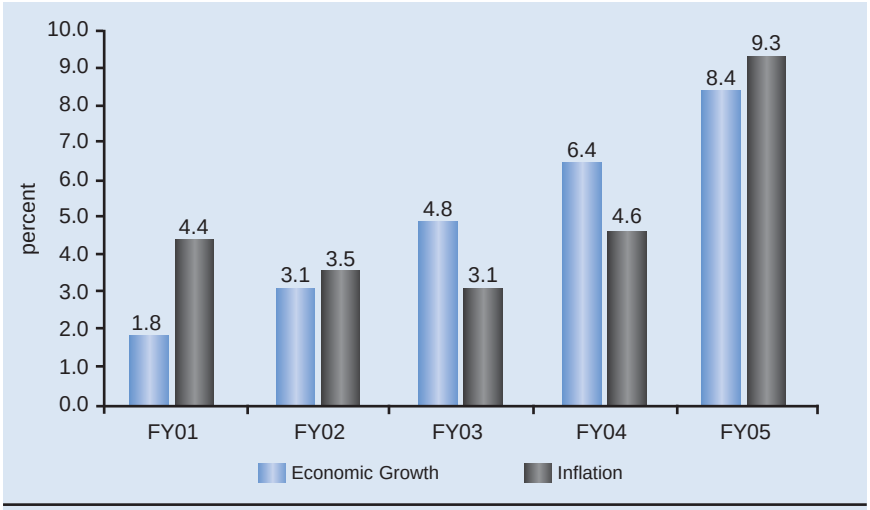
Moreover, the trade-weighted, consumer price-based Real Effective Exchange Rate (REER) which depreciated about 20 percent from FY98 to FY02, increasing export competitiveness, has since then seen a reversal (Chart 3.6). The early part of the recent bout of real currency appreciation was likely a result of increased remittance and capital inflows due to the changes discussed above. But, very recently, the appreciation probably reflects Pakistan's much higher inflation rate compared to its trading partners. This can hurt the competitiveness of Pakistan's exports.

Summary

There have been important changes in the external environment since the incidents of September 11. In particular, the surge in remittances and capital inflows has relaxed the external financing constraint and led to an improvement in traditional indicators of vulnerability, such as debt-to-GDP ratio, debt-servicing-to-GDP ratio, reserves coverage of imports and reserves coverage of short-term external liabilities. Accompanying this has been a continuation of the process of trade liberalization (and openness more generally) and other structural policy reforms, which have helped achieve a measure of macroeconomic stability and policy credibility. These developments have contributed to an acceleration of output, with real GDP growth rising each year since 2001 (Chart 3.7).

However, some developments over the past two years are disconcerting and raise concerns about the sustainability of growth. These concerns need to be addressed. First, inflation has increased sharply and, if unchecked, could undermine hard-earned macroeconomic stability (Chart 3.7). Second, the surge in imports has not yet been accompanied by a similar surge in exports. Despite an elevated level of net inflows of private transfers, the sizable current account surplus of two years ago has turned into a deficit. Third, the increase in short-term debt and liabilities together with the rise in imports has led to some deterioration in reserve coverage ratios. However, the situation remains vastly better than the historical averages.

Chart 3.7 Economic Growth and Inflation



Source: GoP, Economic Survey (various issues)

THE ROLE OF REMITTANCES

The importance of remittances in Pakistan's economy is well recognized (Haque and Montiel, 1992; Khan, 1986; Nishat and Bilgrami, 1991). This raises the question of how much economic performance has been influenced by the unusual increase in inward remittances after September 11, 2001. If remittances have been an important driver of the recent spurt of growth, this has implications for the key question of the sustainability of economic growth going forward given their volatility.

One common econometric method of assessing the importance of particular shocks that has been widely used in the literature is to estimate a structural Vector Auto-Regression (VAR) model. A structural VAR is essentially a dynamic simultaneous equation model in which a group of variables interact with each other both contemporaneously and with lags. In using a structural VAR model to study the importance of shocks, it is important to have enough variables in the system so that the relative importance of various shocks can be judged. At the same time, given the contemporaneous and lagged interactions, if one has too many variables, the relationships may not be very precisely determined.

In order to delineate the role of external factors, including remittances, we estimate a structural VAR in the case of Pakistan which consists of a mixture of external and domestic variables. The structural VAR - the methodology of which is described in Box 3.1 - allows for a contemporaneous and an up to a two-year lag interaction between the following variables:[3]

- Rate of change of the world price of oil
- Foreign output growth (export-weighted average of growth of real GDP of Pakistan's 10 largest trading partners)

[3] This is a slightly different version of the structural VAR model that was estimated in Ahmed, Ara and Hyder (2005).

Box 3.1 Structural VAR

In order to assess the importance of remittance and oil shocks for Pakistan's economy, we estimate a six-variable structural VAR. A structural VAR is essentially a dynamic, simultaneous equation model that allows for both contemporaneous and lagged interactions among a group of variables. Three of the variables we consider (the world price of oil, foreign output and remittances) are determined only by external factors and are labeled "external variables." The remaining three (real exchange rate, output and inflation) are influenced by domestic factors in addition to external factors, and are labeled "domestic variables." We allow lagged interaction of up to two years.

Specifically, we estimate the following system of structural equations:

$$(1) \qquad AX_t = B_0 + \sum_{j=1}^{2} B_j X_{t-j} + \mu_t$$

In this system, X refers to the vector of stationary variables in the model, A is the matrix of contemporaneous interactions between the variables, B_0 is a matrix of constants, the B_1 and B_2 matrices represent lagged effects and μ is a vector of independent structural disturbances (the economic shocks).

It will be useful to partition *X* into "external" and "domestic" variables along the lines discussed earlier and also to partition the structural disturbances correspondingly. Thus,

$$(2) \qquad X_t \; / \begin{pmatrix} X_1 \\ \hline X_2 \end{pmatrix} = \begin{pmatrix} \Delta poil \\ \Delta fy \\ \Delta rm \\ \hline \Delta rer \\ \Delta y \\ \Delta p \end{pmatrix}; \qquad \mu \; / \begin{pmatrix} \varepsilon \\ \hline \eta \end{pmatrix} = \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \hline \eta_1 \\ \eta_2 \\ \eta_3 \end{pmatrix}$$

The external stationary variables, represented by X_1, are the rate of change of the world price of oil ($\Delta poil$), foreign output growth measured as the export-weighted economic growth rates of Pakistan's ten largest export markets (Δfy) and the growth rate of remittances from abroad (Δrm). The domestic stationary variables, represented by X_2, are the rate of depreciation of the trade-weighted, consumer prices-based real effective exchange rate (Δrer), domestic output growth (Δy), and domestic consumer price inflation (Δp). The vector ε represents the vector of external shocks (the oil price, foreign output and remittance shocks, respectively). And, the vector η represents the vector of domestic shocks (a domestic real exchange rate shock, a domestic output shock and a domestic price level shock, respectively) - i.e. after accounting for the influence of the external shocks on these variables.

It is well-known that without further restrictions, the model given in (1) is not well identified. Intuitively, if each variable is allowed to affect all others simultaneously, then we cannot separate out the causal effect of, say, X_1 on X_2 from that of X_2 on X_1. Usually in a structural VAR, the assumption of a recursive contemporaneous causal ordering is made to solve the identification problem. This is the procedure we follow, assuming the contemporaneous causal ordering to be:

$$(3) \qquad \Delta poil \rightarrow \Delta fy \rightarrow \Delta rm \rightarrow \Delta rer \rightarrow \Delta y \rightarrow \Delta p$$

In this causal chain, a variable is contemporaneously affected by those variables coming before it and contemporaneously influences but is not contemporaneously influenced by those variables coming after it. Another way of stating these causality assumptions is that the matrix A in (1) is lower triangular:

$$(4) \qquad A = \left(\begin{array}{ccc|ccc} 1 & 0 & 0 & 0 & 0 & 0 \\ * & 1 & 0 & 0 & 0 & 0 \\ * & * & 1 & 0 & 0 & 0 \\ \hline * & * & * & 1 & 0 & 0 \\ * & * & * & * & 1 & 0 \\ * & * & * & * & * & 1 \end{array}\right)$$

where * indicates that the coefficient is unrestricted. It should be noted that no restrictions on lagged interactions among the variables (i.e. on the B_1 and B_2 matrices in (1)) are required to identify the model. However, since Pakistan is a small open economy, we cannot expect the domestic variables to feed back into the external variables even with a lag and, therefore, we have imposed that assumption as well.

The estimates of the system of equations in (1) are used to make baseline forecasts of variables based on data through FY01. Then we obtain the deviations from baseline that can be attributed to the remittance shocks and oil price shocks. This forms the basis of the historical decompositions highlighted in the main text.

- The growth rate of foreign remittances coming into Pakistan
- Rate of change of the REER (a trade-weighted, consumer prices-based real exchange rate)
- Domestic output growth
- Domestic consumer price inflation

We reiterate that a VAR can capture only selected external factors. For example, the particular VAR that has been used here does not capture the lack of access to the US and the EU markets because of a high incidence of tariffs and more recently antidumping duties by the EU against bedwear. The purpose of the VAR is to examine the importance of three specific external factors - oil prices, remittances and foreign output - relative to domestic factors in driving growth, inflation and real exchange rate movements.

Using the estimated structural VAR, we examine the evidence on the importance of the post-September 11 remittance shocks first. This is done through what are known in the literature as "historical decompositions," which give us the breakdown of the contribution of shocks over a specific period. Specifically, an initial period is chosen - in this case FY01, the fiscal year before the one in which September 11, 2001 falls - and baseline forecasts are made for future periods based on data available up to that period. The contributions of the different shocks to the deviation of actual subsequent values from the baseline path thus computed constitute the historical decompositions.

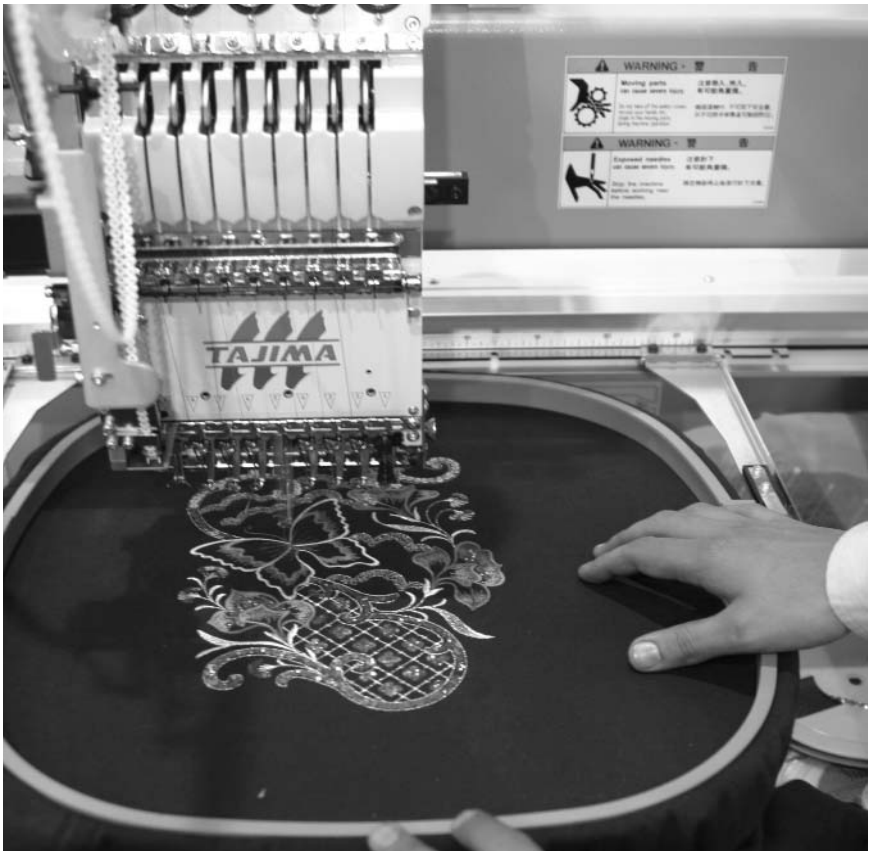
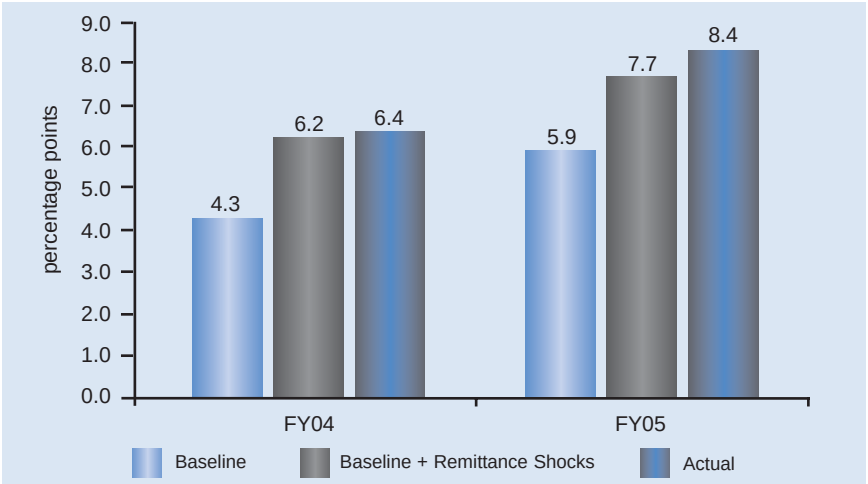


Chart 3.8 Historical Decomposition of Economic Growth

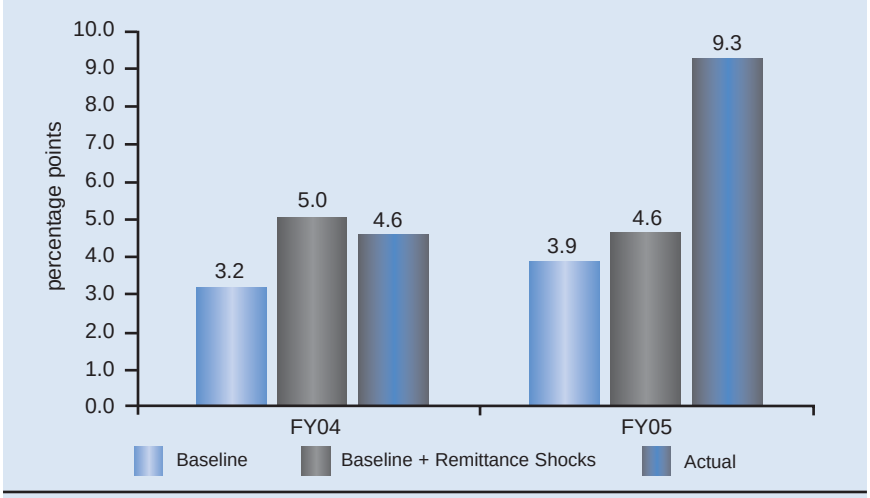


Source: SPDC estimates

The historical decompositions using the estimated structural VAR for Pakistan's output growth during FY04 and FY05 are shown in Chart 3.8. Note that in FY05, the actual growth rate of real GDP at factor cost was 8.4 percent, whereas the baseline forecast of the structural VAR in the absence of any shocks after FY01 would have put growth at 5.9 percent. The difference - 2.5 percentage points - is the part of FY05 growth that can be attributed to all the shocks, both external and domestic, that have hit the economy since the end of FY01. How important are remittance shocks? If only the remittance shocks had hit the economy since FY01 and there was no other shock, growth would have been forecast at 7.7 percent in FY05, instead of 5.9 percent in the absence of any shocks. Thus 1.8 percentage points of the growth can be attributed to remittance shocks. The remittance shocks also explain about 2 percentage points of the growth that occurred during FY04.

1.8 percentage points of the economic growth in FY05 can be attributed to remittance shocks.

Chart 3.9 Historical Decomposition of Inflation



Source: SPDC estimates

These estimated effects of remittances are quite large and it is important to qualify the results in two respects. First, the results, of course, depend on the particular empirical model being used (albeit a reasonable one in our judgment) and should be taken to be illustrative. Second, the recent remittance shock may be overestimated because, as mentioned earlier, there was some movement of remittances away from unofficial to official channels and from unregulated to regulated money changers. This suggests that the effect of remittances could be overstated. But given the large estimated effect, even adjusting for this would likely still leave a significant role for remittances in partly explaining the recent growth spurt.

A similar historical decomposition for inflation is shown in Chart 3.9. Without any shocks since FY01, inflation in FY05 would have been just 3.9 percent in FY05 according to the VAR as opposed to the actual 9.3 percent. Thus, shocks since FY01 account for the bulk of the high inflation seen during FY05. Remittance shocks explain only a small, though non-trivial, portion of about 0.7 percentage points (4.6 less 3.9) of the inflation in FY05. However, in FY04, they explain more of the inflation (about 1.8 percentage points - 5 less 3.2).

We can conclude that the relaxation of the BoPs financing constraints because of a sharp increase in remittances since September 11, appears to have played a key role in the recent strong growth performance of our economy. This has meant less reliance on debt-creating flows to finance the BoPs, which is a positive development. However, whether we can count on the sustainability of remittances at such a high level is also debatable. In the near-term, with expected inflows because of earthquake reconstruction and rehabilitation assistance, remittances can be expected to remain elevated. Historically, however, the volatility of this type of flow has been high.

We have not reported any detailed estimates here of the effect of the October 8, 2005 earthquake on the economy. This was done in an earlier SPDC report (Ahmed, Hyder and Areeb, 2005). However, since the post-earthquake activities do have implications for external financing flows, the findings of that SPDC report are summarized in Box 3.2.

Box 3.2 Assessing Damage: The Earthquake and the Economy

The earthquake that rocked Pakistan on October 8, 2005 has left a devastating toll of death and destruction. No price tag, of course, can be put on the loss of life, the anguish and the suffering resulting from this tragedy. In the larger scheme of things - with people having lost their parents, their children, their limbs, their homes, their properties and their livelihoods along with their dilemma of fighting against the cruel winter in the mountainous regions - it seems trivial, almost irreverent, to bring up the economy. But bring it up we must, since information on the economic effects of the earthquake can be very relevant for taking important decisions on how to organize and prioritize reconstruction activities and their modes of financing, which will have real impact on the lives of people and affect their future welfare. The earthquake also has important implications for external financing and the current account. These implications need to be factored in any analysis of the external environment over the near term at least.

Typically, after a major natural disaster economic activity follows a V-shaped pattern. The disruptions of normal economic activity and the damage to the capital stock, including infrastructure, initially lead to a loss of output. Subsequently, the economy receives a boost from the emergency relief funds because of the increased levels of spending related to rebuilding efforts.

In the case of Pakistan, many experts don't see much of an adverse effect of the earthquake on growth, even in the short run. Some of the reasons that have been given are: the relative economic insignificance of the areas most affected by the earthquake; the exclusion of the economic activity of Azad Jammu and Kashmir (AJK) from the measured statistics of Pakistan; and factoring in of a quick positive response of certain sectors like construction because of the rebuilding efforts. For example, an ADB and the WB joint study on the preliminary damage and needs assessment released in November 2005, reaches the conclusion that the impact of the earthquake on Pakistan's official GDP will likely be relatively modest, on the order of 0.4 percent of output lost (ADB/WB, 2005). A senior official of the IMF has said that growth could possibly be reduced by as much as one percentage point (reported in the December 8 issue of Dawn newspaper), a figure which seems more plausible.

One reason that estimates of a very low initial impact of the earthquake on economic growth appear implausible is that it has been estimated that it will cost anywhere from $5 billion to $12 billion to fix the damage (depending on whose estimates you believe). How can something which will take so much to fix have so little economic consequence? The argument holds even if we halve the reconstruction bill to adjust for the fact that the effects of the earthquake on AJK and of the subsequent rebuilding will not show up in the measured, official statistics of Pakistan which largely exclude AJK.

One reason why the ADB/WB study comes up with low estimates of the impact on growth seems to be that they have assessed the damage to immovable assets (buildings mostly) at book value, thus valuing these assets at the prices of the year in which they were built. With the building materials subindex of the Wholesale Price Index (WPI) having risen by nearly five-fold since 1981-82 and by about 2½ times since 1990-91, for example, the damage assessment exercise using book value no doubt substantially understates the actual damage in real terms. True, the ADB/WB study has reconstruction costs that are greater than their damage assessment, but only by about 25 percent.

SPDC's special report on the economy in the aftermath of the earthquake (Ahmed, Hyder and Areeb, 2005) proceeds a bit differently. It assumes that the country's capital stock is distributed around different districts in proportion to the share of population living there and that the bulk of the capital stock of the three most affected regions of NWFP - Batagram, Mansehra and Shangla - has been destroyed. Again, we will have to accept that any effects in AJK will not show up in the measured statistics of Pakistan. It then puts this assumption - along with other assumptions about the permanent loss of some of the labour force, temporary fall in employment due to injuries and disruptions and a

Box 3.2 (...Contd.)

temporary loss of cultivated land area - through SPDC's large scale model of the Pakistan economy. The simulations suggest that the earthquake could initially (in FY06) shave off 1½ percentage points from measured economic growth. In the absence of any rebuilding, this would lead to significant permanent reductions in output, consumption and income levels in the country.

The SPDC study also simulates the effects on the economy taking into account the ensuing rebuilding activities. The assumption made is that there will be relief and reconstruction outlays of about $5.8 billion (the amount apparently pledged at the Donors' Conference on November 19, 2005 in Islamabad) spread over the next five years, half of which will be used for the affected areas of NWFP. The total amount is somewhat higher than the assessment of rebuilding costs of $5.2 billion made in the ADB/WB study and the companion study of the United Nations (UN) dealing with the early recovery framework (United Nations, 2005). However, the allocation of the outlays to different specific activities is assumed to be in the same proportion as in the ADB/WB and UN studies. With this rebuilding effort factored in, growth in subsequent years beyond FY05 will be higher than it would have been in the absence of the earthquake. But this subsequent higher growth will be enough to bring the economy only about half-way back to its original path after five years.

Another result that emerges from the simulations in the SPDC study is that the reconstruction is likely to lead to a significantly higher rate of inflation over the next two years than would have prevailed in the absence of the earthquake. Specifically, the earthquake and rebuilding efforts could add 2 percentage points to inflation during FY05 and about 1 percentage points in FY06. Two points should be emphasized about this result. First, it does not mean necessarily that inflation will go up relative to the previous year. But it does mean that inflation could be significantly higher than it would have been in the absence of earthquake-related reconstruction efforts. This might be one reason that efforts to bring down our inflation rate are proving difficult. Second, the result does not imply that the reconstruction activity should not be undertaken. Rather, it points to a cost of this activity that needs to be factored in.

The reason for the inflationary pressure from the rebuilding efforts is not necessarily that it puts inordinate pressures on the budget deficit - the SPDC study assumes that such pressures are likely to be rather modest owing to the expected concessional nature of the external financing. Rather, inflation will be higher because the reconstruction activity can be expected to restore aggregate demand much faster than it will restore the lost capacity of the economy to produce output. Typically, the productive capacity of an economy increases only slowly, and this should apply as much to the restoration of lost capacity as to the building of a new one.

The earthquake has important implications for external financing flows and the current account balance as well. On the one hand, it will likely lead to another surge in private transfer payments and official inflows that will help finance the current account deficit. On the other hand, in the rehabilitation efforts and related spending, certain materials (such as tents, medicines and other supplies as well as construction materials) will have to be imported, creating further pressure on the trade deficit.

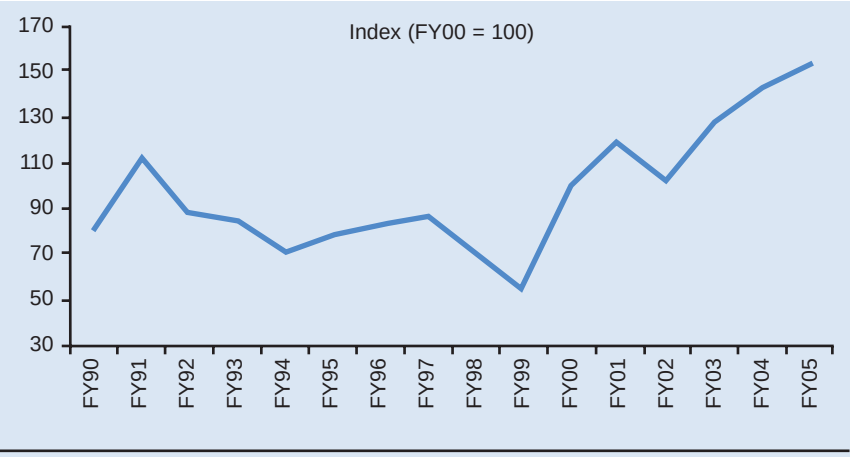
It should be emphasized that most of the results that have been discussed above are based on simulations of a particular model and are dependent on the particular assumptions that are made in those simulations. But they do raise the serious possibility that the cost of complete rebuilding may be significantly higher than most are estimating. It is difficult to come up with an exact number, but the lower end of the Planning Commission's $10 to $12 billion range (reported in newspapers) is probably nearer to the mark than the $5 to $6 billion cost that is currently being envisaged in most circles.

The results also highlight that the government faces a delicate dilemma in that higher expenditures more quickly disbursed would restore the economic losses somewhat faster, but would also be more inflationary with the attendant adverse consequences of this problem. The government should acknowledge this dilemma and make informed choices based on the trade-off that exists.

EFFECTS OF WORLD OIL PRICE INCREASES

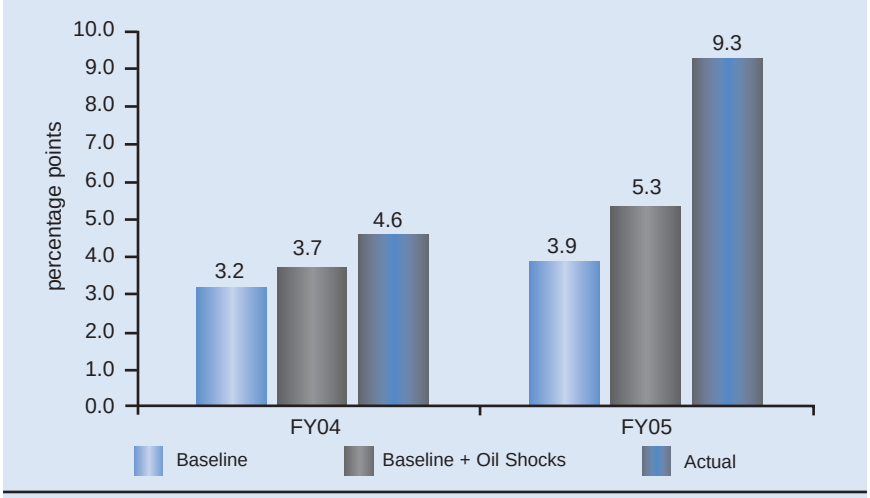
Another consequence of the events that have taken place in the aftermath of September 11, including the war in Iraq, has been that world oil prices have increased further instead of falling. The behavior of the unit value index of imports of petroleum products for Pakistan is shown in Chart 3.10. This unit value index rose sharply after 1999 for about two years, before it started falling again. This was consistent with world oil market futures prices at the time which were indicating that oil prices would subsequently retrace their earlier sharp increase. However, in the aftermath of September 11, oil prices continued to rise instead of the expected fall.

Chart 3.10 **Unit Value Index of Imports of Petroleum Products**



Source: GoP, Economic Survey (various issues)

Chart 3.11 Historical Decomposition of Inflation



Source: SPDC estimates

In order to examine the contribution of oil shocks, we made use of the same structural VAR model that was employed for remittances. Recall that the model had the world oil price as one of the three external variables. Oil price shocks were not found to be important for output fluctuations, but did play some role in explaining inflation. The historical decompositions for inflation are shown in Chart 3.11, this time with the contribution of world oil price shocks shown, rather than that of remittances. When we add the effects of world oil prices shocks that have occurred since FY01, we get a forecast for inflation of about 5.3 percent, compared with the baseline forecast in the absence of any shocks of 3.9 percent. This implies that 1.4 percentage points of the inflation in FY05 could be attributed to world oil price shocks that have occurred since FY01.

Thus oil prices do account partly for the recent high inflation but there appear to be other sources of inflationary pressure as well.

QUOTA-FREE TEXTILE TRADE

Worldwide quotas on imports of textiles and clothing ended with effect from January 1, 2005. This is a very important change in the external environment for Pakistan since textiles, apparel and related products account for nearly three-quarters of the country's exports. It raises questions about how the export sector of Pakistan will fare after the demise of the quota system. Unconstrained by quotas, will Pakistan make inroads and increase its world market share of textile exports? Or, will competition from countries such as China and India, which also stand to benefit potentially from the post-quota environment, erode Pakistan's market share?

The MTDF sees the expansion of textiles as part of the strategy for enhancing exports. It argues that the quota-free regime provides "major opportunities for Pakistan textile manufacturers and exports if they exploit their comparative advantage and enhance international competitiveness

1.4 percentage points of the inflation in FY05 can be attributed to world oil price shocks.

by forming joint ventures and investing in the development of the textile sector" (GoP, 2005 p.xxxvii). In this section we evaluate why in theory Pakistan stands to potentially benefit from quota-free trade and what the practice and evidence is pointing to on how the country has fared so far in this respect.

Major industrial countries introduced quotas on imports of textile-related products from developing countries in 1974 under the Multi-Fiber Agreement (MFA). In 1995, the MFA was replaced by the Agreement on Textiles and Clothing (ATC), which called for a phase-out of the quantitative restrictions in several stages over a ten-year period. At each stage the goods that became quota-free were incorporated into WTO rules, which disallow quantitative restrictions. Not surprisingly, importing countries chose first to integrate goods whose quota utilization rates were low. Thus, in practice, the bulk of the liberalization was back-loaded and would not have occurred until January 1, 2005.

According to economic theory, quantitative restrictions distort the allocation of resources and, therefore, the removal of these restrictions should lead to efficiency gains. This would lower world prices, benefiting consumers all over the world, including those in Pakistan. Among the producers, there will be gainers and losers. Producers in developing countries, such as Pakistan, that produce these textile goods relatively cheaply should gain at the expense of producers in industrial countries and those developing countries where the quotas were non-binding. However, in practice, potential "third-party competition" is crucial here - the key question is how competitive will Pakistan prove in terms of price and quality vis-à-vis other potential competitors who are also likely to gain from the quota removals?[4]

[4] Martin (2004) is one study that describes the economics of quotas.

The Evidence from 1995 to 2004

As argued earlier, the bulk of the quota reduction is likely to have been back-loaded and did not occur till January 1, 2005. Nevertheless, it would be instructive to consider how Pakistan fared under the partial liberalization of quotas that have been taking place gradually since 1995 under the ATC.

The evidence for this was considered in the sector study on exports in SPDC's 2004 *Annual Review* (SPDC, 2004). Three points were highlighted. First, several studies suggest that Pakistan has been able to fully utilize its quotas in the past and is also generally included in the list of countries that had high effective tax rates on exports implied by all the quantitative restrictions (Nordas, 2004 and Martin, 2004). Thus, Pakistan's exports were substantially constrained by the existence of quotas, creating potential for gains in the post-quota environment.

Second, in the gradual, partial quota relaxations under the ATC, Pakistan increased its world market share of textiles exports from 3.8 percent in 1995 to 4.2 percent in 2003. Although this is only a modest increase, it is potentially encouraging that the big increase in world market shares of China (from 12.5 percent to nearly 20 percent) and significant increases in the share of countries like India and Turkey have not come at the expense of Pakistan. The story is broadly similar for Pakistan's exports of clothing, although Pakistan is not a big player in the world clothing markets to begin with.

The third piece of evidence raises potential concerns. Pakistan's input prices have been rising at a fast pace, especially since 1999, in relation to its export output prices. Although productivity has picked up since 1999, its rise has not been sufficient to compensate for the extent to which input prices have increased. This raises concerns about Pakistan's competitiveness vis-à-vis its potential competitors in the post-quota environment (Ara, 2005).

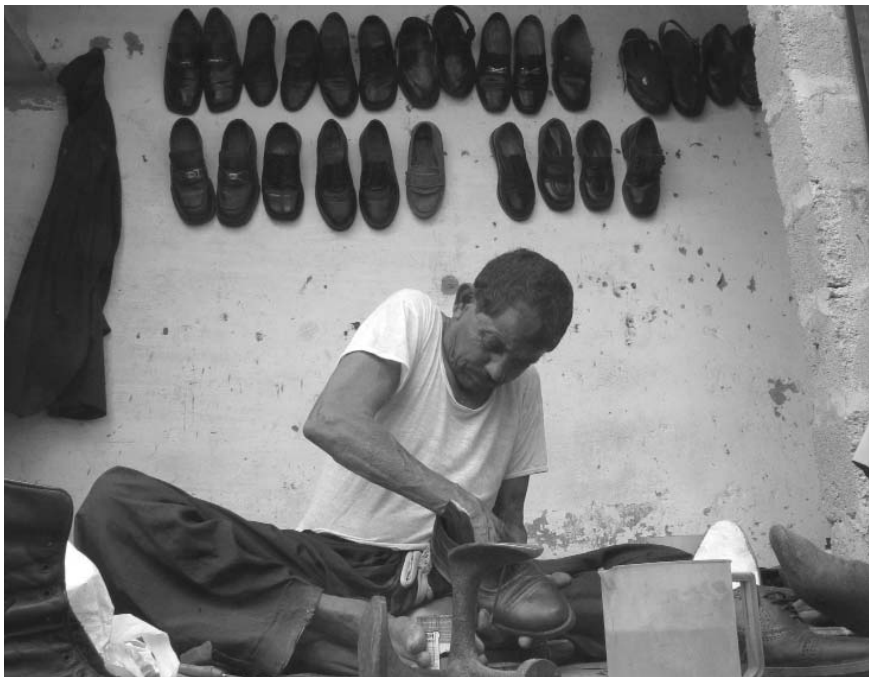
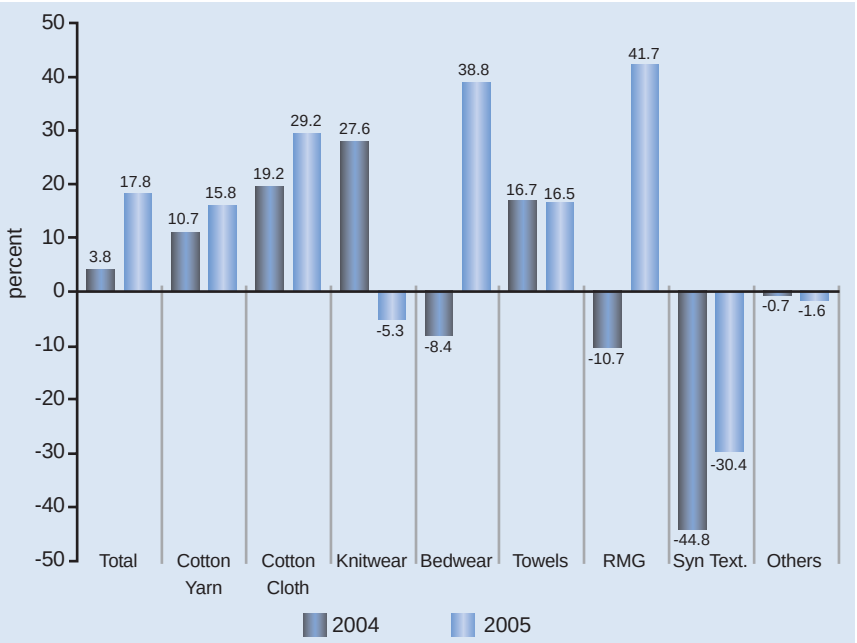


Chart 3.12 **Growth Rates of the Value of Textile and Clothing Exports**



Source: SPDC estimates based on data from the FBS, (www.statpak.gov.pk)

Performance of Textiles in 2005

Next, we examine where the actual export performance of Pakistan since the removal of the quotas is pointing in terms of Its ability to prosper from the removal of textile quotas. Chart 3.12 depicts growth rates of the value of exports of various categories of clothing and textiles in the last two years.

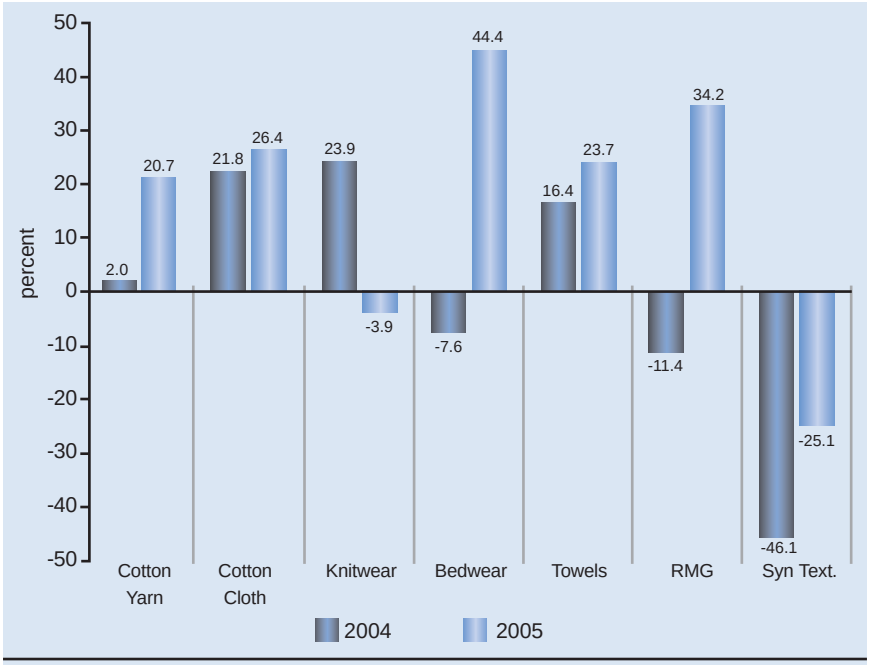
There have been significant increases in the export growth rates in several of these categories between 2004 and 2005. Specifically, total export growth in value terms increased from 3.8 percent to 17.8 percent, growth of exports of cotton yarn increased from 10.7 percent to 15.8 percent, of cotton cloth from 19.2 percent to 29.2 percent, of bedwear from -8.4 percent to 38.8 percent, and of Ready-Made Garments (RMG) from -10.7 percent to 41.7 percent. Growth rates were roughly unchanged for towel exports and fell for exports of knitwear.

The growth rates of the volume of exports in these categories are shown in Chart 3.13. They tell a roughly similar story with an expansion in the growth rates of exports of cotton yarn, cotton cloth, bedwear, towels and RMG. Note that in several sectors growth rates in the volume of exports are higher than those of the value of exports. This means that unit values, which are illustrated in Chart 3.14, have decreased in these sectors, specifically in cotton yarn, knitwear, bedwear, towels and synthetic textiles.

It would appear that the early data are indicating that Pakistan's exports have gained from the elimination of the quotas. However, it must be noted that in 2005 Pakistan experienced an unusually good cotton crop which temporarily shifted its supply of exports. The rise in export growth and the fall in unit values in many sectors are consistent with this alternative hypothesis as well.

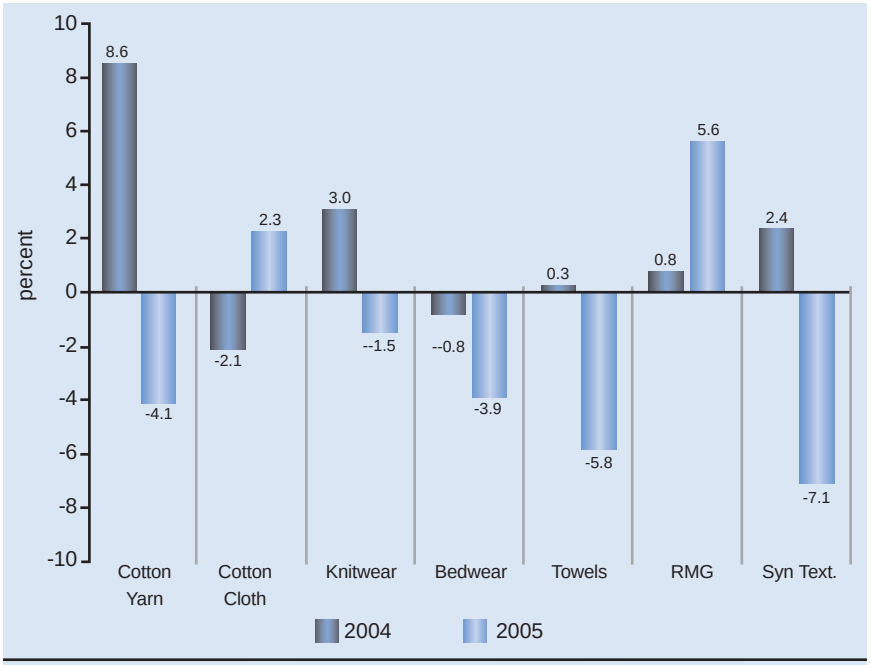
There have been significant increases in export growth rates in several categories of clothing and textiles between calendar years 2004 and 2005.

Chart 3.13 Growth Rates of the Qauntity of Textile and Clothing Exports



Source: SPDC estimates based on data from the FBS, (www.statpak.gov.pk)

Chart 3.14 Growth Rates of the Unit Value of Textile and Clothing Exports



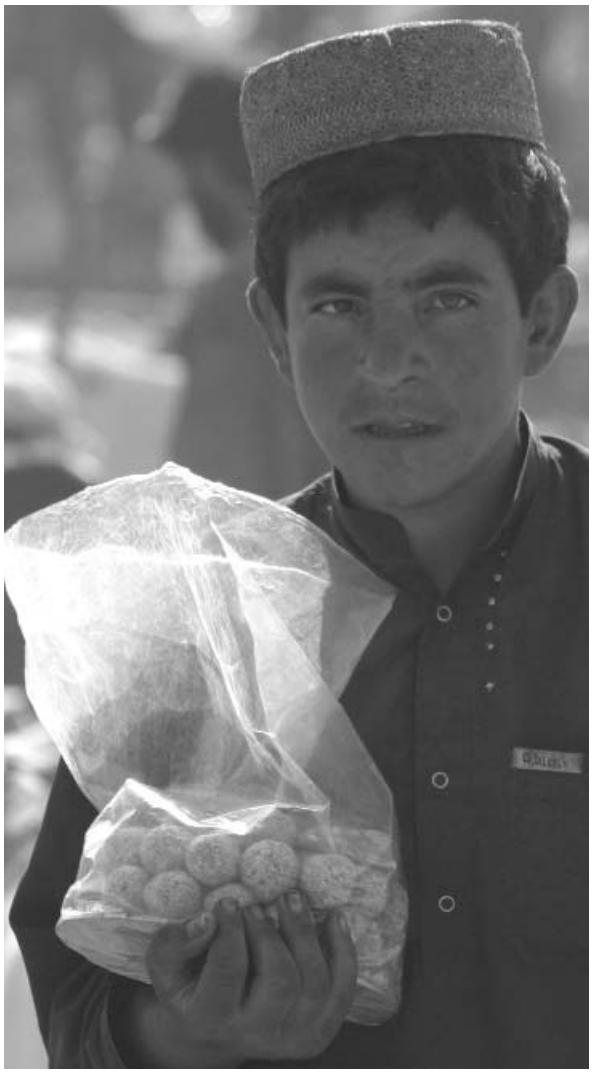
Source: SPDC estimates based on data from the FBS, (www.statpak.gov.pk)

Table 3.2 ISPM Model Simulation of Cotton Production

Indicators	FY05
% deviation from Baseline	
Real GDP at Factor Cost	-0.6
Agriculture Output	-2.3
Real Exports of Goods	-2.5
Exports of Low Value-Added Textiles	-17.2
Exports of High Value-Added Textiles	-0.02

Scenario: Cotton production in FY05 increases half as much as it actually did (from 10 million bales to 12.2 million bales instead of to 14.3 million bales).

Source: SPDC estimates



Model Simulation on the Effects of Cotton Production Shocks

In order to flesh out more the alternative hypothesis mentioned above, we return to the ISPM model. Cotton production went up from about 10 million bales in FY04 to 14.6 million bales in FY05 and the crop from this fiscal year suggests that production is back down to about 12.5 million bales. Suppose the increase in cotton production in FY05 had only been half as much - that is an increase in FY05 production to 12.3 million bales instead of 14.6 million bales. How much lower would textile exports have been?

Table 3.2 illustrates the effects based on the model simulations. If the cotton production increase had been half as much, real GDP would have been half a percent less and agricultural production would have been about 2.3 percent lower, real exports of low value-added textiles (which include cotton yarn and cotton cloth) would have been 17 percent less and real exports of high value-added textiles (which include bedwear and RMG) would have been about unchanged. The absence of any significant effect from cotton production on high value-added textiles reflects that our estimated equation in the model of this type of export shows them to be largely demand-constrained rather than supply-constrained. This is consistent with the present environment in Pakistan of free import and export of raw cotton without any tariffs and the equivalence of domestic and world prices. In such an environment, temporary shortfalls of cotton would be made up by importing more and temporary excess supply would show up partly in higher exports of very low value-added items, including raw cotton. And exports of high value-added items would be largely demand-determined without being affected by the quantity of raw cotton produced.

Recall the model's prediction above that exports of low value-added textiles would have been 17 percent less in FY05 if the cotton production increase had been half as much. Compare this change to the volume growth of actual exports during 2005 of 21 percent in cotton yarn and 26 percent in cotton cloth (shown in Chart 3.13). It seems that most of the increase in the growth of low

value-added textiles can be accounted for by an unusually good cotton crop. However, because high value-added exports appear to be more demand-constrained, a rise in the growth rates of the volume of bedwear and RMG exports indicate that factors other than just the rise in cotton production, including gains from elimination of quotas, have been at work. It should be noted though that the surge in bedwear exports has been questioned as dumping by EU importers and anti-dumping duties have been imposed on Pakistan by EU countries with respect to exports of bedwear.

Overall, we conclude that both transient factors such as an unusually good cotton production and other more permanent factors, like the effects of quota elimination, appear to explain the performance of textile exports during 2005. But this is only one year's data. It is probably still too early to tell whether and how much Pakistan stands to benefit from the elimination of textile quotas, especially in light of concerns about the competitiveness of Pakistan's industrial sector vis-à-vis its potential export competitors that have been noted in several studies (Lall and Weiss, 2003; SPDC, 2004; and Martin, 2004, among others).

There are concerns about the competitiveness of Pakistan's industrial sector vis-à-vis its potential export competitors.

ENHANCING EXPORTS IN THE LONG RUN

Besides the enhancement of textile exports, the MTDF also calls for more general expansion of exports through greater product and market diversification as well as a focus on non-traditional items. This is a big challenge for Pakistan. We documented earlier that despite sharply reducing its import taxes and NTBs, Pakistan has not been able to achieve the kind of export growth that several other developing countries in Asia have. So a natural question is: what else, in addition to a country's own tariff and NTBs, explains the cross-country differences in export performance? Here we examine this issue and its implications for Pakistan.[5]

Cross-Country Analysis

The literature discusses several determinants of exports including the size of the country, availability of natural resources, essential services and infrastructure, comparative labor cost advantage, human capital, foreign demand and relative prices.[6] Recently, however, the emphasis has shifted to some liberalization-related measures, such as market access, FDI and own trade barriers.

Market access determines the extent to which a country's trading partners allow it to penetrate their markets. Quotas set by large importing countries generally hinder market access of a developing country. One study estimates that full duty and quota-free access for LDCs in the Quad markets (the US, the EU, Japan and Canada) would boost their exports by $3 billion, and that LDC exports of tariff-peak products would increase by 75 percent (Hoekman et al, 2000).

[5] In another report we have focused on cross-sectional estimates of bilateral trade based on the gravity model and examined its implications for Pakistan's trade with various countries (see Special Sector study on Targeting Exports in SPDC, 2004).

[6] See for example Barro (1997), Catao and Falcetti (1999), Leamer and Levinson (1994), Menzies and Heenan (1993), Reinhart (1995), Samiei (1994).

FDI can promote exports of host countries through the following channels:

- Augmenting domestic capital for exports
- Helping transfer of technology and new products for exports
- Facilitating access to new and large foreign markets
- Providing training for the local workforce and upgrading technical and management skills.

Finally, a government's own trade policies particularly regarding tariffs and NTBs can also affect export performance (Porter, 1990). As was seen in earlier chapters, reduction of trade barriers can boost investment and productivity, which in turn helps to boost exports in the future.

Given the increasing importance attached to these factors, we have modeled cross-country export-to-GDP (*EXP/GDP*) ratios as a function of the following explanatory variables:

- Per capita net inflow of FDI (*FDI/POP*) in each country.
- OTRI, which measures the distortions imposed by each country's own trade policies on its import bundle.[7]
- MAOTRI, which measures the distortions that the rest of the world imposes on each country's export bundle.

While *OTRI* and *MAOTRI* might be regarded as exogenous policy variables, FDI of course is an endogenous variable, which in turn depends on many factors. One main determinant of FDI identified by researchers is the quality of institutions. There are several reasons why the quality of institutions may matter for attracting FDI. By raising productivity prospects, good governance and good infrastructure may attract foreign investors. On the other hand, poor institutions can bring additional costs to FDI. Due to high sunk costs, FDI is especially vulnerable to any form of uncertainty. This includes uncertainty stemming from government inefficiency, policy reversals and weak enforcement of property rights in particular and of the legal system in general.[8]

In modeling FDI, we are motivated by the above considerations and the empirical work in a very recent study. This study found government stability, law and order and quality of the bureaucracy closely associated with FDI in a cross-country analysis (Busse and Hefeker, 2005). For institutional quality, we use the six indicators provided for a large number of countries in a well-known study (Kaufmann et al, 2004). These institutional indicators cover the quality of the following: voice and accountability, political stability, government effectiveness, regulatory environment, rule of law and control of corruption. Not surprisingly, these six institutional indicators are highly correlated. Hence, in our cross-country analysis of FDI, we use the average of these indicators.

[7] For details about the construction of OTRI and MAOTRI, see Box 1.2.

[8] See for example Habib and Zurawicki (2002), Kinoshita and Campos (2003), Méon and Sekkat (2004), Ngowi (2001), Rivlin, (2001), Schneider and Frey (1985), Wei (2000). See Khan (1997) for reasons of Pakistan's lacklustre performance in attracting FDI.

Specifically, per capita FDI (*FDI/POP*) is modeled as a function of:

- The arithmetic average of the six institutional indicators listed above
- MAOTRI

Empirical Results

The estimates for the cross-country exports equation are presented in Table 3.3. As expected, the exports-to-GDP ratio is positively related with per capita FDI and negatively related with the trade restrictions imposed by a country on its own trade and by other countries on its exports.

In order to interpret the regression coefficients, recall that OTRI is a tariff-equivalent measure. A one percentage point reduction in the tariff-equivalent of a country's own trade barriers will lead to a 0.42 percentage point increase in its exports-to-GDP ratio. Similarly, a one percentage point decline in the tariff-equivalent of denial of market access through trade restrictions by other countries will increase the exports-to-GDP ratio by 0.63 percentage points.

The estimates of the FDI equation are given in Table 3.4. FDI is positively affected by the quality of institutions in the host country, and our results also suggest that lesser market access given to a country is correlated with lower FDI.

Table 3.3 Empirical Results of Cross-country Exports Equation

Dependent Variable: Exports/GDP	Coefficient
Effects of:	
Per-capita FDI (log)	0.018
OTRI	-0.42
MAOTRI	-0.63
Dummy Variable*	0.75
Constant	0.36
Adjusted R^2	0.61
F-statistic	34.65

*Dummy variable (Malaysia, Hong Kong and Equatorial Guinea=1; 0 otherwise) helps to account for countries whose exports-to-GDP data are clearly outliers.

Note: All the variables are significant at least at a 10% significance level

Source: SPDC estimates

Table 3.4 Empirical Results of Cross-country FDI Equation

Dependent Variable: Log(Per-capita FDI)	Coefficient
Effects of:	
Average Quality of Institutions	1.43
MAOTRI	-7.05
Constant	4.56
Adjusted R^2	0.40
F-statistic	29.85

Note: All the variables are significant at least at a 10% significance level

Source: SPDC estimates

Illustrative Implications for Pakistan

The policy implications of this cross-country empirical analysis in the case of Pakistan are examined through the following simulations based on the regression results:

- Scenario 1 simulates the exports-to-GDP ratio for Pakistan under the assumption that Pakistan has the same trade restrictions as various other countries, but its own actual values of *MAOTRI* and average quality of institutions.
- Scenario 2 simulates the exports-to-GDP ratio for Pakistan under the assumption that market access allowed to Pakistan is the same as various countries, but it has its own actual values of *OTRI* and average quality of institutions.
- Scenario 3 simulates the export-to-GDP ratio for Pakistan under the assumption that Pakistan has the same quality of institutions as various countries but its own actual values of *OTRI* and *MAOTRI*.

The results are presented in Table 3.5. According to these results, if Pakistan were to reduce its own trade restrictions to the level of the Philippines, which, as shown in Table 3.6, is the least restricted country among the selected countries (excluding Hong Kong, which is a unique case), Pakistan's exports-to-GDP ratio could potentially be 5.5 percentage points higher (i.e. 18.5 percent instead of 13 percent). Similarly if Pakistan had market access like China or Malaysia, who have the highest market access among the selected countries, Pakistan's exports-to-GDP ratio could potentially be 15 percentage points higher according to the average relationship that exists in the cross-section between market access, FDI and exports. Finally, If Pakistan's institutions were like those of Thailand or Malaysia, which are the best

If Pakistan reduces its own trade barriers to those of the Philippines, Pakistan's exports-to-GDP ratio could potentially be 5.5 percentage points higher.

Table 3.5 Change in Pakistan's Exports/GDP (percentage points) under various scenarios using estimated Exports and FDI equations

Country X	Scenario 1: Pakistan's OTRI measure equal to country X's OTRI measure	Scenario 2: Pakistan's MAOTRI measure equal to country X's MAOTRI measure	Scenario 3: Pakistan's AVINST measure equal to country X's AVINST measure
Bangladesh	-1.0	4.3	0.4
China	1.5	14.8	1.4
Hong Kong	7.2	11.4	5.1
India	-5.4	4.7	1.7
Malaysia	4.6	14.8	3.3
Philippines	5.5	13.7	1.6
Sri Lanka	3.7	4.2	1.9
Thailand	1.7	10.2	2.8
Turkey	4.2	8.5	1.5

Note: Pakistan's actual exports/GDP value was 13 percent in FY05

Table 3.6 Selected Country Variables

Country	OTRI	MAOTRI	AVINST*
Bangladesh	0.194	0.219	-0.752
China	0.135	0.079	-0.360
Hong Kong	0.000	0.124	1.123
India	0.300	0.213	-0.222
Malaysia	0.061	0.079	0.412
Pakistan	0.171	0.276	-0.892
Philippines	0.040	0.094	-0.252
Sri Lanka	0.083	0.220	-0.128
Thailand	0.130	0.140	0.200
Turkey	0.071	0.162	-0.282

*Ranges between -2 to 2, where -2 indicates the lowest quality of institutions and 2 indicates the highest quality

quality institutions after Hong Kong among the selected countries, its exports-to-GDP ratio could potentially be 2.8 to 3.3. percentage points higher (which would put it at 15.8 percent or 16.3 percent, respectively, instead of 13 percent). On the other hand, if Pakistan's own trade restrictions were as high as those of Bangladesh, or especially India's, its export-to-GDP ratio would be lower.

Countries are very different from each other in many respects and any inferences about particular countries from cross-sectional studies should be drawn with extreme caution. *It is very important to emphasize, therefore, that the above results are merely illustrative.* They are meant to underscore the importance of FDI, the quality of institutions and market access allowed by other countries in addition to own trade barriers as determinants of export performance. The quantitative results should be viewed more as what is potentially possible for Pakistan under different scenarios based on the average effects observed in a cross-section of countries. This is a far cry from what would actually be needed to realize that potential.

Finally, it should be noted that we have not focused here on issues of agriculture trade, which has been on the agenda at various WTO meetings. However, a brief summary of the issues and recent developments with respect to agriculture trade that are of relevance to Pakistan is provided in Box 3.3

CONCLUSIONS

This chapter has focused on the changed external environment that Pakistan has faced in the past few years and how this has shaped the performance of the economy. We have undertaken a number of quantitative analyses that have examined the following: (1) the role of remittance shocks and oil price shocks since the events of September 11, 2001; (2) an evaluation of the recent performance of textile exports; and (3) the factors that still constrain our exports relative to those of several other developing economies in Asia, despite substantial trade liberalization having occurred. The empirical results presented in the chapter yield several useful insights.

FDI, the quality of institutions, market access allowed by other countries and own trade barriers are important determinants of export performance.

Box 3.3 WTO and Agriculture Trade: Issues and Developments of Relevance to Pakistan

The Agreement on Agriculture

The General Agreement on Tariffs and Trade (GATT) prevailed from 1948 until 1994. GATT covered agricultural trade also, but there were some loopholes in the system. Despite being a trade promoting system, GATT allowed countries to use some non-tariff measures, such as import quotas, and to subsidize their agricultural products. Many countries, specially the developed ones, capitalized on such anti free-trade provisions and continued to increase their export and other subsidies on agricultural products. The Uruguay Round, which concluded in 1994 and gave birth to the WTO in 1995, provided a comprehensive framework of liberalization of agricultural sector. This framework, after the agreement of various nations including Pakistan, was named the Agreement on Agriculture (AoA).

The objective of the AoA was to reform agricultural trade and to make policies more market-oriented. The AoA provided a separate schedule of reductions and concessions on tariffs and decreases in subsidies on agricultural products covered by the agreement to each country. Developing countries were given ten years to achieve the targets set at the conclusion of Uruguay Round and developed nations were given six years. Similarly, greater reduction in subsidies and lowering of tariffs was expected from developed countries as compared to developing countries. The AoA also allowed governments to support their agricultural sector, but they were required to design policies that caused less distortion to trade.

The rules and commitments under the AoA specifically target three areas:

1. Market Access - various trade restrictions on imports.
2. Domestic Support - subsidies and other programmes, including those that raise or guarantee farm gate prices and farmer incomes.
3. Export Subsidies and other methods used to make exports artificially competitive.[9]

Liberalization of Agricultural Trade in Pakistan

Like many other developing countries, the agricultural policies in Pakistan have revolved around two main objectives: food security for urban consumers and price stability for agriculture producers. From the very beginning, successive governments intervened in the agricultural trade to achieve these objectives. Prices of agricultural products were kept low by setting export quotas and through export taxation and the overvaluation of the exchange rate. Nominal subsidies were also provided to keep consumer prices low and producer prices stable. Government procurement programmes and the introduction of minimum prices and support prices for agricultural produce were also part of this policy.

Gradual liberalization efforts started in the 1980s. With the implementation of the SAP in the late 1980s, liberalization of the agriculture sector in Pakistan speeded up well before the birth of the WTO. Tariff and non-tariff protection as well as state intervention in trade was reduced significantly under this programme. Despite these substantial tariff reductions, in 1995, the simple average statutory duty rate was 50 percent, with the highest standard tariff rate of 70 percent.

Pakistan and AoA

Pakistan has substantially liberalized its agricultural trade from the late 1980s. The achievements in this process of agricultural trade reform are discussed below under three specific pillars:

1. Market Access:

Pakistan has reduced all NTBs on agricultural products and eliminated all quantitative quotas. The agreed bound tariff rates for Pakistan range from 100 to 150 percent on different agricultural products. However, the maximum applied rate in FY03 was 25 percent, much below the bound rates. The following Table depicts the reduction in applied tariffs over the years:

WTO Tariff Bindings and Applied Rates for Selected Major Products (percent, ad valorem)

Product	Bound Rates	Range of Applied Rates						
		1995	1996	1997	1998	1999	2000-01	2002-03
Cereals	100-150	5-65	5-65	5-65	5-25	5-15	5-10	5-25
Oilseeds	100	10-70	10-65	5-65	5-45	5-35	5-10	0-10
Vegetable Oils	100	25-70	25-65	25-65	15-45	10-35	10-30	10-25
Live Animals	100	15-65	15-65	15-65	10-45	10-35	10-30	10-25
Meat	100	35-70	35-65	15-65	15-45	10-35	10-30	10-25
Dairy Products	100	25-70	25-65	25-65	25-45	25-35	20-30	20-25
Sugar	100	35-70	35-65	45-65	25-45	25-35	20-30	20-25
Coffee & Tea	100-150	15-70	15-65	0-65	15-45	20-35	20-30	20-25
Simple Average	100.5	-	-	-	-	-	-	-

Source: Ministry of Food and Agriculture, GoP. (www.pakistan.gov.pk)

2. Domestic Support:

Under the AoA, developing countries agreed to reduce domestic price support by 13 percent over a 10-year period while developed countries agreed to reduce domestic support having direct effect on production by 20 percent over six years staring in 1995. In the base period (1986-88), Pakistan's product- specific measures of support (for instance procurement of agricultural commodities such as wheat, cotton, sugarcane and rice) were negative whereas non product-specific input subsidies (for fertilizer, seeds, electricity and pesticides) were positive (Noshab, 2004). Hence, because of its overall negative

[9] See www.wto.org for further details.

Box 3.3 (...Contd.)

aggregate measures of support, Pakistan had no obligation to further reduce its domestic support. However, to continue the agricultural trade reform, the country reduced subsidies further.[10] This extra reduction in support was appreciated in WTO's Trade Policy Review for Pakistan (World Trade Organization, 2002).

3. Export Subsidies:

Developed countries agreed to cut the value of export subsidies by 36 percent over a six-year period starting from 1995, while developing countries agreed to cut 24 percent over a 10-year period. A reduction in the quantities of subsidized exports was agreed to the extent of 21 percent over six years by developed countries and 14 percent over 10 years by developing countries.

In the base years (1986-88) Pakistan was not providing any export subsidies on agricultural products and hence it cannot provide any export subsidies in the future. However, Pakistan extended a 25 percent freight subsidy on vegetables, fisheries and flowers in 1995. Among other liberalization measures, export of raw cotton was allowed, while excise duty on import of raw cotton was withdrawn in the new millennium.

Recent Developments

a) The Doha Round

As a first step towards achieving the long-term goal of liberalizing agricultural trade, the Uruguay Round gave a framework of rules to the nations engaged in agricultural trade. Agriculture was not part of the single undertaking in which virtually all related negotiations were to be concluded by January 1, 2005. Under Article 20 of the AoA, the members agreed to start negotiations on continuing the reform at the beginning of 2000. Different groups, however, had different interests.

The Cairns Group (a coalition of agricultural exporting countries from Latin America, Africa and Asia-Pacific region) was proposing a reduction in trade distortions, but through a slower reform process.[11] The United States has been suggesting substantial reform towards market-orientation, clearer division of exempt and non-exempt measures and sectoral negotiations. The European Commission proposed a rollover of the agreement with strong measures on export credit and state trading. Pakistan, along with some other developing countries, is a proponent of substantial reductions in tariffs, domestic support and export subsidies by the developed countries. The Doha Round created possibilities for convergence of these diverse interests.

Started in 2000 as a separate negotiation, the agriculture talks became an essential part of the Doha Development Agenda in November 2001, with an enhanced mandate and clear deadlines.

In the Doha Conference, developing countries participated actively and in a more organized fashion to reinforce their concerns. Pakistan participated in the Doha Round with active support to the G-20 group of developing countries. 121 WTO members made a commitment for comprehensive negotiations aimed at substantial improvements in market access, reductions (and a commitment to eventual phasing out) of all forms of export subsidies and substantial reductions in trade-distorting domestic support. The Members agreed that special and differential treatment for developing countries shall be an integral part of all elements of the negotiations and shall be embodied in the schedules of concessions and commitments. The members agreed on the deadline of March 31, 2003 to draw consensus on a framework of future agriculture trade reform.

b) Cancun Ministerial

The deadline of March 31, 2003 was not met and the members could not agree on the modalities of agricultural negotiations. The Cancun Ministerial Conference in September 2003 again could not draw a consensus on the future pattern of agricultural trade liberalization.

Among various technical issues that could not be settled, the failure of developed countries in significantly liberalizing their agricultural trade was heavily criticized by developing countries. The focal concern of most of the developing countries which are trading in agricultural products, was the elimination of protective and support measures of the developed nations, particularly the EU and the US. These measures enable the farmers in developed countries to bring those products in the world market in which the farmers from developing countries have a clear comparative advantage.

c) The July Package 2004

The deadlock was broken on August 1 2004, when 147 members of the WTO approved a package of framework on agriculture. The members agreed that "the modalities to be developed will need to incorporate operationally effective and meaningful provisions for special and differential treatment for developing country members. All members also reassured that reforms in the three pillars of the AoA would be undertaken. The July Package acknowledged the special importance of cotton in world trade and mentioned the need for a special sub-committee on cotton. The sub-committee was formed in November 2004.

d) Hong Kong Ministerial

In Hong Kong, the countries came closer to defining the modalities for the liberalization of the sector. They agreed to intensify work on all outstanding issues to fulfill the Doha objectives and resolved to establish modalities by April 30, 2006 and to submit comprehensive draft schedules based on these modalities by July 31, 2006.

There remains much to be done to reach a consensus on the modalities of the future policies of agricultural trade.

[10] This further reduction of subsidies was heavily criticized by some economists who argued that both the profitability in agriculture and standard of living of the farmers were on the decline. See for example Khan and Ahmed (2004).

[11] Pakistan also joined this group in November 2005, the group now consists of 18 members.

First, exogenous external shocks that have directly resulted from the events of September 11, 2001 have contributed to a relaxation of BoPs financing constraints for Pakistan. This has played a significant role in the strong economic performance of Pakistan's economy over the past five years. Structural changes in the economy, including policy changes, have also played a significant role. But ignoring the importance of external shocks runs the risk of becoming complacent about the country's long-term prospects for economic growth.

Second, textile performance during 2005 subsequent to the worldwide elimination of textile quotas was quite strong. However, both transient factors reflecting the unusually good cotton crop which shifted the export supply function, as well as more permanent factors such as the gains from the elimination of quotas appear to be at work here. The early returns on the high value-added textile exports may be encouraging, but it is still too early to tell how the post-quota environment will play out for Pakistan. It is almost certain though, that since other competitor countries also stand to gain potentially from the post-textile quota environment, maintaining a competitive edge against them will be essential to reap the benefits of quota elimination.

Third, we find that attracting FDI, further reducing tariff barriers domestically and striving to improve market access for Pakistani exports would significantly improve Pakistan's exports-to-GDP ratio. For example, to illustrate just one of these points, according to our cross-country results, if Pakistan had brought down its trade barriers to the level of those of the Philippines, Pakistan's exports in FY05 could have been $19 billion instead of $14 billion. The impact of obtaining as much market access to the United States and Europe as the other developing Asian countries, would have been even higher.

Fourth, the results indicate that FDI, in turn, is highly correlated with the quality of institutions which determine good governance, political stability, law and order and property rights situation in addition to corruption and the degree of regulation. While Pakistan has made swift progress in reducing tariff and NTBs, it is still lagging behind several other Asian countries in the quality of institutions, the ability to attract FDI and being allowed market access by other countries.

The results thus suggest that Pakistan should consider reducing its tariff rates further to the levels of some of the East Asian countries. In addition, Pakistan should be vigorous in pursuing the question of greater access by Pakistani exporters to markets in the United States and Europe as well as in developing nearer export markets in the region. Finally, Pakistan should devote much greater effort and attention to enhancing the quality of its institutions.

POLICY IMPLICATIONS

4

If trade liberalization is accompanied by other appropriate policies, it can help rather than hinder the national goal of poverty alleviation. Such policies include a pro-poor fiscal policy, strengthening of domestic institutions, targeting of FDI toward export-oriented industries and improvement of market access, including through greater development of nearer export markets.

POLICY IMPLICATIONS

The evidence presented in this report suggests that trade liberalization can have a positive and beneficial impact on growth and poverty reduction in Pakistan. This relationship is, however, not automatic or guaranteed. It requires certain preconditions that need to be in place through the appropriate sequencing of policies. In particular, it requires a set of complimentary prudent macroeconomic policies, good economic management and pro-poor policies that help mitigate the adjustment costs, which are usually associated with trade liberalization. If such policies are not in place, the beneficial effects of trade liberalization get largely muted and even subdued. Thus, our results point to the critical importance of a good policy mix in the environment of greater economic integration.

The results also suggest that the volatility in economic performance can partly be explained by external shocks. Policy changes and structural reforms have no doubt contributed towards an improvement in Pakistan's recent growth performance. But, in addition to this, a favourable external environment in recent years has played some role in aiding and abetting the process of rapid economic growth. On the other hand, adverse external shocks related to such factors as economic sanctions and domestic political instability have hampered the benefits of trade liberalization and slowed the process of development in the past.

The specific channels through which trade liberalization helps reduce poverty are found to be productivity, investment and growth. Thus, any measure that results in productivity gains and a higher rate of investment will raise the rate of growth and act as a catalyst for trade liberalization to work better for the poor. But this should be further

complemented by policies that ensure that the quality of growth is such that it particularly targets the poorer segments of the population. In the past, government revenue losses resulting from trade liberalization in Pakistan have often resulted in cutting down public expenditure on development projects, which is seen as pro-poor spending.

The analysis in this report also brings out the importance of having good institutions that help attract FDI and as well as the importance of greater market access to Pakistani exporters by trading partners. Although unilateral trade liberalization can have the beneficial effects of promoting growth, containing inflation and reducing poverty, good domestic institutions and greater access to foreign markets are needed to reap maximum gains from trade liberalization on a longer term basis.

The policy implications of the analysis conducted in this study can, therefore, be divided into four parts, which are phrased through the following questions:

1. What is the scope of further reduction in trade barriers and continuation of trade liberalization?
2. What will be required to make the benefits of economic growth reach the poorer segments of the population thus ensuring that the process of trade liberalization and greater openness does not leave the poor behind?
3. What is needed to sustain the high growth path of the past few years and what role can the opening up of the economy play in this?
4. In addition to a reduction of Pakistan's own trade barriers, what other measures would help increase exports on a sustainable basis?

Below we discuss the policy implications under each of the above headings.

SCOPE FOR FURTHER REDUCTION IN TRADE BARRIERS

The study has documented that much progress was made during the past 15 years or so in reducing tariff and NTBs to trade in Pakistan. Pakistan is now one of the most liberalized countries in South Asia. However, compared to China and some other East Asian countries that have managed to grow faster for a sustained period, Pakistan's tariff rates are still higher.

Pakistan could potentially benefit from further reductions in tariff rates. The analysis suggests that such a reduction could lead to more gains in investment and productivity, which would enhance long-term growth. It could also help contain inflation and lead to rapid export growth. We would suggest a reduction in Pakistan's tariff rates to those of the levels of the Philippines or Malaysia.

However, in doing so, the adjustment costs should be mitigated simultaneously by making up for the lost government revenues and following expenditure-switching policies to increase pro-poor public spending. It is only in this combined mode that a further reduction in tariffs would help alleviate poverty. The need for the other policies is discussed in more detail below.

Pakistan is now one of the most liberalized countries in South Asia. However, its tariff rates are still higher than those of some East Asian economies.

MAKING GROWTH PRO-POOR AND MINIMIZING THE ADVERSE CONSEQUENCES OF TRADE LIBERALIZATION

Our quantitative results indicate that one of the key areas in which adjustment costs of trade liberalization fall is in the fiscal consequences. In particular, the interaction we have seen between trade liberalization, loss of government revenues and cuts in development expenditures in Pakistan are very important. Thus, development expenditure programmes must not be allowed to be sacrificed, otherwise the potential gains expected from liberalization could be negated. Indeed, we saw in our future simulations that further trade liberalization of the economy has the potential to reduce poverty significantly but only if the pro-poor government expenditures are not compromised and the MTDF target of 5 percent of GDP for development expenditures is pursued vigorously.

However, in addition to budgeting development expenditures, the delivery and monitoring mechanisms of these need to be reformed to ensure full effectiveness. There are reports that the development expenditures often remain unutilized until late in the fiscal year. It is questionable if the hurried utilization done at the end would either be cost-effective or well-targeted to maximize the benefits to the poor.

Moreover, while development expenditures should increase, the hard-earned macroeconomic stability cannot be compromised either. The bulk of the development expenditures cannot be debt-financed or money-financed. The political will to raise taxes and do more expenditure switching needs to be exercised. And these tax increases should be in a manner that renders the tax system more progressive; otherwise the increased tax burden on the poor would compromise the goal of poverty reduction. Also, as direct taxes are increased, there is a need to not just increase the tax rates of those who pay taxes, but to expand the tax net through inclusion of agriculture income and earning from services, particularly retail and wholesale trade, professional services and

Further trade liberalization has the potential to reduce poverty, but only if pro-poor government expenditures are not compromised and the MTDF target of 5 percent of GDP for development expenditures is pursued vigorously.

Favourable shocks cannot be counted upon to remain so.

transportation, which currently pay disproportionately low taxes or no taxes at all. The share of these sub-sectors in the economy is on the rise and tax buoyancy and elasticity will improve if these economic activities are brought under the tax net. Taxes on capital gains on stocks and real estate also offer an attractive source of revenue that would help reduce income inequalities and discourage speculative activities.

The second key area in which adjustment costs of trade liberalization fall appears to be employment. Government policies need to be adjusted to ensure that the growth that is being generated by trade liberalization becomes pro-employment and, therefore, pro-poor. In this context, two key types of policies need to be in place. First, social safety nets for the poor need to be improved to protect the welfare of those who are likely to be displaced in the transition period by the process of trade liberalization and globalization more generally. Second, skill development and training schemes must be instituted so that any displaced workers can be quickly retrained, relocated and reabsorbed in the labour force.

SUSTAINING THE HIGH GROWTH

It is difficult to undertake a definitive decomposition of economic growth to understand how much of it is attributable to the structure of the economy and how much of it is attributable to shocks impinging on the economy. The results suggest that both changes in the structure of the economy brought about by stable and credible macroeconomic policies as well as favourable external shocks help explain the acceleration in the pace of economic activity in recent years. Since favourable shocks cannot be counted upon to remain so, the question of what is required to sustain high growth becomes very important.

In this respect, an investment rate that is significantly higher than the current 16-17 percent of GDP is required to sustain 7-8 percent growth in the economy. Even if we accept, as has been argued, that there is some

under-reporting of investment and savings data in the FBS's national accounts, given the aggregate Investment Capital-Output Ratio (ICOR) of 3.5, the investment rate will have to be in the 25-28 percent range to sustain an economic growth rate of 7-8 percent. A tariff reduction can help improve the investment rate, but for such a policy to work, it must be accompanied by domestic policies that are pro-investment and promote efficiency and competition.

To have an appropriate investment policy, policymakers and other stakeholders must have reliable data on investment so that progress, or lack of it, can be gauged. In the past, there have been too many revisions, some of them large, in the investment data, even at the aggregate level. Thus the true investment picture is a bit unclear. This needs to be redressed on an urgent basis.

Another important determinant of the sustainability of growth is the level and stability of inflation. The international evidence is clear that sustained high inflation can have negative effects on economic growth, undermine hard-earned macroeconomic credibility and also put more people into poverty. Therefore, it is important to keep inflation in check in order not to lose the gains from trade liberalization and other policy reforms that have been undertaken.

Finally to sustain the high growth, a big push in exports is needed as envisaged in the MTDF. Reduced tariffs, particularly on imported raw material, imports, components and machinery can help boost exports. However, other complementary policies are also required, as was discussed above. It should be noted, however, that to increase exports on a permanent basis takes time. Meanwhile, with capacity constraints being reached in the economy and inflation remaining high, overestimating potential growth of the economy in the short term runs the risk of letting demand grow at a rate that cannot be sustained, which would make it difficult to contain inflation.

INCREASING EXPORTS IN THE LONG TERM

The results showed that trade liberalization has increased exports in Pakistan, but compared to some other developing countries in Asia, only to a modest degree. In the cross-country analysis, we determined exports-to-GDP to be a function of (1) tariff barriers that a country imposes on its own trade; (2) the market access allowed by other countries; and (3) the FDI per capita.

While Pakistan has reduced its tariff barriers significantly, FDI flows to Pakistan have been concentrated mainly in natural resources, import substitution industries, telecom and banking services. Unlike China and other Asian countries, FDI has played almost no part in Pakistan's export promotion. Thus, the removal of an anti-export bias from policies and improving the logistics of transportation, delivery, warehousing and clearance at the ports as well as of shipping will help attract FDI into the export sector.

FDI, in turn, is found to be a function of the quality of institutions in our cross-country analysis. The institutions that matter include those related to accountability, government effectiveness, political stability, regulatory environment, rule of law, and ability to combat corruption. The results show that by strengthening these institutions, Pakistan has the potential to increase its FDI and achieve a significant improvement in its exports-to-GDP ratio. In this regard, Pakistan should have the goal of moving towards the quality of institutions of countries like Malaysia and Thailand at least.

Turning to specific export products, textiles have been the mainstay of Pakistani exports in the past. With the removal of worldwide quotas in this sector from January 1, 2005, the outlook is still a bit uncertain and too early to call. The performance of textile exports during 2005 leads to cautious optimism. This performance, however, may be partly explained by the unusually good cotton crop in the year. However, inroads have also been made in some high value-added products which historically have been less influenced by cotton crop shocks and are more demand-

Improving the logistics of transportation, delivery, warehousing, clearance at ports and shipping will help attract FDI into the export sector.

determined. What is certain is that in order to reap the benefits from the quota removals, maintaining a competitive edge against potential third-party competitors such as India and China is vital. In order to achieve this, the investment in textile machinery and equipment also needs to be accompanied by investment in on-the-job training, skills upgradation of workers, technology upgradation and supportive government policies.

Pakistan's exports also need to be more diversified. One cannot, of course, go against the law of comparative advantage but Pakistan needs to explore what other types of goods it has a comparative advantage in besides textiles. This can be done by first exploring more agro-based exports, such as livestock, poultry, dairy products, fisheries, vegetables and fruits. Second, technical upgradation in exports is needed to make them more dynamic. Recent performance indicates that exports of engineering goods have some potential. Third, attempts should be made to improve exports of knowledge-intensive, IT-related services.

In order to enhance exports permanently, Pakistan's market access needs to improve as well. Pakistan is among the countries with the least market access allowed by other countries to its goods, according to rigorous indices computed recently by WB researchers. Some of that will change with the removal of textile quotas and also if Pakistan is successful at diversifying its exports base. But some of Pakistan's lack of access to markets probably is due to the trade policies of our potential trading partners. Pakistan's posturing should concentrate on making an adequate case of this and trying to get more favourable access. In particular, the farm subsidies provided by industrial countries leading to a less than level playing field for the agricultural exports of developing countries are an on-going issue of debate in which Pakistan needs to continue supporting more liberalization by industrial countries.

Regional trade agreements (such as with SAARC countries) and

developing near markets as a possible way out of lack of market access should also be pursued. Computations from simple gravity models suggest that Pakistan's trade with India and China should be on the order of 6 percent of Pakistan's GDP (SPDC, 2004, p.133). Thus, these two countries are not just potential third party competitors but also potential markets.

CONCLUDING REMARKS

The popular belief in the case of Pakistan seems to be that the process of globalization has hurt the poor. In this review, we studied one aspect of globalization, namely trade liberalization and its effect on growth and poverty in Pakistan.

The empirical results indicate that, contrary to popular belief, there are important channels through which the process of trade liberalization in Pakistan, going on since the late 1980s, has enhanced growth and thereby had a poverty-reducing effect on the economy. The main channels are an increase in investment and productivity.

At the same time, the results also show that there are important adjustment costs associated with trade liberalization that have, to a large extent, suppressed the benefits mentioned above. Trade liberalization resulted in a reduction in collection of custom duties and thus overall tax revenues of the government. The axe of lower tax revenues and control of the fiscal deficit fell on development expenditures. Not only are such expenditures directly pro-poor, but the employment opportunities that could have been created as a consequence of these expenditures were also foregone, adversely affecting the income of the poor.

Our future simulations indicate clearly, nonetheless, that if the process of trade liberalization is accompanied by other policies, including fiscal policies that are pro-poor, it can help rather than hinder the national goal of poverty alleviation. The findings of the study also show that the positive impacts of trade liberalization can be further accentuated if key domestic institutions are strengthened, FDI flows are targeted towards export-oriented industries and services, and market access is improved, including through greater development of nearer export markets.

APPENDICES

A.1

CHRONOLOGY OF KEY EVENTS IN THE SOCIAL SECTOR: 2005

WOMEN AND CHILDREN

January 16, 2005	At least 115 women lost their lives due to honour killings while 167 others were killed in incidents of domestic violence in Southern Punjab during 2004, according to a report released by the Multan task force of the Human Rights Commission of Pakistan (HRCP).
March 5, 2005	On average, three children were sexually abused daily during 2004, reveals a report, "Cruel Numbers" by Sahil (a civil society organization). About 1,567 cases of child abuse occurred in 2004. Of this, 373 were boys and 1,194 were girls.
April 10, 2005	About 20 percent children in Pakistan suffer from asthma as highlighted by experts at a conference organized by the Pakistan Chest Society.
May 18, 2005	More than 120,000 children in Pakistan are employed as industrial workers or are earning their livelihood as scavengers, according to a report issued by the Society for the Protection of the Rights of the Child (SPARC) (Box A1.1).
May 21, 2005	Women bonded labourers are the worst sufferers in the agriculture sector as they also face sexual abuse from ruthless landlords. Cases of sexual abuse of women were reported by over half of the more than 1,000 households in a survey of freed *Haris* (share croppers), revealed the International Labour Organisation (ILO) report on bonded labour.
May 25, 2005	The federal cabinet has approved the Women Development Ministry's Gender Reform Action Plan (GRAP), according to the Adviser to the Prime Minister on Women Development.

Box A1.1 Hazard Industries and Child Labour in Pakistan

The State of Pakistan Children 2004, a report prepared by SPARC, states that about 120,000 children in Pakistan are scavengers or are employed as industrial workers.

About 6,778 boys and 2,806 girls under the age of 18 work in glass-bangle factories in Hyderabad city. It was observed that respiratory diseases and disorders are much higher among the working children than the non-working children of the area. The report shows that 5,800 children work in the surgical instrument manufacturing sector and many of them suffered from respiratory diseases, anemia and conjunctivitis. Half of them reported work injuries.

Similarly, the tanneries in Kasur city employed 750 children as full-time employees and approximately 80 per cent started work at the age of 14. More than three quarter of tannery child workers show disturbed sleep patterns and about half of them faced physical abuse at work. The coal mining sector in Chakwal has 357 boys employed. It was observed that these work places carry high risks of mechanical or electrical accidents.

June 27, 2005	An international conference on Gender Equality and Micro Finance, organized by the International Network for Alternative Financial Institutions (INAFI) was held.
July 5, 2005	The Swiss Agency for Development and Cooperation (SDC) will provide a grant of $626,471 to Pakistan for analyzing federal and provincial government budgets to determine the extent to which resources are being allocated to address gender inequality. The SDC and the UNDP signed a Gender Responsive Budgeting Initiative (GRBI) project in this regard.
August 23, 2005	A UNDP-assisted three-year (2005-2007) project on Gender Mainstreaming in Planning and Development (GMPD) was launched in NWFP to build on gender sensitized capacity of government officials and legislators. The GMPD would be completed at a cost of Rs265 million with NWFP's share being Rs32 million.

EDUCATION

March 25, 2005	Free education up to secondary level would be introduced in Balochistan province from 2006, assured Balochistan Provincial Minister for Education.
April 10, 2005	The Federal government will provide Rs5 billion for education in Balochistan, stated the Chief Minister of Balochistan.
May 12, 2005	As many as 13,995 government schools, including 583 in urban areas are shelterless while another 2,351 were functioning in precarious buildings in Sindh, revealed the School Census Report (2004-05) prepared by the Sindh Education Management Information System (SEMIS).
	About 39 percent of children between the ages of 4-9 years were not enrolled in schools in Sindh during 2004-05, according to the School Census Report (2004-05) prepared by the SEMIS.
June 2, 2005	A study conducted by UNICEF in collaboration with Save the Children, Sweden and the NWFP School and Literacy Department in three districts of NWFP identified 43 types of punishments being given to students at schools, including both physical as well as psychological punishments.
June 7, 2005	An amount of Rs1 billion has been allocated for the Madressah (religious school) reforms project, revealed the federal budget documents.
November 22, 2005	Free education up to high school would be introduced in Sindh from 2006, stated the Sindh Education Minister. Students would be given free textbooks, besides a stipend of Rs100 for regular attendance.

HEALTH AND POPULATION

January 10, 2005	According to the country representative of WHO, there were 46 confirmed cases of polio in the country during 2004 with no new cases in Balochistan.
February 5, 2005	Overpopulation will remain a burden in the future as out of the country's estimated 151.1 million population, 33.6 million women are in the reproductive age, according to figures in a report, "The Socio Demographic Profile of Pakistan, 2004" (Box A1.2).
February 7, 2005	Statistics reported in a study conducted by the College of Physicians and Surgeons Pakistan (CPSP) show only 5,747 dental surgeons including 326 with foreign qualifications currently registered in Pakistan for 151 million people. This gives a ratio of one dental surgeon for 26,000 people.
February 18, 2005	Only 20 percent births in Pakistan are registered, said the National Database and Registration Authority (NADRA) at the launch of International Birth Registration Campaign by Plan Pakistan, an international NGO.
February 23, 2005	The National Commission for Human Development in Pakistan received a grant of US Dollars 6.5 million from Bill and Melinda Gates Foundation for its primary health programme.
March 5, 2005	The Prime Minister announced launching of a Rs2.5 billion national strategy for prevention and control of hepatitis infection, focusing mostly on prevention of the disease among children.
March 23, 2005	WHO annual update revealed that Pakistan is among the few countries with growing TB cases.
April 5, 2005	Global Fund, a US based humanitarian organization, provided US Dollars 2 million to the World Health Organization (WHO) to aid the efforts for the eradication of TB and malaria from Pakistan, stated a WHO official.
April 16, 2005	According to the WHO health report for 2005, "Make Every Mother and Child Count", almost 90 percent of all deaths among children under the age of five in developing countries including Pakistan, are attributable to acute neonatal conditions, lower respiratory infections, mostly pneumonia, diarrhoea, measles, and HIV/ AIDS.

Box A1.2 Socio Demographic Profile of Pakistan

The "Socio Demographic Profile of Pakistan 2004", prepared by the Family Planning Association of Pakistan (FPAP), states that Pakistan would continue to face the burden of overpopulation. With the population growth rate of 1.90 per cent, 2.87 million people are added to the population each year. The report notes that with the estimated population of 151.1 million, 33.59 million women are in the reproductive age. The female population in the age group of 15-49 constituted 46 percent of the total female population and 22 percent of the total population. Out of women of reproductive age, about 70 per cent were married. The report states the ratio of crude birth rate in Pakistan as 28 per 1,000 persons.

April 30, 2005	Amidst indications that Pakistan's population will double in the next 32 years, the Population Welfare Department, NWFP, chalked out a plan to bring down population growth rate from 2.19 per cent to 1.84 per cent by 2008 in that provine.
June 6, 2005	The government earmarked Rs9.4 billion for the development of the health sector in the budget for 2005-06. This is a 68 percent increase over the allocation of Rs5.5 billion in the previous year.
July 31, 2005	First National Health Management Conference recommended that policymakers and senior management personnel focus on strategic issues and be trained in health system management. Further, it recommended reducing quick turnover of high level government functionaries to maintain continuity in the direction and capacity of district planning.
August 4, 2005	The Executive Committee of the National Economic Council (ECNEC) approved four major health projects costing over Rs18 billion. The projects relate to the prevention and control of blindness and hepatitis infections, building a hospital for chest diseases and expanding the country's immunization programme.
August 22, 2005	Two percent of all the new born babies in Pakistan suffer from congenital cardiac defects, according to participants in a revascularization course organized by the Liaquat National Hospital in collaboration with the Pakistan Cardiac Society, the Pakistan Society of International Cardiology and the SAARC Cardiac Society.
November 30, 2005	The prevalence ratio of HIV/AIDS positive cases among drug addicts using syringes in Karachi is 26 percent. According to results of the Karachi Pilot Mapping and Integrated Behavioural and Biological Surveillance (IBBS), the prevalence ratio has increased from 0.4 percent in the later part of 2003 to 26 percent in 2004.
December 1, 2005	Sindh accounts for 40 percent of the reported HIV/AIDS cases in Pakistan with the total number of such reported cases till September 2005 being 1,278, according to the Programme Manager of the Enhanced HIV/AIDS Control Programme, Sindh, who stated this in a seminar.

POVERTY

January 12, 2005	The United State Department of Agriculture (USDA) provided Rs1,521 million to the PPAF to reduce poverty in the country, stated the General Manager of the PPAF.
March 29, 2005	Over 33 percent of Pakistan's poor population live in agro-climatic zones of Sindh and southern Punjab, where skewed distribution of land is hindering poverty alleviation measures, revealed an ADB report.

June 13, 2005	The WB and the ADB attributed the 1.9 percent population growth rate in Pakistan to widespread poverty in the country and urged the government to devise long term strategies to lower the high population growth rate.
September 22, 2005	The WB agreed to provide $500 million social fund in 2008 to help alleviate poverty in Pakistan, stated official sources.

OTHER ITEMS

January 24, 2005	The HRCP reported overcrowding in the 81 jails of Pakistan. Quoting published official figures as of August 1, 2005, 81 jails held 86,194 prisoners, against a capacity for 36,825.
February 1, 2005	The HRCP said it saw grim human rights conditions in 2004 in Pakistan (Box A1.3).
September 8, 2005	Pakistan ranks 135th, India 127th and Bangladesh 139th in human development among 177 countries, according to the UN Human Development Report (Box A1.4).
November 19, 2005	Donors pledged $5.8 billion for earthquake relief. Of this $3.9 billion was in soft loans and the remaining $1.9 billion in grants.

Box A1.3 State of Human Rights in Pakistan

The plight of women and children has not shown any remarkable and positive changes though the issues concerning them continue to be under discussion. According to the HRCP report for 2005, women faced high rate of violence. The HRCP recorded at least 1,242 cases of violent crime against women in the first 8 months of 2005. 279 women murdered in the country due to various motives. Many crimes against them were committed in the name of tradition. Although there is no exact number of cases of honour killings available as many go unreported, the HRCP figures show that there were at least 316 cases of honour killings in Pakistan in 2004. It also points to a rise in the cases of such murders in urban areas where previously fewer such cases were reported.

There were about 190 cases of gang-rape and 176 cases of rape in the same period. Kidnapping of women and children also registered an increase. The HRCP figures show kidnapping of at least 538 women and girls. It also reported at least 8 cases of molestation and stripping of women. A large number of women were still faced with domestic violence in various forms such as beatings, burnings, mutilation and even torture. Since many cases go unreported, precise figures are difficult to determine. However, figures available to the HRCP show 96 cases of burnings. Furthermore, there were 311 cases of suicide and 299 cases of attempted suicide by women recorded by the HRCP. The occurrence of suicide particularly by young women aged under 40, continued to rise.

There were at least 6,000 women and children in jail across the country in June 2005 and about 80 per cent of the jailed women faced charges under the Hudood Ordinance. Women trafficking, both internal as well as cross-border, continues to take place.

Box A1.4 Human Development Report 2005

The Human Development Report 2005 ranks Pakistan 135th (among 177 countries) with a Human Development Index (HDI) value of 0.527. The report views Pakistan as having slow pace in achieving its MDGs. For instance, Pakistan has not shown any significant progress in reduction of child mortality, which is one of the MDGs. Pakistan stands with countries that are ranked low on this count and would achieve the goal between 2015 and 2040.

Achievement in targets of gender equality also lag behind. Pakistan ranks 107 in the Gender-Related Development Index. The Gender Empowerment Measure ranking shows Pakistan at 71 (out of 80), while the report places Pakistan 29th on the Female Economic Activity Index ranking.

Looking at another of the MDGs which is reduction of poverty, the report ranks Pakistan at 68 (out of 103) on the Human Poverty Index. According to the National Poverty Line, 32.6 per cent of the population is below the poverty line. The report also observes that extreme inequality not only hinders the reduction of poverty, but also adversely affects growth. The poorest 20 percent of the population takes only 8.8 per cent of the share of income and the richest 20 percent get 42.3 per cent. This illustrates a massive disparity in distribution of income.

A.2

SELECTED BOOK REVIEWS

Isani, U.A.G. and Virk, Mohammad Latif,
Higher Education in Pakistan: A Historical and Futuristic Perspective.
Islamabad: National Book Foundation, 2005. 432 pp. Pakistani Rs500.

Isani and Latif's "Higher Education in Pakistan" offers a sweeping overview of the issues affecting tertiary education in the country and offers suggestions on policy changes that might enhance the performance of this sector. The issues dealt with in the book range from the examination of viable fee structures to the impact of previous government plans on education. The authors, both of whom are educationists, make use of a variety of primary data, which they have taken from public sector entities such as the Ministry of Education and the University Grants Commission (UGC).

The authors see higher education as not only the key to economic and social development but also as an agent of nation-building. They lament the fact that with the population in the age group of 17-23 projected to reach 25 million in 2010, Pakistan has not done enough to meet the increased demand for higher education, which is bound to ensue as a result of availability of such large numbers of young men and women. Another pressing issue, in their opinion, is the inability of Pakistani institutions to match the academic degree requirements of recognized foreign universities. Internationally the first degree is awarded after either 15 to 16 years of schooling while in Pakistan, 14 years is the norm. As a result, Pakistani students seek degrees abroad and, according to estimates quoted in the book, spend up to $150 million on their education in the United States alone. When this large figure is contrasted with the paltry sum of $40 million which the government spent on the annual recurrent budget of *all* its universities in FY01, one begins to have a sense of the financial and intellectual loss that the universities of the country suffer. This loss is caused when potential students prefer, or in some cases are compelled, to go abroad for higher education. While expanding tertiary education in Pakistan and improving its quality are worthy aims, the book lacks a rich discussion on the phenomenon of the "educated unemployed" in urban areas and what reforms are needed to tackle this problem.

The other important issue that is highlighted is the burden imposed on the state by subsidizing higher education and the lack of cost recovery in tuition fees and non-tuition expenses. Students are simply unaware of the huge cost to society of their education. Therefore, they are reluctant to financially contribute more towards their fees. The authors suggest that students should pay the full cost of tuition fees with grants and "*Qarz-e-Husna*" being awarded to those students who cannot meet their educational expenses. The shift towards the cost recovery of educational programmes would definitely improve the finances of public sector universities and allow them to spend on development and quality improvement. However, the ability to recover loans from students will require strong legal backing which may be unavailable in Pakistan.

A more viable suggestion put forward in the book is that Pakistani universities impose a timeframe on teaching associates to acquire PhDs, as two-thirds of university teachers hold the equivalent of a Pakistani Masters degree, which compares unfavorably with foreign universities.

The authors have examined a spectrum of issues which need serious consideration by policy makers and educationists alike. The book should prove useful to researchers as it contains data from primary sources, even though in terms of analysis it offers only a cursory look at some very complex issues.

U.A.G. Isani is currently Vice-Chancellor of Quaid-e-Azam University, Islamabad while Mohammad Latif Virk is the Registrar, National University of Computer and Emerging Sciences.

Jones, Gavin W. and Karim, Mehtab S. (eds),
Islam, the State and Population.
Karachi: Oxford University Press, 2005. 286 pp.
Pakistani Rs595.

This collection of essays seeks to explore the linkages between government policy, religion and fertility in the six most populous Muslim countries of the world. In the 1960s, fertility was high in the Muslim world with most countries recording a Total Fertility Rate (TFR) of around 6 to 7.5 per woman. By the mid 1990s, however, more than half of these countries had successfully reduced fertility levels to an average of below 4 per woman. The contributions made by scholars in this book attempt to understand the role played by religion in the development of not only official population policy but also its influence on the shaping of societal attitudes towards desired family size, the use of contraceptives and female autonomy.

The authors make a convincing case of asserting that "Islam itself is no barrier to low levels of fertility, though Islamic teachings have certainly been interpreted in different contexts to support pro-natalist policies and the early marriage of women, and to oppose certain methods of birth control such as sterilization" (p.5). While some of the early *Fatwas* of the Deobandi School in the Indian sub-continent permitted the use of contraceptives, their present-day adherents are fierce critics of such attempts to limit family size. One of the biggest obstacles to Pakistan's family planning effort has been the hostility it has encountered amongst the country's clergy, especially the late Maulana Maudoudi and his followers. In other countries, however, such as Indonesia and Iran, the role of the clergy has been to positively support state attempts to control population growth. In the Indonesian context, the state has included Islamic leaders from the very beginning in its family planning programme. It has done this by holding seminars and public meetings with the result that "the active participation of formal and Muslim leaders has been a mainstay" (p.95) of the programme.

Iran's experience is yet another instructive lesson in successfully sustaining a family planning programme in a Muslim country. The turnaround in terms of population growth is even more remarkable given that the country's first post-revolutionary government decided to adopt a pro-natalist policy and encouraged early marriage. It was only when the results of this upsurge in fertility became apparent in 1986 that the government was persuaded by demographers and economists into reversing its earlier policies. As a result of the family planning programme launched in 1989, fertility rates in Iran declined by 50 percent in 6 years and the overall TFR is now 2.53 per woman. As one scholar notes, the increased availability of contraceptives played a large role in the fertility transition but equally important were the strides made in terms of increased female education, lower infant mortality and significant levels of rural development. All of these factors lowered the demand for children in both rural as well as urban areas.

The studies contained in this book point to the fact that there is not one experience that can be termed as Islamic in terms of attitudes towards family planning. This is true at both the state and family level. For example, the success of countries such as Iran and Egypt in pursuing an official family planning programme can be contrasted with Pakistan's dismal record in this area. In Iran and Indonesia, the clergy have played an important role in supporting the state in its efforts to limit family size while in Bangladesh the contribution of NGOs in this respect stands out as being noteworthy.

This book very ably addresses many questions related to fertility trends in Muslim populations in an effective and scholarly manner. The viewpoints of different Muslim sects are spelt out clearly, providing readers with a valuable backdrop to the country-specific studies, which explain the different paths taken by the six most populous Muslim countries in determining their population growth rates.

Gavin W. Jones is currently the Chair of the Committee for International Cooperation in National Research in Demography while Mehtab S. Karim is the Head of the Reproductive Health Program and Professor of Demography at the Department of Community Health Sciences, Aga Khan University, Karachi.

Pakistan Institute of Development Economics, ***Employment-based Poverty Reduction Strategy for Decent Work in Pakistan.*** Islamabad: Pakistan Institute of Development Economics, 2004. 326 pp.

Finding the holy grail of poverty reduction has become the foremost concern of development policymakers in the last decade. The ILO is no exception in terms of its efforts to ensure that a pro-poor employment policy lies at the core of Pakistan's poverty reduction strategy. The five papers in this book reflect the joint efforts of the ILO and the Planning Commission of Pakistan in addressing the issues of employment generation, social protection and the effective functioning of labour markets in the context of the radical change that structural adjustment and globalization have wrought on the income levels and job security of the poor.

The papers in this publication range from proposed policy frameworks of a generic nature to more focused examinations of labour markets and social protection. As such, this latter body of work is more useful. The generalized employment strategies presented in the book contain frameworks which are broadly similar to the Poverty Reduction Strategy Paper (PRSP) of the government.

Haris Gazdar, in his paper, focuses on the segmentation of the labour market in Pakistan as opposed to the standard neo-classical assumption of competitive labour markets. Gazdar's findings are based on a mixture of quantitative and qualitative data and while they are by no means conclusive in nature, they do suggest the urgent need for a more comprehensive investigation of institutional labour arrangements in the economy. Gazdar points out that "the diversity of contractual forms, the prevalence of extremely low female labour force participation, the existence of non-market labour arrangements (e.g. within families as well as practices such as bonded labour), and the importance of personalized transactions and social hierarchy" (p.169) are issues not fully explored by policymakers and academics. If these were taken into consideration, policy-makers could then "pay greater attention to structural changes which may lead to improved market conditions for the poor" (p.169).

Structural adjustment has created an uncertain contractual environment not only for the growing ranks of workers in the informal sector but also for many workers in the formal sector as employers rely on a "contractor" system to hire workers, thus reducing the costs of providing social security and meeting wage regulations. This particular trend implies a casualization of labour in a monopsonistic market biased in favour of employers and therefore, limits the distributional impact of output growth. At the same time bonded and other coercive forms of labour arrangements continue to flourish in certain regions of Punjab and Sindh, while other workers are excluded from markets on the basis of social discrimination. Gazdar advocates the strengthening of labour regulations (especially the minimum wage laws) as well as positive discrimination for those excluded from the market by social norms.

Asad Sayeed's paper makes the case for a universal scheme of social protection in Pakistan based on the fact that the existing schemes cover only 5 percent of the non-agricultural labour force. Sayeed argues that social protection is an intrinsic right as opposed to social safety nets, which are used by the International Financial Institutions (IFIs) to "buy political stability and prevent social unrest" (Sayeed quoting Sala-i-Martin p.261). While informal transfers play a role in meeting some of the expenditure needs of the poor, Sayeed argues that these are unsustainable and inadequate arrangements for mitigating poverty in the long-term as a significant increase in poverty in the 1990s has shown.

Another pertinent issue is the role of remittances and migration in the reduction of poverty, which is covered by Rashid Ahmad Mughal. While Mughal's findings are interesting, his paper tends to deal with a too broad a set of policy initiatives. Also, the best policies can prove inadequate in a volatile post September 11, 2001 world and therefore, a more pragmatic approach is needed in this area.

The strength of this publication lies in the studies which focus on specific areas of employment generation rather than the papers on poverty reducing employment strategies which are too broad in nature and therefore do not allow an in-depth analysis of the issues raised within them.

This publication contains the proceedings of a seminar at which five studies were presented on policies to assist poverty reduction through the generation of employment opportunities. These studies were supported by the ILO in collaboration with the government's Planning and Development division and the UNDP.

Zaidi, S.Akbar,
Issues in Pakistan's Economy. Second Edition, Revised and Expanded.
Karachi: Oxford University Press, 2005.pp.530.
Pakistani Rs595.

Akbar Zaidi's "Issues in Pakistan's Economy," published for the first time in 1999, fulfilled the need for a reference text covering Pakistan's economic and social progress since 1947. Zaidi's book has been widely used for academic purposes and therefore, it is not surprising that he has expanded and updated the original book. Not only are developments since 1998 covered in this new edition, the issues of poverty and trade with India receive due attention in the form of new chapters.

Zaidi's book covers an array of topics ranging from agricultural reforms to resource mobilization. It relies on a mixture of literature review and the examination of existing data. The strength of the book lies in its ability to offer a coherent account of the previous half century of development although readers may find that in doing so, it raises a few important questions that remain unanswered. The issue of dependency on foreign aid, which Zaidi cites as being responsible for "much of the economic growth that has taken place" (p.514) since 1947, should have received greater attention if indeed it has had such a momentous impact on development.

One valuable aspect of the book is that it offers a more balanced economic perspective to the current neo-liberal viewpoint regarding public sector intervention in the Pakistani economy. Zaidi, for instance, questions the methodology employed by Little, Scilovsky and Scott (1970) in their hugely influential study on Pakistan's supposedly inefficient tariff regime by quoting the work of other economists who are critical of the data used in the study. Zaidi also presents an alternative view to the widely held belief that Pakistan had little choice but to submit itself to the straitjacket of an IMF SAP in 1988. The country's elite, in his opinion, have avoided making necessary structural changes in the economy such as cutting defense expenditure and taxing agricultural income with the result that such programmes and their associated hardships are the inevitable consequence.

While many of the topics covered in the book detail the research conducted by well-known economists and social scientists, Zaidi has also added his own political economy viewpoint to the discourse. This is sometimes helpful in examining the causes and nature of certain issues, but at other times seems unconventional given the reference text nature of the book.

"Issues in Pakistan's Economy" is a valuable and accessible reference text and is likely to remain an important source of economic history for students studying Pakistan's development.

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A.3

AN INTEGRATED SOCIAL POLICY AND MACROECONOMIC MODEL

THE NEED FOR AN INTEGRATED MODEL

Pakistan's development planning models have not explicitly recognized the interdependence between the macroeconomy and social sector development. Recognizing this reality, SPDC has developed a macroeconomic model that explicitly incorporates the above relationships.

STRUCTURE AND LINKAGES OF THE MODEL

SPDC has developed one of the pioneer models which can be used as an effective planning tool for social sector development to address both poverty and income distribution as well as social service delivery. The ISPM model integrates the social, fiscal and macroeconomic dimensions of the economy under one interrelated system. It provides the basic framework for analyzing the implications of numerous economic measures on the long-term development of Pakistan's social sectors. Recent development of the SPDC model reflects the changes in Pakistan's economy, and endogenizes both interest rate and exchange rate variables.

The model is highly disaggregated and covers all three levels of government. It is capable of predicting outcomes in considerable detail, even at the level of individual social service provision. The ability to disaggregate the model at the provincial level in terms of revenues and expenditures on social services (e.g., schools, hospitals, doctors, teachers and enrolments) is helpful in analyzing the impact of related initiatives on the macroeconomy and social development.

The ISPM model is based on consistent national level data from 1973 onwards and is estimated by single equation regression techniques. The rebasing of the data to base year 2000 by the government resulted in greater coverage and jump in GDP and the National Accounts Data. This is handled in the model as described in Box A3.1.

The Model consists of 321 equations, of which 159 are behavioural and the rest are identities. These equations are subsumed into 16 interrelated blocks. The blocks, along with their size in terms of equations and identities, are listed in Table A3.1.

Although the model is broadly Keynesian in spirit, the specification of individual blocks and equations is based on a pragmatic approach and also captures the non-market clearing aspects of Pakistan's economy. Thus, the macroeconomic block is essentially supply driven. In addition, the social sector indicators are also resource determined.

The model has dynamic specifications which vary across the blocks. In some cases, the linkage is simultaneous and in some cases it is recursive. Examples include the linkages between the macro-production and input blocks; the production and expenditure blocks; the fiscal revenues and expenditure blocks; and the macro production, poverty and inequality blocks. The broad links of the model can be traced as follows.

Macroeconomy → Public Finance

The key link here traces the impact of developments in the macroeconomy on the growth of the tax bases (including divisible pool taxes), which affects the fiscal status of different governments.

Box A3.1 Handling the Rebasing of National Accounts Data

In 2003, the FBS, the official body responsible for compilation of the National Accounts of Pakistan, shifted the base year of the National Accounts data from FY81 to FY00. The rebasing resulted in a more comprehensive coverage of the economy. However, the data with the new base are available only since FY00. No historical data are provided on the new base. The extended coverage has led to a significant revision in the level of nominal GDP, as can be seen from the Table below. For example nominal GDP at factor cost with the new base is 21 percent higher than the old base, on average.

With the government choosing to provide only 4 years of overlapping data (from FY00-FY03), these new data pose a problem. A much longer historical series is needed for both real and nominal variables to use the ISPM model. In order to solve this problem and obtain consistent and comparable series since 1973 that can be used in the model, we proceed as follows:

- We backcast the new real series by using the growth rates of the old series. This level-adjusts the old real series to preserve the growth rates for them that are reported in the Economic Survey.
- This is done for all the real series in the National Income Accounts that are used in the ISPM model.
- The same methodology is used to convert all the price indices to the new base.
- These price series along with the real series computed as described above are used to construct the new nominal series.

Comparison of the New and Old Base Data

	Nominal GDP (FC) New Base (Rs Million)	Nominal GDP (FC) Old Base (Rs Million)	Ratio of New to Old
FY00	3529345	2921988	1.21
FY01	3876025	3166954	1.22
FY02	4095212	3377098	1.21
FY03	4481412	3709670	1.21
FY04	5142610	-	-
FY05	6129676	-	-

Source: GoP, Economic Survey (various issues)

Table A3.1 Integrated Social Policy and Macroeconomic (ISPM) Model

		Total Equations	Behavioural Equations	Identities
Block A	Production Block	20	6	14
Block B	Input Block	20	8	12
Block C	Aggregate Demand Block	22	12	10
Block D	Trade and BoP	41	22	19
Block E	Monetary and Prices Block	9	9	0
Block F	Federal Revenue Block	12	4	8
Block G	Federal Expenditure Block	16	9	7
Block H	Sub-National Revenue Block	26	11	15
Block I	Sub-National Expenditure Block	32	24	8
Block J	Debt and Budget Deficit Block	12	2	10
Block K	Income Inequality and Poverty Block	12	3	9
Block L	Education Block	47	24	23
Block M	Human Capital Index Block	16	5	11
Block N	Health Block	24	15	9
Block O	Public Health Index Block	5	4	1
Block P	Human Development Index Block	7	1	6
	TOTAL	**321**	**159**	**162**

Note: Two additional blocks of the model related to MDGs and their costing and financing are under construction

Public Finance → Social Sector Development

The availability of resources, both external and internal, determines the level of development and recurring outlays to social sectors by different levels of government, particularly provincial and local governments.

Social Sector Development → Macroeconomy

Higher output of educated workers and their entry into the labour force raises the human capital stock and could contribute to improvements in productivity and a higher growth rate of output in the economy. Similarly, an improvement in public health standards may also have a favorable impact on production.

Public Finance → Macroeconomy

The level of government expenditure could exert a demand side effect on national income, while the size of the overall budget deficit of the federal and provincial governments influences the rate of monetary expansion and consequently the rate of inflation in the economy.

Social Sector Development → Public Finance

A vital link in the model is between the rate of social sector development and the state of public finances. Higher social sector development implies higher recurring expenditures of provincial governments, which have implications for the budget deficit, level of debt stock and debt servicing of provincial governments.

Macroeconomy → Social Sector Development

Macro and other socio-economic changes affect the demand for social sector facilities such as schools and hospitals, and thus influence the level of social sector outputs.

Apart from these broad linkages among different modules, there are also links between different blocks within each module. An example of a major linkage within the macro module is the two-way linkage to and from the macro-production block and macro-input blocks. This link is due to the dependence of value-added in different sectors on the factors of production and input demand functions on the value of production. Macro production determines macro expenditure, just as private consumption is influenced by income.

There is also a two-way link between the macro-production block and the trade block because of the fact that the value of imports and exports determines and is determined by economic production activity. The trade gap also affects the level of money supply.

In order to study the effects of trade liberalization on the economy through the ISPM model, we have revamped the trade and BoPs block of the model. One major change is to incorporate import taxes and compute a landed-cost unit value of imports, which appears in the relative price of imports in the import equations. Moreover, real imports and real exports have been disaggregated into several major categories. For exports, the major categories are: Non-Cotton Primary Products, Low Value-Added Textiles, High Value-Added Textiles and Other Manufactured Exports. For imports, the categories are: Staple Food Items, Other Food Items, Machinery and Transport, Chemicals and Fertilizers, Petroleum and Related Products and Other Manufactured Imports. Separate equations are estimated for each category of imports and exports (except imports of staple food items which are assumed exogenous) as a function of both demand and supply side determinants of these imports and exports, including incomes and relative prices.

Important linkages in the fiscal module consist of the simultaneous dependence of revenues and expenditures of various levels of government. Non-tax receipts of governments have been made a function of the recurring expenditure on particular services via cost recovery ratios. Similarly, the level of government expenditure is affected by the government's level of resource generation.

Important vertical links between levels of government include fiscal transfers in the form of divisible pool transfers and non-development grants (in line with the feasible level of decentralization) from provincial to local governments. The obvious links between the budget deficits of the federal and provincial governments and their revenues and expenditures are also there.

FORECASTING AND POLICY ANALYSIS TOOL

Given the richness of its structure and the complex web of interrelationships and interactions it embodies, the ISPM model can be used both as a forecasting tool for the medium and long term, and for undertaking policy simulations to analyze the consequences of particular policy actions by the government.

For example, if the federal government decides to pursue a policy of higher tax mobilization and opts for a rigorous fiscal effort, the model can forecast the impact, not only on federal finances, but also on the fiscal status of the provincial governments. In this scenario, it could also forecast key macroeconomic magnitudes such as growth in the GDP, social development, budget deficit, changes in income inequality and the inflation rate.

The model can also perform simulations to find the relative strength of different policy options for a specific objective. In the case of the macroeconomy, it can provide the impact of different policy options on:

- short and medium-term projections of the growth of important sectors (agriculture, manufacturing, construction, electricity and gas distribution);
- short and medium-term projections of the growth of GDP, GNP, per capita income;
- factor input (e.g., capital and labor) demand; and
- short and medium-term projections of public and private investment in various sectors of the economy.

In the case of pubic finance, it can:

- provide short and medium-term projections of the quantum of revenue transfers to the provincial governments by the federal government under different scenarios;
- determine the impact of different rates and patterns of economic growth on provincial tax bases and revenues; and
- determine the impact of changes in provincial expenditure priorities on fiscal status, levels of service provision and the overall macroeconomy.

In the case of social development, it can determine the impact on:

- poverty and inequality;
- social sector expenditures by provincial governments on income inequality that further change the poverty rate;
- education expenditures by provincial governments on sectoral inputs (schools, teachers), enrolments, outputs, entry into the labour force and literacy rates;
- health expenditures by provincial governments on sectoral inputs (beds, rural health centres, doctors, nurses and paramedics) and on the health status of population; and
- higher levels of resource mobilization by provincial governments on federal transfers, sectoral levels of expenditure and fiscal status.

In order to conduct the simulations related to trade liberalization with as updated data as possible, Block A - K of the model are run. The data on blocks L to O are available with some lags.

A.4

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Combating Poverty: Is Growth Sufficient?
Annual Review 2004
Social Development in Pakistan: The State of Education
Annual Review 2002-03.

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Social Development in Pakistan: Towards Poverty Reduction
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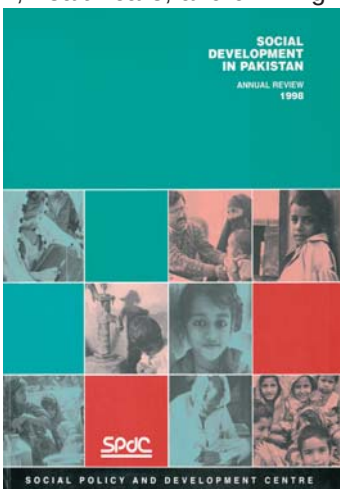
A.5

SPDC'S ANNUAL REVIEW OF SOCIAL DEVELOPMENT IN PAKISTAN: BRIEF INTRODUCTIONS

Annual Review of Social Development in Pakistan 1998

First of the annual series, the Review of Social Development in Pakistan was launched in the wake of a growing realization that the country was lagging behind in social development. It was felt that access to basic social services such as primary education, health care, and drinking water was limited, and that social underdevelopment had, perhaps, begun to slow down the pace of economic development as well. As such, the Review addressed the relationship between economic and social development, and the central role of human development in the growth process. It then traced in detail the evolution of the social sectors in Pakistan over the 50 years since independence, and compared Pakistan's social development between the provinces and with other countries in the region. Based on the custom-developed 242-equation Integrated Macroeconomic & Social Policy Model, a detailed quantitative analysis and assessment was made of the government's programmes and policies in the social sectors, including the Social Action Programme - the largest single social development programme in Pakistan's history - focusing on issues such as sources of financing, user-charges, and issues relating to cost-effectiveness of social service provision.

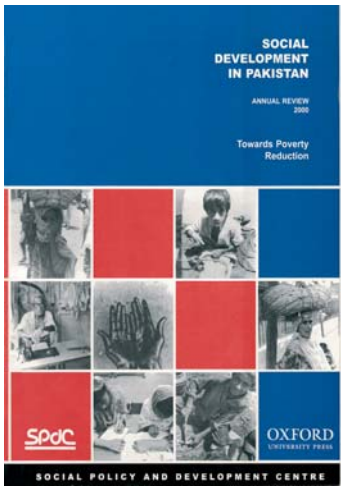


Social Development in Economic Crisis Annual Review of Social Development in Pakistan 1999

The second Review dealt with social development in an environment of severe economic crisis caused by international sanctions imposed on Pakistan following the country's decision to conduct the nuclear tests. The Review began by tracing the short and long term causes of the crisis, leading to Pakistan's return to the IMF/World Bank program. Further, based on SPDC's 246-equation Integrated Macroeconomic & Social Policy Model, it quantified the cost of the economic sanctions following the adoption of the nuclear path. It delineated the various options available to deal with the crisis, including the path of self-reliance, to achieve sustained development. It then explored the impact of each option on some of the key social dimensions: poverty, unemployment and the status of women and children. It also appraised the Social Action Programme, and forewarned that it was in jeopardy due to growing fiscal and institutional constraints. Given the prospect of rising poverty, it examined the types, nature and adequacy of different social safety nets - governmental as well as non-governmental - and highlighted the underlying problems of coverage and targeting.

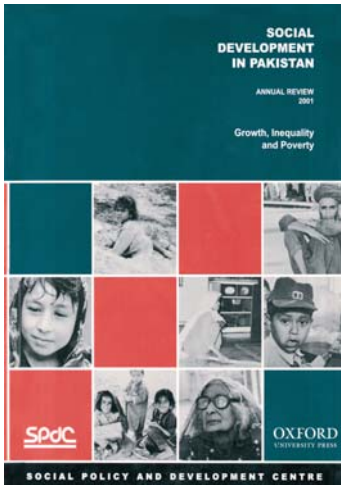
Towards Poverty Reduction
Annual Review of Social Development in Pakistan 2000

The Review focuses on the subject of poverty, identifying its nature, extent and profile, and highlighting the structural dimensions of poverty. Based on the conclusions that a poverty reduction strategy will have to be comprehensive and multidimensional in character, it covers a wide agenda. It comprises an appraisal of the role of the informal economy, not only as a residual employer but also as a household or community based welfare and support system, in mitigating poverty. Based on the results of SPDC's 250-equation Integrated Macroeconomic & Social Policy Model, it underlines the need for appropriate macroeconomic and fiscal policies to achieve faster growth in income and employment. In this respect, macro and micro aspects of a revival strategy, including options such as reducing the tax burden on the poor and orienting public expenditure towards the poor have been outlined. It also covers structural issues such as land reforms and development of human resources through access to social services, particularly pro-poor services. It discusses different elements of a strategy consisting of increased economic opportunities for the poor, their empowerment, and access to welfare and support through appropriate social safety nets, namely, public works, microfinance, food support and zakat. It also deals with issues of governance and poverty, devolution, economic governance, institutional capacity, and corruption.



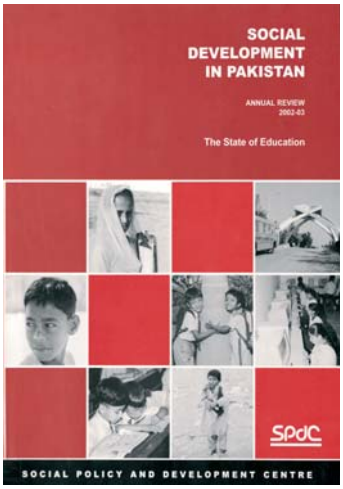
Growth, Inequality and Poverty
Annual Review of Social Development in Pakistan 2001

The Review is a detailed analysis and documents the pervasive inequalities across class and regional lines and in access of social services. Spread over six chapters, it begins with the profile of achievements in the realm of economic and social development since 1947; acknowledging as well that the gains have not been equitably distributed. Based on SPDC's 255-equation Integrated Macroeconomic & Social Policy Model, it presents the macroeconomic analysis of the state of the economy, along with the factors behind the aggregates with respect to unemployment, inequality and poverty. It questions the balance between stabilization and growth objectives and discusses policy options that can help or hurt the poor. There follows a comprehensive analysis of inequality from different perspectives: income inequality, consumption inequality, inequality between income groups - nationally and province-wise - inequality in public services and land inequality. The next chapter is devoted to inequality between and within provinces, including a district analysis and ranking of deprivation levels. Social policy finds specific attention, with a review of housing and evaluation of the ambitious Five Point Programme and the Social Action Programme. The last chapter attempts to provide an overview of the factors that determine inequality and poverty, and more generally, social development.



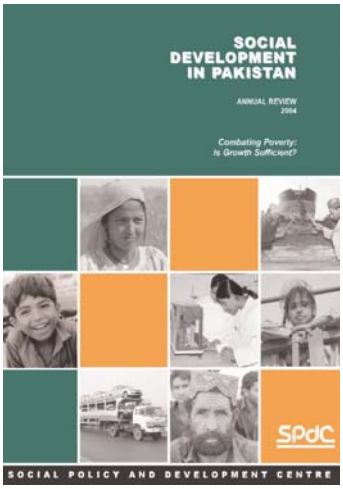
The State of Education
Annual Review of Social Development in Pakistan 2002-03

The Review is an in-depth analysis of the state of education in Pakistan. It breaks new ground, given that the traditional discussion relating to education has generally been limited to the issue of enrolment, particularly primary and girls' enrolment, and resource allocation. The Review is spread over seven chapters and begins with a broad profile of education in the country: Pakistan's standing regionally; literacy, enrolment and dropout trends; and availability of schools and teachers. It then documents the regional and class inequalities in education indicators, issues relating to the role of education in development - particularly in the context of the emergence of the knowledge based economy - and fiscal and sociopolitical factors that have inhibited the growth of education. The discussion ranges from the federal-level macroeconomic policy imperatives that have constrained provincial-level resource allocation to social sectors to the role of land inequality on education. There follows specific chapters devoted to critical issues in primary education and science education - matters relating to curriculum, textbooks and examinations- and a final chapter that discusses the sociopolitical impact of the creation of multiple and mutually exclusive streams of education in the country.



Combating Poverty: Is Growth Sufficient?
Annual Review of Social Development in Pakistan 2004

SPDC has over the years consistently highlighted the problems of social underdevelopment and inequality and poverty. It has advocated a macroeconomic policy framework that is pro-poor and leads to equitable growth; with equity defined in terms of class, region and gender. The Annual Review 2004 attempts to further advance this agenda. While earlier Reviews have largely been diagnostic, this issue is more prescriptive in nature. It suggests a policy framework whereby accelerated growth and rapid poverty reduction can be rendered complementary and feasible in the medium term. The Review presents a vision of poverty reduction at the outset and subsequent chapters provide empirical support for the suggested strategy. Spread over five chapters, it begins with the analysis of the development experience during the different political eras over the past three decades. It appraises the officially adopted national and provincial Poverty Reduction Strategy Papers (PRSPs). The Review presents the hard empirical analysis of the relationship between growth, inequality and poverty reduction and establishes the imperative of engaging with the issue of inequality to achieve poverty reduction. It also



analyses the distribution of the burden of taxes and the benefits of public expenditure, with the objective of rendering the fiscal regime pro-poor. Further, it discusses issues relating to land reform - considered an essential factor in rural poverty reduction. In addition, the Review also includes a Sector Study, which focuses on the demand and supply aspects of export growth as a means to manage the current account balance.


ماشاء الله

SELECTED SOCIAL DEVELOPMENT INDICATORS

EDUCATION

Year	Literacy rate			Mean years of schooling			Combined enrolment rate			Gross enrolment rate (Primary)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
PUNJAB												
1975	31.5	12.3	22.7	2.1	0.4	1.3	29.7	14.8	22.8	57.8	32.9	46.0
1980	35.6	15.7	26.3	2.7	0.6	1.7	26.9	14.9	21.2	54.5	34.1	44.8
1985	40.0	19.5	30.3	3.2	0.9	2.1	30.6	17.3	24.3	63.3	39.9	52.1
1990	45.5	24.2	35.4	3.3	1.0	2.2	36.4	23.6	30.3	74.1	53.8	64.3
1995	52.9	30.3	42.1	3.9	1.4	2.7	36.0	27.0	31.6	80.7	63.1	72.2
2002	62.3	40.8	51.8	9.0	4.7	3.5	38.2	30.7	34.5	84.2	71.8	78.2
2004	63.6	42.9	53.3	9.4	8.7	3.7	39.3	32.3	35.9	87.5	76.2	82.0
SINDH												
1975	39.1	19.8	30.4	3.1	0.9	2.1	26.9	13.5	20.7	52.2	23.2	38.3
1980	39.3	21.2	31.0	3.1	0.9	2.2	29.1	14.9	22.5	58.2	25.5	42.3
1985	41.6	23.5	33.3	3.9	1.4	2.7	32.3	16.2	24.7	63.6	28.7	46.5
1990	45.6	26.9	36.9	4.4	1.5	3.0	32.5	13.1	23.3	63.7	20.8	42.9
1995	51.7	31.5	42.3	4.7	2.0	3.4	31.6	17.3	24.8	87.2	49.4	69.0
2002	67.0	41.0	54.9	10.4	5.9	4.3	34.5	24.0	29.4	74.5	51.5	63.6
2004	66.9	42.2	55.3	10.7	6.4	4.5	36.9	26.6	31.9	84.3	61.3	73.4
NWFP												
1975	23.9	5.2	15.1	1.9	0.2	1.1	33.4	9.9	22.3	68.6	22.3	46.3
1980	25.3	6.2	16.3	2.5	0.4	1.5	32.1	8.9	21.3	69.9	20.5	46.1
1985	29.5	8.5	19.5	2.5	0.3	1.3	33.2	9.0	21.8	73.0	21.4	48.2
1990	36.1	12.0	24.5	2.6	0.3	1.5	43.5	12.1	28.5	93.9	27.9	62.1
1995	45.3	17.0	31.5	3.1	0.4	1.7	46.3	17.7	32.5	90.9	47.3	69.8
2002	58.4	19.9	39.3	8.0	1.7	2.5	41.1	32.9	37.2	98.0	59.8	79.7
2004	61.8	25.2	43.0	8.5	2.2	2.7	52.2	28.1	40.5	106.5	64.3	86.3
BALOCHISTAN												
1975	13.2	3.7	9.0	1.2	0.1	0.7	13.4	4.4	9.4	29.7	9.0	19.6
1980	14.6	4.0	9.8	1.9	0.4	1.2	13.4	4.2	9.3	30.7	8.0	19.6
1985	18.1	5.6	12.5	1.5	0.3	1.5	18.9	6.8	13.5	44.0	13.8	29.6
1990	23.1	8.2	16.3	1.9	0.3	1.1	26.0	9.1	18.4	59.9	19.9	41.2
1995	30.4	11.9	21.9	1.8	0.2	1.1	30.1	13.1	22.4	67.0	28.6	49.6
2002	47.4	16.3	33.5	5.3	1.0	1.7	31.0	19.7	25.8	64.9	47.8	57.3
2004	52.1	17.6	36.0	6.3	1.4	2.1	30.1	21.3	26.0	67.4	53.9	61.4
PAKISTAN												
1975	31.4	12.6	22.8	2.2	0.5	1.4	28.7	13.4	21.6	56.6	27.8	42.8
1980	34.0	15.1	25.2	2.7	0.6	1.8	27.3	13.5	20.8	56.2	28.5	42.8
1985	37.9	18.3	28.7	3.2	0.9	2.1	30.7	15.4	23.4	63.7	32.9	48.9
1990	43.2	22.4	33.3	3.4	1.0	2.3	35.9	18.8	27.7	73.7	40.0	57.5
1995	50.5	27.9	39.7	3.9	1.4	2.7	36.1	22.7	29.6	82.9	55.6	69.8
2002	62.2	36.9	50.0	8.2	3.4	3.0	37.3	28.9	33.2	82.8	64.0	73.8
2004	63.7	39.2	51.6	8.8	4.8	3.3	40.1	29.8	35.1	88.4	69.8	79.5

Notes: Prior to 2002, primary and secondary school enrolment represents enrolment in the government sector only

Definitions:
- **Literacy rate:** The number of literate persons as a percentage of population aged 10 and above
- **Mean year of schooling:** Average number of years of schooling received per person aged 25 and above
- **Combined enrolment rate:** The number of students enroled in all levels as a percentage of the population aged 5 to 24
- **Enrolment rate (primary):** The number of students enroled in primary level classes (I to V) as a percentage of the population aged 5 to 9

Sources:
1. Development Statistics of Provincial Governments (various issues)
2. Education Statistics of Provincial Governments (various issues)
3. Pakistan School Statistics, Central Bureau of Education (various issues)
4. Pakistan Education Statistics, Central Bureau of Education (various issues)
5. National and Provincial Education Management Information Systems (various issues)
6. Labour Force Survey, FBS (various issues)
7. Census Report of Pakistan, Population Census Organization (various issues)
8. Facts & Figures Pakistan 2002, Ministry of Education, EFA Wing

EDUCATION

Year	Pupil-teacher ratio [a] (Primary)			Percentage of cohort reaching Class V			Availability of primary schools[a]			Ratio of boys to girls (Primary)	% of female teachers (Primary)
	Male	Female	Total	Male	Female	Total	Male	Female	Total		
PUNJAB											
1975	43.4	39.6	42.0	52.1	31.2	43.8	176.0	258.0	207.0	1.9	36.0
1980	41.5	41.1	41.3	50.6	29.1	41.3	177.0	251.0	206.0	1.7	36.6
1985	36.1	43.3	38.4	44.1	28.0	37.2	129.0	256.0	169.0	1.7	32.6
1990	38.6	46.7	41.5	46.2	26.9	37.0	136.0	199.0	160.0	1.5	35.7
1995	35.9	49.9	40.9	50.0	32.8	41.3	149.0	221.0	176.0	1.3	35.9
2002	50.8	33.9	41.8	60.0	54.9	57.8	159.7	252.3	194.0	1.3	53.2
2004	57.0	36.2	45.7	51.1	63.3	55.4	159.3	259.1	195.7	1.3	54.7
SINDH											
1975	27.9	20.6	25.3	36.8	43.5	38.6	136.0	661.0	220.0	2.5	35.6
1980	35.3	25.8	31.9	37.7	46.0	40.0	154.0	802.0	255.0	2.4	36.3
1985	40.2	30.1	36.5	36.2	41.9	37.9	129.0	633.0	210.0	2.3	36.6
1990	40.4	20.1	32.6	40.6	51.6	42.9	81.0	519.0	138.0	3.3	38.1
1995	22.0	27.1	23.4	38.5	35.4	37.5	82.0	416.0	134.0	2.0	28.5
2002	26.2	27.6	26.7	43.8	47.6	45.1	74.8	376.0	120.8	1.6	37.1
2004	30.3	33.0	31.3	44.7	48.7	46.1	74.2	365.5	119.4	1.5	37.4
NWFP											
1975	52.5	52.2	52.4	40.4	37.5	39.7	196.0	510.0	279.0	3.3	23.4
1980	68.8	54.8	65.2	27.9	30.9	28.5	209.0	547.0	297.0	3.7	25.5
1985	50.9	48.9	50.5	23.5	20.3	22.8	207.0	541.0	294.0	3.7	22.1
1990	44.7	36.5	42.6	22.0	17.5	21.0	116.0	357.0	172.0	3.6	25.3
1995	36.8	41.8	38.1	21.2	20.9	21.1	83.0	287.0	126.0	2.5	26.0
2002	29.2	30.8	29.7	71.9	60.0	67.4	99.7	201.8	131.6	1.9	33.9
2004	32.6	30.6	31.9	142.7	111.3	130.6	102.4	212.9	136.2	1.9	35.7
BALOCHISTAN											
1975	35.2	40.2	36.2	20.1	23.5	20.8	165.0	686.0	262.0	3.5	20.1
1980	38.3	53.9	40.7	22.9	21.8	22.7	197.0	857.0	315.0	4.0	15.1
1985	40.4	84.0	45.7	15.9	25.2	17.8	121.0	895.0	207.0	3.5	12.2
1990	23.6	41.0	26.1	14.2	26.8	16.5	93.0	869.0	159.0	3.4	14.4
1995	20.7	38.3	23.8	17.5	11.3	15.6	85.0	426.0	133.0	2.5	17.8
2002	44.8	37.5	41.8	39.7	40.8	40.1	91.1	206.5	121.0	1.7	41.5
2004	25.5	33.5	28.1	38.3	41.4	39.5	91.2	205.0	120.8	1.6	32.3
PAKISTAN											
1975	39.6	34.4	37.8	45.2	33.7	41.3	167.0	343.0	221.0	2.2	34.1
1980	42.6	37.4	40.8	41.3	32.2	38.1	176.0	352.0	232.0	2.1	34.9
1985	39.1	40.4	39.5	36.1	29.5	33.8	136.0	348.0	192.0	2.1	31.7
1990	38.7	38.9	38.8	36.5	27.9	33.4	112.0	268.0	156.0	2.0	33.4
1995	30.7	42.5	34.4	37.3	30.4	34.5	110.0	267.0	153.0	1.6	31.1
2002	37.7	32.0	35.2	56.4	53.4	55.2	113.8	259.3	155.5	1.5	44.6
2004	41.1	34.5	38.1	56.7	63.1	59.0	113.9	264.7	156.5	1.4	45.1

[a]Data for 2002 and 2004 include private sector schools

Definitions:
- **Pupil-teacher ratio (primary):** The ratio of pupils enrolled in primary level classes (I to V) to the number of teachers in primary schools
- **Percentage of cohort reaching Class V:** The percentage of children starting primary school who reach Class V
- **Availability of primary schools:** The ratio of population aged 5 to 9 to the number of primary schools
- **Ratio of boys to girls (primary):** The ratio of male students to female students enrolled in primary level classes (I to V)
- **Percentage of female teachers (primary):** The number of female teachers as a percentage of total teachers in primary schools

Sources:
1. Development Statistics of Provincial Governments (various issues)
2. Education Statistics of Provincial Governments (various issues)
3. Pakistan School Statistics, Central Bureau of Education (various issues)
4. Pakistan Education Statistics, Central Bureau of Education (various issues)
5. National and Provincial Education Management Information Systems (various issues)

EDUCATION

Year	Availability of primary school teachers			Gross enrolment rate (Secondary)			Pupil-teacher ratio (Secondary)			Ratio of boys to girls (Secondary)	% of female teachers (Secondary)
	Male	Female	Total	Male	Female	Total	Male	Female	Total		
PUNJAB											
1975	75.0	120.0	91.0	29.6	10.0	20.8	28.5	8.5	18.9	3.6	48.0
1980	76.0	120.0	92.0	26.2	9.9	18.7	24.9	8.2	18.7	3.1	49.5
1985	57.0	108.0	74.0	28.4	12.0	20.8	26.7	8.6	18.1	2.7	53.5
1990	52.0	87.0	65.0	35.6	18.4	27.4	15.4	14.2	15.0	2.2	33.3
1995	50.0	84.0	62.0	39.5	24.2	32.2	14.6	16.6	15.3	1.8	33.2
2002	69.0	56.5	62.3	31.9	26.3	29.2	14.2	7.7	10.4	1.3	58.8
2004	74.0	57.1	64.8	35.7	28.4	32.1	16.0	8.2	11.3	1.3	59.4
SINDH											
1975	53.0	89.0	66.0	22.1	14.3	18.7	21.2	14.3	18.2	1.9	43.3
1980	61.0	101.0	75.0	24.4	15.5	20.3	24.2	17.2	21.2	1.9	42.7
1985	63.0	105.0	78.0	29.1	16.8	23.5	30.3	19.4	25.6	2.0	43.5
1990	63.0	97.0	76.0	30.3	17.3	24.3	27.1	17.7	23.1	2.0	42.8
1995	34.0	80.0	47.0	26.8	16.5	22.0	24.8	19.5	22.6	1.9	40.4
2002	36.9	56.8	44.3	28.7	24.0	26.5	20.5	10.6	14.8	1.4	58.1
2004	37.8	57.3	45.1	31.7	27.1	29.6	19.6	8.2	12.4	1.4	63.5
NWFP											
1975	76.0	234.0	113.0	24.3	3.9	15.1	17.7	16.7	17.6	7.6	12.2
1980	98.0	267.0	141.0	20.9	3.4	13.0	14.6	9.1	13.6	7.5	17.6
1985	70.0	228.0	105.0	21.9	3.7	13.5	14.0	10.3	13.4	7.0	16.2
1990	48.0	131.0	69.0	32.4	6.2	20.2	15.8	13.2	15.4	5.9	16.8
1995	38.0	101.0	55.0	41.7	11.4	27.4	18.8	17.9	18.6	4.1	20.7
2002	35.2	63.3	44.7	43.5	17.7	31.1	16.4	11.9	14.9	2.7	34.1
2004	36.6	60.5	45.1	45.1	19.2	32.6	16.8	12.8	15.5	2.5	34.2
BALOCHISTAN											
1975	119.0	446.0	184.0	7.8	2.2	5.4	7.0	6.7	6.9	4.8	17.6
1980	125.0	672.0	207.0	7.3	2.6	5.3	6.7	5.8	6.5	3.7	23.5
1985	92.0	607.0	155.0	9.3	3.9	7.1	5.9	6.7	6.1	3.2	21.5
1990	40.0	206.0	64.0	13.2	4.7	9.6	5.7	6.8	5.9	3.9	17.8
1995	33.0	127.0	50.0	22.2	7.2	15.9	8.5	9.3	8.6	4.3	16.4
2002	103.0	115.3	108.1	19.7	12.5	16.7	4.5	5.8	4.8	2.2	25.8
2004	55.6	92.1	67.4	21.2	15.1	18.6	6.7	7.1	6.8	2.0	32.7
PAKISTAN											
1975	70.0	124.0	88.0	26.1	9.7	18.8	24.0	10.0	18.1	3.3	41.7
1980	76.0	131.0	95.0	23.9	9.8	17.5	21.7	10.0	16.7	2.9	42.8
1985	61.0	123.0	81.0	26.5	11.5	19.6	23.1	10.6	17.5	2.7	45.0
1990	53.0	97.0	68.0	32.6	15.7	24.7	16.3	14.7	15.8	2.4	31.9
1995	42.0	87.0	56.0	35.9	19.8	28.3	16.0	16.9	16.3	2.0	31.6
2002	51.9	59.1	55.1	32.2	23.9	28.3	14.5	8.5	11.3	1.5	53.4
2004	52.9	58.8	55.6	35.4	26.1	31.0	16.0	8.5	11.8	1.5	55.9

Note:
1. Data for 2002 and 2004 include private sector schools

Definitions:
- **Availability of primary school teachers:** The ratio of population aged 5 to 9 to the number of primary school teachers
- **Enrolment rate (secondary):** The number of students enrolled in secondary level classes (VI to X) as a percentage of the population aged 10 to 14
- **Pupil-teacher ratio (secondary):** The ratio of pupils enrolled in secondary level classes (VI to X) to the number of teachers in secondary schools
- **Ratio of boys to girls (secondary):** The ratio of male students to female students enrolled in secondary level classes (VI to X)
- **Percentage of female teachers (secondary):** The number of female teachers as a percentage of total teachers in secondary schools

Sources:
1. Development Statistics of Provincial Governments (various issues)
2. Education Statistics of Provincial Governments (various issues)
3. Pakistan School Statistics, Central Bureau of Education (various issues)
4. Pakistan Education Statistics, Central Bureau of Education (various issues)
5. National and Provincial Education Management Information Systems (various issues)

EDUCATION

Year	Percentage of cohort reaching Class VI			Percentage of cohort reaching Class X			Availability of secondary schools[a]			Availability of secondary school teachers[a]		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
PUNJAB												
1975	87.0	62.0	79.8	41.6	36.6	40.5	906	1705	1147	96	85	91
1980	91.8	66.9	84.1	32.8	35.6	33.5	947	1749	1200	95	83	89
1985	88.6	71.3	83.1	34.5	33.6	34.2	857	1569	1088	94	72	82
1990	88.2	81.2	85.8	34.7	33.2	34.2	706	998	819	43	78	55
1995	87.9	78.1	84.0	44.2	41.0	43.0	647	946	762	37	69	47
2002	91.3	89.7	90.6	36.0	50.3	41.3	274	894	413	45	29	36
2004	-	-	-	45.7	52.7	48.3	259	875	393	45	29	35
SINDH												
1975	70.5	88.3	75.8	52.5	46.5	50.4	942	2066	1241	96	100	97
1980	70.6	88.0	76.1	56.0	47.0	52.7	1059	2472	1431	99	111	104
1985	81.8	89.2	84.2	52.7	48.3	51.3	1023	2687	1431	104	116	109
1990	83.5	94.5	86.9	46.9	45.2	46.4	938	1876	1220	90	103	95
1995	67.2	78.2	70.7	55.6	54.8	55.3	988	1890	1268	93	118	103
2002	57.9	67.1	61.2	52.6	58.6	54.8	359	1622	560	72	44	56
2004	-	-	-	70.4	68.7	69.7	339	1594	533	62	30	42
NWFP												
1975	60.1	27.1	52.5	50.3	47.3	50.0	987	3457	1455	73	431	117
1980	65.0	32.6	57.8	45.3	44.6	45.2	1092	3602	1597	69	271	105
1985	74.3	49.5	69.5	34.4	29.9	33.7	1041	3533	1541	64	281	99
1990	77.8	67.9	76.0	40.8	28.9	38.9	869	2811	1284	49	212	76
1995	96.0	72.8	89.8	46.6	36.0	44.3	802	1903	1105	45	157	68
2002	72.5	60.5	68.5	47.0	44.6	46.4	321	1236	498	38	67	48
2004	-	-	-	45.2	50.0	46.5	313	1277	492	37	67	47
BALOCHISTAN												
1975	72.7	49.5	67.4	42.1	40.9	41.9	905	2906	1277	90	308	128
1980	65.3	73.8	66.8	32.0	47.6	35.0	867	3183	1253	92	221	123
1985	72.2	54.6	67.1	37.4	29.2	35.5	769	2635	1097	63	169	86
1990	80.7	43.8	69.5	26.7	32.8	27.9	546	2086	791	43	146	62
1995	81.3	76.7	80.3	46.5	29.8	42.9	559	2117	808	38	129	54
2002	82.8	65.7	76.4	39.5	44.3	40.8	449	1318	619	23	47	29
2004	-	-	-	43.2	51.3	45.7	428	1000	562	32	47	37
PAKISTAN												
1975	79.4	63.2	74.9	44.5	40.1	43.5	924	1954	1208	92	103	97
1980	82.3	69.0	78.4	38.9	39.9	39.1	983	2084	1295	91	102	96
1985	84.6	73.7	81.3	38.6	37.7	38.4	907	1947	1205	87	92	89
1990	85.0	85.8	85.3	37.9	35.7	37.2	757	1288	937	50	94	64
1995	84.6	77.6	82.1	46.6	42.7	45.3	719	1201	886	44	86	57
2002	79.3	78.8	79.1	41.4	51.1	44.8	304	1056	459	45	36	40
2004	-	-	-	49.2	55.3	51.4	288	1032	439	45	33	38

[a]Data for 2002 and 2004 include private sector schools

Definitions:
- **Percentage of cohort reaching Class VI:** The percentage of children finishing primary school who reach Class VI
- **Percentage of cohort reaching Class X:** The percentage of children enrolled in Class VI who reach Class X
- **Availability of secondary schools:** The ratio of population aged 10 to 14 to the number of secondary schools
- **Availability of secondary school teachers:** The ratio of population aged 10 to 14 to the number of secondary school teachers

Sources:
1. Development Statistics of Provincial Governments (various issues)
2. Education Statistics of Provincial Governments (various issues)
3. Pakistan School Statistics, Central Bureau of Education (various issues)
4. Pakistan Education Statistics, Central Bureau of Education (various issues)
5. National and Provincial Education Management Information Systems (various issues)

HEALTH

Year	Population (in thousands) per				
	Hospital bed	Doctor (Total)	Nurse	Paramedic	Rural health facility
PUNJAB					
1975	2.6	6.8	12.1	10.6	414.0
1980	2.3	6.0	9.3	9.4	218.0
1985	2.1	4.0	5.6	9.6	92.0
1990	2.1	2.7	3.8	11.3	61.0
1995	2.2	2.2	3.3	12.5	62.0
2000	2.3	1.9	2.6	-	62.0
2002	2.3	1.8	2.5	7.9	69.0
2004	2.3	1.8	2.3	7.7	70.4
SINDH					
1975	3.1	20.6	59.3	19.7	340.0
1980	2.9	19.2	32.9	17.8	200.0
1985	2.9	12.2	35.7	15.9	180.0
1990	2.7	3.4	29.8	9.4	95.0
1995	2.8	3.7	22.1	6.8	71.0
2000	2.9	4.0	19.6	6.3	72.0
2002	3.0	4.1	20.2	4.7	68.0
2004	-	-	-	-	-
NWFP					
1975	1.6	19.2	29.0	5.5	437.0
1980	1.7	14.2	40.2	5.0	255.0
1985	1.5	10.3	11.5	2.5	76.0
1990	1.5	11.1	15.8	2.7	65.0
1995	1.6	8.2	9.1	2.9	63.0
2000	1.6	4.9	12.4	-	65.0
2002	1.5	5.4	14.4	2.7	66.0
2004	1.5	4.6	19.1	3.9	67.2
BALOCHISTAN					
1975	2.9	22.5	24.9	4.3	253.0
1980	2.2	27.9	41.1	3.8	255.0
1985	1.9	10.8	30.9	3.0	122.0
1990	1.8	6.7	23.9	2.2	38.0
1995	1.7	6.8	24.4	1.8	35.0
2000	1.6	7.4	16.6	-	35.0
2002	1.5	5.1	17.0	4.0	32.0
2004	1.5	5.0	17.0	3.8	32.8
PAKISTAN					
1975	2.5	9.3	16.9	9.7	388.0
1980	2.3	8.3	13.5	8.6	221.0
1985	2.1	5.5	8.2	6.8	99.0
1990	2.1	3.3	5.9	6.7	64.0
1995	2.1	2.9	5.0	6.4	61.0
2000	2.2	2.6	3.8	n.a.	62.0
2002	2.2	2.5	3.9	5.4	66.0
2004	-	-	-	-	-

Notes:
1. Data representing institutions run by armed forces and private sector are not included

Definitions:
- **Hospital Bed: Total population in thousands divided by total number of beds in hospitals and dispensaries**
- **Doctor (total): Total population in thousands divided by total number of registered medical doctors**
- **Nurse:** Total population in thousands divided by the total number of nurses
- **Paramedic:** Total population in thousands divided by the total number of paramedic personnel
- **Rural Health Facilities:** Rural population in thousands divided by [No. of RHCs] + [No. of BHUs/5]

Sources:
1. Pakistan Statistical Yearbook (various issues)
2. Pakistan Medical and Dental Council, Islamabad
3. Development Statistics of Provincial Government (various issues)
4. Pakistan Nursing Council, Islamabad
5. Important District Wise Socio-Economic Indicators, Bureau of Statistics Government of NWFP
6. Unpublished Data, Bureau of Statistics (Government of Punjab and Government of Balochistan)

DEMOGRAPHY

Year	Crude death rate			Crude birth rate			Infant mortality rate			Natural growth rate			Life expectancy (years)
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	
PUNJAB													
1976-79	9.5	11.7	11.1	41.4	42.5	42.2	80	107	100	3.2	3.1	3.1	-
1984-86	8.6	12.5	11.0	39.8	44.6	42.7	88	131	120	3.1	3.2	3.2	57.6
1987-89	8.3	11.5	10.6	37.6	43.0	41.4	93	119	105	2.9	3.2	3.1	57.8
1990-92	7.9	11.2	10.2	33.5	41.2	38.9	83	129	110	2.6	3.0	2.9	58.0
1993-97	7.6	10.3	9.5	31.7	38.3	36.3	71	110	99	2.5	2.8	2.7	60.5
1999-01	7.0	8.6	7.9	26.1	31.7	29.2	71	86	80	1.9	2.3	2.1	62.3
2003	7.8	7.0	7.2	28.0	25.5	26.3	-	-	-	2.0	1.9	1.9	-
SINDH													
1976-79	6.1	11.5	9.2	33.7	43.9	39.5	57	83	74	2.8	3.2	3.0	-
1984-86	8.5	13.0	10.6	40.2	45.3	42.5	86	138	114	3.2	3.2	3.2	55.1
1987-89	7.8	13.7	10.8	35.4	43.3	39.4	76	145	113	2.8	3.0	2.9	54.4
1990-92	7.1	13.2	10.1	34.7	44.0	39.3	68	138	98	2.8	3.1	2.9	55.4
1993-97	7.5	12.3	9.9	31.9	41.3	36.6	65	140	105	2.5	2.9	2.7	57.3
1999-01	5.9	9.0	7.4	27.0	33.7	30.2	61	82	73	2.1	2.5	2.3	62.5
2003	5.3	7.2	6.3	22.6	29.6	26.2	-	-	-	1.7	2.2	2.0	-
NWFP													
1976-79	9.0	11.1	10.7	41.0	43.6	43.2	100	111	109	3.2	3.3	3.2	-
1984-86	10.1	9.8	9.7	38.8	46.3	44.2	146	83	93	2.9	3.7	3.4	58.7
1987-89	7.3	9.7	9.3	38.1	46.9	45.5	67	80	76	3.1	3.7	3.6	59.3
1990-92	7.5	10.1	9.7	34.0	44.7	43.1	74	94	90	2.6	3.5	3.3	59.6
1993-97	6.6	9.1	8.7	31.3	38.3	37.1	53	75	72	2.5	2.9	2.8	57.1
1999-01	6.8	8.4	7.8	28.8	29.9	29.5	70	82	78	2.2	2.1	2.1	56.6
2003	5.7	7.2	6.9	26.0	27.6	27.3	-	-	-	2.0	2.0	2.0	-
BALOCHISTAN													
1976-79	6.4	7.2	7.1	33.1	36.9	36.3	44	69	66	2.7	3.0	2.9	-
1984-86	8.4	13.8	12.1	45.4	45.6	45.9	101	166	155	3.7	3.2	3.4	50.4
1987-89	8.7	11.4	11.0	44.4	44.3	44.4	104	117	114	3.6	3.3	3.3	51.0
1990-92	7.9	12.0	11.5	35.5	45.6	44.1	88	128	117	2.8	3.4	3.3	51.5
1993-97	5.9	9.2	8.6	29.5	37.1	35.7	79	119	114	2.4	2.8	2.7	60.3
1999-01	7.3	8.4	8.0	28.4	28.8	28.6	85	91	88	2.1	2.0	2.1	57.3
2003	6.4	7.5	7.3	26.7	26.7	26.7	-	-	-	2.0	1.9	1.9	-
PAKISTAN													
1976-79	8.2	11.4	10.5	38.4	42.7	41.5	74	101	94	3.0	3.1	3.1	-
1984-86	8.7	12.2	10.8	40.1	45.1	43.0	92	126	116	3.1	3.3	3.2	56.9
1987-89	8.1	11.6	10.5	37.0	43.7	41.6	85	117	106	2.9	3.2	3.1	57.1
1990-92	7.6	11.4	10.2	34.0	42.5	39.8	77	125	105	2.6	3.1	3.0	57.3
1993-97	7.4	10.4	9.4	31.7	38.6	36.4	67	103	93	2.5	2.8	2.7	61.8
1999-01	6.7	8.5	7.8	26.2	31.1	29.0	70	85	80	2.0	2.3	2.1	63.1
2003	6.7	7.1	7.0	26.0	26.7	26.5	67	81	76	1.9	2.0	1.9	64.0

Definitions:

- **Crude birth rate:** The number of live births per thousand population in a year
- **Crude death rate:** The number of deaths per thousand population in a year
- **Infant mortality rate:** The number of deaths of children under 1 year per thousand live births in a year
- **Natural growth rate:** ([Crude birth rate]-[Crude death rate])/10
- **Life expectancy:** The number of years a newborn infant would live if prevailing patterns of mortality at the time of birth were to stay the same throughout the child's life

Source:
GoP, Pakistan Demographic Surveys, FBS (various issues)

DEMOGRAPHY

Year	Percentage of live births[a] in medical institutions			Fertility rate (per woman)			Sex ratio (%)			Dependency ratio			Contraceptive[a] prevalence rate (%)
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	
PUNJAB													
1976	4.9	0.7	1.8	7.3	7.1	7.1	111	107	108	96	98	98	-
1979	4.6	0.6	1.6	7.4	7.3	7.3	110	107	108	96	100	99	9.3
1985	0.0	0.0	8.2	6.3	8.0	7.2	107	104	105	94	101	98	-
1990	18.2	4.7	8.2	5.2	6.6	6.1	106	103	104	89	98	95	13.0
1996	28.9	9.4	14.3	4.6	5.9	5.4	106	105	105	91	97	95	26.8
2001	38.8	13.1	19.7	-	-	4.0	106	104	105	72	88	82	22.0
2003	43.6	19.5	27.5	-	-	-	107	105	106	69	88	81	-
SINDH													
1976	33.6	0.6	12.4	5.4	7.3	6.4	112	116	114	87	97	93	-
1979	32.4	0.2	11.2	5.1	7.3	6.3	112	117	115	84	98	92	9.6
1985	0.0	0.0	19.1	5.9	7.5	6.6	107	114	110	91	103	96	-
1990	41.4	4.1	20.7	5.2	6.9	6.0	109	109	109	87	103	95	12.0
1996	48.0	8.8	26.7	4.9	6.2	5.5	108	113	111	87	99	93	23.4
2001	55.2	14.8	28.7	-	-	4.3	109	112	110	77	98	88	15.0
2003	59.5	17.0	35.0	-	-	-	111	111	111	72	97	84	-
NWFP													
1976	4.6	0.2	0.9	6.6	6.9	6.8	108	101	102	94	108	106	-
1979	4.5	0.6	1.3	7.3	6.7	6.7	109	100	101	100	115	112	9.4
1985	0.0	0.0	3.8	7.0	8.4	7.8	107	102	104	99	110	105	-
1990	19.5	3.7	5.6	5.0	6.9	6.6	107	102	103	90	113	109	9.0
1996	25.1	12.3	13.6	4.4	5.8	5.5	107	102	103	91	114	110	18.7
2001	30.1	14.1	16.2	-	-	4.3	106	100	101	79	96	93	14.0
2003	34.8	24.4	26.1	-	-	-	105	101	102	80	94	92	-
BALOCHISTAN													
1976	19.8	0.8	2.9	5.9	7.3	7.1	106	108	108	86	91	90	-
1979	17.9	0.6	4.1	7.6	4.9	5.2	101	115	113	92	95	94	4.3
1985	0.0	0.0	2.6	6.6	6.5	6.6	114	109	111	105	109	107	-
1990	26.2	6.7	9.0	5.2	7.6	7.3	110	105	106	103	115	113	2.0
1996	17.6	6.4	7.7	4.0	6.1	5.6	109	115	113	109	108	108	7.1
2001	22.4	2.8	6.1	-	-	4.2	112	112	112	92	100	98	12.0
2003	15.7	10.5	11.7	-	-	-	113	114	114	93	99	97	-
PAKISTAN													
1976	13.7	0.6	4.1	6.6	7.1	6.9	111	108	109	93	99	97	5.2
1979	13.0	0.5	3.8	6.6	7.1	6.9	110	108	109	92	101	98	-
1985	19.8	2.5	10.1	6.2	7.8	7.1	108	106	107	94	103	100	9.1
1990	26.8	4.6	10.6	5.2	6.7	6.2	107	104	105	89	102	98	12.0
1996	35.1	9.7	16.4	4.7	5.9	5.5	107	106	106	90	101	97	23.9
2001	43.5	13.2	21.0	3.5	4.5	4.1	107	105	106	75	92	86	19.0
2003	46.8	19.4	28.3	3.4	4.3	3.9	108	106	107	71	92	84	-

Definitions:

- **Percentage of births in medical institutions:** The number of births in medical institutions as a percentage of total births
- **Fertility rate:** The average number of children that would be born to a woman if she were to live to the end of her childbearing age and bear children at each age in accordance with prevailing age-specific fertility rates
- **Sex ratio:** The number of males per hundred females
- **Dependency ratio:** Dependent population (those under 15 and over 64) as percent of the working-age population (aged 15 to 64)
- **Contraceptive prevalence rate:** The percentage of currently married women aged 15-49 years who are currently using a family planning method

Sources:

1. GoP, Pakistan Demographic Surveys, FBS (various issues)
2. Pakistan Contraceptive Prevalence Surveys, Population Welfare Division, Ministry of Planning and Development, Islamabad
3. Pakistan Integrated Household Survey (various issues)

LABOUR FORCE AND EMPLOYMENT

Year	Labour force participation rate									Percentage of literates in labour force		
	Urban			Rural			Total					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Urban	Rural	Total
PUNJAB												
1975	71.6	4.0	39.8	78.8	9.0	46.1	77.0	7.6	44.6	48.5	19.6	25.9
1979	71.6	5.6	40.0	79.0	14.4	47.9	77.2	12.2	46.0	53.3	26.2	31.9
1985	72.1	4.6	40.0	78.2	11.3	45.7	76.5	9.4	44.1	54.0	28.9	35.2
1991	67.3	10.8	40.1	73.6	17.6	46.1	71.7	15.6	44.3	57.9	31.5	38.3
1995	65.7	8.6	38.1	72.3	16.1	44.9	70.4	14.0	42.9	65.7	34.3	44.7
2000	68.2	11.8	40.9	74.8	19.0	47.1	72.7	16.8	45.2	66.3	38.5	47.2
2002	69.1	13.4	42.4	72.9	22.9	48.2	71.6	19.9	46.3	67.1	44.0	50.8
2004	68.5	12.3	41.0	73.6	26.4	49.9	71.8	21.8	47.0	67.4	43.6	50.5
SINDH												
1975	67.1	3.7	37.6	85.2	6.0	49.1	75.6	4.8	43.1	56.9	23.5	38.4
1979	69.7	5.1	39.4	89.1	24.6	58.9	79.5	15.5	49.9	52.7	19.9	31.5
1985	69.7	3.5	38.2	85.0	13.2	52.1	77.4	8.2	45.1	57.6	22.3	37.1
1991	65.7	5.9	37.9	76.6	9.5	45.7	70.9	7.6	41.6	65.0	34.9	49.1
1995	62.8	5.2	35.9	73.8	6.0	43.1	68.7	5.6	39.7	68.4	30.1	48.2
2000	60.4	3.9	33.9	73.9	10.2	44.5	67.0	6.9	39.1	72.1	32.8	53.0
2002	65.1	5.5	37.2	76.6	6.8	44.3	70.4	6.1	40.5	72.9	43.2	58.0
2004	66.4	5.9	37.8	75.8	7.4	43.6	70.8	6.6	40.5	75.3	43.7	59.5
NWFP												
1975	70.8	3.3	38.4	75.9	3.8	39.9	74.9	3.8	38.6	43.7	18.1	22.8
1979	65.3	5.2	37.3	73.8	4.3	38.8	72.2	4.4	38.5	48.1	25.6	26.0
1985	71.5	4.4	39.7	80.4	6.8	43.9	79.0	4.4	43.3	49.5	20.3	24.5
1991	66.1	5.1	36.2	70.1	10.2	41.0	69.5	9.3	40.2	51.2	28.6	32.0
1995	61.1	4.3	33.7	64.7	11.0	37.2	64.1	10.0	36.7	52.8	30.3	33.8
2000	62.8	7.4	36.0	66.0	13.1	39.3	65.4	12.1	38.7	56.4	33.5	37.4
2002	62.4	7.0	36.1	65.8	7.2	36.5	65.2	7.2	36.4	61.8	44.3	47.2
2004	64.3	7.1	35.7	66.0	10.8	37.5	65.7	10.2	37.2	68.1	47.9	51.2
BALOCHISTAN												
1975	68.2	2.1	37.9	79.4	1.0	45.7	82.5	1.1	44.6	40.5	14.2	17.5
1979	63.3	2.9	36.8	84.1	3.1	47.5	80.3	3.1	45.9	41.6	14.0	18.0
1985	69.3	1.8	37.8	81.4	7.0	45.9	79.4	6.2	44.5	55.5	17.3	22.6
1991	63.1	4.7	36.8	74.3	6.2	43.7	72.7	5.9	42.6	54.8	18.2	22.9
1995	59.8	4.2	34.7	70.0	7.3	41.1	68.3	6.6	40.0	49.1	20.0	25.0
2000	59.1	5.0	34.0	71.1	5.1	40.3	69.0	5.1	39.2	58.5	23.6	29.7
2002	59.8	6.2	35.2	70.1	6.0	41.5	68.0	6.0	40.2	63.7	27.9	34.3
2004	58.1	5.9	34.0	71.5	8.2	42.0	68.1	7.6	40.0	66.5	29.9	37.8
PAKISTAN												
1975	69.6	3.5	38.8	79.8	7.6	45.9	76.7	6.4	43.8	51.2	19.8	28.1
1979	70.3	5.3	39.6	80.1	14.3	48.7	77.3	11.8	46.1	47.2	24.3	31.1
1985	71.1	4.1	39.3	79.8	10.7	46.5	77.1	8.7	44.2	45.0	26.0	33.9
1991	66.6	8.6	39.0	73.6	14.8	45.2	71.3	12.8	43.2	60.2	31.2	39.6
1995	64.3	7.0	37.0	71.3	13.3	43.1	69.1	11.4	41.3	64.3	34.1	43.3
2000	65.0	8.8	38.1	73.1	16.1	45.1	70.4	13.7	42.8	67.4	36.1	46.5
2002	66.9	10.0	39.9	72.2	16.8	45.2	70.3	14.4	43.3	68.7	43.1	51.3
2004	67.1	9.4	39.2	72.6	19.5	46.3	70.6	15.9	43.7	70.2	43.5	52.1

Note:
1. Unemployed persons classified as persons of age 10 and above, looking for work

Source:
Pakistan Labour Force Survey, FBS, GoP (various issues)

LABOUR FORCE AND EMPLOYMENT

Year	Percentage of labour force in Agriculture	Industry (Urban)	Services	Agriculture	Industry (Rural)	Services	Agriculture	Industry (Total)	Services
				PUNJAB					
1975	7.4	35.2	57.4	69.1	15.7	15.2	55.6	20.0	24.4
1979	6.4	35.6	58.0	63.5	19.0	17.5	51.6	22.5	25.9
1985	8.6	34.5	56.9	62.5	18.2	19.3	49.1	22.2	28.7
1991	9.4	29.1	61.5	62.6	17.4	20.0	48.9	20.4	30.7
1995	5.7	29.8	64.5	60.7	16.7	22.6	47.2	19.9	32.9
2000	6.5	32.1	61.4	66.4	13.2	20.4	50.2	18.3	31.5
2002	5.7	34.0	60.2	57.9	17.5	24.7	42.8	22.2	34.9
2004	7.0	31.3	61.7	60.1	17.4	22.5	45.2	21.3	33.5
				SINDH					
1975	7.4	35.2	57.4	69.1	15.7	15.2	55.6	20.0	24.4
1979	4.3	35.7	60.0	84.0	6.4	9.6	55.8	16.8	27.4
1985	5.2	33.5	61.3	82.9	6.6	10.5	50.3	17.9	31.8
1991	4.9	34.2	60.9	71.7	10.2	18.1	40.2	21.6	38.3
1995	5.2	27.8	67.0	69.8	11.3	18.9	42.4	18.3	39.4
2000	3.6	33.3	63.0	73.6	7.4	18.9	42.6	18.9	38.5
2002	3.9	31.1	65.0	69.5	8.6	21.9	37.6	20.0	42.9
2004	3.9	31.7	64.4	70.5	8.6	20.9	37.9	20.0	42.2
				NWFP					
1975	14.0	23.8	62.2	73.0	10.7	16.3	62.1	13.1	24.8
1979	7.3	24.2	68.4	56.1	17.1	26.8	48.0	18.3	33.8
1985	8.7	25.3	66.1	64.8	14.2	21.0	56.7	15.8	27.4
1991	7.9	25.7	66.4	58.0	14.6	27.4	50.5	16.3	33.3
1995	8.1	20.4	71.5	57.5	12.6	29.9	50.5	13.7	35.8
2000	8.1	20.2	71.7	54.1	16.5	29.5	46.8	17.1	36.2
2002	6.8	24.0	69.2	51.4	16.3	32.3	44.2	17.6	38.3
2004	7.2	22.4	70.4	47.2	17.3	35.5	40.9	18.1	41.1
				BALOCHISTAN					
1975	22.4	12.8	64.7	75.4	5.1	19.5	68.8	6.1	25.1
1979	6.0	17.7	76.3	69.9	10.7	19.5	60.6	11.7	27.7
1985	8.9	23.2	67.9	64.4	11.9	23.7	56.7	13.4	29.8
1991	11.4	17.7	70.8	68.1	7.9	24.0	60.9	9.2	29.9
1995	11.6	15.9	72.4	63.1	9.3	27.6	55.5	10.3	34.3
2000	5.7	17.4	76.9	63.2	10.3	26.5	54.6	11.4	34.0
2002	8.8	20.7	70.5	58.7	12.0	29.3	50.2	13.5	36.3
2004	8.9	17.4	73.7	55.5	12.4	32.1	46.0	13.5	40.6
				PAKISTAN					
1975	6.2	33.6	60.2	72.1	13.1	14.8	54.8	18.5	26.7
1979	5.7	34.5	59.8	67.4	15.9	16.8	52.7	20.3	27.0
1985	7.4	33.3	59.3	66.7	15.2	18.1	50.6	20.1	29.3
1991	7.6	30.7	61.7	63.8	15.4	20.8	47.5	19.8	32.7
1995	5.8	28.3	66.0	61.9	14.9	23.2	46.8	18.5	34.7
2000	5.7	31.5	62.8	65.8	12.5	21.6	48.4	18.0	33.6
2002	5.2	32.2	62.7	59.0	15.5	25.4	42.1	20.8	37.1
2004	5.9	30.6	63.4	60.0	15.6	24.4	43.1	20.3	36.7

Source:
Pakistan Labour Force Survey, FBS, GoP (various issues)

LABOUR FORCE AND EMPLOYMENT

Year	Labour force unemployment rate								
	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
PUNJAB									
1975	3.5	1.8	3.5	1.7	0.7	2.0	2.1	0.9	2.1
1979	5.5	16.4	6.2	3.0	8.8	4.3	3.5	9.7	3.5
1985	6.8	6.5	6.7	3.7	1.5	4.3	4.5	2.0	4.5
1991	7.3	31.8	10.4	4.6	14.6	7.5	5.4	18.0	5.4
1995	7.0	24.6	8.9	4.3	8.3	6.0	5.0	11.2	5.0
2000	9.6	31.1	12.6	5.9	10.9	6.9	7.0	15.3	8.5
2002	8.6	23.0	10.8	6.2	12.0	7.6	7.0	14.4	8.5
2004	9.1	17.9	10.4	5.5	7.8	6.1	6.7	9.6	7.4
SINDH									
1975	1.8	0.6	1.8	0.4	0.0	1.0	1.0	0.5	1.0
1979	3.5	13.8	4.0	0.6	0.2	1.8	1.8	2.2	1.8
1985	4.3	0.6	4.2	1.5	0.0	2.5	2.7	0.3	2.7
1991	4.0	16.7	4.9	1.3	10.7	3.5	2.6	13.1	2.6
1995	2.6	14.2	3.3	1.2	18.3	2.7	1.8	16.7	1.8
2000	3.1	20.1	4.0	1.5	11.0	2.5	2.2	13.7	3.2
2002	5.9	22.8	7.1	2.2	17.0	3.2	4.0	19.8	5.2
2004	6.5	21.0	7.6	3.2	18.3	4.4	4.8	19.6	6.0
NWFP									
1975	2.4	2.5	2.5	2.0	0.0	2.0	2.0	0.5	2.0
1979	4.4	7.0	4.6	3.0	7.5	3.5	3.3	7.3	3.3
1985	6.2	4.3	6.1	3.8	0.0	3.9	4.2	0.3	4.2
1991	6.0	28.6	7.5	5.1	12.1	6.2	5.2	13.4	5.2
1995	6.1	39.1	8.1	4.3	23.0	7.3	4.6	24.1	4.6
2000	9.6	32.9	11.9	8.1	31.2	12.0	8.4	31.4	12.0
2002	12.2	39.0	14.6	10.8	30.8	12.8	11.0	32.1	13.1
2004	12.8	33.5	14.8	9.6	28.9	12.5	10.1	29.4	12.9
BALOCHISTAN									
1975	0.4	0.0	0.4	0.1	0.0	0.1	0.2	0.0	0.2
1979	2.3	0.8	2.2	1.4	28.3	2.2	1.5	23.5	1.5
1985	4.2	0.0	4.1	1.1	0.0	1.5	1.6	0.0	1.6
1991	2.7	17.4	3.6	1.1	4.7	1.6	1.3	6.0	1.3
1995	1.4	27.2	2.9	2.2	25.7	3.9	2.1	25.8	2.1
2000	5.4	32.3	7.2	4.8	44.2	7.1	4.9	42.2	7.1
2002	8.8	58.0	12.7	4.9	31.8	6.7	5.6	37.4	7.8
2004	10.0	41.6	12.5	5.3	24.3	7.0	6.3	27.7	8.2
PAKISTAN									
1975	2.8	1.8	2.7	1.4	0.6	1.7	1.8	0.7	1.8
1979	4.6	14.6	5.2	2.4	6.4	3.6	3.0	7.6	3.0
1985	5.8	4.1	5.7	3.2	0.8	3.7	4.0	1.4	4.0
1991	5.9	27.7	8.2	3.9	13.7	6.3	4.5	16.8	4.5
1995	5.3	22.6	6.9	3.6	11.7	5.4	4.1	13.7	4.1
2000	7.5	29.6	9.9	5.4	14.0	6.9	6.1	17.3	7.8
2002	7.9	24.2	9.8	6.1	14.1	7.6	6.7	16.5	8.3
2004	8.4	19.8	9.7	5.7	10.9	6.7	6.6	12.8	7.7

Source:
Pakistan Labour Force Survey, Federal Bureau of Statistics, GoP (various issues)

REAL PER CAPITA GOVERNMENT EXPENDITURE IN SELECTED SOCIAL SECTORS

(at contant price of 2000)

Year	Education	Health	Population Planning	Social Security & Social Welfare	Water Supply & Sanitation
PUNJAB					
2001	302.5	82.6	0.0	4.4	20.9
2002	318.2	87.6	0.0	5.7	20.6
2003	344.5	102.0	6.2	5.1	5.8
2004	441.3	113.5	6.8	4.8	6.1
2005	444.4	110.6	7.0	8.4	16.0
SINDH					
2001	363.2	96.3	1.1	5.3	16.6
2002	404.5	103.1	0.3	5.1	26.3
2003	411.8	100.1	8.6	5.1	17.8
2004	434.5	102.9	11.8	5.7	30.3
2005	438.9	109.5	11.0	5.5	23.8
NWFP					
2001	441.6	107.2	0.2	2.9	55.3
2002	425.8	97.3	0.1	3.0	37.6
2003	535.8	101.9	8.1	3.7	15.2
2004	488.3	97.9	9.7	4.4	17.3
2005	523.0	123.8	0.1	6.0	21.8
BALOCHISTAN					
2001	517.7	181.7	0.8	9.5	130.5
2002	511.4	199.1	1.2	11.0	75.8
2003	525.9	192.4	11.3	27.2	162.6
2004	572.9	231.6	16.9	15.1	330.1
2005	572.2	212.0	15.0	16.3	247.2
PAKISTAN					
2001	381.2	118.1	10.7	10.6	30.3
2002	426.8	123.7	8.6	23.6	29.9
2003	473.7	139.9	18.8	7.9	20.7
2004	535.8	151.4	25.7	22.7	31.8
2005	570.8	153.9	22.4	11.5	31.9

Notes:
(1) Figures for Pakistan also include federal government besides for provinces
(2) Expenditure represents combined recurring and development expenditure

Source:
Pakistan PRSP Review, Pakistan Economic Survey, various issues

HUMAN DEVELOPMENT INDEX

Year	Life Expectency	Literacy Rate	Combined Enrolment Rate	Real GDP Per Capita (at PPP$)	HDI	Growth Rate (%)
1973	50.6	22.9	19.6	1023.6	0.344	-
1974	51.7	23.6	20.3	1003.3	0.351	2.17
1975	52.3	24.2	20.7	1023.1	0.358	1.83
1976	53.0	25.0	21.3	1047.1	0.365	2.13
1977	53.4	25.7	21.8	1043.3	0.370	1.17
1978	53.8	26.4	19.5	1097.1	0.374	1.06
1979	54.3	27.1	19.2	1079.8	0.377	0.86
1980	55.1	27.8	19.2	1158.6	0.387	2.63
1981	55.3	28.6	19.4	1238.9	0.393	1.72
1982	56.2	29.3	19.8	1282.2	0.402	2.31
1983	56.3	30.0	20.4	1348.1	0.408	1.28
1984	56.7	30.7	22.1	1389.8	0.415	1.90
1985	57.4	31.3	21.6	1446.8	0.423	1.72
1986	57.6	32.2	21.9	1502.4	0.428	1.26
1987	58.2	33.0	22.7	1579.8	0.437	2.06
1988	58.5	33.8	22.9	1664.8	0.443	1.47
1989	58.9	34.6	25.6	1730.7	0.452	2.10
1990	59.1	35.4	27.7	1748.2	0.458	1.23
1991	59.3	36.2	27.3	1798.3	0.462	0.90
1992	59.7	37.0	28.3	1836.0	0.468	1.30
1993	60.2	37.8	31.4	1841.0	0.476	1.74
1994	60.6	38.5	32.3	1852.8	0.482	1.14
1995	60.9	39.3	34.4	1903.2	0.489	1.47
1996	61.6	40.1	33.7	1951.7	0.495	1.33
1997	61.7	40.9	34.7	1916.7	0.497	0.43
1998	62.3	41.6	37.3	1936.6	0.506	1.75
1999	62.6	42.4	38.3	1961.2	0.511	1.05
2000	63.0	43.2	39.0	2006.6	0.517	1.09
2001	63.4	44.0	34.4	2012.4	0.516	-0.12
2002	63.8	44.8	34.3	2028.5	0.521	0.87
2003	64.1	45.6	34.9	2666.9	0.540	3.66
2004	64.4	48.7	37.8	2678.7	0.552	2.23

Computation of HDI:
The computation of HDI is based on UNDP methodology. It consists of three indicators (i) longevity, measured by life expactancy (ii)education, measured by a combination of adult literacy (2/3) and combined enrolemnt (1/3), and (iii)standard of living, measured by real GDP per capita. There are fixed minimum and maximum limits for each indicator:

Life Expactancy	min: 25 yrs	max: 85 yrs
Literacy Rate	min: 0%	max: 100%
Combined enrolment rate	min: 0%	max: 100%
Real GDP per capita	min: $100	max: $40,000

For any indicator of the HDI formula, an index is computed according to the formula:

$$\text{Index} = \frac{\text{(Actual value - Minimum value)}}{\text{(Maximum value - Minimum value)}}$$

Finally, the HDI is obtained by taking the average of these three indicies as in the UNDP methodology.

Note:
Due to difference in data source in data sources and defintions, the above indicators are not compareable with the data reported earlier

Sources:
1. WDI
2. Pakistan Economic Survey, various issues
3. UNDP, Human Developemnt Report 2005 (for methodology)

INDICES OF POVERTY AND INEQUALITY

Year	Poverty [Percentage of Population Below Poverty Line]			Gini (at PPP$)	Share in National Income of	
	Total	Rural	Urban Rate		bottom 20 percent population	top 20 percent population
1973	45.75	48.33	38.55	.35	8.00	42.93
1974	43.00	45.41	36.25	.35	7.94	43.05
1975	40.41	42.66	34.08	.35	7.88	43.19
1976	37.98	40.08	32.04	.35	7.83	43.33
1977	35.71	37.67	30.12	.35	7.77	43.49
1978	33.60	35.44	28.33	.35	7.71	43.65
1979	31.65	33.38	26.66	.36	7.65	43.82
1980	29.86	31.49	25.13	.36	7.59	44.00
1981	28.23	29.78	23.72	.36	7.53	44.18
1982	26.76	28.24	22.44	.36	7.47	44.38
1983	25.45	26.87	21.28	.36	7.41	44.58
1984	24.30	25.68	20.26	.37	7.36	44.79
1985	23.31	24.65	19.36	.37	7.30	45.01
1986	22.47	23.80	18.59	.37	7.24	45.24
1987	21.80	23.13	17.95	.37	7.18	45.48
1988	21.29	22.63	17.43	.37	7.12	45.72
1989	20.94	22.29	17.04	.38	7.06	45.97
1990	20.74	22.14	16.78	.38	7.00	46.24
1991	20.71	22.15	16.65	.38	6.94	46.51
1992	20.84	22.34	16.64	.38	6.89	46.79
1993	21.13	22.70	16.76	.39	6.83	47.07
1994	21.57	23.24	17.01	.39	6.77	47.37
1995	22.18	23.94	17.38	.39	6.71	47.67
1996	22.94	24.82	17.89	.40	6.65	47.99
1997	23.87	25.88	18.52	.40	6.59	48.31
1998	24.96	27.10	19.28	.40	6.54	48.64
1999	26.20	28.50	20.16	.41	6.48	48.97
2000	27.61	30.07	21.18	.41	6.42	49.32
2001	29.17	31.82	22.32	.41	6.36	49.67
2002	30.90	33.73	23.59	.42	6.30	50.04
2003	32.78	35.82	24.98	.42	6.24	50.41

Note:
SPDC Estimates. For methodology, see Jamal (2005)

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Since the late 1980s, there has been a clear effort to reduce trade barriers and to liberalize the economy in Pakistan, and this effort has been accelerating over time. The events of September 11, 2001 - and the GoP's response to them - have also led to a substantial change in the external environment facing Pakistan.

The above changes raise a host of questions: What has been the pace and sequencing of trade liberalization in Pakistan? How do Pakistan's trade restrictiveness measures compare to those of other developing countries in Asia? How has Pakistan's trade evolved over time in response to liberalization and how does this compare to the evolution of trade in other developing countries of Asia? What are the most important channels through which the process of trade liberalization affected Pakistan's economy? If trade had not been liberalized in Pakistan, would the economic growth, inflation and poverty situation be better or worse? How can policy makers guard against the adjustment costs of trade liberalization and reap maximum gains from any further increases in trade openness? How have the changes in the external environment and the policy responses resulting from the tragic events of September 11, 2001 shaped Pakistan's economy? How are the effects of the textile quota removal likely to play out on Pakistan's exports going forward? What policies would work best for the GoP's avowed objective in the MTDF of enhancing exports to achieve sustainable high growth?

Trade Liberalization, Growth and Poverty, SPDC's seventh annual review of social development in Pakistan, attempts to answer these questions. It places the on-going worldwide debate on the interactions between trade liberalization, growth and poverty in the context of Pakistan. The authors isolate the effects of trade liberalization on Pakistan's economy using econometric techniques and evaluate the empirical evidence in light of the predictions of economic theory. Policy implications concerning the GoP's goal of poverty alleviation are drawn from the results.

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ISBN 969-8407-03-0