INTERNATIONAL SEMINAR

Contrasting Brazilian and Indian Experiences and Strategies

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ÍNDICE

APRESENTAÇÃO

Promover o crescimento econômico com justiça social e, simultaneamente, ajustar-se aos padrões de um mercado internacional cada vez mais competitivo. Esse é o desafio que Brasil e Índia enfrentam. Como muitos outros países, os dois atravessam um período de adaptação às mudanças estruturais em curso na economia mundial. Mudanças que exigem inclusive alterações nas políticas econômicas nacionais.

Como tantos outros países, Brasil e Índia atravessam um difícil período de transição. Os dois países têm características comuns como uma base industrial moderna, um setor agrícola importante, uma grande diversidade social e geoclimática. Em ambos os países, há uma considerável controvérsia sobre as implicações da liberalização econômica em especial quanto ao papel do Estado na dinâmica das forças do mercado, no nível e na qualidade dos empregos. Os dois se diferenciam dos demais países em transição em um aspecto: dimensões continentais que comportam economias complexas. Apesar destas semelhanças, Brasil e Índia operam em ambientes cultural e institucional distintos e têm adotado caminhos diferentes para seu desenvolvimento.

Para analisar as similaridades e diferenças das alternativas de desenvolvimento brasileiras e indianas, foi realizada em outubro de 1993 na cidade de Águas de São Pedro, São Paulo, a mesa-redonda **Política Social e Liberalização Econômica: Contrastando as Experiências e Estratégias de Brasil e Índia.** O evento foi uma realização do Instituto de Estudos Avançados em colaboração com o International Institute for Labour Studies de Genebra, Suíça, e a Jawaharlal Nehru University da Índia. Contou com o apoio do International Development Research Centre (IDRC) e do Programa das Nações Unidas para o Desenvolvimento (PNUD). Participaram dos debates representantes brasileiros e indianos das comunidades acadêmica, diplomática, política, administrativa, de negócios, sindical e dos meios de comunicação. Para encaminhar a análise comparativa, três temas foram selecionados, cada um deles abordado por um texto sobre a Índia e outro sobre o Brasil respectivamente.

A crise da dívida externa levou os dois países à beira do colapso macroeconômico. O Brasil a partir de 1980 e a Índia em 1990. A resposta dos dois governos foi iniciar um processo de estabilização macroeconômica combinado com ajuste fiscal e reforma estrutural. Se a comparação das situações é difícil, a similaridade das crises e das respostas tentadas indica que é possível extrair contribuições importantes do tema **Ajuste Macroeconômico, Liberalização e Crescimento**. Nele, dentre as questões exploradas, figuram a administração do balanço de pagamentos e das taxas de inflação; a liberalização e abertura comercial; a desregulamentação industrial e seus impactos na produção e no nível de emprego.

Para tratar da questão do **Ajuste Macroeconômico, Liberalização e Crescimento** foram examinadas as estratégias adotadas pelos respectivos governos para lidar com os desequilíbrios macroeconômicos. A intenção foi comparar as fases de transição em cada país, e a distribuição dos custos sociais resultantes da estabilização, ajustes e reformas. No seu texto, *Roberto Macedo*, da Universidade de São Paulo, apresenta uma visão geral de várias tentativas para estabilizar a economia brasileira. Para explicar os resultados destas tentativas, o autor sublinha o papel crítico dos atores políticos e de outros grupos de pressão. Seu argumento central é que para entender a dinâmica dos programas econômicos no Brasil, é necessário levar em conta as principais forças que agem contra uma estabilização efetiva, e sua influência sobre as políticas fiscal, monetária e de renda. *Deepak Nayyar*, da Jawaharlal Nehru University, oferece uma ampla análise das estratégias de ajustamento e reforma adotadas pela Índia nos últimos anos. São diferenciados os efeitos de curto, médio e longo prazos decorrentes destas estratégias. Uma avaliação crítica das hipóteses implícitas, destaca os papéis conflitantes do estado e do mercado. O autor propõe uma alternativa para a reestruturação da economia, baseando os investimentos em fontes domésticas em vez de depender de empréstimos internacionais e dos resultados do balanço comercial.

A relação entre agricultura e indústria é estratégica no processo de desenvolvimento, sobretudo nos estágios iniciais de industrialização. Para entender as trajetórias brasileiras e indianas, foi preciso desenvolver uma análise sistemática da persistente rigidez institucional e do desequilíbrio estrutural que caracterizam os sistemas agrários dos dois países. Com esse objetivo, o tema **Sistema Agrícola, Industrialização e Desenvolvimento** tratou dos fatores que podem propiciar competitividade na agroindústria e no comportamento desta, sob as condições comerciais presentes em cada país. Foram comparadas produção e cadeia de distribuição desde o produtor até o consumidor final. Também foram discutidos o impacto das mudanças de regimes comerciais, a internacionalização de mercados, os fatores de inovação e mudanças técnicas, o papel desempenhado pelos fluxos financeiros e alterações em sua direção.

O segundo tema trata, portanto, da relação existente entre agricultura, industrialização e desenvolvimento. Em ambos os países a importância do setor rural repousa no elevado tamanho da produção, mas também em considerações sociais como incidência da pobreza, freqüentemente mais presente nas áreas rurais do que nas áreas urbanas. Os aspectos institucionais, inclusive a estrutura da propriedade agrária e os mecanismos de distribuição de produtos agrícolas, fornecem interessantes ângulos de comparação, diante das diferenças existentes entre a Índia e o Brasil. O texto de *Yoginder Alagh*, da Jawaharlal Nehru University, enfoca o agroprocessamento e explora as transformações ocorridas do lado da oferta através das estratégias de diversificação, assim como as mudanças do lado da demanda que resultam da evolução do nível e da distribuição da renda. O autor avalia políticas alternativas, particularmente aquelas que se referem ao apoio do Estado ao setor agrícola, sua integração com o resto da economia, as dificuldades para o comércio internacional, e as conseqüências negativas decorrentes da crise do sistema de crédito rural na produtividade agrícola. O texto correspondente, preparado por *Décio Zylberstajn*, da Universidade de São Paulo, destaca a concentração de terra e o dualismo como características da presente situação da agricultura brasileira. Um setor moderno em rápida expansão - o qual tem sido o principal beneficiário das políticas de apoio oficial - e um setor tradicional de baixa produtividade fornece aos mercados locais. Esta estrutura tem inibido o crescimento, mas ela também tem afetado negativamente o processo de desenvolvimento e de integração. Em relação à estratégia futura, o autor destaca dois desafios: a) reorganização do setor agribusiness para atender a população urbana com alimentação mais barata e de melhor qualidade; b) resolução dos problemas enfrentados pelas pequenas unidades de produção agrícola - geralmente baseadas na célula familiar.

Além de afetar o quadro da distribuição de renda, as alterações no mercado de trabalho têm repercussões no processo global de crescimento econômico. Brasil e Índia são similares em vários aspectos relativos ao trabalho, que foram discutidos no tema **Instituições do Trabalho, Seguridade Social e Emprego.** A legislação protetora é vasta nos dois países, com aplicação bem sucedida em parcelas da economia. A intervenção estatal no mercado de trabalho e nas relações industriais também é considerável, mas está sendo questionada cada vez mais no processo de ajuste estrutural.

A desigualdade e a segmentação são grandes nos dois mercados de trabalho, com expressiva participação de atividades informais, casuais e irregulares. Nas áreas urbanas, o elevado índice de desemprego, associado à extrema pobreza é uma característica comum. Existem, porém, contingentes profissionais altamente qualificados em setores industriais avançados. Na área rural, a similaridade é menor, apesar de em ambos persistir um número elevado de potenciais migrantes para as regiões urbanas.

Este tema permitiu o debate de várias questões que preocupam os países em desenvolvimento: como a mudança estrutural da economia pode afetar a criação de empregos, a vulnerabilidade do mercado de trabalho e o acesso ao emprego? As forças do mercado reduzirão privilégios dos trabalhadores protegidos, ou o ônus do ajuste recairá sobre as parcelas mais frágeis do mercado de trabalho? Até que ponto a exposição à competição internacional pode levar a uma catastrófica queda na demanda de trabalho? Com a redução do papel do Estado nas relações trabalhistas, quais serão os mecanismos a serem desenvolvidos para a administração dos conflitos entre capital e trabalho e facilitar a negociação coletiva? Quais formas de representação trabalhista podem surgir?

Para abordar estas questões, o terceiro e último tema trata das instituições do trabalho, a proteção social e os padrões de emprego. Este tema explora como as mudanças estruturais tem afetado o mercado de trabalho, e, em particular, a criação de empregos e o acesso às oportunidades tornando-o mais vulnerável. A situação do trabalho na Índia e no Brasil apresenta semelhanças: legislação trabalhista protetora, mecanismos de intervenção do estado, mercados segmentados e um setor informal expressivo. Os autores contrastam as vias que as instituições do trabalho tem se modiciado em cada país. O texto de *Trilok Singh Papola* do Indian Planning Commission, examina a proteção social da Índia com respeito ao crescimento econômico e aos ajustes estruturais e reformas econômicas. O autor identifica tendências na estrutura do emprego, especialmente quanto à redução da capacidade de absorção de recursos humanos pelo setor moderno. De outro lado, observa-se uma expansão das atividades esporádicas e do desemprego. Em relação aos aspectos institucionais, foi feita uma análise dos possíveis efeitos negativos da legislação protetora sobre o nível de criação de emprego, assim como na flexibilidade do mercado de trabalho. O autor aponta para a deterioração da qualidade das condições de trabalho no setor informal que está em crescimento. A experiência brasileira é discutida por *Hélio Zylberstajn* e *Amaury de Souza*, da Universidade de São Paulo e do Instituto de Estudos Econômicos, Sociais e Políticos, respectivamente. Os autores examinam a relação existente entre pobreza e desigualdade de renda com o desenvolvimento do mercado de trabalho e do sistema educacional. Eles também enfocam a incidência desigual do custo da estabilização e dos programas de ajustes sobre os diversos segmentos do mercado de trabalho. A diferenciação de impactos se faz sentir sobre a evolução dos salários, a oferta de empregos, a estrutura das relações trabalhistas e especialmente no seio do movimento sindical.

A mesa-redonda não aspirou encontrar respostas pontuais para essas e outras questões que surgiram nos debates. O objetivo foi explorar e contrastar as alternativas viáveis produzidas por instituições brasileiras e indianas dedicadas à reflexão sobre os desafios para o desenvolvimento. Em decorrência do interesse despertado, os textos - na sua versão original - estão sendo colocados à disposição para facilitar o prosseguimento desta análise comparativa. O Instituto de Estudos Avançados da USP e seus parceiros nesta iniciativa estão especialmente gratos ao apoio de Padmanabha Gopinath e a dedicação de Gerry Rodgers e José B. Figueiredo. Coube a Deepak Nayyar viabilizar a contribuição indiana, sem a qual o projeto não teria se realizado. A viabilização financeira foi assegurada pelo IDRC e UNDP que endossaram rapidamente a proposta inicial e asseguraram a flexibilidade necessária para reunir estudiosos de países tão distantes. Do Ministério das Relações Exteriores do Brasil e da Embaixada da Índia em Brasília, o apoio foi constante. Espera-se que os resultados desta mesa-redonda estimulem a continuidade desta área de estudo promovendo assim a aprendizagem entre países que podem se beneficiar muito das suas experiências em lidar com realidades complexas e desafiadoras.

Jacques Marcovitch
Coordenador

Macroeconomic adjustment and stabilization in Brazil: The failures and the "contras"

Roberto Macedo[1]

This paper focuses on the Brazilian experience with adjustment and stabilization policies in the past two decades, giving closer attention to the more recent events. It was during the "lost decade" of the eighties that Brazil moved into a phase of very high inflation coupled with the stagnation of GDP growth. This "stagflation" continues until today, following the government's failure to circumvent the effects of the increases in oil prices (1973 and 1979) and international interest rates (1979) on the Brazilian economy, as well as its failure to revamp or to scrap the state-led engine of growth. In addition to the government's own mismanagement of its policies and actions, these "external shocks" of oil prices and interest rates have caused severe damage to government indebtedness and to fiscal and monetary equilibrium. At the same time, the country has moved into redemocratization, with a transitional civilian government assuming power from the military in 1985 and the election of a President in 1989.

The paper takes into account this background of economic problems and political transition to analyse the various attempts to adjust and stabilize the economy. As the paper was written for a seminar where the Brazilian and Indian experiences were examined and compared, it emphasizes the role of political and institutional factors in shaping and affecting policies. It is the author's view that these factors are crucial to understand why, for example, as compared to Brazil, India has traditionally had a very low rate of inflation and has been able to recover economic growth in recent years.

The paper has been organized in three sections, in addition to this introduction. Section 1 presents a brief account of the economic problems faced and of the policies adopted between the mid-seventies and the mid-eighties. Section 2 concentrates on analysing the period that followed the end of the military governments, that is, since 1985. It also focuses on the role of political factors, such as the pressure for public spending, which came with political liberalization and the increasing political power of state governors who have further damaged federal government finances by bartering federal grants and loans for political support and by pressuring the Central Bank with the liquidity problems of their state banks. Section 3 further scrutinizes the role of political actors by examining their action in the institutional framework. The section shows how the major forces that position themselves against an effective stabilization and adjustment program work through institutions where they are entrenched, resist and make further destabilizing advances. In particular, we analyse how they affect the key components of macroeconomic policy (those which deal with fiscal, monetary, and incomes policies, and with the role of expectations). We think that it is by analysing issues of this sort that we will able to better understand what is behind the Brazilian "stagflationary" process.

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I. The current crisis and its background [2]

As background information, in 1992 Brazil had a population of 149 million people, spread over an area of 8.5 million square kilometres, a GDP "per capita" of US$ 2,800 and a total GDP of US$ 417 billion. Average annual growth rates of GDP "per capita" were 6 per cent in 1970-79, 1 per cent in 1980-89 and -3.4 in 1990-92. Average annual rates of inflation were 34 per cent, 321 per cent and 1,326 per cent in the same periods. The country is in an economic crisis reflected in this trend towards "stagflation" which became even worse recently with negative rates of GDP "per capita" growth from 1990 to 1992. The estimated rate of GDP "per capita" growth for 1993 is 2.5 per cent, therefore reverting this sequence of negative rates. Inflation, however, is expected to jump to 2,400 per cent. Indexation and high speed banking transactions prevents the economy from getting into chaos at inflation rates of this sort. In 1992 the country showed a trade surplus of US$15 billion, a current account surplus of US$ 6.5 billion and ended the year with cash reserves of US$19 billion, an external debt of US$132 billion or 31.5 per cent of GDP, and US$35 billion, or 8.4 per cent of GDP, of federal domestic debt in bonds. The income distribution is among the worst in the world with the richest 10 per cent receiving 51.3 per cent of the total income and the poorest 20 per cent receiving only 2.1 per cent of the same total. Brazil is a federative republic composed of 25 states. A military government remained in power from 1964 to 1985. Elections for President, Congress, state governors and state legislatures are scheduled for October 1993.[3]

Although it was only in 1981 that a negative rate of GDP growth became a reality in post-war Brazil, the crisis that brought about "the lost decade" of the eighties and which continues today was already in the making since the end of 1973. That year, the first "oil shock" hit the Brazilian economy, then heavily dependent on imported oil. Higher inflation rates and trade deficits immediately surfaced in 1974. Growth, however, was affected only to the extent that in the remaining of the decade the country could not repeat the high rates of the previous six years, the so-called "miracle period", which had risen above 10 per cent. Despite lower rates, averaging 7.1 per cent a year, growth continued until 1980.

This was the outcome of the strategy adopted by the Brazilian government in the face of the first "oil shock". One option opened to the government was to deflate the economy to generate a trade surplus, or at least to reduce the size of the forecasted deficit in the current account balance. This would bring a scenario in which the cost push of the higher oil prices could be accommodated with a lessened impact on the rate of inflation. This course of action was undertaken by most of the industrialized nations and some developing countries as well, following what has is known in the literature as the "adjustment" or "absorption" approach.

At that time, however, the idea of tightening the belt was very strange to a country emerging from the "miracle years". Until a few years ago, there was a widespread feeling among Brazilians, independent of political belief, that ours was the "country of the future" and that maintaining growth ought to be the fundamental objective of economic policy. The military government was particularly fond of favourable growth performance, as it was an important source of political legitimation. Moreover, the international money markets were full of the

[2] This section draws from Roberto Macedo and Fábio Barbosa: "Brazil: Macroeconomic instability and policies", in Maria J. Willumsen and Eduardo Gianetti (eds.): *The Brazilian economy: Structure and performance*. Miami, North-South Center and Transaction Publishers, 1994 (forthcoming).

[3] The source of the data presented in this paragraph and in the text that follows it is the Central Bank of Brazil, exception made for the income distribution figures whose source is the World Development Report of the World Bank (1993 edition). The Central Bank's data are published on a quarterly basis in the series *Brazil-Economic Program*.

petro-dollars which had gone to the OPEC nations, as a counterpart of the trade deficits accumulated by the oil importing nations. There were signs of willingness to lend this money to Brazil and other needy nations. Real interest rates in the international money markets were low and attractive.

The result was that Brazilian authorities opted for an attempt to circumvent the crisis instead of taking harsh measures to absorb its impacts. The chosen course was made up of four major elements. First, the government encouraged borrowing in the international money markets to close the wider foreign exchange gap. This avoided a recession in the short-run. Second, a medium and long-run import substitution strategy concentrated its attention on the production of oil, its substitutes and petrochemicals, to reduce dependence on imported oil and its derivatives. Third, the export potential of the country was further enlarged. In the short-run, this was accomplished by new fiscal and credit incentives to the exports of manufactures; in the medium and long-runs, by investments in export-oriented projects, especially in the area of metals, minerals and agriculture. Together with reduced imports (as a result of import substituting programs), this component completed the plan designed to generate a trade surplus to service a higher external debt in the future.

Finally, to deal with new government commitments arising from this strategy, largely pushed by subsidies or by means of public enterprises, the government also made extensive use of domestic debt. Inflation was allowed to reach higher levels, both because seriously coping with it would also require harsh measures and because it was assumed that the country's widespread indexation system would alleviate its effects. As a result, inflation went from annual rates close to 20 per cent during the 1970-73 period, to approximately 40 per cent in 1974-78.

The second "oil shock" of 1979 further aggravated growth, inflation and balance of payments problems, even though the immediate reaction of the government was a new attempt to circumvent the problems. This time, circumvention was accomplished by a very inconsistent package of policies which simply postponed the imposition of recessive policies until 1981. External borrowing received new encouragement, but this time the country found international bankers less willing to lend. Brazil then began to pay higher "spreads" over the international interest rates. Moreover, these interest rates began to increase sharply, as a result of the tight monetary policy then adopted in the United States, posing an additional, serious burden on servicing the larger debt.

To further complicate the picture, after a devaluation in December 1979 of 3O per cent over and above the frequent crawling-peg devaluations, the government entered into a policy of fighting inflation and uncertainty on the part of economic agents by adopting fixed guidelines for the indexation of some financial assets and the exchange rate. Thus, it "pre-fixed" their rates of change for 1980. As it turned out, the rate of inflation came to twice what the government had predicted and adopted in its prior indexation of the exchange rate and financial assets such as savings accounts. This increase in inflation was fuelled by several causes, among others, higher prices of oil and agricultural products, a lagged impact of the 1979 devaluation, the fiscal deficit, money and credit policies and faster indexation of wages.

Heated by lower or negative real interest rates and higher nominal wages, the economy boomed in 1980, when GDP rose 7.9 per cent. As devaluation in 1980 lagged behind inflation and real income increased, the trade deficit rapidly deteriorated, adding to the problems brought on by the higher cost of debt service. This cost emerged from the higher spreads charged to the country, and most important, from the higher international interest rates pushed by the U.S. monetary policy. As Brazil's debt service ratio to exports rapidly worsened, its risk profile, as evaluated by international bankers, also deteriorated. Access to additional credit became not only increasingly expensive, but also difficult due to the restraint on the supply side. At the end of 1980, the country began to attempt adjustment policies. The crisis became evident in 1981.

GDP fell in 1981 but in mid-1982 further deterioration seemed to be contained. However, the crisis which then affected Mexico and other indebted countries also forced Brazil to declare its inability to meet external debt service commitments. This happened in September, on the eve of general local, state, and Congressional elections. In fear of unfavourable political repercussions, the government postponed negotiations with the IMF and international bankers until the end of the year.

In the very beginning of 1983, a stabilization and adjustment program was designed and negotiated with the IMF, and its adoption caused a strong new decline of the GDP. Although Brazil did not strictly comply with most of the program's targets, the most important goal as viewed from outside, the creation of high trade balance surpluses, was consistently achieved. In 1983, this occurred mainly through import restraints which had a serious recessive impact. Yet in 1984, a sensitive growth of exports occurred in the wake of the US economic recovery. At the same time, the economy showed the results of the import substitution programs established in the mid-seventies in areas such as oil, chemicals and petrochemicals and, at the turn of the decade, in the production of alcohol from sugar cane. As a consequence, after three years of serious declines, total and "per capita" GDP increased again in 1984. The recovery continued until it peaked in 1986, in the wake of the "Cruzado Plan", one of the subjects to be discussed in the next section.

II. Developments since 1985

In order to understand what happened from 1985 onwards, it is important to mention the major changes that have occurred in the political area. After twenty years in power, the military transferred the government to civilian rule, in the person of Mr. Tancredo Neves, elected President by the Congress in 1985. Mr. Neves worked his way up by undertaking many commitments with the military in order to begin the movement towards democratic government. Neves, however, became ill on the eve of his inauguration and died one month later. His vice-president, José Sarney, a close associate of past military governments, then took over at the head of a very fragile government. Sarney's coalition government was eager to share the "benesses" of power and to push populist policies, but it was motionless, lacking in the political will and leadership needed to take initiative and assemble support to solve the country's serious problems.

Mr. Sarney's economic policies — his term ended in 1990 — suffered from his government's inherent political fragility as he was impotent to conceive and enforce badly needed but unpopular policies. As will be shown later in this section, his stabilization attempts failed essentially because they did not make room for the necessary structural adjustment of the public sector and its finances, nor for a restrictive monetary policy and a consistent incomes policy.

In order to facilitate the understanding of the issues to be analysed in this section, it is important to introduce some developments in the area of macroeconomic analysis of countries with a record of chronic and high inflation rates, as well as how these developments have unfolded into economic policies.

The early and mid-eighties brought the realization in many centres of economic research and teaching, both in Brazil and abroad, that the usual prescription of tight fiscal and monetary policies meets a major obstacle in the form of what became known as "inertial inflation" or "inflationary memory". This concept describes a situation of widespread use of formal and informal mechanisms of indexation, implemented by the economic agents in their attempts to protect their prices, nominal incomes and financial assets from the corrosion of the chronic inflationary process. Inflation thus tends to perpetuate itself as nominal values are readjusted by indices that reflect past inflation. Inflation is also fed by lack of confidence in the stabilization policies, due to their sequence of failures, and the accompanying expectations that inflation will continue at higher rates. In such conditions, attempts to control inflation by focusing only on aggregate demand would last longer and be faced by very high social costs in the form of deep recessions and high rates of unemployment. This would occur because the attempt to reduce inflation would require major doses of restrictive policies to deal not only with inflation itself but also with the inflationary inertia.

The discussion of "inertial inflation" has led to the proposition of so-called "heterodox policies". The idea is to adopt a set of policies in addition to fiscal and monetary restraint, in order to deal specifically with inflationary inertia. Along this line come proposals for the de-indexation of the economy, and for the adoption of temporary price freezes, incomes policies and the like. The purpose of these proposals is to allow for the coordination of the economy's various prices, in order to interrupt the inertia of the inflationary process, both to attack inflation and to avoid the recessive impact arising from the combination of fiscal and monetary restraint with continuing price increases emerging from the inflationary inertia.

Many of these ideas were established on firmer grounds after Israel stabilized her economy in 1985 by resorting to a heterodox package, as success that was widely publicized and internationally acclaimed. The fact that the Israeli economists are well known and renowned worldwide also contributed to spread the new gospel of stabilization in conditions of very high and chronic inflation.

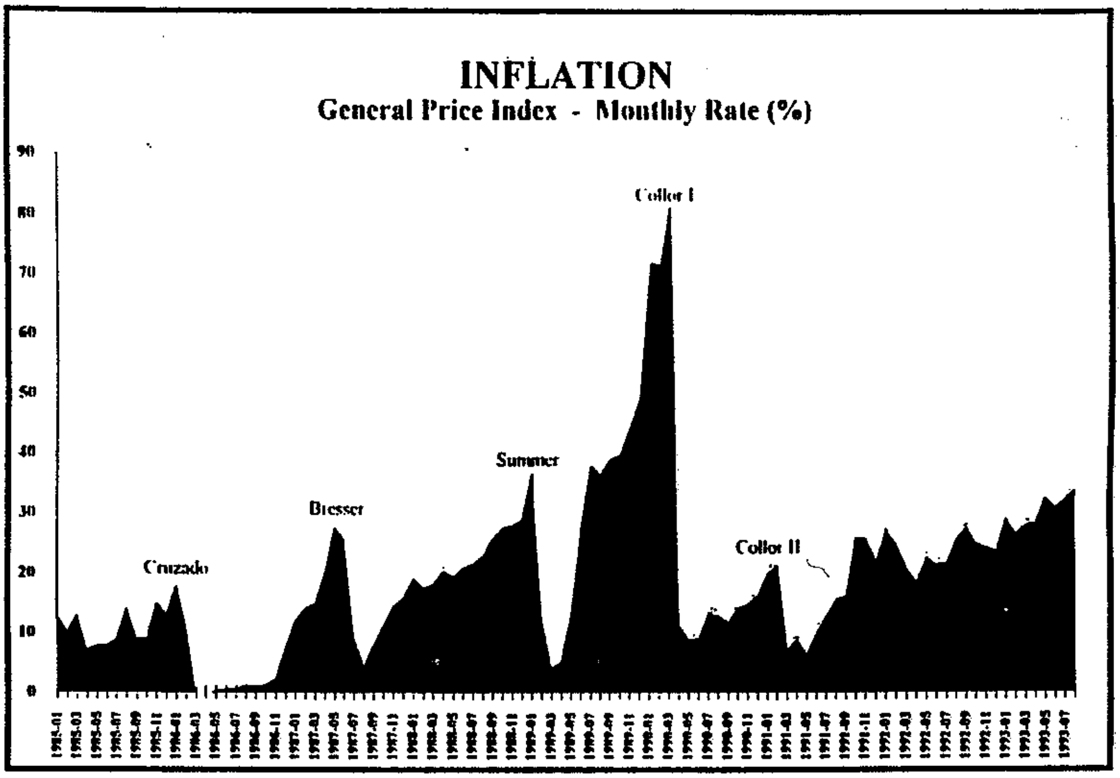
It is important to emphasize that the heterodox plans in their essence do not constitute an antithesis to traditional anti-inflationary policies. They emphasize the need for the fundamentals of a stabilization program, fiscal and monetary policies, to be adequately enforced. In addition, they point out that measures for the coordination of prices and expectations must be adopted as accessory elements of the plan. These are considered as such because they have no ability to support themselves in the absence of the fiscal and monetary fundamentals.

These ideas have received extensive interest and further elaboration by the Brazilian economists. However, their adoption by a fragile government, unable to deal with the fiscal and monetary fundamentals, ended up generating a sequence of failures during the Sarney administration, through "stabilization" plans which attacked only inflationary inertia.

Thus, without tackling the fiscal and monetary imbalances, and on the contrary, further aggravating them, Sarney's government achieved only temporary reductions of inflation rates, following the price freezes adopted as part of the Cruzado, Bresser and Summer plans. After each of these prices freezes collapsed, inflation surged up at still higher rates, as fiscal and monetary imbalances suffered further deterioration. This pattern of collapsing price freezes can be seen in Chart 1, which shows monthly inflation rates from 1985 to 1993. This chart depicts the various price freezes of both the Sarney and Collor administrations.

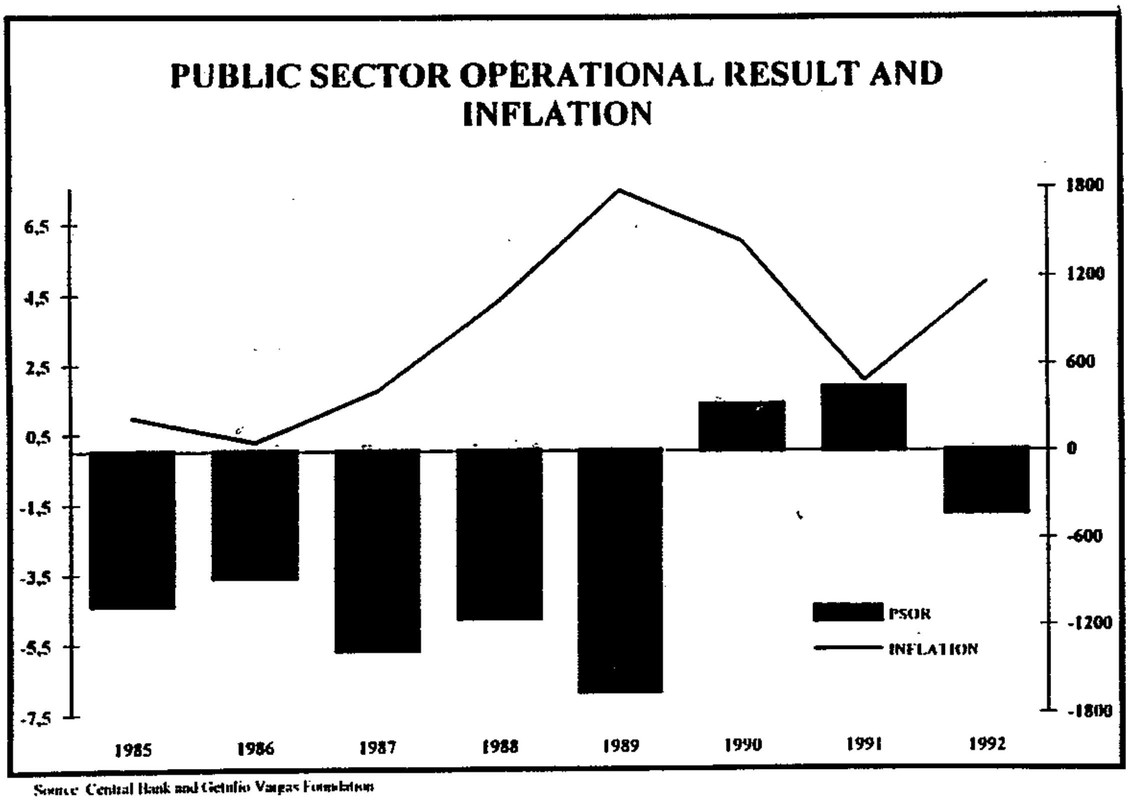
The first plan adopted by President Sarney, the Cruzado Plan, unveiled in February, 1986, was perhaps the most frustrating one because for a certain period it brought some relief to the economy and created conditions for further action. Society as whole trusted the plan and somehow a positive atmosphere was generated, favourable to the adoption of the fundamental fiscal and monetary policies. However, the wide popular acclaim accompanying the plan made the President and other government politicians euphoric with the initial results. This success was then used as a political promotion in the October local, state, and Congressional elections. The government thus made every effort to maintain the popular effects of the price freeze until

Chart 1



Source: Getúlio Vargas Foundation

Chart 2



Source: Central Bank and Getúlio Vargas Foundation election day. Despite warnings from some members of the economic team and other analysts, the government refused to adopt the fundamental policies and the plan ended up in failure.

The launching of the Bresser plan in 1987 was followed by widespread scepticism. Its effects lasted for a shorter time and it also failed due to the lack of political will and support needed to adopt the fundamental policies. The 1988 Summer Plan was only an attempt to keep things under control, because by that point, nearly the end of Sarney's term, economic and political conditions made the adoption of more meaningful policies impossible.

The Collor administration was inaugurated in March 1990 and lasted until October, 1992. Chart 1 shows that its plans also failed to stabilize the economy at very low rates of inflation, but there is a major difference in comparison to previous plans, as inflation under Collor did not return to rates higher than the preceding ones. Indeed, inflation rates were brought down to a lower plateau.

To understand why the Sarney plans failed while the Collor plans had at least a relative success, we turn to Chart 2. It depicts the inflation rate from 1985 to 1992, this time on an annual basis. It also shows the public sector operational result (pictured in the chart as per cent of GDP), one of the concepts adopted to measure public sector disequilibrium. It encompasses the public sector as a whole, that is, the federal, state and local governments together with the state enterprises, excluding only the government financial institutions.

It can be seen from this chart that during the Sarney administration there was a continuous aggravation of public sector disequilibrium. Thus, Sarney's "stabilization" plans depicted in Chart 1 had been limited to their accessory component, that is, to the measures and policies undertaken to interrupt the inflationary inertia via price freezes, de-indexation, and so forth. That is the reason why they failed. They also included two "monetary reforms" limited to the creation of a new currency, with the elimination of three zeros from the old one, which is in this manner was made equivalent to the new currency at a rate of 1000 to 1. This has often happened in Brazil because very high inflation rates lead to transactional difficulties for economic agents, particularly for the financial system and its computers, which have to absorb nominal figures with too many digits, although often representing very low real values. As it turns out, at some point figures written in billions no longer fit into checks, the GDP goes to quadrillions and the federal budget to trillions. Then it is time to make another cut of zeros, as was done again recently, in August 1993.

An important development during the Sarney administration was the drafting of a new Constitution by the Congress. It came into effect in 1988 and brought further problems to the administration of public finances, mainly at the federal level. In particular, it has consolidated a higher degree of revenue sharing with the state and local governments, although no countervailing reduction was made in the expenditures covered by the federal government, therefore further compromising its fiscal equilibrium. This was a result of the increasing power of the state governors and mayors following political liberalization, in a movement contrary to the power centralization strategy previously enforced by the military.

The Constitution also established a major increase in social security benefits and consolidated privileges such as early retirement by length of service, a move which compromised the already critical finances of the Social Security System. The management of personnel and the public payroll was particularly constrained as benefits such as job security and early retirement with full pay were extended to a broader coverage of public servants. Incomes policies in the area of wages have been complicated as the Constitution consolidated normative powers for the Labour Courts. In particular, the courts can decide by themselves the rates of collective nominal wage readjustments at the industry level without recourse to single choice arbitrations of the proposals presented by businessmen and labour unions. In general their decisions are biased against business and the government's incomes policies.

In addition to defining with detail many rules costly to the fiscal budget and damaging to stabilization policies, the Constitution did not adopt effective constraints to the financing of fiscal deficits by inflationary means. In particular, the Central Bank was not made independent and isolated from the Treasury, nor was it protected from the pressures emerging from the state banks as they engage themselves in financing state governments. The already mentioned expanded political power of the state governors has often been used to engage themselves in audacious expenditure and borrowing sprees whose financing goes through their banks and end up in money printing by the Central Bank.

Therefore, in addition to the mismanagement of policies typical to the Sarney administration, a portion of the aggravation of the fiscal deficit and of inflation shown in Chart 2 can be blamed on the rules established or consolidated in the 1988 Constitution and also on the fact that the framers of the Chart missed a major opportunity for establishing monetary discipline both at the Central Bank and at the state level.

In the sequence of the fiscal imbalances of the 1986-89 period shown in Chart 2, it was known at the beginning of 1990 that if President Sarney's policies were to continue, the operational deficit would reach 9 per cent of GDP by the end of the year and very likely would bring the country to open hyperinflation. The measures adopted by the Collor administration led instead to a clear reversion of this picture due to changes made both in conceptualization and implementation of economic policy.

President Collor took over an economic and financial situation which was almost chaotic. Monthly inflation reached 84 per cent in February 1990 and there was widespread feeling that the country was moving into open hyperinflation.[4] The public deficit was growing fast, financed in great part by the printing of new money. The public debt also increased rapidly and its rollover period was made even shorter due to lack of confidence on the part of financial markets. Once in power, the new administration adopted drastic policies, particularly in the area of taxation and partial seizure of financial assets, with the goals of reducing the economy's liquidity and generating resources for the fiscal budget.

Prices were frozen once again, the indexation mechanisms were softened and the government attempted to set up an administrative reform to reduce the number of civil servants and the staff of the state enterprises, as well as a patrimonial or assets reform which envisaged the sale of public property in order to reduce debt, mainly by means of a privatization program involving the sale of state enterprises. Measures were also adopted aimed at beginning the deregulation of the economy and exposing it to more foreign competition. On the expenditures side, budget administration became more rigid, in particular by reducing current expenditures, particular in the areas of payroll and interest on the debt, the latter made possible by the seizure of financial assets at interest rates lower than those observed in the market. The seizure was thus equivalent to a forced loan at a favourable rate of interest.

As shown in Chart 2, the result of these policies was the elimination of the deficit, which was reverted to surplus in 1990 and 1991. Such an accomplishment, however, did not mean a permanent, genuine fiscal adjustment. To a large extent, it was instead a process of fiscal compression by which major problems were temporarily circumvented, only to re-emerge later on often in a more serious conditions. For instance, salaries paid by the federal government were squeezed instead of concentrating attention on the problems of overstaffing, privileged job security and early retirement which plague payroll management. Moreover, the government's

[4] By "open hyperinflation" I mean the final collapse of the currency, the indexation mechanisms and the high speed banking transactions which allow the economy to function without chaos at the rates already observed in Brazil.

execution of its own the measures was often trouble-ridden, as it was the case of the patrimonial reform and the lay-offs of public servants, which did not advance as expected.

In particular, soon after the seizure of financial assets, there was a strong political pressure to free them. An anticipated and partial liberation of these assets occurred, impairing a stricter monetary control. In addition to that, the administration did not manage to control state and local governments, which were exempted from the seizure, nor its own state enterprises in their spending policies. By 1990, various banks owned and operated by the states had already exceeded their limits for credit operations, due to pressure coming from the political arena, arising from a new round of Congressional, state, and local elections. The administrative and patrimonial reform did not proceed as expected either. From the point of view of expectations, economic agents knew that fiscal adjustment was not fully consolidated because in great part this adjustment had been made by measures whose effects were limited to 1990 and 1991.

Pressured by factors like liquidity, fiscal problems, inertia and expectations, inflation began to grow again. In November 1990 another price freeze was adopted and additional measures, such as the creation of special funds for short term financial assets, were undertaken to curb the liquidity of the economy, as part of a policy package that became known as Plan Collor II. The economy thus entered 1991 with frozen prices and widespread suspicion that the fundamental causes of inflation had not been definitely checked. Plan Collor II, along with various other problems, resulted in a loss of confidence by the economic team, which left the government in May 1991.

The failed stabilization policies of the Sarney government, together with the partial and temporary success of those adopted by the Collor administration have now spread the perception by society at large that without coherent fiscal and monetary policies there is no end in sight for the economic problems Brazil faces. These perceptions have been the primary lesson inherited from a sequence of failed stabilization experiences. That is, there is now a virtual consensus on why they have failed. The country has not been able, however, to move from this perception into corrective action.

Together with this "positive" result, moreover, the frequent changes in the indexation mechanisms within a context of price freezes adopted both in the Sarney and Collor governments, plus volatile short-run inflation, have sharply affected the expectations of the economic agents. From the point of view of public finances, the frequent and sudden devaluations of the government liabilities, in the sequence of last minute changes of their indexation rules in the wake of the price freezes, has further shaken the credibility of government debt and have made more difficult and expensive the process of rolling it over.

After his nomination in May, 1991, the basic guidelines of the Minister of the Economy Marcilio Marques Moreira, were the liberation of prices, the opening up the economy, the renegotiation of the foreign debt, an extended privatization program, and various measures to deal with the fiscal problem. In particular, a fiscal reform encompassing both taxes and expenditures to consolidate the partial adjustment that had already been made and to transform what was done in terms of fiscal compression into genuine adjustment. While this adjustment was sought, a major role in the stabilization front was to be played by a more strict control of expenditures and by a monetary policy which raised interest rates. The latter's purpose was to work as a "bridge" between the shaky fiscal situation handed over to the new economic team and the new picture to be created by the consolidation of the fiscal adjustment. From May 1991 to May 1992, these policies were consistently followed, although in the beginning they faced a lack of confidence on the part of the press and economic agents, as many thought the new team would follow the tradition of price freezes. This did not happen and the image reversed as various measures were implemented to deal with the fundamentals, that is, the fiscal and monetary problems, together with further advances in the adjustment of the economy.

Thus, the new team put the privatization program into operation, created mechanisms that allowed the adequate financing of a much larger agricultural harvest, adopted policies for the deregulation of the economy, advanced in trade liberalization and negotiated industrial agreements to improve the productivity and competitiveness of the economy, particularly in the auto industry. An agreement was also reached with the IMF and the Paris Club with respect to the foreign public debt and the implementation of an adjustment and stabilization program. Negotiations with the private foreign creditors were reassumed.

A new wage policy was approved by Congress to alleviate the impact of the existing policy on inflation and on public expenditures, particularly as it affected social security payments. New policies for the insurance sector were given a start. Above all in the fiscal area, a policy was adopted that softened its imbalance, restraining expenditures. In the monetary area, the high interest rates kept the financial assets stable, avoiding their flight to consumption and out of the domestic currency.

It should be clear that this policy of high interest rates and expenditure control and restraint had a short horizon of effectiveness, because the high interest would eventually compromise the fiscal balance as it led to higher debt costs. With high interest rates there was also a major influx of foreign money which, on the one hand, augmented the country's depleted reserves but, on the other hand, led to higher debt costs. The reason was that it required the placement of bonds by the Central Bank, at interest rates than those earned by the reserves, to soak up the liquidity in local currency generated by the inflow of foreign money.

Thus, because of these effects and also because of the return of the frozen financial assets to their owners, monetary control had a limited effectiveness and only sustained itself as a "bridge" that could lead to sustained fiscal adjustment. Bills for this purpose, including a whole set of constitutional amendments, were sent to Congress. The idea was that a sustained fiscal adjustment, once achieved, would raise confidence of the economic agents that the government had solved its fiscal crisis and had lowered its risk as a borrower in the financial markets. This would open room for lower interest rates which would stimulate the economy, thus generating additional tax receipts and a new demand for foreign resources to be met by the accumulated reserves.

Returning to Chart 1, one can see that after prices were liberated in May 1991, the rate of inflation reached roughly 25 per cent a month by the third quarter of the same year. A short period began there during which this rate decreases until April 1992, to around 20 per cent a month, with only January showing a seasonal increase. In the judgment of the economic team, this demonstrated that there was a meaningful chance of success if the government could manage to consolidate what had already been accomplished in terms of fiscal adjustment and to further alleviate the pressures still extant in the monetary side. If this picture were to materialize and the reduction in inflation continued to be slow, then the team would move to measures that would deal with the inflationary inertia. As a matter of fact, the new wage policy had already included a mechanism designed to reduce the nominal wage readjustments on account of past inflation if lower rates of inflation were to materialize.

By then the administration had proceeded with a ministerial reform, replacing with nationally renowned persons those ministers who had not proven themselves in their jobs. Political support for the government in the Congress was on the rise, enabling it to pass the new wage policy bill as well as to garner the approval of the House of Representatives for important legislation, such as port deregulation and the privatization of public services.

All these favourable developments, however, met with serious difficulties when accusations of corruption against President Collor emerged in mid-1992. He left the government in October and was impeached in December. During this period beginning with the accusations, the discussion of fiscal adjustment in the Congress was interrupted, and no single issue of fiscal and structural reforms was voted upon. Moreover, within the administration a dispute emerged involving the economic team, who insisted on the need to restrain expenses, and others who wanted to use resources to bargain for Congress support in a last ditch effort to avoid the President's impeachment.

This dispute did not bring major damage to the management of the public finances. However, all these developments increased uncertainty in the economy and inflation rose from 20 per cent a month in April to 25 per cent in October, fuelled by negative expectations which dominated the period, as the economic agents became increasingly pessimist about the government's ability to enact fiscal adjustment. Consumers and businessmen, also scared by negative news, experienced a crisis of confidence, and the recession deepened, also damaging tax receipts.

Such were the conditions of the economy in October 1992 when Vice-President Itamar Franco assumed the Presidency and began to undertake his own policies. His actions to date have indicated that he does not have the perception, the will, the leadership and the support required to lead the country out of the serious problems which remain to be solved. In the economic area, his views, policies and decisions with respect to key issues such as fiscal balance, interest rates, privatization and price controls have been erratic and have added to increased uncertainty. Since assuming the Presidency, he has had four Finance Ministers, whose powers have been reduced after the break-up of the Ministry of the Economy, Finance and Planning in three parts (Finance, Planning and Industry and Trade), immediately after the end of the Collor administration. The board of directors of the Central Bank has also experienced a fast turnover, with the nomination this month — September 1993 — of the third President during Franco's tenure.

As a result of populistic pressures or Franco's own will, fiscal expenditures have increased, the speed of readjustment of nominal wages has gotten faster, real interest rates have been reduced and tariffs of public services have been contained for certain periods. If the fiscal imbalance did not get worsen further, it was a result of improved tax collections following tax laws changes and a recovery of the economy in relation to 1992. An improved control over tax evasion has also helped, inclusive in the area of Social Security. In any case, inflation since October 1992 increased from around 25 per cent a month to rates close to 35 per cent at the moment, and the government is now under pressure "to do something". Fernando Henrique Cardoso, the new Minister of Finance, is figuring out what to do and widespread speculation about what will come is feeling defensive price increases. Political support for the government is shaky as ever, in particular because elections for President, Congress, state governors and state legislatures will be held in October, 1994, and politicians are now playing their traditional game of how to best position themselves for the impending battle.

A Constitutional revision is scheduled to begin in October, 1993, and Minister Cardoso wants to use this opportunity to clear the major constraints that the Constitution has imposed on genuine fiscal adjustment. The immediate task, however, is avoid the aggravation of the fiscal deficit, by trimming the expansive, deficit-increasing 1994 budget, which Congress must vote on by the end of the year. Cardoso's preferred option is to get the fiscal adjustment first — with a tight budget for 1994 and the rapid approval of some constitutional amendments which would facilitate the fiscal adjustment — and then move to a heterodox package, including nominal anchors and the like. Under pressure from rising inflation, from politicians and from the worsening expectations, another option, thus far abhorred by the economic team, is to start with the heterodox measures in the hope that they will create a climate favourable to the approval of the tight 1994 budget and the constitutional amendments deemed necessary for a sustained fiscal adjustment.

The end of the Collor government and the beginning of Mr. Franco's tenure were marked by civic euphoria, because the change was made in an institutional context that worked smoothly, contrary to the Latin American tradition, in general, and Brazilian, in particular. The erratic policies of Mr. Franco, however, soon led to disillusion and his popularity has been consistently falling. As a new President will be inaugurated in 1 January 1995, Mr. Franco's government is under a severe time constraint to act swiftly and in a consistent way to revert its course.

In spite of ending disastrously in impeachment, one cannot deny the accomplishments of the Collor administration in the economic area. The deficit, the debt, the printing of money and inflation were brought down. International reserves were recovered and improved. Advances were also made in the privatization of various state enterprises, in the deregulation of the economy, in exposing it to a higher degree of foreign competition and in freeing the price system from government intervention, while the private sector responded by improving its productivity and becoming more competitive. Very likely these accomplishments will respond for a more favourable historical evaluation of the Collor years, after the negative wave brought by his impeachment recedes.

In the analysis of this section, explicit or implicit reference was made to the importance of political factors in shaping economic outcomes. Thus, for instance, there was the political convenience that led to the strategic errors of avoiding adjustment and stabilization in 1974 and 1979, when the country was hit by oil prices and interest rate shocks; the omnipresent and ever lasting absence of fiscal and monetary discipline, as governments have succumbed to populistic pressures for higher spending; the deterioration of the public finances from 1985 to 1989, which cannot be isolated from the pressures emerging from the process of political liberalization; the increased political power of state and local governments, which has aggravated the fiscal disequilibrium of the federal government, because with increased revenue sharing it has lost revenue without transferring to the states and to the local governments the responsibility for public services it previously paid for with that lost revenue; the electoral climate of 1982, 1986 and 1990, which particularly damaged economic policy; and so forth.

Thus, unless one contents itself with a very naive model of inflation in which fiscal and monetary variables are defined as exogenous, there is an obvious need to treat them as endogenous and to understand the political and institutional forces which shape them. I have not been academically trained for this task. On the basis, however, of my own experience in following economic policy and politics in Brazil during the past three decades, and also building on my on-the-job training as member of the economic team which remained in government from May 1991 to October 1992, I have decided to risk moving the analysis in this direction.

III. Political and institutional factors shaping economic policy in Brazil: The failures and the "contras"

This section goes into additional detail in order to understand the political and institutional constraints facing adjustment and stabilization in Brazil. While the last section took the perspective of analysing problems over time, this section adopts a cross-sectional view, that is, it looks at the factors which at any given point in time are operating in such a way as to bring the outcomes analysed in the previous section. In particular, it looks at political and institutional factors which have had an impact on both the fiscal and monetary areas.

To understand the political constraints that have precluded the successful adoption of tight fiscal and monetary policies that could lead to stabilization in Brazil, we are going to resort to a simple analytical framework. We shall call it the "Chapter 11 model", because we are convinced that the current situation of the Brazilian public sector can be compared to the conditions of a firm close to bankruptcy. As such, the public sector has a chronic disequilibrium between receipts and expenditures — the fiscal deficit — which has generated a debt, both domestic and foreign, that cannot be honoured in the conditions under which it was contracted. The major difference between the government and a private firm facing a similar situation is that in the final analysis the government can resort to printing money to cover its disequilibrium and to accommodate the pressures emerging from the struggle for income and assets distribution among economic agents, in a process that is further stirred by the anxiety and the risks surrounding the Chapter 11 situation and by the recession that has accompanied it. This disequilibrium in the government finances and these pressures are the major sources of inflation.

The external debt has been renegotiated in various opportunities in a continuing process that has not yet been completed. This month, for instance, the final agreement with the private banks has been postponed for three months because the IMF and the Brazilian government could not agree on a stabilization program. In any case, the external debt is a problem whose management is less complicated than the domestic debt. In particular, due to the lack of confidence on the part of domestic creditors, the government's bonds are indexed, have a very short maturity and the Central Bank guarantees their liquidity by its willingness to repurchase these bonds before maturity. As a result, the government's bonds play the role of quasi-money and in this fashion a large part of the money supply — the so-called "indexed money" — is continuously expanding following the indexation of the government's bonds. Moreover, as the private banks are responsible for the rolling over of public debt on the basis of short term deposits received from their clients, they are very much against any measures that would reduce the liquidity of the public debt or extend the maturity of government bonds. They are scared by the possibility that this might lead their customers to rùn out of their deposits and cause damage to the stability of the banking system. As the situation is not solved, the government continues to feed the system with money and indexed money (government bonds), and the bankers profit from being the brokers of the public sector's "Chapter 11" procedures and by collecting part of the "seigniorage" gains that comes as inflation reduces the purchasing power of money and non-indexed or not fully indexed deposits.

In addition to providing a framework for understanding inflation and its dynamics, the model also explains why real interest rates are unusually high in Brazil, which is no surprise in the face of the risks presented by the government as a debtor and by the uncertainty it brings to financial markets, together with the damage done to the supply of savings by the government actions which led to financial assets losses. The same risks, uncertainties and past experiences discourage both domestic and foreign private investment, while the bad shape of the public finances is responsible for the reduction of public investment. Thus, the lack of growth can also be understood within the Chapter 11 framework.

Even the deadlock in solving the "stagflationary" situation by means of sound government policies can be brought within the same context. As in a Chapter 11 situation, there is an exit which essentially involves a combination of increasing revenues, expenditure cutting, debt negotiation, credit recovery, the lease of assets to raise money or their sale to cover liabilities. To deal with the specific problems brought by indexation and by the fact that the government manages the "indexed money", some form of anchor — based on the money supply, the exchange rate, the price and wages system or a combination of them — would be necessary to stop inflationary inertia. But a bold move to undertake these actions requires, first, the perception of the Chapter 11 status; second, the will to solve the problem; third, bold leadership to conduct the process; fourth, strong political support to face the opposition to the harsh measures usually adopted in such circumstances; fifth, competent management of these measures.

In a firm, the opposition comes mainly from shareholders, management, workers, suppliers and creditors. In the case of the government, it comes from society in general, Congressmen, state governors, mayors, ministers, the Judiciary, organized labour, the bureaucracy, businessmen and the media.

As we have pointed out before, at the moment the perception does not exist, the will is lacking, the leadership is weak and there is no political support. President Collor had the perception, the will and the leadership, but he lacked consistency in his policies as seen by his reluctance to sacrifice pet public works projects for the sake of fiscal austerity. Whatever political support he held was exhausted by the harsh measures adopted in the first phase of his stabilization programme, which included the freeze on financial assets and their taxation. After changing the economic team and other ministers, he had a second chance which was to collapse under the corruption charges that led to his impeachment.

President Itamar Franco is short of the political support to get the government out of its Chapter 11 status. Although his government is formed by a wide coalition, the political support for a stabilization program does not go beyond lip service. Sometimes his own "supporters" move to the other direction, as happened recently (in July 1993) when the government's own Congressional leaders voted for a new wage policy which is populist and inflationary, as it increases the rate and the speed by which nominal wages are adjusted to inflation.

The Judiciary is another force to cope with, and this month (October 1993), for example, it struck the government finances with two major blows. First, it declared unconstitutional in the current fiscal year a new tax on financial transactions which the government had established through a constitutional amendment. Second, the courts decided that pensioners of the Social Security System are entitled to US$4 to US$6 billion in back pay following a new interpretation of the rules set by the 1988 Constitution. The government must, of course, follow the law, but some Court decisions on controversial fiscal issues have shown no concern whatsoever with their fiscal impact and have often had a pro-expenditures and anti-tax fiscal bias.

Table 1 provides a sketchy view of the forces which must be reckoned with in any attempt at stabilizing the Brazilian economy. For reference purposes, we shall call them the "contras", as they place themselves against ("contra", in Portuguese) any deep or "revolutionary" attempt to stabilize and adjust the economy in a way which is both rational and consistent with the interests of the country as a whole.

The "contras" described in Table 1 have been grouped into four categories based on how they affect the key components of a stabilization program that could fit the Brazilian conditions. They are, first, a fiscal adjustment targeted at a severe reduction or elimination of the fiscal deficit and comprehensive enough to reduce the debt burden, by means of its renegotiation and though the liquidation of government assets to reduce liabilities, particularly through the privatization of state enterprises; second, a tight monetary policy designed to avoid the active feeding or the passive sanctioning of inflation by means of the money supply; third, some form of nominal anchor which would have to involve an incomes policy consistent with the fundamental measures adopted in the fiscal and monetary areas, to tackle the problem of inflationary inertia as well do reduce the recessive impact of the fiscal and monetary discipline; fourth, as inflation is also pushed by pessimistic expectations with the future rate of inflation, it is important to emphasize the need for the competent "marketing" of the stabilization program to society and the media, in particular to the "contras" found in the latter, specially in the written press.

Table 1. Stabilization policies and the "contras" in Brazil

Policies	"Contras"
Fiscal	The President and his pet projects, ministers, state governors, congressmen, mayors, politicians in general, taxpayers, businessmen, public servants, workers of state enterprises, the judiciary, other groups who benefit from the public expenditures, international lending agencies and their relaxed credit policies.
Monetary and debt	The treasury, state governors and their banks, businessmen, bankers at home and abroad, international lending agencies.
Incomes policies	Organized labour, businessmen, the judiciary, in general, and Labour Courts, in particular.
Expectations	The media, economic analysts, speculators in general.

The utter failure of the stabilization programmes in the past, the successive changes of ministers and economic teams in the wake of these failures, have led to widespread pessimism with respect to any new programme announced, because after so many failures the best predictor of the course of economic policy is another failure. In particular, the media, often fed by the opinions of dozens of economists who survive by trying to forecast the future for businessmen and the banking sector, became contaminated by a negative attitude with respect to the ability of politicians, ministers and economic teams to solve the problem. Lack of confidence is thus a serious problem to overcome.

The list of "contras" presented in Table 1 should be no surprise to those who have a minimum interest in the politics of economic policy. In general, it would fit the situation of any other country facing the need to adopt a comprehensive stabilization package to control a chronic and strong inflationary process. What is unique in Brazil is, on the one hand, an unfortunate sequence of Presidents and political leaders lacking the perception, will, leadership, political support and competent management to defeat the "contras" and, on the other hand, the particular institutional context in which some of these forces have become strongly entrenched, able to advance further and therefore in conditions to defeat repeated attempts to weaken them.

Although it is beyond the scope of this paper to provide a full description of the behavioral attitudes and institutional links by which political forces affect economic policy in Brazil, Table 2 makes reference to the major points.

As seen in Table 2, the problems brought about by the "contras" are aggravated by the fact that many of their trenches are consolidated and defended in the Constitution. This institutional stronghold is unique in Brazil where it is sustained by a very detailed Constitution. Moreover, the battle front ahead of the "contras" is often free of obstacles or defense, thus allowing further advances. For instance, there is no penalty against a state governor who engages in a spending spree financed, directly or indirectly, by its state bank; the Central Bank is not fully equipped to deal harshly with incursions of this sort, and has often bent to pressures; revenue sharing is enshrined in the Constitution, so that whenever the federal government needs more taxes, it has to overshoot the rates increase to make room for the for the revenue to be shared, thus encouraging stronger taxpayer resistance and providing state and local governments with extra cash that is often squandered; the Judiciary branch is constitutionally sovereign in its decisions and a process of checks and balances is virtually non-existent in this area; the Labour Courts, also on the basis of a constitutional mandate, behave in such a way as to have a strong influence

Table 2.a Behaviour and institutions of the "contras"

"Contras"	Behavioral and institutional aspects
Presidents	Lack of perception, will, leadership, support and managerial competence has been a major problem. Five-year term without reelection reduces concern for performance and evaluation. Substitution on account of incompetence is virtually impossible. Vice-presidents have been elected and have become presidents without being exposed and scrutinized in the electoral campaign. Own pet projects and the permanent bargain for support with strong Congress compromises fiscal austerity.
Ministries	Act within the government and under pressure from their bureaucracies (including state enterprises) and vested interest groups, particularly politicians and businessmen.

Table 2.b

"Contras"	Institutional framework in which they act
State governors	Press for grants, loans and loan guarantees; loans received are often defaulted and mayors pressures for favourable renegotiation emerge and, thereafter, the influence on the congressmen that represent their states and regions is translated into bargaining between congressional votes and fiscal grants and loans from the federal financial institutions. Governors have also used their state banks to finance expenditures, thereafter asking the Central Bank to rescue the banks. The Constitution has established a high degree of revenue sharing from the federal taxes, therefore discouraging the state and local leaders's own efforts towards increasing tax receipts. This increased revenue sharing has been a major force enlarging the federal deficit, as expenditures at this level have not been shared in the same manner; constitutional limits on payroll at the state and local levels remain to be enforced.
Congressmen	Concern for national issues is rare; elected by proportional voting (not by districts) within each state, they often represent specific vested interest groups and not a cross-section of them; among the major constituencies: farmers,businessmen, public servants, labour unions under strong influence of public enterprise workers; poorest and most resource-demanding regions are overrepresented in Congress; party loyalty is weak.
Businessmen	Operate through ministers, congressmen, bureaucracies (including state enterprises), governors,mayors and lobbyists; bankers pressure the Central Bank for high interest,liquidity and short-term maturity of government bonds.
Labour and bureaucracy	Concentration of public servants in Brasilia has led to a permanent pressure on the Executive and Congress for higher pay and more fringe benefits; tax-supported unions, legally-guaranteed indexation of wages, constitutionally ascribed fringe benefits and disputes settled by Labour Courts — a Constitutional rule — have discouraged genuine collective bargaining; Labour Courts are a major obstacle to de-indexation of wages and measures adopted in this respect have often backfired after court decisions; state enterprise workers use their strong bargaining power — a result of working for public monopolies or large firms in key industries —, often after having coöpted their directors, to get higher wages and more fringe benefits; retirees and pensioners - now 14.5 million — have become a major pressure group.
Judiciary	Does not have a fiscal concern, as it does not receive a fixed proportion of taxes; shows no solidarity with the Executive's fiscal problems; hierarchical distortions give strong power to low-ranking judges in decisions affecting tax collections; in general, the Judiciary has an anti-government bias in decisions affecting taxes and government expenditures.

Media	Emphasis on "advanced and exciting news" and aggravate expectations. Analysts bet on failures and act in the same direction. Media concentrates attention on denouncements, mistakes and problems, and rarely on successes and solutions, lacking technical expertise in economic issues and policies. Personal or political bias in the judgment of policies, politicians and government officers is often present. Practically no penalties for errors in news or in judgement.

on labour costs, with an impact on nominal wages which is inconsistent both with a price system largely determined by the market forces and with a stabilization programme requiring nominal anchors; the Constitution also establishes rules for widespread job security in the public sector and early retirement by length of service for all workers, making impossible an efficient management of public servants and consolidating a social security system that is unfeasible from the actuarial point of view. Given this picture of disarrayed yet powerful and well entrenched forces infringing on the requirements of adjustment and stabilization programs, contrasting with and the lack of perception, will, leadership, political support and managerial competence to overcome them, it is no surprise that one outside observer has found Brazil in a deadlock and "too messy to be fixed". In any case, this observer added "but too big to be ignored", which might be the reason why we are here at this conference to exchange views with our Indian colleagues.

If one reviews the historical experience of countries which have successfully undergone stabilization and adjustment programs, it can be seen that is by no means an easy task and we Brazilians have yet no reason to beat ourselves in despair, in spite of the particular seriousness of our problems. From past experiences of Brazil and other countries, it is clear is that solutions are either brought by force — such as in Chile, following the Pinochet coup, or even Brazil, in 1964 —, by a collective rational decision — such as in Israel, in 1985 — or by a very deep crisis whose own seriousness precipitates treatment — as it was the case of Argentina and Bolivia, which went through hyperinflation, not to mention the older cases of post-war stabilization and adjustment programs in Europe.

Lacking Brazil at the moment a political and institutional framework for rational collective decisions, as well as strong political figures to solve the deadlock, the most likely scenario is that the country will continue to procrastinate in dealing with its problems until a crisis or a sequence of crises precipitate some form of solution. Of course, an opportunity for a successful collective rational solution might emerge in the remaining year of the present government if by bold action it were to produce an economic program attractive enough to arouse support and conceived and managed well enough to deliver success. Given the fact that the time left is very short, a history of two decades of failures, the political and institutional nightmare described above and the international experience, the scenario is not encouraging. As my expectations are low, would praise the President and his economic team if they could at least avoid the same deterioration of the public finances and inflation which occurred in the final years of the Sarney administration.

This would facilitate the task of the administration that will succeed Mr. Franco's in 1995, after the October 1994 elections. It would be also a great help if the Congress could push the badly needed Constitutional reform, in such a way as to weaken at least partially the "contras" and their institutional framework. In any case, the new administration will face another opportunity for a rational collective solution with higher chances of success because the new President will have more political capital and time to conceive and apply his own program. By this time, however, probably the economic situation will suffer from the uncertainty surrounding the election period, the transition to a new government, and maybe by the actions of the outgoing administration in its final year. This aggravating picture, however, if it materializes, will have the favourable effect of increasing the society's demand for action, thereby also weakening the "contras".

As I contemplate the scenario ahead, my feeling is that the dark clouds are still predominant and that it is more likely that only a worsening picture will precipitate some solution. However, it is necessary to play against the odds and continue to preach rational collective decisions to exit the "Chapter 11" impasse, particularly to avoid abhorred solutions by force and the uncertainty as to what sort of medicine will come with a crisis or a sequence of them.

Macroeconomic adjustment, liberalization and growth: The Indian experience

Deepak Nayyar[1]

I. Introduction

The object of this paper is to consider the macroeconomics of stabilization, adjustment and reform with reference to the Indian experience in the recent past, so as to provide an assessment of the problems and prospects of the economy. Section II considers the origins, the dimensions and the implications of the crisis in the economy situated in a longer-term perspective. Section III outlines the strategy of macroeconomic stabilization, combined with fiscal adjustment and structural reform, adopted by the government in response to the crisis, setting out its rationale, stating its limitations and highlighting its radical departures from the past. Section IV discusses problems of adjustment and transition in terms of a theoretical approach and the actual experience elsewhere. Section V examines the evidence on stabilization, with a focus on the short-term to consider inflation and the balance of payments. Section VI analyses the macro-economics of stabilization and adjustment in the context of the Indian experience. It considers the short-term impact of stabilization on output, the medium-term impact of macro-economic adjustment on the possibilities of growth and on the distribution of benefits or costs in the economy, and some elements of the interdependence between stabilization and adjustment at a macro-level. Section VII, which attempts to explore how economic liberalization may influence supply response in the long-run, provides a critical evaluation of structural reform in terms of problems associated with the speed and the sequence of policy reforms implemented so far, for concrete evidence on actual supply responses is not yet available. Section VIII evaluates the assumptions implicit in the strategy adopted by the government, in particular those about the role of the State vis-a-vis the market. Section IX draws together some conclusions that emerge in an attempt to outline the contours of an alternative view to introduce correctives and to identify strategies for the future.

II. The crisis in the economy

The debt crisis, which surfaced in early 1991, brought India close to the edge of macro-economic collapse. The manifestations of this crisis were by no means unusual. Indeed, they mirrored the experience of several developing countries a decade earlier. A deep fiscal crisis was juxtaposed with an almost unmanageable balance of payments situation and an acceleration in the rate of inflation. For a foreign exchange constrained economy that always lived a hand-to-mouth existence in terms of external resources and relied on foreign capital inflows at

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the margin to finance the process of development, a difficult balance of payments situation was nothing new. This time around, however, the problem was both more acute and more complex. For one, the magnitude of the financing need was much larger. For another, the fragile balance of payments situation coincided with, and was partly the outcome of, a deep macroeconomic disequilibrium. This crisis in the economy, which was not attributable to any significant endogenous or exogenous shock, was bound to disrupt the growth process and endanger price stability.

The origins of the crisis can be traced to the large and persistent macroeconomic imbalances during the 1980s. The widening gap between the income and the expenditure of the government led to mounting fiscal deficits, met by borrowing at home. The steady increase in the difference between the income and the expenditure of the economy as a whole led to persistent current account deficits in the balance of payments, inevitably financed by borrowing from abroad. The internal imbalance in the fiscal situation and the external imbalance in the payments situation were closely related, through the absence of prudence in the macro-management of the economy. The macroeconomics of this relationship can be reduced to a simple proposition based on the national income accounting identity: ex post, the current account deficit in an economy is the sum of *(a)* the difference between investment and saving in the private sector and *(b)* the difference between expenditure and income in the government sector.[2] In retrospect, it appears that the government turned this identity into a strategy for the macro-management of the economy during the 1980s. It sought to use the current account deficit in the balance of payments as a means of financing the excess of investment over saving for the economy in general and the excess of expenditure over income for the government in particular.

The problems associated with these macroeconomic imbalances were sharply accentuated, and perhaps brought forward in time, by the impact of the Gulf crisis on the economy in late 1990. This coincided with an uncertain and disturbed situation in the polity which was followed by a prolonged political interregnum. Taken together, these developments led to a massive erosion of international confidence in India. Credit ratings in international capital markets plummeted. It is clear, however, that the problems of the economy, which reached crisis proportions in 1991, did not come as a bolt from the blue. They accumulated over several years. The economy was able to cope with and adjust to much larger and more sustained oil shocks in 1973 and 1979. Yet, the minor oil shock of 1990 had a disproportionately large impact because the macro-economic situation was already so fragile.

The fiscal crisis was neither an accident nor a coincidence. It was a direct consequence of financial profligacy on part of the government. The gross fiscal deficit of the Central Government, which measures the difference between revenue receipts plus grants and total expenditure plus net domestic lending, was 8.2 per cent of GDP during the second half of the 1980s, as compared with 6.3 per cent of GDP during the first half of the 1980s and 4 per cent

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[2] The simple national income accounting identity $Y = C + I + G + X - M$ can be rewritten as $I - S = M - X$ given that $Y - (C + G) = S$. Let Ip and Sp denote investment and saving in the private sector. Let Ig, Sg, Cg, Eg and Yg denote investment, saving, consumption, expenditure and income respectively in the government sector.

Then : $(I - S)$
$= (Ip + Ig) - (Sp + Sg)$
$= (Ip - Sp) + (Ig - Sg)$

In turn : $(Ig - Sg)$
$= [Ig - (Yg - Cg)]$
$= [(Ig + Cg) - Yg] = (Eg - Yg)$

Therefore : $(M - X) = (Ip - Sp) + (Eg - Yg)$

Table 1. Imbalances and internal debt of the Central Government (as a percentage of GDP at market prices)

Year	Gross fiscal deficit	Revenue deficit	Internal debt	Interest payments	Interest payment as a percentage of central government expenditure
1980-81	6.1	1.5	35.6	2.0	10.0
1981-82	5.4	0.2	35.0	2.0	10.0
1982-83	6.0	0.7	40.1	2.2	11.5
1983-84	6.3	1.2	38.7	2.3	12.4
1984-85	7.5	1.8	42.0	2.6	12.9
1985-86	8.3	2.2	45.5	2.9	13.3
1986-87	9.0	2.7	49.8	3.2	13.5
1987-88	8.1	2.7	51.8	3.4	15.2
1988-89	7.8	2.7	51.7	3.6	16.4
1989-90	7.9	2.6	53.2	3.9	17.4
1990-91	8.4	3.5	53.5	4.0	19.0

Sources: (1) For gross fiscal deficit, revenue deficit and internal debt: Reserve Bank of India, *Annual Report, 1991-92.*
(2) For interest payments as a percentage of GDP: Ministry of Finance, *Economic Survey*, 1990-91 and 1992-93.
(3) For interest payments as a proportion of total central government expenditure: Ministry of Finance, *Economic and functional classification of the central government budget*, annual issues.

of GDP in the mid-1970s.[3] This fiscal deficit had to be met by borrowing, mostly from the central bank and the people of India. The consequences emerge clearly from the evidence presented in Table 1. The internal debt of the government accumulated rapidly, rising from 35.6 per cent of GDP at the end of 1980-81 to 53.5 per cent of GDP at the end of 1990-91. The burden of debt servicing also mounted. Interest payments increased from 2 per cent of GDP and 10 per cent of total central government expenditure in 1980-81 to 4 per cent of GDP and 19 per cent of the total central government expenditure in 1990-91. It is obvious that any growth process based on such borrowing was simply not sustainable. The underlying fiscal crisis was bound to create a situation where the balance of payments situation would become unmanageable and inflation would exceed limits of tolerance. The decision makers then, oblivious to criticism, were convinced that they could borrow and spend their way to prosperity. But the inevitable crunch did come.

The balance of payments situation came to the verge of collapse in 1991. This was only to be expected. The current account deficit doubled from an annual average of \$ 2.3 billion or 1.3 per cent of GDP, during the first half of the 1980s, to an annual average of \$ 5.5 billion or 2.2 per cent of GDP during the second half of the 1980s.[4] These persistent deficits were inevitably financed by borrowing from abroad. The result was a continuous increase in external debt which, Table 2 shows, rose from \$ 23.8 billion or 14.3 per cent of GDP at the end of 1980-81 to \$ 62.3 billion or 22.8 per cent of GDP at the end of 1990-91. Consequently, the debt service burden also rose from 7.9 per cent of current account receipts and 14.9 per cent of export earnings in 1980-81 to 21.7 per cent of current account receipts and 29.8 per cent of

[3] See *Economic Survey 1991-92,* Ministry of Finance, Government of India, New Delhi, Part II, p. 3.

[4] See Reserve Bank of India, *Report on Currency and Finance,* annual issues.

Table 2. Current account deficits, external debt and debt servicing

Year	Current account deficit as a percentage of GDP	Medium and long-term external debt end-of-year		Debt servicing as a percentage of	
		in US$ million	as a percentage of GDP	exports	current account receipts
1980-81	1.2	23.8	14.3	14.9	7.9
1981-82	1.4	24.3	14.3	14.9	7.9
1982-83	1.3	27.9	15.6	14.6	8.7
1983-84	1.1	31.1	16.0	17.2	10.3
1984-85	1.2	31.9	17.1	19.8	11.7
1985-86	2.3	37.0	17.4	26.7	15.9
1986-87	2.0	43.8	19.4	39.4	31.0
1987-88	1.9	50.8	19.5	41.3	26.4
1988-89	2.6	53.5	21.1	38.9	25.4
1989-90	2.2	57.7	21.6	31.1	21.5
1990-91	2.3	62.3	23.8	29.8	21.7

Notes: (a) The data on medium and long-term external debt reported in this table include external assistance from bilateral or multilateral sources on government account and non-government account, drawings from the IMF, external commercial borrowing and outstanding non-resident deposits.

(b) The data on debt servicing in this table are derived from balance-of-payments statistics as the sum of amortization payments and interest payments. The figures on debt servicing reported by the Ministry of Finance or the Reserve Bank of India for this period underestimate the burden by a significant proportion because of the incomplete coverage of external debt statistics.

(c) The current account deficit-GDP ratios and the external debt-GDP ratios are based on the rupee values of the current account deficit during each fiscal year and the outstanding medium and long-term external debt at the end of each fiscal year, expressed as a percentage of GDP at current market prices (data on GDP are from CSO *National Accounts Statistics*).

(d) The debt-service indicators are based on the rupee value of debt servicing expressed as percentage of the rupee value of exports and of current account receipts (data on exports and current account receipts are from RBI balance-of-payment statistics).

Sources: For current account deficit: Reserve Bank of India: *Report on currency ad finance*, annual issues.
For medium and long-term external debt: Report of the Economic Advisory Council: *The current economic situation and priority areas for action*, Government of India, New Delhi, December 1989, p.s-9 (for the period 1980-81 to 1983-84); and Reserve Bank of India: *Annual Report, 1991-92*, p. 214 (for the period 1984-85 to 1990-91).
For debt servicing: Ministry of Finance: *Economic Survey*, annual issues; and Reserve Bank of India: *Report on currency and finance*, annual issues.

export earnings in 1990-91. These strains, which mounted over the years, stretched to breaking point on account of the Gulf crisis. The balance of payments lurched from one liquidity crisis in mid-January 1991 to another in late-June 1991. On both occasions, foreign exchange reserves dropped to levels that would not even have sufficed to finance imports for a fortnight.[5]

The vulnerability of the balance of payments was accentuated by two other factors. First, it became exceedingly difficult to roll-over the existing short-term debt in the range of

[5] The level of foreign exchange reserves was $ 1.2 billion in mid-January 1991 and $ 1.1 billion in end-June 1991; seen Reserve Bank of India, *Bulletin*, monthly issues.

Table 3. Monetized deficits, monetary expansion and inflation

Year	Monetized deficit as a percentage of GDP	Money supply (M3) percentage growth per annum	Inflation per cent per annum
1980-81	2.6	18.3	17.7
1981-82	2.0	12.8	9.3
1982-83	1.9	16.7	4.9
1983-84	1.9	18.1	7.6
1984-85	2.6	18.9	6.4
1985-86	2.4	15.9	4.5
1986-87	2.4	18.6	5.7
1987-88	2.0	16.0	8.2
1988-89	1.6	21.9	7.5
1989-90	3.0	19.4	7.5
1990-91	2.8	15.1	10.3

Note: The data on inflation are based on the average-of-period increase in the wholesale price index.

Sources: Reserve Bank of India: *Annual Report* and *Report on currency and finance*, annual issues.

$ 6 billion, because of adverse international perceptions of the situation, and overnight borrowing in international capital markets was as much as $ 2 billion.[6] Second, non-resident deposits, where the outstanding amount then was more than $ 10 billion, levelled off in September 1990 with a modest net outflow of $ 0.3 billion in the period October 1990 - March 1991 and a massive net outflow of $ 1.3 billion in the period April 1991-September 1991.[7] It is clear that if expectations had worsened any further the short-term debt would have been called in and there would have been a run on non-resident deposits.

India thus came close to default. The government was indeed reduced to last-resort measures such as using stocks of gold to obtain foreign exchange, seeking emergency bilateral assistance from donor countries and borrowing under special facilities from multilateral financial institutions. It is obvious that the soft options adopted by the government in the second half of the 1980s claimed their pound of flesh. Instead of introducing real correctives, the short-term debt was incurred mostly to finance imports of petroleum, while non-resident deposits and borrowing in international capital markets were used to sustain import liberalization and defence purchases. The rapid pile up of external debt and the increased burden of debt servicing ultimately eroded international confidence in India's capacity for repayment.

The price situation also came under mounting pressure. The rate of inflation, in terms of the wholesale price index, climbed from less than 5 per cent in 1985-86 to more than 10 per cent in 1990-91. The evidence presented in Table 3, however, suggests that price behaviour was not obviously related to monetized deficits, which were on an average larger than 2 per cent of GDP, or monetary expansion, which was on an average about 17 per cent per annum, throughout the 1980s.[8] It must be recognized that rates of inflation in India have always been

[6] The data on the magnitude of short-term debt were published, for the first time, in the *Report of Policy Group and Task Force on External Debt Statistics of India*, Reserve Bank of India, Bombay, 1992.

[7] See *Economic Survey 1991-92*, Ministry of Finance, Government of India, New Delhi, Part II, p. 61.

[8] The monetized deficit averaged 2.2 per cent of GDP during the period 1980/1 - 1984/5 and 2.3 per cent of GDP during the period 1985/6 - 1989/90. The average annual growth in broad money, M3, was 16.7 per cent and 17.6 per cent respectively in the same periods. See *Economic Survey 1990-91*, Ministry of Finance, Government

strongly influenced by exogenous shocks such as oil price increases or endogenous shocks such as bad monsoons, while real disproportionalities have always been an important underlying factor. At the end of the 1980s, however, when food prices rose in spite of three good monsoons in a row, the build-up of inflationary pressures was also attributable to the large fiscal deficits and an excessive growth in money supply. This liquidity overhang accumulated over several years, in conjunction with structural rigidities and underlying supply-demand imbalances, carried a potential for accelerating inflation.

In retrospect, it is clear that the macroeconomic disequilibrium which plunged the economy into a crisis situation was, in a fundamental sense, attributable to the mounting imbalances in the fiscal system. In the 1980s, the fiscal regime shied away from domestic resource mobilization as direct taxes were progressively reduced while indirect taxes, which already contributed the bulk of tax revenues, could not be raised any further for fear that it would be inflationary or regressive or both.[9] The inadequate resource mobilization effort was compounded by a profligate increase in public expenditure, whether transfer payments in the form of explicit subsidies, a spending spree on defence or unbridled consumption expenditure, which was at least partly a consequence of the competitive politics of populism.[10] It is no surprise that total expenditure outpaced revenue receipts and fiscal deficits grew steadily larger.

The root cause of the fiscal crisis, however, lies in the fact that revenue expenditure outpaced revenue receipts. For the central government, the small but consistent revenue surplus of the 1970s was transformed into a revenue deficit that averaged 1.1 per cent of GDP in the period 1980/1-1984/5 and 2.6 per cent of GDP in the period 1985/6-1989/90[11]. The financing of this revenue deficit through borrowing meant that borrowing was used to support consumption expenditure. Given the existence of capital expenditure on defence, and in the social sectors, which did not fetch tangible returns, rates of return on public investment elsewhere had to be extraordinarily high for it to yield a net income flow to the exchequer. Beyond a point, such a fiscal regime was simply not sustainable. Unfortunately, there were no constraints on domestic borrowing by the government. In effect, automatic borrowing from the central bank at low interest rates and pre-emptive borrowing from the commercial banking system (based on the high statutory-liquidity-ratio) at modest interest rates was not subject to any stipulated limits.

At the same time, given India's credit worthiness and low exposure in international capital markets, direct and indirect borrowing abroad by the government, to finance the current account deficit during the 1980s, was also relatively easy. In principle, such a process of financing development is sustainable if external resources and are used to support investment rather than consumption, provided there is an adequate rate of return on such investment in terms of domestic resources and the economy raises its capacity to transform domestic resources into

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of India, New Delhi, p. 100 and p. 124.

[9] The share of direct taxes in the total revenues of the central government dropped from about 25 per cent in the late 1970s to less than 20 per cent in the late 1980s, so that the share of indirect taxes rose from about 75 per cent to more than 80 per cent. Revenues from direct taxes collected by the central government were the equivalent of around 2.5 per cent of GDP in the late 1970s and 2.1 per cent of GDP in the late 1980's. On the other hand, revenues from indirect taxes collected by the central government were the equivalent of around 7 per cent of GDP in the late 1970s and 9 per cent of GDP in the late 1980s ; see *Indian Public Finance Statistics 1992,* Ministry of Finance, Government of India, New Delhi, pp. 28-31.

[10] The total expenditure of the central government increased from 16 per cent of GDP in 1980-81 to 20 per cent of GDP in 1985-86 and stayed somewhat above that level through the second half of the 1980's (these proportions have been calculated from data on expenditure in the *Economic and Functional Classification of the Central Government Budget* and *National Accounts Statistics,* annual issues).

[11] See *Indian Public Finance Statistics 1992,* Ministry of Finance, Government of India, New Delhi, pp. 34-35.

foreign resources. This should have been possible in an ideal world particularly if, for a given level of domestic savings, the government raised the level of investment by an amount equal to the inflow of external resources. The actual experience in India during the 1980s did not meet most of these conditions. External resources were used, in part, as a substitute for domestic resources because the fiscal crunch forced the government to finance not just the import-costs but also the local-costs of investment from these inflows. What is more, external resources were used in part to support consumption and only in part to augment investment. The most obvious example, perhaps, was the use of short-term borrowing to finance imports of petroleum, fertilizers and edible oils in the late 1980s; the alternative would have been to curb imports or run down reserves. It is also possible that medium-term borrowing which provided balance of payments support for import liberalization may have created avenues for import- intensive consumption. In either case, whether domestic resources were not mobilized sufficiently for public investment or public expenditure on consumption was not controlled adequately, borrowing abroad became a soft option for the government. It is, therefore, plausible to argue that, in the presence of foreign capital inflows, *actual* public savings were lower than *potential* public savings.[12]

In this context, it is important to stress that the origins of the crisis lie in the cavalier macro-management of the economy during the 1980s and not, as claimed by some, in a misplaced strategy of development since the mid-1950's. Given the complexity of the Indian development experience over the past four decades, it would be idle to pretend that everything we did was right but it would be naive to suggest that everything we did was wrong. The reality was a mix of the good, the bad and the indifferent. It would mean too much of a digression to enter into a discussion of these issues here. Suffice it to say that there were both successes and failures. In a long-term perspective, the most important achievement was the significant step-up in savings, investment and growth, which provided a sharp contrast with the near-stagnation in the colonial era particularly during the first half of the twentieth century. This was combined with the development of a diversified industrial sector and a sustained expansion in agricultural output which ensured food security, but it did not lead to a significant reduction in absolute poverty. The most important shortcomings, situated in a long-term perspective, were the neglect of human resources, agrarian reform and exports. The declining productivity of investment and the lack of international competitiveness emerged as problems that required a reformulation of policies and a restructuring of the economy.[13] These problems, however, were not simply about resource allocation or relative prices. Resource utilization at a micro-level was a crucial determinant of efficiency, just as resource mobilization at a macro-level was a crucial determinant of growth. In my judgement, the shortcomings that persisted in the long-run and the problems that emerged in the medium-term were both a cause for concern but did not precipitate the crisis in the economy. It was the fiscal mess which began in the early 1980s and the debt crisis which surfaced in the early 1990s that pushed the economy into an awkward corner. For it is obvious that neither the government nor the country could continue to live beyond its means year after year. Indeed, by early 1991, the room for manoeuvre to live on borrowed money or borrowed time had been completely used up.

[12] There is an extensive literature on this subject which considers the impact of foreign capital inflows on domestic savings in terms of both theory and evidence. See, for example, Griffin (1970) and Weisskopf (1972).

[13] Bhagwati and Desai (1970), followed by Bhagwati and Srinivasan (1975), were among the first to provide an elaborate critique of industrialization India, from a neoclassical perspective, suggesting that the policy framework led to economic inefficiency and resource misallocation while the cumulative effect of these policies became an obstacle to growth.

III. The response and the strategy

In response to the crisis situation, the government set in motion a process of macroeconomic stabilization combined with fiscal adjustment and structural reform, not simply to extricate the economy from the mess but also, it is argued by some, to catapult it into a golden age. It needs to be said that this strategy is nothing new. It broadly replicates the response of several developing countries in Latin America and Sub-Saharan Africa to the debt crisis in the 1980s, which was also guided by IMF programmes of stabilization and World Bank programmes of structural adjustment. For an assessment, however, it is necessary to outline the rationale and the content of the strategy adopted, as this would enable us to situate the approach in its wider context and highlight the departures from the past.

In any programme of macroeconomic stabilization, there are two fundamental objectives. The first object is to pre-empt a collapse of the balance of payments situation in the short-term and to reduce the current account deficit in the medium-term. The second object is to curb inflationary pressures and expectations in the short-term and to reduce the rate of inflation as soon as possible thereafter. The principal instruments of stabilization are fiscal policy and monetary policy, often used in conjunction with a devaluation, which seek to reduce the level of aggregate demand in the economy, as also stem destabilizing expectations, on the presumption that the problems are attributable to rising fiscal deficits, the associated monetary expansion and an unsustainable exchange rate. This provided the rationale for depreciating the rupee, reducing the fiscal deficit of the government and adopting a tight monetary policy.[14]

It should be recognized that these are the essential components of orthodox stabilization programmes drawn up as part of an arrangement with the IMF. The orthodoxy, however, is based on a set of assumptions that are disputable in terms of economic theory and refutable in terms of actual experience.[15] A reduction in the fiscal deficit may not lead to a corresponding reduction in the current account deficit for the outcome depends on how the reduced absorption at a macro-level is distributed between traded goods and non-traded goods. A monetary squeeze may not reduce rates of inflation if price behaviour is determined by structural rigidities or real disproportionalities. The mode of macroeconomic adjustment is by no means certain. In the presence of wage-price rigidities, output adjustments are more likely than price adjustments. Thus the deflation associated with stabilization may lead to a contraction in output rather than a reduction in prices. What is more, in the short-run, a substantial devaluation may have an inflationary impact on prices and a contractionary effect on output. The outcome, then, may be stagflation instead of stabilization.

Such questions, however, are about means rather than ends. In a situation of deep macro-economic disequilibrium, stabilization is an imperative. The Indian economy did, in fact, experience two stabilization episodes in response to exogenous shocks, which were a

[14] The exchange rate adjustments in July 1991 led to a depreciation of the rupee vis-a-vis the US dollar by 23.3 per cent and vis-a-vis the SDR by 21.7 per cent. There was a further depreciation of the rupee implicit in the introduction of a dual exchange rate system in March 1992 and the subsequent unification of the exchange rate in March 1993. Consequently, between end-June 1991 and end-June 1993, in nominal terms, the rupee depreciated by 50 per cent vis-a- vis the US dollar and per cent vis-a-vis the SDR (calculated from data on exchange rates published by the Reserve Bank of India in its *Annual Reports).* The gross fiscal deficit of the central government was reduced from 8,4 per cent of GDP in 1990-91 to 6.2 per cent of GDP in 1991-92 and 5.7 per cent of GDP in 1992-93 (Table 8). There was a significant tightening of monetary policy in 1991-92 as part of which the minimum interest rate on lending by commercial banks was raised to 18.5 per cent per annum but this has been lowered in stages since then (for details, see Reserve Bank of India, *Annual Reports).*

[15] For an elaborate and systematic critique, see Taylor (1988).

consequence of oil price increases, during the mid-1970s and the early 1980s. This time around, however, the crisis was not confined to the balance of payments and stabilization was not dictated by any exogenous or endogenous shock. All the same, the pursuit of stabilization does not represent any departure from the past. On the contrary, it represents an attempted return to prudence in macro-management of the economy which, except for the profligacy in the 1980s, was the rule in independent India.

In response to a debt crisis, stabilization is often combined with adjustment and reform. Such programmes of structural adjustment, based on policy reform advocated by the multilateral financial institutions, are concerned with the supply side in an endeavour to raise the rate of growth of output. Structural reform seeks to shift resources : *(a)* from the non-traded goods sector to the traded goods sector and within the latter from import competing activities to export activities; and *(b)* from the government sector to the private sector. Apart from resource allocation, structural reform seeks to improve resource utilization by : (i) increasing the degree of openness of the economy : and (ii) changing the structure of incentives and institutions, which would reduce the role of state intervention to rely more on the market place, dismantle controls to rely more on prices, and wind down the public sector to rely more on the private sector.

The underlying presumption is that industrialization based on import substitution and state intervention leads to inefficient resource allocation and resource utilization. Orthodox economic theory in the neoclassical tradition provides the theoretical basis for this approach, but it should be recognized that the analytical construct is narrow. Success at industrialization is not only about resource allocation and resource utilization at a micro-level. It is as much, if not more, about resource mobilization and resource creation at a macro-level. The excessive concern with resource allocation, in terms of static allocative efficiency criteria, and resource utilization, in terms of competition through de-regulation and openness, is perhaps misplaced. Significant new developments in the neoclassical tradition, whether in industrial economics or in trade theory, are almost ignored when such analysis is applied to problems of industrialization and development. Hence this approach, which is static rather than dynamic in conception, tends to ignore inter-temporal considerations and does not quite incorporate increasing returns, market structures or externalities which are inherent in any process of industrialization. The emphasis on resource allocation or relative prices, in conjunction with a focus on policy regimes or on the cost and the quality of output, is important but disproportionate and serves a limited purpose. For it fails to recognize that policy regimes are permissive rather than casual factors underlying economic performance, which are at best necessary conditions but under no circumstances sufficient conditions in the restructuring of economies.

In conformity with the orthodoxy, the government has embarked on a wide ranging reform of the policy regime.[16] Trade policy reform has eliminated most quantitative restrictions on imports, except for consumer goods, and progressively reduced tariff levels. The desire to increase the degree of openness of the economy extends beyond trade flows to capital flows and technology flows. The liberalization of the regimes for foreign investment and foreign technology is intended to expose domestic firms to international competition further. Industrial policy reform, which has removed barriers to entry for new firms and limits on growth in the size of existing firms, seeks to cut out state intervention in investment decisions. This process

[16] The policy reform is described, at some length, in the *Economic Survey* published by the Ministry of Finance and the *Report on Currency and Finance* published by the Reserve Bank of India. For details, see *Statement on Industrial Policy,* Ministry of Industry, New Delhi, 24 July 1991; *Statement on Trade Policy,* Ministry of Commerce, New Delhi, 13 August 1991; and *Export and Import Policy*: April 1992-March 1997, Ministry of Commerce, New Delhi, 31 March, 1992. For an overview, see also *Economic Reforms: Two Years After and the Task Ahead,* Ministry of Finance, Government of India, New Delhi, July 1993.

is sought to be reinforced by deregulation in the financial sector of the economy, so that the allocation and utilization of investible resources is left to the market. Public sector reform is limited so far, and does not address any of the real maladies, but the intention to reduce its role is clear enough.

It is clear that the structural reforms implemented by the government, combined with further reform on the anvil, represent a radical departure from the development strategy of the past four decades, even though this is not India's first experiment with economic liberalization. The first attempt was a shortlived episode of hesitant liberalization in the mid-1960s which coincided with a substantial devaluation of the rupee. The second endeavour came in the late 1970s with a focus on trade liberalization in a comfortable balance of payments situation. The third step was the package of economic policies introduced in the mid-1980s when liberalization of the trade regime gathered momentum and the process of industrial deregulation was set in motion. These liberalization episodes were perceived as correctives for an industrializing economy in transition but did not contemplate any fundamental changes in the objectives or the strategy of development. This time around, however, the changes are significant enough to be characterized as a shift of paradigm.[17]

The role of the State in the process of economic development is being substantively reduced. The government would no longer guide the allocation of scarce investible resources through industrial licensing or the financial sector. Public investment, it is now believed, pre-empts scarce resources at the expense of private investment and does not perform the role of a catalyst. The large share of the public sector in investment and output, it is argued, should be progressively reduced because it is responsible for inefficient resource utilization and constitutes a drain on the exchequer. At the same time, the degree of openness of the economy is being significantly increased. The object is not simply to enforce a cost discipline on the supply side through international competition, but also to narrow the difference between domestic prices and world prices. It is hoped that this would lead to an integration of the structure of production in the domestic economy with the international division of labour in the world economy. Foreign capital and foreign technology are expected to perform a strategic role in this process. In sum, the core of the new paradigm is that economic activity should not be guided by physical controls or state intervention. Instead, decisions about investment, production and consumption should be based on relative prices and the market mechanism, so that world prices are, ultimately, the basic determinant of resource allocation. The consequent restructuring of the economy, it is presumed, would impart both efficiency and dynamism to the growth process. This agenda for reform simply does not address the two most important failures that emerge from the Indian development experience in a long-term perspective: the neglect of human resources and the neglect of agrarian reform. In this context, it is worth noting that the spread of education in society and institutional reform in the agricultural sector of the economy have been, in a sense, necessary conditions for successful capitalist development among the late industrialisers in Asia.

[17] The rationale for the economic reforms introduced over the past two years, and the necessity of departures from the earlier strategy of development, is set out, at some length, by Bhagwati and Srinivasan (1993).

IV. Problems of transition

In any process of stabilization, adjustment and reform, economies experience problems of transition so that their return to a path of sustained growth combined with price stability is not assured. It is possible to consider such problems of transition at two levels. First, in terms of analysis, we can consider such problems that arise from the interaction between the demand side and the supply side, problems that arise largely on the demand side and problems arise mostly on the supply side. Second, in terms of actual experience, there are problems which emerge from IMF programmes of stabilization and World Bank programmes of structural adjustment in Latin America and Sub-Saharan Africa. The distribution of the burden of adjustment, in the process of transition, is a problem that surfaces at both levels.

The fundamental problem of transition arises from the fact that the speeds of adjustment on the demand side and on the supply side are considerably different. Fiscal adjustment and monetary discipline can be used to squeeze aggregate demand so that, in response to deflation, the speed of adjustment on the demand side is fast. The response of demand to expansionary fiscal and monetary policies is just as rapid. On the other hand, the speed of adjustment on the supply side is inevitably slow, because resources are not perfectly mobile across sectors or substitutable in uses, and prices, particularly of factors, are not completely flexible. This is so even if all the price incentives of a market economy can be brought to perfect function. The problems are accentuated in economies characterized by structural rigidities which obviously constrain the response to structural reforms. Supply adjustment based on an expansion of output requires structural change through creation of capacity, alleviation of infra-structural bottlenecks, streamlining of input supplies, reorientation of public utilities, and so on, all of which take time. In contrast, supply adjustment based on a contraction of output is, in some instances, as rapid as demand adjustment. Therefore, the dynamics of demand are fast in both expansion and contraction, whereas the dynamics of supply are slow in expansion but faster in contraction. These asymmetries have four macro-economic implications which are crucial in the process of stabilization and adjustment.

First, stabilization policies which are meant to reduce demand may, at the same time, reduce supply even more, for the simple reason that a substantial fiscal adjustment and a tight monetary policy squeeze both investible resources and working capital. As the economy contracts from both sides, the current account deficit may possibly be reduced but inflation would not be restrained. Second, insofar as aggregate demand remains greater than aggregate supply, or the sectoral composition of demand does not match the sectoral composition of supply, and balance of payments constrains prevent excess demand from being met through imports, inflation persists. Third, the initial effects of structural reform particularly in situations where the balance of payments constraint is binding, may lead to a contraction of output in some sectors before an expansion of output in other sectors. This tends to increase excess demand in the system and exacerbates the problem of inflation. Fourth, fiscal contraction and monetary discipline which squeeze aggregate demand in the short-term may constrain supply responses in the medium-term. Yet, without a foundation of macro-economic stabilization in the short-term, policy reform simply cannot produce the desired results in the medium-term. This is the crux of the problem when economies begin on adjustment processes in a situation of deep macro-economic disequilibrium.

On the demand side, the optimistic scenario implicit in IMF stabilization programmes is that inflation would come down and the current account deficit would be reduced, while the economy would adjust at a macro-level through a fall in prices and a rise in output. This outcome, however, is by no means certain. It is not necessary that fiscal austerity and monetary discipline reduce both the current account deficit and the rate of inflation. Reduced fiscal deficits do not always translate into reduced current account deficits if the impact of the consequent deflation is largely on the non-traded goods, so that reduced domestic absorption may not stimulate exports and dampen imports. A credit squeeze combined with high interest rates does not always curb inflation if inflationary pressures and expectations are influenced not only by excess liquidity but also by real disproportionalities or structural rigidities, and if price formation is based on mark-ups, administered-pricing and cost-indexation rather than market-clearing.[18] The impact of macro-economic adjustment on output, from the demand side, is also crucial. In principle, adjustment is possible either through an increase in output or through a decrease in expenditure. In practice, however, economies in crisis are likely to be output-constrained, for if increments in output were easily obtainable countries would not readily forego output and borrow to meet expenditure. Economic retrenchment, in which countries are forced to cut expenditures, is thus the more probable outcome.[19] This tends to impact on output through aggregate demand and, if there are wage-price rigidities, the mode of macroeconomic adjustment may then be a reduction in output rather than in prices. At the same time, a significant devaluation, which is often an integral part of stabilization programmes, may exacerbate the rise in prices and reinforce the contraction in output at least in the short-run. Devaluations escalate inflation directly through cost-push and indirectly through mark-ups. The consequent cut in real wages, and the possible deterioration in terms of trade following a devaluation, may reduce real income in the economy leading to a contractionary effect on output.[20] It would appear that the transition path to stabilization is like walking a tight rope. If inflation does not slow down or the balance of payments does not stabilize, the intended virtuous circle is easily transformed into an unintended vicious circle, as the exchange rate and the price level chase each other. In these situations, particularly where the mode of macroeconomic adjustment is a contraction of output, stagflation is a probable scenario.[21]

On the supply side, the optimistic scenario implicit in liberalization programmes guided by the Bretton Woods institutions is that structural reform would impart both efficiency and dynamism to the growth process in the medium-term. The transition from stabilization to growth, however, is by no means assured. The sequence and the pace of re-structuring must be such that it can be absorbed by the economy. If this is not the case, things can go wrong. Trade policy reform may stimulate output by creating economic efficiency gains, but it can also move an economy from a situation of too much protection to a situation of too little protection and if the manufacturing sector is unable to cope with such a rapid transition the outcome may be forced de-industrialization. Industrial de-regulation which removes barriers to entry and limits on growth may increase competition among firms and improve resource utilization, but it often leads to retrenchment or closures and cannot wish away barriers to exit, particularly in economies where levels of income are low, levels of unemployment are high and social safety nets are absent. De-regulation in the financial sector, unless it is paced with care, can be perilous not just in terms of bubbles that burst or scandals that surface, but also if it diverts scarce resources from productive uses into speculative activities. Public sector reform, which is based on a sale of government assets and rudimentary forms of privatization, may not resolve

[18] For a discussion of alternative hypotheses about inflation, see Taylor (1988).

[19] See Cooper (1992), pp. 49-57.

[20] For an analysis of the possible contractionary effects of a devaluation, see Krugman and Taylor (1978).

[21] This did happen in Latin America where the 1980's are, in retrospect, described as the lost decade. Many countries in Eastern Europe, in their process of transition from planned systems to market economies, are experiencing similar difficulties.

the real problems of efficiency or productivity but can end up socializing the costs and privatizing the benefits. Given an unequal income distribution and the associated patterns of demand, industrial de-regulation, in conjunction with more open trade regimes and liberal foreign investment policies, may lead to a greater import intensity of domestic consumption and thus enlarge the current account deficit. If export performance is sluggish or does not respond fast enough, the economy may be forced into more borrowing or further deflation. Therefore, the content, the sequence and the speed of policy reform must be planned and calibrated in a careful manner, such that it recognizes structural rigidities where they exist instead of assuming structural flexibilities where they do not exist. In sum, supply responses may be induced but cannot be assured by policy regimes alone, for resources are neither as substitutable in use nor as flexible in price as neoclassical economics suggests.[22]

The actual experience of stabilization, adjustment a reform programmes in Latin America and Sub-Saharan Africa, guided by the IMF and the World Bank in a medium-term perspective, also reflects problems of transition. The critical evaluation of these programmes in the literature on the subject points to significant dangers.[23] First, almost without exception, there is an adverse impact on poverty insofar as the burden of adjustment is borne largely by the poor. Second, these programmes tend to stifle long-term growth prospects so that a return to the path of sustained growth is often a hope rather than a reality. Third, such programmes tend to overestimate export prospects and the availability of external finance, and when this does not materialize, economies are forced into a deflation that imposes social costs and squeezes supply responses. Fourth, there is a steady externalization of policy formulation. For one, responsiveness to changing and evolving situations is significantly reduced as policy prescriptions are characterized by an analytical absolutism: if you have a balance of payments problem the answer lies in liberalizing trade and if you have a fiscal crisis the answer lies in reducing tax rates. For another, sensitivity to social and political realities in sharply eroded as national policies are shaped without reference to the context.[24] In evaluating the experience across countries, it is difficult to define and then identify 'success' or 'failure' because actual outcomes span a wide spectrum from moderate successes at one end to real disasters at the other. But the diverse experiences do establish that the transitions from crisis to stabilization and from stabilization to growth are characterized by a discernible set of problems.

Macroeconomic adjustment and structural reform are not simply a matter for the drawing board. In the period of transition, these processes impose a burden of adjustment that is distributed in an asymmetric manner. Without correctives, the burden of adjustment is inevitably borne by the poor. For all the rhetoric about social safety nets, economies in crisis simply do not have the resources for this purpose. It cannot suffice to assert, as government often do, that the burden of such adjustment would have to be borne by the affluent simply because it is the

[22] See Taylor (1988) and Cooper (1992).

[23] There is an extensive literature on this subject. See, for example Williamson (1983), Killick (1984), Taylor (1988) and Williamson (1990).

[24] In the policy based lending programmes of multilateral financial institutions, conditionalities begin with the classical areas of economic policy, but then extend to social institutions such as civil service systems or legal frameworks and political areas such as governance, human rights and democracy. In an evaluation of policy based assistance to developing countries led by the adjustment based lending of the World Bank, Yenal (1992) observes: "Designing economic and social policies — an avocation which can also be called policy engineering — provides immense satisfaction for all those interested in economics and politics... Soon the policy engineer finds himself attempting to do nothing short of what political leaders are supposed to do. This, of course, is a grave mistake... this can open the door to what some have called neocolonialism and the imposition of external governance on what has to be national policies." The author of the cited passage, it is worth noting, is the Resident Representative of the World Bank in India.

Table 4. Annual rates of inflation: 1989-90 to 1992-93

	1989-90	1990-91	1991-92	1992-93
Point-to-point				
Wholesale price index	9.1	12.1	13.6	7.0
Consumer price index for industrial workers	6.6	13.6	13.9	6.1
Consumer price index for urban non-manual employees	8.0	13.4	13.6	6.8
Consumer price index for agricultural labourers	1.0	16.6	21.9	0.7
Average-of-period				
Wholesale price index	7.5	10.3	13.7	10.0
Consumer price index for industrial workers	6.6	11.2	13.5	9.9
Consumer price index for urban non-manual employees	6.9	11.0	13.7	10.5
Consumer price index for agricultural labourers	5.4	7.6	19.3	12.4

Sources: Office of the Economic Adviser, Ministry of Industry, for wholesale price index. Labour Bureau, for consumer price indices for industrial workers and agricultural labourers. CSP, for consumer price index for urban non-manual employees.

rich who have the incomes to immunize themselves from the burdens of structural change. It is obvious that there can be no adjustment without pain, but pain for whom ? Surely, in keeping with the equity principle, the costs must be borne by those who enjoyed the pleasures derived from profligacy. Reality turns out to be the opposite. Inflation tends to make the rich better off as it redistributes incomes from wages to profits and the poor worse off as it erodes their incomes which are not index-linked. The soft options in fiscal adjustment tend to squeeze public expenditure in social sectors where there are no vocal political constituencies, as the resources allocated for poverty alleviation, health care, education and welfare programmes decline in real terms. Restructuring on the supply side, which follows structural reform, inevitably imposes a burden on wage labour. Such outcomes, borne out by evidence available, can only hurt the poor.[25] Adjustment with a human face is then an illusion.

V. *The evidence on stabilization*

The process of macroeconomic stabilization was set in motion two years ago. Thus the evidence available so far is limited and incomplete. But there is some cause for concern about stabilization, whether we consider the problem of inflation or the balance of payments situation.

The facts on inflation deserve careful consideration. There was a discernible increase in the

[25] For evidence on the impact of structural adjustment on the social sectors, nutrition, health and living standards in developing countries, see Cornia, Jolly and Stewart (1987).

rate of inflation, irrespective of how we measure it, during 1991-92.[26] This was partly a consequence of the stabilization policies themselves for reasons which are explained below. The price increase in essential commodities and the inflation in general was also accentuated by the uneven monsoon and the poor harvest in 1991-92.[27] There was, however, a significant decline in the rate of inflation in 1992-93, on a point-to-point basis, in terms of the wholesale price index as also the consumer price indices. Indeed, the data presented in Table 4 show that the inflation rate in 1992-93, so measured, was clearly in the single-digit range, distinctly lower than it was in 1990-91 or 1991-92 and slightly lower than it was in 1989-90. It is these trends which have been emphasized by the government. But this must be interpreted with caution for two reasons. For one, the stabilization policies introduced in July 1991 pushed up the rate of inflation in the second half of 1991 and the first half of 1992 so that point-to-point rates now show a decline in comparison with the those high price levels. For another, the measurement of inflation on a point-to-point basis is somewhat deceptive because it tends to overstate both the acceleration and the deceleration in inflation. It would, therefore, be more appropriate to examine trends in inflation on an average-of-period basis. This evidence, also presented in Table 4, does not suggest a real turn around. The inflation rate in 1992-93, measured on an average-of-period basis, was at a double-digit level, somewhat lower than in 1991-92, about the same level as in 1990-91 and discernibly higher than in 1989-90, whether we consider the wholesale price index or the consumer price indices. Clearly, the slowdown in the average rate of inflation is much less than what point-to-point rates suggest.

The factors underlying price behaviour also merit scrutiny. The government claims that its stabilization policies have played an important, if not leading role in arresting inflation.[28] It is not clear how. Indeed, these policies probably exacerbated inflation during 1991-92. In principle, the substantial fiscal adjustment together with the tight monetary policy should have led to a contraction of aggregate demand and thus dampened demand-pull inflation. However, the impact may have been reduced insofar as the real disproportionalities underlying the inflationary pressures persisted. But that is not all. The nature of the fiscal adjustment was bound to fuel cost-push inflation, when subsidies were cut as on fertilizers, administered prices were raised as for petroleum products, or user-charges were hiked by public utilities as for electricity. The tariff reform, which reduced customs duties across-the-board, was sought to be made revenue-neutral not through an increase in direct taxes that would reduce disposable incomes of the rich and dampen inflation but through increases in excise duties that would fuel inflation and squeeze real incomes of the poor. The substantial depreciation of the rupee, explicit in the exchange rate adjustments and implicit in the so-called partial-convertibility or full-convertibility, obviously contributed to inflation by raising the cost of imported intermediates and the mark-ups on final goods. In the sphere of monetary policy, the liquidity overhang inherited from the past and the parallel economy were always beyond the reach of

[26] For evidence, see Table 4. The point-to-point rates of inflation registered a significant jump, in terms of the wholesale price index as also the consumer price indices, from August 1991, soon after the stabilization process was set in motion, and experienced a discernible drop only a year later in August 1992; see monthly data in *Economic Survey 1992-93*, Ministry of Finance, Government of India, New Delhi, p. 75.

[27] In 1991-92, as compared with 1990-91, the index of agricultural production declined by 4.3 per cent while foodgrains output dropped by 5.3 per cent (see *Economic Survey 1992-93*, ibid., p. S-15 and p. S-18). In terms of the wholesale price index, the rate of inflation for food articles in 1991-92, as compared with 1990-91, was 20.9 per cent on a point-to-point basis and 20.2 per cent on an average of period basis (see Reserve Bank of India, *Annual Report 1992-93*, p. 213). The consumer price index for agricultural labourers, in which the weight of food articles is high, also rose sharply in 1991-92, by 21.9 per cent on a point-to-point basis and by 19.3 per cent on an average-of-period basis (see Table 4).

[28] See, for example, *Economic Survey 1992-93*, Ministry of Finance, Government of India, New Delhi.

discipline. However, it appears that monetary policy was also somewhat lax for the increase in money supply, defined as M3, was 18.5 per cent in 1991-92 and 15 per cent in 1992- 93, neither significantly lower than the unbridled monetary expansion of the 1980s. The substantial accumulation of foreign exchange reserves may have been responsible for some part of the monetary expansion in 1991-92 but there can be no similar explanation for 1992-93. Although liquidity was not tight enough to reduce demand-pull inflation, the high interest rates did probably contribute to cost-push inflation.

In my judgement, the slow down in the rate of inflation is attributable not so much to the stabilization policies as it is to the good monsoon. The bumper harvest in 1992-93, combined with a record output of food grains, led to an absolute decline in the prices of cereals and of agricultural inputs for the industrial sector.[29] It was, perhaps, the most important factor underlying the sharp drop in the point-to-point rate of inflation and the modest decline in the average-of-period rate of inflation. This was nothing new. In the absence of exogenous shocks, the performance of the agricultural sector has always been the crucial determinant of price behaviour of India. Bad harvests fuel inflation and good harvests dampen inflation. Food prices, in particular, lead the general price level and influence inflationary expectations. Thus, the adverse impact of the monsoon on the harvest in 1991-92 probably accentuated inflationary pressures. It also needs to be said that the strong performance of Indian agriculture in 1992-93, which eased inflationary pressures and expectations in the economy, was a bounty of the weather gods and not an outcome of stabilization.

The balance of payments situation, it must be recognized, is no longer precarious. The capital outflow from the repatriable deposits held by non-resident Indians, which assumed massive proportions during the first half at 1991-92, came to a stop in 1992-93.[30] The exposure in terms of short-term debt was reduced from $ 6 billion at the end of 1990-91 to $ 4.5 billion at the end of 1992-93. The level of foreign exchange reserves climbed from a meagre $ 2.2 billion in end-March 1991 to a comfortable $ 5.6 billion in end- March 1992 and rose further to $ 6.4 billion in end-march 1993. The stoppage of capital flight, the reduction in short-term debt and the accumulation of foreign exchange reserves provide some evidence of stabilization. But the available evidence on balance of payments adjustment, presented in Table 5, suggests that this process of stabilization is certainly not complete and possibly not sustainable.

The build-up of reserves during 1991-92, and the associated stabilization, was attributable to three factors. First, the draconian import compression reduced the balance of trade deficit by as much as $ 4.3 billion, the equivalent of 1.3 per cent of GDP, even though exports stagnated and the petroleum import bill did not register a significant decline; this was, perhaps, the major factor underlying the substantial reduction of $ 5.6 billion, the equivalent of 1.8 per cent of GDP, in the current account deficit. Second, as Table 6 shows, special bilateral assistance from Japan and Germany, structural adjustment loans from the World Bank and the Asian Development Bank, and borrowing from the IMF, taken together, provided $ 2.2 billion of extraordinary capital inflows. Third, the amnesties announced by the government raised another $ 2.2 billion, largely in the form of borrowing from non-residents through bonds and partly through remittances the exact magnitudes of which are reported in Table 6.

[29] It is estimated that, between 1991-92 and 1992-93, agricultural production increased by 5.1 per cent while the output of foodgrains rose from a low of 167.1 million tons in 1991-92 to a high of 181.2 million tons in 1992-93. The prices of cereals, in particular rice, and most non-food agricultural commodities registered an absolute decline in the latter half of 1992-93. See Reserve Bank of India, *Annual Report 1992-93*, p. 179 and p. 213.

[30] The factors underlying the capital flight from non- resident deposits and its macro-economic implications are discussed, at some length, in Nayyar (1993).

Table 5. Balance of payments adjustment: 1989-90 to 1992-93

	1989-90	1990-91	1991-92	1992-93
In US$ million				
Foreign Exchange Reserves end-of-year	3 368	2 236	5 631	6 434
Net inflows (+) or outflows (–)				
Non-resident deposits	+1 475	+250	638	+125
Exports	16 626	18 143	17 866	18 421
Imports	21 272	24 073	19 411	21 726
of which: Oil	3 768	6 028	5 364	6 100
Non-oil	17 504	18 045	14 047	15 626
Balance of trade deficit	4 646	5 930	1 545	3 305
Current account deficit	7 269	8 424	2 833	5 500
Extra-ordinary capital inflows	—	2 382	4 780	2 988
External debt	61.8	66.5	70.3	73.0
of which: Short-term	5.5	6.0	5.6	4.5
Medium and long term	56.3	60.5	64.8	68.5
As a percentage of GDP				
Exports	6.1	6.1	7.2	7.8
Imports	7.8	8.1	7.9	9.2
of which: Oil	1.4	2.0	2.2	2.5
Non-oil	6.4	6.1	5.7	6.7
Balance of trade deficit	1.7	2.0	0.7	1.4
Current account deficit	2.7	2.8	1.0	2.5
External debt	23.3	24.3	34.2	33.3
Percentages				
External debt/Exports	382.6	396.6	473.1	426.3
Debt servicing/Exports	36.2	35.5	35.9	37.8

Notes: (a) The statistics on external debt in this table are based on a new definition and classification, which is exhaustive, and are thus not comparable with those in Table 2. There are two main differences. First, in the new definition, medium and long-term debt includes government and non-government borrowing from multilateral and bilateral sources, drawings from the IMF, external commercial borrowing, outstanding non-resident deposits including interest credited to these accounts, foreign-currency deposits by banks and others from abroad, export credit of maturity longer than one year inclusive of borrowing for defence purchases. Second, in the new definition, all short-term debt where the maturity is more than six months but less than one year is included. The only inclusions from this classification of debt statistics are the rouble debt (civilian and defence) to the erstwhile USSR and now Russia and suppliers' credits with a maturity of less than six months. Unfortunately, data based on the new definition and classification of external debt are available only from 1989-90 and not for the earlier period.

(b) The figures on exports, imports, balance of trade, current account deficit and external debt as a percentage of GDP have ben calculated from the respective rupee values at current exchange rates and CSO data on GDP at current market prices. National accounts statistics are not yet available for 1992-93 and the CSO projection for 1992-93 does not include GDP at current market prices. It is assumed that GDP at market prices in 1992-93 was, in nominal terms, 12 per cent higher than in 1991-92.

(c) The debt-service indicators are also calculated as percentages from the respective rupee values at current exchange rates.

Sources: For foreign exchange reserves, net inflows/outflows in non-resident deposits and current account deficit: Reserve Bank of India: *Annual Reports*, and Ministry of Finance: *Economic Survey*, annual issues.
For exports, imports (oil and non-oil) and balance of trade: Directorate General of Commercial Intelligence and Statistics, Calcutta.
For external debt: Reserve Bank of India: *Annual Report, 1992-93*, pp. 236-238
For extra-ordinary capital flows, see Table 6.

Table 6. Extra-ordinary capital flows to meet financing needs in the balance of payments, 1990-91 to 1992-93

	1990-91	1991-92	1992-93
IMF (gross drawals)	1 858	1 240	1 623
Exceptional financing			
World Bank and ADB	—	645	—
(Structural/sectoral adjustment loans)	—	—	826
Japan and Germany (special bilateral assistance	—	355	—
Amnesties			
India development bonds	—	1 273	189
Remittances	—	863	—
Special deposits			
Special bonds for non-residents	262	—	—
Foreign currency (banks and others) deposits	262	304	350
Total above	2 382	4 780	2 988

Source: Reserve Bank of India: *Annual Report, 1991-92*, p. 71, and *Annual Report, 1992-93*, p. 78 and p. 226.

The stability in the balance of payments during 1992-93, and the continued build-up of reserves, is attributable to similar underlying factors. The near- stagnation in exports continued. Fortunately, however, the removal of import restrictions led only to a modest increase rather than a surge in imports possibly because of recession in the economy. All the same, the balance of trade deficit as also the current account deficit doubled both in terms of dollar values and as a proportion of GDP. The financing need was met, once again, through special bilateral assistance from donor countries, structural or sectoral adjustment loans from the World Bank and the Asian Development Bank and borrowing from the IMF, which, taken together, provided $ 2.4 billion as support.

It is clear that the extraordinary capital flows mostly in the form of borrowing from multilateral financial institutions or from non-residents through amnesties, the evidence on which is set out in Table 6, are a once-and-for- all phenomenon that cannot provide a sustained access to external resources. The import compression which provided a more sustainable means of managing the balance of trade situation in the short-run has been lifted altogether. But there is no change in the real variables that would make stabilization sustainable. There is no evidence, yet, of a turn around in export performance. If the level of reserves has remained comfortable despite stagnant exports, it is because of the sluggishness of import demand on the one hand and substantial external borrowing on the other. The reliance on borrowing abroad to support the balance of payments has led to a rapid accumulation of external debt. This emerges clearly from the evidence in Table 5. In the period of stabilization, during 1991-92 and 1992-93, the outstanding medium and long-term debt increased by $ 8 billion, while the total external debt rose from less than 25 per cent of GDP at the end of March 1991 to more than 33 per cent of GDP at the end of March 1993.[31] It is not surprising that there was a corresponding

[31] It is worth noting that if we include the rouble debt (both civilian and defence) to the erstwhile USSR and now to Russia, the total external debt outstanding at the end of March 1993 was $ 83.6 billion, the equivalent of 38 per cent of GDP (see Reserve Bank of India, *Annual Report 1992-93*, p. 238).

Table 7. Trends in selected macro-economic aggregates, 1989-90 to 1992-93

	1989-90	1990-91	1991-92	1992-93
Sectoral growth rates at constant prices (per cent per annum)				
GDP at factor cost	5.6	5.2	1.2	4.2
Agriculture, forestry and fishing	1.7	4.8	–1.4	5.1
of which: Agriculture	1.6	4.9	–1.8	5.1
Industry	7.4	7.2	–0.9	1.5
of which: Manufacturing	7.2	7.5	–2.3	0.9
Services	7.8	4.3	4.5	5.0
Saving and investment rates (as a percentage of GDP/NDP at current market prices				
Gross domestic saving	24.6	23.6	24.3	22.5
Net domestic saving	16.1	15.3	15.7	14.2
Gross domestic investment	27.3	26.3	25.5	24.8
Net domestic investment	19.2	18.4	17.1	16.6

Note: The data for 1990-91 are provisional while the data for 1991-92 are quick estimates, both compiled by CSO. The data for 1992-93 are RBI estimates.

Sources: CSO: *National Accounts Statistics, 1993* (for 1989-90 to 1991-92) and Reserve Bank of India: *Annual Report, 199293* (for 1992-93).

deterioration in the ratio of outstanding debt to total exports and the proportion of export earnings pre-empted by debt servicing. As a result, in 1992-93, the external debt to exports ratio was more than 4, while the burden of debt servicing was almost 38 per cent of export earnings.

It is plausible to argue that much of the stabilization is attributable to borrowing and, therefore, may not be sustainable in the long run. The world outside is obviously not convinced about the stabilization in the balance of payments, even if the government is, for international credit ratings remain almost where they were in late 1990, borrowing access to international capital markets is virtually closed, and net inflows into non-resident deposits are no more than negligible.[32] The medium-term borrowing, particularly from the IMF and non-residents, where repayments would commence soon, and the accumulation of external debt to buy time could unleash destabilizing expectations whenever there is any crisis of confidence irrespective of whether it originates in the economy or in the polity.

VI. The macroeconomic impact of stabilization and adjustment

The short-term impact of macroeconomic adjustment on output and growth is almost always adverse. The stabilization experience in India so far is no exception. Table 7 sets out the available evidence on sectoral growth rates in output, as also saving and investment rates in the

[32] In 1992-93, for example, there was a net outflow of $ 94 million on account of commercial borrowing while the net inflow into non-resident deposits was a mere $ 125 million (see Reserve Bank of India, *Annual Report 1992-93*, p. 234 and p. 237).

economy, during the period from 1989-90 to 1992-93. It shows that, in real terms, GDP growth was 1.2 per cent in 1991-92 and 4.2 per cent in 1992-93. These trends are, in part, attributable to the performance of the agricultural sector, poor in 1991-92 and good in 1992-93, which was a consequence of the monsoon factor rather than stabilization policies. But the deflation implicit in aggregate demand management also had its impact. Consequently, industrial output dropped by 0.9 per cent in 1991-92 and rose by a mere 1.5 per cent in 1992-93. The decline in manufacturing output was much more at 2.3 per cent in 1991-92 whereas the revival was somewhat less at 0.9 per cent in 1992-93. These developments provide a sharp contrast with the trend rates of growth through the 1980s.

The nature of macroeconomic adjustment is reflected in the fact that, as a proportion of GDP, both gross domestic saving and gross domestic investment registered a decline during the period of stabilization which is clearly discernible in 1992-93. The data in Table 7 show that the decline in net domestic saving and net domestic investment, as a proportion of GDP, was even more pronounced. It would appear that the process of macro-economic adjustment is based on an investment squeeze and insofar as investment still exceeds saving at a macro-level the corresponding excess of imports over exports is being financed by borrowing abroad. This must have adverse implications for economic growth in the medium-term. Macro-economic adjustment that is conducive to growth needs to raise the investment-GDP ratio, and not lower it, by raising the domestic savings-GDP ratio and the export-GDP ratio instead of allowing a compensatory increase in the import-GDP ratio supported by external borrowing.

In considering the possible impact of adjustment on growth it is not simply the rate of investment, as a proportion of GDP, that matters. The level of investment, in real terms, is also important. Unfortunately, data on investment at constant prices are not available for the entire period. But the latest national accounts statistics do provide such information at a disaggregated level for 1991-92. This shows that, between 1990-91 and 1991-92, in real terms, gross domestic capital formation in the public sector declined by 13.3 per cent while net domestic capital formation in the public sector declined by 29.5 per cent.[33] The significant drop in the level of public investment was obviously attributable to the expenditure adjustment in the stabilization programme. However, between 1990-91 and 1991-92, gross domestic capital formation in the private sector also declined by 15.9 per cent while net domestic capital formation in the private sector declined by 26.3 per cent.[34] It is clear that fiscal adjustment and monetary discipline had a strong dampening effect on private investment. The industrial sector in particular was hurt by deflation on the demand side and the high interest rates combined with a credit squeeze on the supply side. Firms with high debt- equity ratios and large working capital needs particularly those in the small scale sector probably bore the brunt. In this context, it is not surprising that there is no upsurge in the animal spirits of entrepreneurs which would lead to a step-up in investment.

So much for the short-term impact at a macro-level. Let me now turn to the longer-term impact of stabilization and adjustment on the possibilities of growth and the distribution of benefits or costs in the economy. In my judgement, the quality of the fiscal adjustment, which constitutes the core of macro-economic adjustment, leaves much to be desired particularly when situated in a medium- term perspective.

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[33] In the public sector, gross domestic capital formation and net domestic capital formation at 1980-81 prices declined from Rs.216130 million and Rs.116560 million respectively in 1990-91 to Rs.187340 million and Rs.82190 million respectively in 1991-92 (see *National Accounts Statistics*, CSO, New Delhi, 1993, p. 52).

[34] In the private sector, made up of the private corporate sector and the household sector, gross and net domestic capital formation declined from Rs.368810 million and Rs.249230 million respectively in 1990-91 to Rs. 310340 million and Rs.183780 million respectively in 1991-92 (see ibid.).

Table 8. Fiscal adjustment by the Central Government (as a percentage of GDP at market prices)

	1985-86 – 1989-90	1990-91	1991-92	1992-93
Gross fiscal deficit	8.2	8.4	6.2	5.7
Revenue deficit	2.6	3.5	2.7	2.7
Monetized deficit	2.3	2.8	0.9	0.8
Internal debt	50.7	53.3	52.1	50.5
Interest payments	3.2	4.0	4.5	4.6
Money supply (M3) percentage growth per annum	17.6	15.1	18.5	15.0

Note: The data for 1992-93 are based on revised estimates presented in the *Union Budget* for 1993-94. As a consequence of the revenue shortfalls and expenditure over-runs reported since them, the gross fiscal deficit has been revised upwards from 5.2 to 5.7 per cent of GDP (see RBI *Annual Report, 1992-93*, p. 33). Since much of this difference is on revenue account, the revenue deficit has also been adjusted upwards from 2.4 to 2.7 percent of GDP.

Sources: Ministry of Finance: *Economic Survey, 1992-93*, and Reserve Bank of India: *Annual Report, 1992-93*.

There are three reasons underlying my concern: *(a)* it cannot provide a sustainable solution to the fiscal crisis; *(b)* it is likely to constrain economic growth; and *(c)* it is distributing the burden of adjustment in an unequal manner. Consider each proposition in turn.

First, the fiscal adjustment embodied in the budgets of the central government has relied on a surplus in the capital account to finance a deficit on the revenue account. This is because the focus of adjustment is on the fiscal deficit rather than the revenue deficit of the government. The broad contours and dimensions of the fiscal adjustment on part of the central government are set out in Table 8 which compares the early 1990s with the second half of the 1980s. It shows that the gross fiscal deficit of the central government has been reduced by two-and-a-half percentage points of GDP in a short span of two years: from 8.4 per cent of GDP in 1990-91 to 5.7 per cent of GDP in 1992-93. The consequent reduction in government borrowing has exercised two important influences. For one, it has reduced borrowing from the central bank and there is a significant contraction in the monetized deficit as a proportion of GDP. For another, it has arrested the continuous increase in internal public debt as a proportion of GDP. However, the burden of interest payments as a proportion of GDP has continued its rise partly because of the earlier debt and partly because of the higher interest rates on government securities. But the real problem is that the revenue deficit of the central government at 2.7 per cent of GDP in both 1991-92 and 1992-93 is the same as it was in the second half of the 1980s. The government is therefore continuing to borrow as much as 2.7 per cent of GDP every year to finance its consumption expenditure. In an ideal world, there should be a revenue surplus large enough to finance capital expenditure on defence and in the social sectors, where there are no tangible returns, so that borrowing is not used to finance consumption expenditure. The reality in India, despite fiscal adjustment, is the opposite. Such a fiscal regime is simply not sustainable in the medium-term for it is bound to fuel inflationary pressures or strain the balance of payments, as in the recent past, and thus disrupt the process of growth.

Second, the process of fiscal adjustment has created a massive squeeze on public investment. This is borne out, at a macro-level, by the evidence cited above on the sharp decline in both gross and net investment in the public sector as a whole, which is made up of the central government, the state governments and public enterprises. But the attempt at fiscal adjustment, at least so far, does not extend much beyond the central government. And the impact on resources made available by the central government for public investment is indeed significant. In the Union Budgets for 1991-92, 1992-93 and 1993-94, the period of adjustment, the provision for capital expenditure in the Central Plan and in Central Plan assistance for the States — perhaps the best aggregate measure of resources allocated to finance public investment — remained almost unchanged in nominal terms at about the same level as in 1990-91.[35] It is obvious that these budget provisions.did not even compensate for the inflation, let alone the substantial exchange rate depreciation which would have raised the rupee costs of aid-financed investment, so that public investment certainly declined in real terms.[36] The resource crunch was even more acute for public investment in infra-structure. The data in Table 9 show that budget support for the key infra-structure sectors — energy, transport and communications — registered a significant decline not only as a proportion of total central government expenditure but also in nominal terms. It is worth noting that, between 1989-90 and 1992-93, such budget support for infra-structure contracted by 40 per cent in real terms and dropped from 1.75 per cent of GDP to 0.95 per cent of GDP. These cuts in public investment, particularly those on infrastructure are bound to constrain the supply response of the economy in the medium-term. The problem may be accentuated because the evidence available in India, both from the past and from the present, suggests that public investment crowds-in rather than crowds-out private investment.

Third, the distribution of the burden of adjustment so far has been unequal. This is apparent from the evidence presented in Table 9 on the trends in expenditure from the Union Budget on the social sectors and on poverty alleviation programmes. It is not sufficient to examine these trends in terms of nominal values because of inflation and as a proportion of total central government expenditure because of expenditure cuts. Therefore, Table 9 also considers the trends in such expenditure at constant prices and as a proportion of GDP. The allocations for the social sectors — education, health, family welfare, water supply, sanitation, housing, urban development, social welfare of the underprivileged, nutrition, and labour welfare — registered an increase in nominal terms and maintained their share in total expenditure. However, this expenditure stagnated in real terms and declined a little as a proportion of GDP. Budget support for poverty alleviation programmes declined in nominal terms and as a proportion of total expenditure in 1991-92 although it recovered somewhat in 1992-93. But, at constant prices or as a proportion of GDP, expenditure on poverty programmes in both 1991-92 and 1992-93 was lower than it was in 1989-90 and 1990-91. It need hardly be stressed that, in a period of stabilization and adjustment, resources provided for social services and for the poor should be increased, rather than decreased or just maintained, in real terms.

I recognize that it is not entirely appropriate to consider central government expenditure on the social sectors and on poverty alleviation programmes in isolation, because a large proportion of the expenditure on social services and some part of the expenditure on poverty programmes is financed by the state governments. But if we wish to consider the impact of fiscal adjustment, a focus on central government expenditure is unavoidable. What is more, the above conclusion is borne out by the evidence available on performance indicators in terms of

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[35] Capital expenditure in the Central Plan and in Central Plan assistance to States and Union Territories was Rs.159360 million in 1990-91, Rs.160980 million in 1991-92 and Rs.164550 million in 1992-93. The budget estimate for this provision in 1993-94 is Rs.170660 million (see *Union Budget* documents for the respective years).

[36] It is possible to assess the implications for the level of public investment in real terms if these budget provisions for capital expenditure in the Central Plan and in Central Plan assistance to States and Union territories are converted into constant prices using the GDP deflator. This calculation suggests that, at 1980-81 prices, such budget support declined from Rs.70740 million in 1990-91 to Rs.63072 million in 1991-92 and further to Rs.59962 million in 1992- 93.

Table 9. Central government expenditure on infra-structure, social sectors and poverty programmes, 1989-90 to 1992-93

Expenditure on	1989-90	1990-91	1991-92	1992-93
Infra-structure				
In Rupees million	79 360	71 370	63 480	64 530
As a percentage of total central government expenditure	8.54	6.78	5.70	5.17
As a percentage of GDP	1.75	1.34	1.04	0.95
At constant 1980-81 prices (in Rs. million)	39 010	31 680	24 870	23 510
Social sectors				
In Rupees million	47 620	53 800	58 810	67 710
As a percentage of total central government expenditure	5.13	5.11	5.27	5.43
As a percentage of GDP	1.05	1.01	0.96	0.99
At constant 1980-81 prices (in Rs. million)	23 410	23 880	23 040	24 670
Poverty alleviation programmes				
In Rupees million	27 690	26 780	22 820	31 130
As a percentage of total central government expenditure	2.98	2.54	2.05	2.50
As a percentage of GDP	0.61	0.50	0.37	0.45
At constant 1980-81 prices (in Rs. million)	13 610	11 890	8 940	11 340

Notes: (a) The expenditure includes both plan expenditure and non-plan expenditure.

(b) Social sectors correspond to the budgetary-classification of social services such as education, health, family welfare, water supply, sanitation, housing urban development, welfare of backward classes, labour, labour welfare, social welfare and nutrition. Infra-structure includes energy, transport and communications. The budget-allocation for rural development corresponds almost exactly with central government expenditure on poverty alleviation programmes.

(c) The expenditure-GDP ratios are calculated as a percentage of GDP at current market prices (data on GDP are from CSO: *National Accounts Statistics*). It is assumed that, in 1992-93, the nominal growth in GDP at market prices was 12 per cent.

(d) Expenditure at current prices has been converted into expenditure at constant 1980-81 prices by using the deflator for GDP at factor cost. The conversion factors are obtained from CSO: *National Accounts Statistics, 1993*. The CSO projections for 1992-93 provide an estimate for GDP at factor cost in 1980-81 prices but not in current prices. To estimate the GDP delator for 1992-93, it is assumed that, in nominal terms, GDP at factor cost registered a growth of 12 per cent in 1992-93.

Sources: Government of India: *Union Budget*, expenditure budget, 1993-94, Vol. 1: for data on sectoral and total expenditure.

quantitative achievements in the two major poverty alleviation programmes for rural India. This is set out in Table 10. The number of families assisted under the Integrated Rural Development Programme, which seeks to promote self-employment among the rural poor by providing productive assets or inputs through a mix of subsidies and bank credit, declined steadily from 3.4 million in 1989-90 to 2 million in 1992-93. The employment generated under the Jawahar

Table 10. Performance indicators: Poverty alleviation programmes, 1989-90 to 1992-93

	1989-90	1990-91	1991-92	1992-93
Integrated rural development programme Families assisted (million)	3.35	2.90	2.54	2.07
Jawahar Rozgar Yojana Employment generated (million man-days)	864.4	874.6	808.1	778.3

Source: Ministry of Rural Development: *Annual Reports*.

Rozgar Yojana, which seeks to create employment for the rural poor on works that are meant to create productive assets in the rural sector, also declined from 864 million mandays in 1989-90 to 778 million mandays in 1992-93. In both, the decline was pronounced during the period of adjustment whether 1991-92 or 1992-93. Clearly, the real value of resources made available for poverty alleviation programmes diminished as a consequence of fiscal adjustment in the process of stabilization.

It is my belief that fiscal adjustment should have come from a more appropriate mix of expenditure-cuts and revenue-raising instead of relying exclusively on the former. In a period when we are imposing a substantial burden on the poor through expenditure adjustment, the equity principle demands that the rich in particular, and the non-poor in general, share in this burden through their contribution to direct taxes. For this, it is absolutely essential to broaden the base for direct taxes so that a larger number of people are brought into the tax net and to deepen the structure of direct taxation by increasing the average rates of tax. The adjustment so far and the tax reform on the anvil appear to be moving in the opposite direction. In caricature form, the underlying philosophy can be summed up as comfort for the rich and hardship for the poor. It is important to stress that such patterns of adjustment are nothing new for they have been reproduced time after time in developing countries which embarked on stabilization and adjustment. Experience from elsewhere suggests that the squeeze on supply responses and the burden on the poor persists in the medium-term.

The discussion is this section of the paper would not be complete without a reference, even if brief, to some elements of the interdependence between stabilization and adjustment at a macro-level. There are three problems in particular that deserve mention for they appear to have surfaced in India.

The first problem is that a reduction in the fiscal deficit of the government does not always translate into a corresponding reduction in the current account deficit on the balance of payments, for reasons explained earlier. This problem is borne out by the recent Indian experience. The gross fiscal deficit of the central government has been reduced by more than two-and-a-half percentage points of GDP in a span of two years but the current account deficit, which contracted sharply in 1991-92 because of the severe import compression, was as much as 2.5 per cent of GDP in 1992-93, about the same as it was through the second half of the 1980s. It is possible that this is attributable to the distribution of the reduced absorption between traded and non-traded goods. Even in terms of orthodoxy, however, for a given excess of savings over investment in the private sector, it is the overall deficit in the government sector that determines the current account deficit. It would seem that in an endeavour to reduce its own fiscal deficit, to satisfy conditionality, the central government has pushed out its borrowing requirements to the state governments and the public sector. In these circumstances, a sustainable reduction in the current account deficit is not easily attainable.

The second problem is that the deflation implicit in macro-economic adjustment inevitably leads to a slow down in growth and sometimes leads to contraction in output which, in turn, squeezes government revenues. This is also borne out by the recent Indian experience, where the revenue shortfalls, particularly in the sphere of indirect taxes, are closely related to the contraction or stagnation of output in the organized industrial sector. If tax reform narrows the base of taxation at the same time, the burden on expenditure adjustment is even greater. The consequence may be deeper cuts in public investment which would choke supply responses and continued reduction in social expenditure which would impose a further burden on the poor.

The third problem is that exchange rate adjustments, so often an integral part of stabilization programmes, lead to a substantial devaluation, which has several macro-economic implications and consequences for the fisc, for balance of payments and inflation. The rupee has indeed depreciated by 50 per cent, in nominal terms, vis-a-vis the US dollar in the span of two years. In an economy where external debt is a significant proportion of GDP and where much of the external debt is held by the government, as is the case in India, a large devaluation imposes a fiscal burden because the domestic resources needed to service the same debt increase *pari passu*. Similarly, in an economy that relies on foreign aid inflows to finance its current account deficit, a substantial exchange rate depreciation slows down the utilization of external assistance [37] and thus adds to the strain on the balance of payments. There is evidence of this occurrence in India.[38] In the short-run, a substantial devaluation may have an inflationary impact on prices through cost-push and mark-ups and a contractionary effect on output if it leads to a deterioration in the terms of trade. It is clear that the acceleration in inflation during 1991-92 was spurred in part by the exchange rate adjustments, just as the deterioration in the terms of trade during 1991- 92 (the volume of exports rose by 7.5 per cent and the dollar value of exports fell by 1.5 per cent) was, inter alia, attributable to the devaluation.

VII. Structural reform, liberalization and supply response

It is much too early to assess the impact of structural reform, or the associated economic liberalization, on efficiency and growth, for the Indian experience so far is just two years and supply responses emerge with a time lag. There is, however, a mismatch between the simplicity of orthodox theory and the complexity of diverse reality, which should be recognized. The discipline of the market may not suffice to ensure efficiency in terms of resource utilization because the economic organization of production at a micro- level is not simply about the presence or absence of price competition. Similarly, getting prices right may not have the desired effect in terms of resource allocation because resources are neither perfectly mobile between activities nor perfectly substitutable in uses. The restructuring of economies, then, is easier said that done. We do not as yet have any concrete evidence from the Indian experience

[37] This happens for two reasons. First, insofar as aid finances the local-rupee-costs of investment or consumption, the foreign exchange equivalent of aid utilized drops *pari passu*. Second, insofar as aid finances the foreign-exchange-costs of investment projects, the matching or complementing contribution from the central government or the state governments to meet the rupee expenditure is not forthcoming, because of the resource-crunch or fiscal austerity, as a result of which aid utilization slows down.

[38] In spite of the serious balance of payments problem, which required extraordinary capital flows to meet the financing need, the gross utilization of external assistance (mostly project aid from bilateral or multilateral sources) registered a significant decline from $ 4689 million during 1991-92 to $ 3737 million during 1992-93 (see Reserve Bank of India, *Annual Report 1992-93*, p. 82).

to validate or to refute the hypothesis that structural reform would impart both efficiency and dynamism to the growth process in the medium-term. But some of the problems associated with the speed and the sequence of policy reform, mentioned earlier, appear to have surfaced in India. It is worth considering these problems, on the basis of analysis, in the context of industrial policy reform, trade policy reform, foreign investment or foreign technology policy reform, public sector reform and financial sector reform.

Industrial policy reform has removed barriers to entry for new firms and limits on growth in the size of existing firms. Investment decisions are thus no longer dependent upon government approval or constrained by state intervention. Industrial licensing has been abolished for all industries, except those specified, irrespective of levels of investment, and the exceptions are few.[39] The law regulating monopolies has been amended to remove the threshold limit of Rs.1 billion on the assets of large business houses and to eliminate the need for prior approval from the government for capacity expansion, capacity creation,amalgamation, mergers or takeovers on the part of such companies.[40] There is a reasonable presumption that this would reduce the degree of monopoly and increase the degree of competition among firms. It is, however, possible that de-regulation may not assure competition and may, in fact, induce rent-seeking behaviour. Some recent developments in India suggest that acquisitions, mergers or takeovers by firms (a few domestic but mostly foreign) in the industrial sector have enabled the enlarged corporate entity to capture a preponderant market share. This would simply not be permissible under anti-trust laws in most countries. Given the importance of scale economies in manufacturing, concerns about the concentration of economic power should not become a constraint on growth. But in such situations the market must be governed either by calibrating competition or by suitable anti-trust legislation. In India, the law on monopolies has been diluted to abolish limits on growth but not strengthened to regulate monopolistic, restrictive or unfair trade policies, so that it is nothing more than a watchdog without teeth.

The object of trade policy reform implemented in India is to eliminate discretionary controls on international trade transactions, to reduce the nominal as also the effective protection available to domestic industry, and to bring domestic prices closer to world prices. In conformity with these objectives, there has been a rapid dismantling of quantitative restrictions on imports and exports, a substantial reduction of tariffs on imports combined with an abolition of subsidies on exports, and several adjustments in the exchange rate which have led to a sizeable depreciation of the rupee.[41] There is a presumption that this process would shift

[39] For details, see *Statement of Industrial Policy*, Government of India, Ministry of Industry, New Delhi, 24 July 1991. The exceptions are specified industries either reserved for the public sector (Annex I, p. 10) or industries subject to compulsory licensing (Annex II, p. 11) because of security concerns, environmental or safety factors and social concerns such as the desire to limit elitist consumption. Subsequent relaxations, in April 1993, have opened up much of the mining sector for private investment and industrial de- licensing has been extended to consumer durables.

[40] See ibid, pp. 6 and 9.

[41] Quantitative restrictions on most imports and exports, except for specified negative lists have been abolished. (For details, see *Statement on Trade Policy*, Government of India, Ministry of Commerce, New Delhi, 13 August 1991 and *Export-Import Policy: April 1992 - March 1997*, Government of India, Ministry of Commerce, New Delhi, 31 March 1992). Cash subsidies on exports were abolished in July 1991. There has also been a substantial reduction in tariffs on imports over the past two years. The maximum duty rate was reduced to 150 per cent in the Union Budget for 1991-92, 110 per cent in the Union Budget for 1992-93 and 85 per cent in the Union Budget for 1993-94. The customs duties on imports of most capital goods were reduced to 80 per cent in July 1991, 55 per cent in February 1992 and 35 per cent in February 1993. Tariffs on imports of raw materials, manufactured intermediates and components for final goods have also been reduced by similar proportions. (For details, see *Union Budget* documents for 1991-92, 1992-93 and 1993-94.) There was an explicit exchange rate depreciation in July 1991 and an implicit exchange rate depreciation in March 1992 when a dual exchange rate system was introduced and again

resources from the non-traded goods sector to the traded goods sector. But in the presence of structural rigidities the economy may not have the capacity to switch resources, whether labour or capital, from one sector to another as smoothly as orthodoxy believes is possible. And serious problems may arise in the transition. The rapid liberalization of the import regime, which has dismantled import licensing and slashed customs duties across-the-board except in the sphere of consumer goods, may force a de- industrialization in some sectors, particularly capital goods. Strangely enough, imports have been liberalized without establishing a comprehensive system of anti-dumping laws for domestic firms to invoke and to use whenever necessary. What is more, import liberalization has gathered considerable momentum even before export growth has created an import capacity in the economy, which can only add to the strains on a fragile balance of payments situation.

The process of economic reform is seeking to increase the degree of openness of the economy to integrate it as soon as possible with the world economy. The endeavour is therefore not confined to trade flows. It extends to capital flows and technology flows. Consequently, the policy regime for foreign investment and foreign technology has been liberalized at a rapid place so that prior government approval is the exception and not the rule.[42] It would seem that the primary objective is to enlarge non-debt-creating capital flows, while technology-acquisition and market-access appear as secondary objectives.[43] This perception is perhaps shaped by nagging concerns about the balance of payments. However, it does not recognize that policy regimes may be necessary but are not sufficient to stimulate inflows of direct foreign investment. The recent Indian experience suggests that direct investment by international firms is on the increase, though it is not clear how much of the intentions embodied in proposals would translate into reality embodied in inflows. The sectoral composition of this investment, concentrated mostly in consumer goods destined for the home market, is another matter. In my judgement, the increase is likely to be modest rather than phenomenal and nowhere near enough to become an important source of financing the current account deficit. It is for this reason perhaps that the government has extended the liberalization of the policy regime further to portfolio investment on generous terms for foreign institutional investors.[44] In effect, this implies convertibility on capital account for portfolio investment, without any lock-in period, even before attaining convertibility on current account. Given the speculation and manipulation that characterizes Indian capital markets, this is not only an expensive method of obtaining foreign capital but also a possible source of destabilizing capital outflows. Experience from

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in March 1993 when the exchange rate was unified. Thus, between end-June 1991 and end-June 1993, in nominal terms, the rupee depreciated by 50 per cent vis-a-vis the US dollar. (For details, see Reserve Bank of India, *Annual Reports.)*

[42] For details of changes in this policy regime, see *Statement of Industrial Policy*, Government of India, Ministry of Industry, New Delhi 24 July 1991 and Press Notes No.11/43/ 91-LP dated 20 August 1991, No.10(68)/91-LP dated 18 December 1991, No. 10(85)/91-LP dated 24 June 1992 and No.10(30)/92-LP dated 26 June 1992, issued by the Government of India, Ministry of Industry, New Delhi.

[43] See *Economic Reforms : Two Years After and the Task Ahead*, Government of India, Ministry of Finance, New Delhi, June 1993, p. 12.

[44] In September 1992, the government announced that pension funds and mutual funds from abroad would be allowed to invest in the domestic capital market subject simply to registration with the Securities and Exchange Board of India. The income tax rate on dividends from such portfolio investment has been fixed at 20 per cent for foreign institutional investors, which is much lower than the corporate income tax rate for domestic or foreign firms. The tax rates on long-term capital gains and short-term capital gains on such portfolio investment have been reduced from 40 per cent to 10 per cent and 30 per cent respectively, once again lower than what is payable by resident taxpayers. Foreign institutional investors are allowed to repatriate the principal, the capital gains, the dividends and any other receipt from the sale of such equity, without any restriction, at the market exchange rate (see press releases by the Government of India and the Reserve Bank of India).

elsewhere suggests that, in the early stages, such liberalization is quite unnecessary and almost always susceptible to capital flight.[45]

In comparison with other sectors, reforms in the public sector have been shallow and superficial. The articulated objectives are to reduce the activities of the public sector, to facilitate the closure of sick units in the public sector and to ease the burden on the exchequer imposed by the public sector.[46] In keeping with this philosophy, there has been a sharp reduction in the number of industries reserved for the public sector while the portfolio of public investment is being reviewed. There are some steps, in terms of legislative amendments and administrative arrangements, that would make it possible to close units in the public sector and retrench workers with suitable compensation. Much of this, however, remains in the sphere of intentions, for the political constituencies for such changes have not yet been created. The centre-piece of public sector reform, as it has unfolded, is disinvestment of government equity up to 20 per cent, subsequently extended to 49 per cent, in selected public sector enterprises. The stated object is to impart a profit-orientation to the public sector. The real object, borne out by reality, is to mobilize resources for the exchequer. The capital receipts from such asset sales, Rs.25 billion per annum, have been absorbed in the Union Budget to reduce the borrowing needs, hence the fiscal deficit, of the central government.[47] At the same time, non-plan budget support to the public sector, used mainly to finance losses, has been progressively reduced and is sought to be eliminated altogether by 1994-95, which would obviously reduce government expenditure although it may do nothing to resolve the problems of such firms. This approach to public sector reform which emphasizes asset sales and closures represents the most rudimentary forms of privatization and restructuring. It is neither adjustment nor reform. It may imply selling the flag-ships and keeping the tramp-ships, or sending white elephants to the slaughter house, but there is no systematic attempt to address problems of efficiency and productivity. We also need to remember from experience elsewhere, for example Britain, that privatization is a good strategy to impose discipline on the public sector so long as it is a potential, credible, threat. It loses its virtue as soon as it becomes a reality.

The object of financial sector reform is to improve the profitability of the state-owned commercial banking system and the functioning of the domestic capital market on the presumption that the discipline imposed by market forces would make both more efficient.[48] The reforms in the context of commercial banks seek to improve profitability and restore financial health. The actual and the intended reductions in the statutory liquidity ratio (the minimum percentage of deposits that banks must hold in government securities) and the cash reserve ratio are meant to ensure that resources made available in the form of bank deposits are not pre-empted by the government but released for the private sector. The structure of interest rates charged and paid by commercial banks has been simplified and, to a considerable extent, de-regulated. It would thus be difficult to use interest rates as a means of guiding the allocation of investible resources in the private sector. In parallel, interest rates on long-period government

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[45] See, for example, Cooper in Corbo, Goldstein and Khan (1987), pp. 516-523.

[46] For details, see *Statement on Industrial Policy*, Government of India, Ministry of Industry, New Delhi, 24 July 1991 and *Economic Reforms : Two Years After and the Task Ahead*, Government of India, Ministry of Finance, New Delhi, June 1993.

[47] For the evidence on disinvestment by the government and on non-plan budget support for the public sector cited in this paragraph, see *Union Budget*, 1991-92, 1992-93 and 1993- 94.

[48] The elements of financial sector reform outlined in this paragraph are reported in the following documents: Reserve Bank of India, *Annual Reports*, 1991-92 and 1992-93 and *Report on Currency and Finance* 1991-92; Ministry of Finance, *Economy Survey*, 1991-92 and 1992-93; *Union Budget*, 1992-93 and 1993-94; and *Economic Reforms : Two years After and the Task Ahead*, Ministry of Finance, New Delhi, June 1993.

securities have been raised closer to market levels. This may or may not lead to the development of a secondary market for government securities, which would make government debt marketable, but it would definitely increase the burden of public debt on the exchequer. The government has also introduced new guidelines for income recognition, asset classification, provisioning requirements and capital adequacy in the commercial banking system. These accounting practices and prudential norms are expected to conform to international standards within a specified time horizon. The implementation of such norms would obviously require large provisions for poor or doubtful assets in their portfolios, which would erode net worth so that banks would have to be recapitalized in the form a larger equity base. The government has thus made a budget provision of Rs.57 billion for this recapitalization in the form of new government bonds.[49] In other words, the government would borrow, creating a substantial interest burden, to recapitalize nationalized banks so that they can, in effect, write off bad loans. The reforms in the capital market seek to finance investment in the private sector and attract foreign portfolio capital. Interest rates in the domestic capital market have been de-regulated and the need for prior government approval of the size and the price of equity issues in the primary capital market has been dispensed with. It is believed that the capital market would be disciplined by market forces, while a newly constituted Securities and Exchange Board of India would establish rules and regulations to govern the stock market where, at least so far, trading malpractices abound, disclosure rules are almost non-existent and investor protection is slender. In sum, financial sector reform in India is based on the premise that the commercial banking system and the domestic capital market are over-regulated and under-governed. This presumption is broadly correct. However, the process of reform unfolded so far suggests that de-regulation has dispensed with the over-regulation, but the system remains under-governed because institutional and legal frameworks that would govern the market have not yet been put in place. This mismatch or asymmetry in fraught with risk.

It is clearly important to consider the sectoral components of structural reform but it is also necessary to consider the reform process as a whole. Such a perspective reveals two shortcomings in the Indian experience. Economic liberalization is about bringing market prices closer to efficiency prices and allowing individuals, households or firms more freedom to make economic decisions. This means a reduced role for the State. But coordinating the market through rules that govern may, in turn, imply a need for more state intervention somewhere and different forms of state intervention elsewhere in the pursuit of development objectives. There is no thinking, let alone clarity, about this redefined role of the State, which is the first shortcoming. The restructuring of economies, if it is to be a success, must not only introduce correctives to eliminate weaknesses but also plan consolidation to build on strengths that emerge from past development experience. It would seem that the reform process in India stresses the need to eliminate weaknesses, or what went wrong, but neglects the possibilities of building on strengths, or what turned out right. This is the second shortcoming.

VIII. Some questionable assumptions

There are some important assumptions implicit in the strategy adopted by the government in India. It is necessary to highlight and to evaluate these underlying assumptions. Stated in caricature form, the assumptions are : *(a)* the market mechanism would be a substitute for state intervention; *(b)* private investment would be a substitute for public investment and direct fo-

[49] See *Union Budget*, 1993-94.

reign investment would be a substitute for other forms of foreign capital inflows; *(c)* imports of technology would be a substitute for domestic technological capabilities; and *(d)* the agricultural sector would, somehow, take care of itself. In my judgement, these assumptions are not only heroic in nature but also suggest an inadequate understanding of reality. Consider each in turn.

The first assumption that state intervention does not matter, or is counterproductive, in the process of industrialization, is a historical. Our experience in the second half of the twentieth century suggests that the guiding and the supportive role of the State has been at the foundations of successful development among late industrialisers. Even among the East Asian countries, which are often cited as success stories that depict the magic of the market place, the visible hand of the State is much more in evidence than the invisible hand of the market.[50] In the earlier stages of industrialization, state intervention creates the conditions for the development of industrial capitalism by establishing a physical infrastructure through government investment, developing human resources through education, or facilitating institutional change through agrarian reform. In the later stages of industrialization, state intervention is functional or strategic rather than conducive but remains crucial. At one level, functional state intervention may seek to correct for market failures, whether general or specific. At another level, strategic state intervention, interlinked across activities or sectors, may seek to attain broader, long term, objectives of development. It is possible to cite several examples. Exchange rate policy is not simply a tactical matter of getting-prices-right but may turn out to be a strategic matter if deliberately undervalued exchange rates, maintained over a period of time, provide an entry into the world market for differentiated manufactured goods. The structure of interest rates is not just about allowing market forces to determine the price of capital, but may be a strategic method of guiding the allocation of scarce investible resources. Restrictions on the use of foreign brand-names is not so much an inward-looking attitude, if it is perceived as a strategic means of buying time to develop national brand names that become acceptable in world markets after a lag. In this manner, state intervention may constitute an integral part of any strategy of industrialization that endeavours to strengthen capabilities and develop institutions rather than rely on incentives or markets alone.[51] There is, of course, government failure just as much as market failure, for neither governments nor markets are, or can be, perfect.[52] In theory, it may be possible to remedy market failure by state intervention. In practice, governments may lack the ability or the willingness to intervene efficiently. The wrong kind of state intervention can induce rent-seeking unproductive activities, but so can unregulated markets. The right kind of state intervention can channel rents created in the process of industrialization, through market forces, into productive uses. It is the nature and the form of state intervention that matters. The experience of excessive state intervention associated with government failures, however, should not lead to the conclusion that minimal state intervention is the best or that market failures do not matter. We appear to have moved from a widespread belief, prevalent in the 1950's, that the State could do nothing wrong to a gathering conviction, fashionable in the 1990s, that the State can do nothing right. These are caricature perceptions. The reality is more complex than simplified paradigms that may be in or out of fashion. In a world of uneven development, characterized by rapid technical progress, ever-changing comparative advantage and imperfect market structures, the role of governments in the industrialization process remains vital and could account for the difference between success and failure. For industrialization is not only

[50] See Amsden (1989) and Wade (1991).

[51] See Lall (1990), Stiglitz et al. (1989), Killick (1990) and Shapiro and Taylor (1990).

[52] See Stiglitz (1989) and Krueger (1990).

about getting-prices-right; industrialization is also about getting-state-intervention-right.

The second assumption has two components, both of which are open to question. For one, most of the evidence available in India suggests that the level of public investment in the economy has been an important determinant of the level of private investment in the economy. This is particularly so for the industrial sector where public investment crowds-in, rather than crowds-out private investment.[53] Thus, a scaling down of public investment would squeeze supply responses in the medium term not only because it would cut back on infrastructure but also because it may dampen private investment. For another, given the relative magnitudes, it is most unlikely that direct foreign investment could substitute for other forms of foreign capital inflows at least in the medium term. The open door policy may stimulate large inflows of direct foreign investment as compared with the recent past, but we must recognize that policy regimes are permissive and not casual. The perceptions of transnational corporations about India and a comparison with investment opportunities elsewhere would exercise a much more important influence. Even under the most optimistic scenario, however, direct foreign investment would be more important as a means of providing access to markets and technology, rather than as a means of financing the current account deficit.

The third assumption emphasizes the importance of access to imports of technology and neglects the significance of domestic development of technology at the present stage of industrialization in India. The liberalization of technology imports would lead to a multiplicity of imports by several firms at a point in time and recurrence of imports by the same firm over a period of time. The discipline of the market would, of course, place some limits on this process, but it is possible that domestic technological capabilities may be stifled. Yet, an economy that industrializes should be able to move from importation to absorption and adaptation of technology through to the stage of innovation, at least in some sectors, on the path to sustained industrialization. In the pursuit of this objective, imports of technology and indigenous technological development need to be combined in a judicious mix. The industrialization experience of India suggests that there are a number of sectors where the level of technological development is just not adequate. There are several examples of situations where technologies were imported for particular sectors at a point of time and the absorption of such technologies has been followed by stagnation rather than adaptation, diffusion and innovation. At the same time, in many cases, indigenous development of technology has not led to widespread diffusion let alone technological up-gradation. The underlying reasons are complex.[54] It is clear, however, that market structures and government policies have not combined to provide an environment which would accelerate the absorption of imported technology and foster the development of indigenous technology, or create a milieu which would be conducive to diffusion and innovation. Indeed, the R&D effort in the private corporate sector has been minimal. It needs to be stressed that, at a macro-level, the role of the government is crucial for planning technological development across sectors and over time. This means planning for the acquisition of technology, from where it is to be imported, setting aside resources for technology where it is to be produced at home, or even deciding to opt out of a technology where it is not needed. For this purpose, it is necessary to formulate a policy regime for the import of technology, allocate resources for R&D and evolve government procurement policies. Such a guiding and supportive role of the State has been a necessary condition for technological development among the latecomers to industrialization, particularly in Asia but

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[53] See Srinivasan and Narayana (1977), Rangarajan (1982) and Chakravarty (1987).

[54] For a discussion of the issues, see Lall (1987).

also elsewhere.[55]

The fourth assumption is perhaps the most curious. It is striking that the entire discourse about structural reform proceeds as if the agricultural sector does not exist, or if it exists it does not matter. This is indeed puzzling in an economy where the agricultural sector contributes one-third of GDP and employs more than two-thirds of the work force. And it is not as if the agricultural sector is without structural rigidities or structural imbalances. The process of macro-economic stabilization combined with fiscal adjustment and structural reform would, of course, be constrained by what happens in the agricultural sector. But this process would also have a significant impact on Indian agriculture in as much as it reduces fertilizer subsidies and priority sector lending, or in so far as it moves domestic prices of inputs and outputs closer to world prices. The increase in fertilizer prices and the possible increase in the price of credit are a cause of concern because, given the stagnation and decline of public investment in the agricultural sector which began in the late 1970s, the use of fertilizers and the availability of credit have been the most important determinants of the increase in yields per hectare and, hence, agricultural output. The trade policy reform in India, in the sphere in agriculture, which seeks to dismantle restrictions on trade other than tariffs and to bring domestic prices closer to world prices, represents a fundamental departure from the past. It may set in motion a sequence of changes large enough to reshape the parameters not simply for the agricultural sector but for the economy as a whole.[56] The impact would not be confined to trade flows. It would extend to output and prices. The changes in the distribution of agricultural output and incomes between regions may accentuate inequalities, which would have political implications. Increases in domestic prices of wage goods produced in the agricultural sector are bound to erode food security, which, in turn, would have social consequences. There may not be much comfort in the balance of payments either. In so far as the volume of India's agricultural imports or exports would affect world prices, terms of trade are likely to worsen. The possibilities would be constrained further in as much as structural rigidities in the agricultural sector inhibit supply responses.

IX. Concluding observations

It is time to draw together some conclusions that emerge from the paper in an endeavour to highlight the contours of an alternative view. I would like to stress, however, that my observations only provide a modest beginning in the identification of possible future strategies.

In a situation of deep disequilibrium, macroeconomic stabilization and structural reform or adjustment should not be simultaneous events. In my judgement, stabilization must restore a semblance of equilibrium in the economy before policy reform is used to re-structure the economy. The simultaneous pursuit of stabilization and adjustment is based on the orthodoxy of multilateral financial institutions. There are two dimensions to the logic underlying this prescription. In terms of economics, stabilization policies on the demand side have some corollaries on the supply side. In terms of politics, a debt crisis accentuates vulnerability so much that unpalatable reforms can be imposed. Thus, bitter medicine is seen to be best administered in one swallow. However, there are good reasons why stabilization and adjustment should not be implemented together, for the multiplicity of objectives and of time horizons tends

[55] The literature on this subject is vast. See, for example, Pack and Westphal (1986) and C. Dahlman, Ross-Larson and Westphal (1987).

[56] For a detailed discussion, see Nayyar and Sen (1993).

to compound difficulties rather than resolve problems. For one, such an approach often leads to a situation where the economy achieves neither stabilization nor adjustment, so that the outcome is stagflation and poverty. For another, if reform is not absorbed by the economy or is not acceptable to the polity, which is not uncommon in crisis situations, disillusionment sets in and even the necessary or desirable components of reform are discredited.

The choice of stabilization policies is also crucial. So much so that it can account for the difference between success and failure. There are two points that deserve emphasis in this context. First, aggregate demand management should be used in conjunction with import controls, rather than by itself, since the combination can bring about an equivalent reduction in the current account deficit with less deflation or without as much sacrifice in terms of output and employment. Second, aggregate demand management through fiscal adjustment and monetary policy should squeeze imports and consumption of the non-poor, instead of investment and consumption of the poor. In other words, stabilization policies must be formulated in such a manner that they do not impose a burden on the poor and do not choke supply responses. Then, growth and equity are not irreconcilable objectives.

The restructuring of the economy should be situated in a medium-term, preferably long-term, perspective because it is not a matter of here and now. What is more, structural reform should be perceived not as a fixed menu or display but as an a la carte menu where the choice of content is as important as the sequence and the speed. The process of economic reform must be responsive to evolving situations and sensitive to social and political realities, which means that it can not be shaped by analytical absolutism. For example, it is both necessary and desirable to reduce the degree of monopoly in the industrial sector and increase the degree of competition among firms, but monopolistic or restrictive practices must be regulated and the exposure to international competition must be introduced in a phased manner. Similarly, in terms of any rank ordering of priorities, public sector reform should precede trade policy reform. And public sector reform is not simply about the sale of assets or rudimentary forms of privatization, just as premature trade policy reform cannot be sustained unless a robust export performance creates an import capacity in the economy. In sum, although it is necessary to rely more on market forces at the micro-level, state intervention cannot be dispensed with at the macro-level, for the market is a good servant but a bad master.

Last but not least, the strategy of the government for the macro-management of the economy in the early 1990s resembles the strategy of the 1980s in one respect which is a cause for serious concern, and that is a reliance on borrowing abroad. Unfortunately, borrowing is only a tactic and not a strategy that can provide a sustainable solution to the problem. The analogy of a peasant household that can never borrow its way out of debt may be an exaggeration but it is not altogether inappropriate. In the economy, polity and society of India there is a real danger, borne out by earlier experience, that external resources may be transformed into a soft option, in so far as they become a substitute for rather than an addition to domestic resources, and are use to support consumption rather than investment. Therefore, in the medium-term, a strategy of planned structural adjustment at the macro-level should endeavour to raise the investment-GDP ratio, by raising the export-GDP ratio and the domestic savings-GDP ratio and not by allowing a compensating increase in the import-GDP ratio supported by borrowing abroad. In this strategy, the most important point of departure from the past and the present is that, in terms of macro-management, the current account deficit in the balance of payments should not be used as a means of financing the excess of investment over saving for the economy and the excess of expenditure over income for the government. The basic objective should be to rely on our own resources to finance the process of development and to make a systematic effort to raise the productivity of investment through an appropriate restructuring of the economy.

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The agricultural system, industrialization and development: The Indian case

Yoginder K. Alagh [1]

We begin with a brief introduction to the concept of interdependence between agriculture and industry. Interdependence can be defined either as net or gross intersectoral flows. Indian estimates of relative rates of growth and intersectoral dependence are briefly presented as well as the employment aspects. However, our major emphasis is on agro-based industrialization. Again we do not cover comprehensively agro-input supplying industries like fertilizer, seeds and pesticides, not because these are unimportant, but because they are a part of the industry study and also because on the purely agro-processing side interesting questions arise which have not generally been addressed. We are more interested in first-stage processing of agriculture and agro-processing industry, that is industries like sugar, textiles, oilseeds, vegetable and fruit processing. Also non-crop based activities like animal husbandry, forestry and fishing are included. The growth and diversification of agriculture is important here, but so are changes in demand conditions which would be determined by the growth of income and its distribution. Also important here is policy approaches of regulation and support or development. The importance of this last issue is brought out by some contra trends in India as compared to global trends. India had a specific policy structure of controlling large and particularly multinational sector in agro-processing industry. This led to an interesting feature that when the global share of small and medium industry in the total declined (till the mid-1970s), it rose in India. Interestingly this share is now rising in developed economies (the phenomenon of increasing importance of small and medium enterprises (SMEs) in the post-Fordist technology era) but is falling in India. The role of policies, in the context of changing demand conditions and the nature of the regional diversification and growth of agriculture, is important and some hypothesis are presented here. Finally we present and assess the policy changes that have taken place in the 1990s.

Some initial quantitative estimates of interdependence and relative rates of growth

Interdependence between the agricultural and non-agricultural sectors can be measured in terms of gross flows and net flows. This is a somewhat simple categorization and yet needs to be made, since there is a view that the interdependence issue is unimportant. After all if a small country assumption is made as also that of well-behaved trade propensities, sectoral interdependence studies become at worst misleading and at best superfluous. Alagh (1980) gives an analytical classification of agricultural and non-agricultural sectors and the concept of net and gross flows.

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This study describes a system of resource flows to agriculture in an analytical framework. Following national accounting concepts the flows to and from the agricultural sector are balanced by value added components. These flows would measure the degree of integration of the agricultural sector with the rest of the economy and would be useful for measuring gross credit requirements of the agricultural economy. The sub-components of such flows, for example, inter-industrial flows, flows from the Government private non-profit service sector and the rest of the world, together with final demand components like purchase of consumer and investment goods, give the weighting diagram for terms of trade indicators. Subsidy, tax and fiscal policy effects on the other hand can be examined with net flows as also welfare effects on a sector. Alagh (1980) defines inter-industry, government, private non-profit and rest of the world, net flows (in each case the balance of flows to and from the agricultural sector).

Gross flows have increased from 9.3 per cent of agricultural GDP at current prices in 1975-76 to 9.6 per cent in 1989-90. (For 1975-76 see Alagh, 1980.) For 1989-90 gross flows (as defined in Alagh, 1980) are estimated at Rs. 5360 crores and work out to 9.6 per cent of GDP (see CSO, 1992, pp. 92 and 122).

As regards the determinants of intersectoral dependence in India, an early estimate was by Alagh (1971). Alagh estimated that the gross surplus, from the household rural sector to the modern sector, was determined by the rate of agricultural growth, alternatively disposal income and a relative price variable, the elasticities being estimated as follows:

	Independent	Elasticity of intersectoral surplus with reference to independent variable
1.	Agricultural output	Range of 3.8 to 4.4 in alternate models
2.	Disposable income	4.2
3.	Relative price (agriculture to manufacturing)	Range of –3.47 to –3.95

Source: Alagh, 1971.

Intersectoral flow analysis of this kind is again gaining currency. For example Honaham and Itiyas (1993) find in a two-stage procedure, using international cross section data, household sector financial flows determined by variables like GNP growth, inflation rate and relative prices (interest rates to $ values) in the first stage and then by modern sector flows (foreign plus government) in the second stage.

Instead of intersectoral flows, the relationships between sectors can be estimated in terms of output relations directly. At an aggregate level Rangarajan estimated that the elasticity of non-agricultural to agricultural growth was 0.5 in India (Rangarajan, 1982).

Macro studies do therefore accept the hypothesis of a significant relationship between agricultural and non-agricultural sectors. The more important questions, however lie in the relative rates of growth, the size scale and organizational aspects of such change and the economic and policy determinants of such change. It is to these that we now turn, beginning with the background of relative rates of growth.

The Indian economy grew much faster in the decade of the 1980s as compared to earlier phases in a 40-year period. If the mid-1970s is taken as a cut-off point the results are more striking (Table 1). The Indian economy grew at a rate of around 5 per cent annual compound in the later phase as compared to 3.4 per cent in the earlier phase (the so-called "Hindu rate of growth"). This led to higher industrial and agricultural growth rates, but not very different

Table 1: Growth performance of the Indian economy (percentage compound annual)

Growth Indicator (1980-81 prices)	1950-51 to 1974-75	1975-76 to 1990-91	1980-81 to 1989-90	1990-91 to 1991-92
1. NNP at factor cost	3.4	5.0	5.6	1.2
2. Per capita NNP	1.2	2.6	3.4	–1.1
3. Industrial production	5.0	2.8	7.7	–2.3
4. Agricultural production	2.5	2.7	3.1	–1.8

Source: CSO, National Account Statistics, different issues.

Table 2: Composition of agricultural growth (percentage compound annual growth rates)

Period	Food grains	Non-food grains	All crops
1. 1949/50-1985/86	2.6	2.6	2.6
2. 1978/79-1985/86	3.4	3.7	3.5
3. 1985/86-1990/91	3.6	5.8	4.2

Source: For rows 1 and 2, see Y.K. Alagh, 1991, p. 31. For row 3, see Economic Survey, 1991-92, Vol. 2, p. S-13.

relative rates of growth. Thus, industrial growth was around 5 per cent in the first phase and agricultural growth was around 2.4 per cent. In the second phase the industrial growth rate was around 7 per cent and the agricultural growth rate was around 3 per cent.

The more important question however is that the composition of agricultural growth was very different in the phase of faster overall growth as compared to the earlier slower phase. There is in the second phase a much faster growth of the non-foodgrains sector, which includes crops like sugarcane, oilseeds, cotton, fruits and vegetables as compared to foodgrains. These trends are particularly marked in the second half of the 1980s (Table 2). These results emerge from the fact that per capita growth in the second phase is over 3 per cent annual as compared to around 1.2 per cent annual in the early phase.

From the time of independence through the early 1980s, the foodgrains and non-foodgrains sector of the Indian economy grew at the same rate (2.6 per cent) but in the 1980s all that started changing. In the first half of the 1980s, the agricultural sector grew at 3.5 per cent annual, foodgrains at 3.4 per cent and non-foodgrains at 3.7 per cent. In the second half of the 1980s, the agricultural sector grew at 4.2 per cent annual, the non-foodgrains sector at 5.8 per cent. Faster growth of income, begins to diversify the demand for agricultural commodities and these trends become more marked as the income trends sustain themselves. Needless to say a prolonged period of low growth could again reverse this trend (see last column of Table 1).

The 1980s record a much faster growth of agro-based consumption in the Indian demand basket. Thus, for example, per capita consumption of sugar went up from 6.2 kgs/year to 12.5 kgs/year (Table 3), and that level is not only much higher than in comparable countries like China, but also in countries like Italy, which have much higher levels of per capita income. Also, there has been a very rapid increase in consumption of non-crop based commodities like eggs, milk and forest based products. Egg consumption per capita goes up from 15/year to 26 in the period 1975-90. In the same period, India crosses per capita textile consumption of 20 metres/year in cotton equivalents, reaching 24.8 metres/year in 1990-91.

Table 3: Per capita consumption of agricultural processed commodities in India

Commodity		1955-56	1975-76	1990-91
1.	Foodgrains (5-year average of kgs ending with year)	155.6	158.5	180.6
2.	Edible oil and vanaspati (kgs/year)	3.2	4.2	6.5
3.	Sugar (kgs/year)	5.0	6.2	12.5
4.	Textiles (cotton equivalent; metres/year)	14.4	17.6	24.8
5.	Tea (kgs/year)	0.36	0.45	0.61
6.	Milk (ltrs/year)	4.7 (1)	4.6 (2)	6.3
7.	Eggs (numbers/year)	5.3 (1)	15.5 (2)	26.0
8.	Vegetables and fruits (Rs. in constant prices)		3.1% (3)	5.2% (4)
9.	Plywood		3.9% (5)	10.3% (6)
10.	Paper and paperboard		4.3% (5)	7.1% (6)
11.	Newsprint		4.0% (5)	21.1% (6)

Notes: (1) Refers to 1950-51. (2) Refers to 1980-81. (3) Annual compound growth rate 1972-77. (4) Annual compound growth rate 1977-86. (5) Annual compound production growth 1972-83. (6) Annual compound production growth rate 1976-87.

Sources: (1) Rows 1 to 7, Economic Survey, 1991-92, Vol. 2, pp. S-24, S-26. (2) Row 1, columns 2 and 3, Alagh, 1991, p. 3. (3) Row 8, D.S. Tyagi (1990, pp. 52-80). (4) D.N. Rao (1992), pp. 78 and 80.

Thus, expansion and diversification of the consumption basket is basically driven by a higher growth performance in the 1980s (see Radhakrishna and Ravi, 1990). This in turn leads to another problem. Demand driven growth and diversification would be in serious jeopardy if low rates of aggregate growth persist in the 1990s.

It needs to be noted that the agro-based items of consumption are important in the demand baskets of different income groups (see Radhakrishna and Ravi, 1990). These consumer items are not elite consumption alone.

If a reasonable rate of economic growth is achieved the agricultural economy will diversify. Export growth is important at the margin. One has to emphasize that the food security objectives of Indian agriculture are not a concern of the past. There has been a considerable improvement in the institutional status of the Indian population in the period 1961-63 to 1988-90. The facts are as follows:

Average daily calorie intake per Indian

Year	Daily k. cal. per person
1961-63	1 981
1969-71	2 020
1979-81	2 090
1988-90	2 235

The average intake of the Indian has gone up by over 10 per cent in the last three decades. The highest improvement, as we saw in Table 3 is in the 1980s. (For the purpose of this calculation Akroyd conversion factors have been used. Foodgrain, edible oil, sugar, milk, eggs, meat and fruits and vegetables consumption has been accounted for. 50 cal/person/day, have been added for other consumption.) There is no evidence to suggest that consumption inequality has increased in India. In fact if at all the evidence points the other way. The nutrition and hunger situation has definitely improved.

Meanwhile if the average level of calorie intake improves by the year 2010 by the same magnitude that it did in the period 1961-89, the daily calorie intake would rise to around 2 500 k. cal/person/day. If past trends in the composition of consumption continue, and population growth is 1.8 per cent per annum in period 1989-2000, the requirements in 2010 would be as follows:

Item	Requirements	
	1989/90	2010
Population (million)	836	1 224
Calories (person/day)	2 235	2 500
Foodgrains (kg/person	170	180
Edible oil (kg/person)	7	9.6
Milk (litres/person)	6.3	7.5
Eggs (numbers/year)	26	43
Vegetables and fruits (kg/year)	97	131
Sugar	12.5	15

If a reasonable level of import dependence is provided for cereal requirements will rise substantially and will equal around 270 million tonnes. However, the agricultural economy will diversify and the demand for vegetable oil, sugar, milk, eggs, fruit and vegetables will rise faster. In addition agricultural exports will become a focus. This is the broad framework in which policy will need to work.

Changes in structure

We begin by examining the changes in the structure of employment and output between the agricultural and non- agricultural sector. This is followed by examination of changes in the organized and unorganized sectors. Regional differences and productivity differences between the organized and unorganized sectors are detailed only for the recent period. This discussion provides the backdrop for the analysis of policy regimes, their impact and their effectiveness.

The sectoral composition of the labour force, which had remained constant at around 73 per cent in agriculture is now changing. The constancy of this rate had been emphasized in a plan document in which the employment chapter was widely attributed to the late Prof. Raj Krishna, with whom the present author had also worked.

"It is a historically unique fact that over the last six decennial censuses, in spite of impressive development of the large-scale manufacturing and infrastructure sectors, the share of agriculture in the workforce has not diminished at all. It was 73 per cent in 1921, 73 per cent again in 1961 and 73.8 per cent in 1971. The figure for 1971 is in fact slightly higher than for 1961. In almost all countries economic

Table 4: Structural change in Indian rural workforce

Sector	Rural labour force			
	Male 1972-73	1987-88	Female 1972-73	1987-88
Agriculture	83.2	74.5	89.7	84.7
Industry and mining	6.5	8.4	4.9	7.3
Services, trade, transport and construction	10.3	17.1	5.4	8.0
Total	100.0	100.0	100.0	100.0

Source: Government of India, National Sample Survey Organization, 1990, p. 101.

development is associated with a significant decrease in this share. Even during the decade 1965-75, the share declined in 13 Asian countries. But in India fairly rapid growth in the non-agricultural sectors in the last 25 years of planned development has completely failed to make any noticeable impact on the industrial distribution of the workforce." (GOI, 1978, p. 82.)

This constancy noted by late Raj Krishna and the present author, however, changed in the decade of the 1970s and the 1980s. Table 4 shows that the share of the male labour force in rural areas in the agricultural sector fell from 83.2 per cent in 1972-73 to 74.5 per cent in 1987-88. The fall in the share of the female labour force in the rural areas in the agricultural sector was lower. Thus structural change began in the rural labour force also. Needless to say the urban labour force expanded faster, thus leading to economy level changes. These changes were reflected in the Census of 1981 and were first documented by Sheila Bhalla (1983). Subsequently, Alagh (1986) showed that the regional differences were even more marked. To quote:

"It will be argued that, on the employment front, the most exciting thing that has happened in India in the past 50 years is the 3.9 per cent fall in the share of male agricultural workers (cultivators plus agricultural labourers equals agricultural workers) in total male workers, recorded by the 1981 Census," and again, "now 3.9 per cent does not look like a very big shift in percentage terms, but in India it represents an awful lot of people – roughly 6,800,000 male workers. More important, for the sake of people who remain in agriculture, and for the economy as a whole, this shift, which at long last brings the direction of the trend in the employment structure into line with that of the output structures, may have many positive implications." (Sheila Bhalla, 1983.)

The aggregate change in the All-India proportions was accompanied by a fall in the share of agricultural workers as Sheila Bhalla showed. But in some states the fall was very low, for example, between 1.79 per cent and 2.87 per cent in Andhra Pradesh, U.P., and West Bengal. In these states and others the decline in the period 1971-81 was compensated by a rise in the period 1961-71, the additional cases being Bihar, Kerala, Madhya Pradesh, Orissa and Punjab. Thus, in these states a discussion of the nature of the structural pattern of growth was somewhat premature in 1981 and this was also brought out with subsequent empirical examination. In the case of Punjab, 1965-80 was a period of rapidly rising agricultural productivity in that state and the value added per worker was the highest in the country and also was 5.25 times that of lowest states. Also the population below the poverty levels had been reduced to around 15 per cent by 1977-78. The share of non-agricultural workers increased by 3.26 per cent in the period 1971-81 and this was less than the All-India decline. Also the decline in the period 1971-81 was compensated by a larger rise (7.37 per cent) in the period 1961-71. This then left the following states where the structural change postulated by Sheila Bhalla were pronounced: Gujarat, Haryana, Karnataka, Maharashtra and Tamil Nadu. Punjab had to be considered as an alternate case of growth. In Gujarat, Maharashtra and Haryana, the rise in the share of non- agricultural workers (between 4.92 to 5.58 per cent) was much higher than the national average of 3.26 per cent. In Karnataka and Tamil Nadu the decline was 5.29 and 3.52 per cent. Thus in states which account for around a quarter of the country's population and labour force a fairly systematic and persistent trend of structural change and labour reallocation had been achieved in the last two decades (1960/80). The factors associated with these structural changes tell an interesting story. Alagh (1986, Chapter 3) had argued that share of the nonagricultural sector in the labour force had fallen between 6 and 10 per cent in two decades in these areas, which by itself was impressive given the cross-section analysis of other countries by scholars like Kuznets. Two major features may be noted. Apart from Karnataka, in all the states listed above where structural changes in the labour force were noted, the per capita value added in the factor sector was much higher than the national average in 1980-81 (in Gujarat and Maharashtra two to two and a half times higher. In these states value added per capita at constant prices was between Rs.166 to Rs.324 in 1981, while in most other areas, it was around half of this level). Second, all these states show a growth rate of industrial value added higher than 5 per cent per annum in the period and some as high as around 10 per cent. Since, growth of industrial output in India is roughly 53 per cent higher than the growth of total value added, in these states one is talking of industrial output growth rates of around 7 per cent compound and above and such growth has taken place over an already achieved critical minimum level. These states have a much higher level of per capita power consumption than the national average; between 149/320 kWha/caput as compared to less than 100 Kwha/caput in many other states and possess a more diversified industrial structure. The argument is not that industrialization itself absorbs labour force on a large scale. However, there seems to be considerable evidence that rapid industrialization, after it crosses a particular level, in relation to the population base of the regional economy and continues to grow fast for a period of a decade or more, brings about associated changes in the tertiary and services sectors such that the structure of the economy starts changing both in output and, what is more important, in the labour force.

Changes in output were more marked and as Table 5 shows the share of the agricultural sector fell from 54.91 per cent in the quinquennium 1951-52 to 1955-56 to 32.82 per cent in 1985-86 to 1989-90. In this period the share of the manufacturing sector rose from 11.88 per cent to 20.0 per cent. The Registered Manufacturing Sector (factories employing 10 or more workers), which both on account of slow growth and policy restrictions, remained roughly constant in the decade 1965-1976, is again rising now. An interesting feature of the Indian economy, as contrasted to many others, is the fact that the share of the Unregistered Sector of the economy (factories employing fewer than ten workers and household sector industries) has risen in GDP from 6.38 per cent in 1951-56 to 7.9 per cent in 1991-92. Policy restrictions and the labour advantages of the economy played a role in this.

The rates of growth of employment in the organized and unorganized sector have kept in tandem with the output performance noted earlier. Table 6 shows that in the period 1972/73 to 1987-88, the differences in employment growth rates between the two sectors are not statistically significant.

The regional structure of the work force shows considerable variation. Table 7 shows that the states in which male workers in rural areas have both a lower percentage than the national level in the agricultural sector (i.e. less than 74 per cent) and higher percentage in the manufacturing sector (higher than 7.6 per cent) are Kerala, Jammu and Kashmir, Tamil Nadu, Rajasthan, Gujarat, Punjab, Haryana and West Bengal. Of the states listed above only Tamil Nadu, Gujarat, West Bengal and Haryana have over 30 per cent of the male labour force in urban areas engaged in the manufacturing sector. These regions will have a diversified structure

Table 5: Growth and structure of agriculture and registered and unregistered manufacturing in GDP

Period	% Share in GDP of:				% Compound annual growth in GDP			
	Agriculture	Manufacturing of which Total	Regd.	Unregd.	Agriculture	Manufacturing of which Total (at 1980-81 prices)	Regd.	Unregd.
1951-52 to 1955-56	54.91	11.88	5.50	6.38	2.88	5.84	6.18	5.62
1956-57 to 1960-61	51.86	13.47	6.78	6.69	3.35	6.28	8.24	4.38
1961-62 to 1965-66	46.61	15.77	8.65	7.12	-0.28	6.62	8.34	4.60
1966-67 to 1970-71	43.76	16.17	9.14	7.03	5.36	3.96	4.67	3.16
1970-71 to 1975-76	42.04	16.95	9.63	7.32	2.33	3.33	2.39	4.61
1976-77 to 1980-81	38.75	18.02	10.35	7.67	1.33	4.86	5.28	4.39
1981-82 to 1985-86	36.48	18.85	11.25	7.60	3.16	6.99	8.56	4.88
1985-86 to 1989-90	32.82	20.00	12.11	7.89	3.59	6.72	6.30	7.41
1990/91 to 1991-92	31.20	20.70	12.80	7.90	1.60	2.60	3.00	2.00

Source: C.S.O.

of the labour force by the end of the 1990s. For the country as a whole the percentage of workers dependent on agriculture has fallen from 70.7 in 1977-78 to 63.9 in 1987-88, as per the National Sample Survey and that in the manufacturing sector has gone up from 10 per cent to 11.13 per cent in the same period. Since the rural labour force is around two-thirds, if less than 70 per cent of the rural male workers are in the agricultural sector and above 30 per cent of the urban workers are in manufacturing, the region may be regarded as diversified occupationally in India.

Output growth in the agro-processing sector

We now turn to the limited field of agro-processing industry. Agro-processing industry in India has a growth record not very different from the industrial sector as a whole. There has been a view, fairly influential outside India that since 1965 industrial growth in India has been stagnating. This view is attributed to Isher J. Ahluwalia (1978), who supported the argument of Bhagwati and Padma Desai (1970) and Bhagwati and Srinivasan that import substituting industrialization was generally inefficient in terms of real resource cost and had petered out as a source of growth.

The Indian economy has been growing since Independence and at a faster pace in the 1980s. The view that its growth has been persistently low (the "Hindu" rate of growth), and that this poor performance is an account of central planning controls, heavy industrialization and the Public Sector (the Nehru-Mahalanobis "Model") is a caricature, since the economy has passed

Table 6: Employment in organized and unorganized sectors (% annual compound)

Period	Growth rate	
	Organized	Unorganized
1972-73 to 1977-78	2.48	2.84
1977-78 to 1982-83	2.42	2.20
1982-83 to 1987-88	1.36	1.55
1972-73 to 1987-88	2.11	2.20

Source: Planning Commission, 1990.

Table 7: Industrial distribution of the rural workforce by the states of India in 1987-88

State	% Distribution of the workforce					
	Rural				Urban	
	Agriculture		Manufacturing		Manufacturing	
	Male	Female	Male	Female	Male	Female
All-India	73.9	82.5	7.6	7.5	26.0	26.9
Tripura	43.7	48.6	5.5	11.5	6.1	1.8
Kerala	52.2	53.7	10.7	23.7	20.7	20.3
Jammu & Kashmir	61.0	83.5	9.2	9.4	24.0	38.0
Tamil Nadu	64.7	74.9	13.7	14.1	31.1	41.2
Rajasthan	64.9	83.0	7.9	4.0	19.5	18.0
Himachal Pradesh	66.4	96.0	7.2	1.8	11.6	7.7
Gujarat	67.7	72.1	9.5	3.6	33.4	22.1
Punjab	68.1	74.4	9.8	5.5	29.8	14.0
Manipur	68.4	78.5	3.2	10.1	7.8	17.6
Haryana	69.8	88.6	8.7	2.6	30.9	19.8
West Bengal	70.8	56.7	9.6	27.3	32.8	25.1
Sikkim	73.5	85.7	1.8	0.4	4.4	2.8
Andhra Pradesh	73.9	80.7	7.9	8.1	20.0	28.3
Orissa	74.4	74.1	6.3	13.4	15.8	24.3
Maharashtra	75.1	90.7	7.4	2.8	29.4	21.6
Assam	75.2	77.2	2.1	4.5	9.3	5.8
Uttar Pradesh	78.4	90.5	7.3	3.9	23.0	22.6
Karnataka	79.3	83.9	6.3	9.6	24.6	30.5
Bihar	79.6	89.3	5.0	3.9	21.2	21.8
Meghalaya	83.5	90.2	1.6	0.7	6.9	0.8
Madhya Pradesh	85.1	90.5	4.9	5.2	21.7	27.5

Notes: Rural male percentages add up to 100 per cent. Same for rural females/urban males/and urban females each adding up to 100 per cent.

Source: National Sample Survey Organization through at least three distinct phases of growth - high growth from the inception of planning to mid-Sixties, low growth from the mid-Sixties to the mid-1970s and faster growth from the mid-1970s to the end 1980s, with a further acceleration of the process in the decade of the 1980s (for a technical and detailed discussion of these phases see Yoginder K. Alagh, 1991, Ch. 1 and Y.K. Alagh, 1992). The argument here is that a complex set of public investment and policies towards the market economy, underlay each phase. The stagnation of the last two years (1991-92) and low growth of the current year (1993) can be viewed as a technical correction of an overheating of the economy in 1989/90 and 1990-91, but if it coincides with a persistent anti-growth policy, could be the precursor of another phase of low growth in the Nineties. The caricaturing of Indian growth experience as a perverse Mahalanobis nightmare is made by interested parties, for the reality is much richer and complex, for even though an industrialization strategy was a part of it, if the Indian economy could grow at high and low growth rates for periods as long as a decade or a decade and a half, then the policy driving forces must have been more diverse and varied, as compared to explanations bordering on simplistic slogans.

It is now recognized that I. J. Ahluwalia's argument on growth rates was factually incorrect. Since the present author was an important party to the debate, we quote a recent summary of the position by J. C. Sandesara who brings out the nuances of the controversies, very sensitively and succinctly[2]:

> However, some recent studies based on the statistics since mid-1970s have suggested that the deceleration period is well in the past and that the pick-up has commenced since mid-1970s. K.N. Raj and Yoginder K. Alagh were to our knowledge, the first to highlight this change[3]. Since then, a few others, including those who had clubbed 1975-80 statistics along with the earlier statistics since mid-sixties to document deceleration, seem to accept the view that it may be more meaningful to study the post-1986 period in terms of the two sub-periods of mid-sixties to mid-1970s and of mid-1970s onwards[4]. As to the specific year from which the cut-off should be marked, Alagh suggested 1976-77.

As Sandesara summarizes, Alagh gives three reasons for this suggestion. In the first place Montek Ahluwalia (1988) stated that in that year, the Indian economy overcame the problems that had arisen due to the severe negative balance of payments and low domestic savings and investments in the previous years. Second, gross capital formation increased to 20 per cent in

[2] We prefer to quote Sandesara, since the present author participated in the growth rate debate and also Sandesara brings out the nuances of the controversies, very sensitively.

[3] Sandesara here refers to Raj (1984) and Alagh (1986). Sandesara mentions that, after giving reasons for the improvement in the rate of industrial growth, Raj concluded: "For these reasons, I would advance the view, even though one cannot firmly support it with adequate statistical evidence (in fact not perhaps for another decade till a sufficiently long time series is available), that there has been possibly some increase in the rate of growth of industrial output since the middle of 1970s, raising it closer to the level achieved in the 1950 and 1960s" (Raj, p. 1802).

[4] Sandesara reviews other important studies by K.L. Krishna and Isher J. Ahluwalia. According to Sandesara, after reviewing briefly the works of Raj (1984) and Alagh (1986), K.L. Krishna concluded: "Thus, there are some clear indications that the slow-down in industrial growth has been arrested. However, there is no room for complacency". (1987, p.364). After reviewing the changes in policies since the mid-seventies, Isher Judge Ahluwalia writes: "The growth of value added in industry, which had collapsed from 6.5% per annum during the decade ending with 1965-66 to 3.5% per annum during the subsequent decade, began a turn-around in the period after the mid-70s. A pick up in growth to 4.6% per annum in the second half of the seventies was followed by a further acceleration to a growth rate of 6.2 per cent per annum in the Sixth Plan period (the latest available data are for 1983-84). The picture was much the same with total manufacturing of with its registered sub-sector" (Ahluwalia, 1987, p.404). Sandesara maintains that her presentation of statistics on industrial growth is based on this view. However, in her early influential work Ahluwalia had pooled the 1975-80 statistics along with statistics since the mid-sixties to document and account for the deceleration, a view no longer accepted (Ahluwalia, 1983, 1985).

that year, and that rate has been maintained or increased since then. Third, in that year, the absolute level of public investment increased by around Rs.900 crores, and it has been rising substantially almost every year since then.

The statistical presentation...based on our view that it is more meaningful to divide the period since 1966 into two sub-periods of low growth rate (mix-sixties to mid-1970s) and rising growth rate (mid-1970s onwards). As to the cut-off point in mid-sixties, there is unanimity on 1966. However, as to the cut-off point in mid-1970s, we have preferred 1975 to 1976 (1976-77), and not 1976 as suggested by Alagh, the reason for this preference being that the rate of industrial growth was about the average in 1975, where it was very high in 1976...1975 had a growth rate of 5.3 per cent whereas 1976 had it of 12.2 per cent. Thus, the sub-periods of 1966 onwards are: 1966-1974 and 1975 onwards, they may be labelled as low and rising growth sub-periods. The rate of growth of general industrial production for 1966-74 and 1975-85 were 4.5 and 5.1 per cent respectively. Thus, we proceed on the basis of the following periods: (1) 1951-65: High growth period (7.8 per cent per annum) and (2) 1966-85: Low growth period (4.9 per cent per annum) *(a)* 1966-74: Low growth period (4.5 per cent per annum) and *(b)* 1975 onwards (i.e. 1975-85): Rising growth (5.1 per cent per annum) (see Sandesara, 1988, pp. 87-88).

Table 8 shows that according to the Index of Industrial production, most agro-based industries reflected the growth path of the Indian economy in the Sixties and early 1970s, namely high growth in the period 1960/65, substantial slow down in the period of devaluation and plan holidays of 1966/68 and some pick up subsequently. The revival of public investment in the mid- 1970s and policy reform leads to higher growth since 1975/76 and further acceleration in the 1980s (Table 9). These figures are based on the Index of Industrial Production of 1960, 1970 and 1980 as base levels. (On account of the obvious statistical problems involved, we chose not to splice the indices and present growth rates for different periods with the base year for the respective index). However a more serious problem is that the Index of Industrial Production in India has limited coverage.

This problem is discussed extensively elsewhere (Alagh, 1991, pp. 174-176) and we do not repeat it. The most important limitation is that the IIP does not cover factories employing fewer than ten persons and the household sector and these categories of producers were very important in agro-based industries. In fact in some cases the Index of Industrial Production only covered a part of the Factory Sector. Thus we also present the output record of agro-based industries from National Accounts Data separately for the Registered and Non-Registered Sector. (Again the data for the 1970s is presented at 1970-71 prices and of the 1980s at 1980-81 prices, in order to avoid splicing problems.) According to the National Account Statistics which covers factories employing ten or more workers as regards the Registered Sector, the growth rates are now much higher in the agro-based sector as compared to the estimates of the Index of Industrial Production, which in India generally covers only a part of the Registered Sector. Particularly in the decade of the 1980s industries like food products, beverages and tobacco and wood and wood products grow between 12 per cent and 16 per cent annual (Table 10). Industries like paper and leather also between 6.5 per cent and 8.5 per cent compound annual.

An interesting feature of the growth process since the mid-1970s, however, is that agro-processing industries in the Unregistered Sector now grow at a much slower rate than in the Unregistered Sector (Table 11). In the 1980s growth of value added in the unregistered sectors ranged between –1.5 per cent to 3.4 per cent for different sectors, apart from paper and products which grew at 6.6 per cent compound and these growth rates are much lower than those of the corresponding industries in the registered sector. Policy changes since the mid-1970s and early 1980s, accounted for such changes.

Table 8: Output growth of agro-based industries, 1960-73 (in % compound annual)

Sector		Growth			
		1961-73	1961-65	1966-68	1969-73
1.	Flour milling	6.88	5.0	-0.6	9.8
2.	Sugar	3.2	4.5	-12.2	11.0
3.	Hydrogenated oil	4.3	4.9	3.4	–0.3
4.	Cotton spinning	1.3	3.9	0.9	1.0
5.	Cotton weaving	-0.7	0	-1.3	–0.6
6.	Jute manufactures	–1.8	3.8	–7.1	–1.2
7.	Wood except furniture	6.0	18.7	-0.2	-7.5
8.	Paper and products	7.3	8.0	7.9	5.3
9.	Index of industrial production	4.9	9.0	1.6	4.5

Source: Index of Industrial Production: 1960 Base.
Column 2 is computed by semi-log regressions of IIP on time. Other columns are year to year comparisons.

Table 9: Output growth of agro-based industries 1972 to 1983-84 (in % compound annual)
Base 1970 and 1980 = 100

Sector		1972-73 to 1983-84	1972-73 to 1975-76	1976-77 to 1983-84	1984-85 to 1989-90	1989-90 to 1990-91
1.	Food products	4.65	2.6	5.7	5.0	12.5
2.	Beverages	16.0	11.1	18.4	–1.1	1.3
3.	Tobacco	2.5	–2.3	4.9	included in beverages	
4.	Textiles	0.8	0.8	0.9	1.9	14.7
5.	Wood and products	9.5	3.6	12.5	–2.5	12.7
6.	Leather	–0.8	5.1	–3.7	6.4	3.1
7.	Index of industrial production	4.1	3.0	4.6	8.5	8.5

Note: Columns 2, 3 and 4 are based on Index of Industrial Production 1970 = 100; and columns 5 and 6 on IIP 1980 = 100 (Cols. 5 and 6 are averages of annual growth rates to account for the droughts of 1986/87 and 1987/88).

The policy regime

The policy regime for agro-processing industry was a part of the overall scheme of industrial policy and control in India, which is being discussed elsewhere in the Seminar and yet had special features, particularly regarding control of technology choices, employment objectives and commodity trade and movement controls which gave it special characteristics. While there has been considerable policy reform, a number of the earlier features continue and hence these aspects merit analysis. Industry policy in India until recently involved licensing of the creation of capacity in industrial firms outside the small-scale sector. In addition to the general provisions of licensing of capacity creation in relation to plan targets, availability of domestic and external resources and therefore the implementation of a scheme of priorities in capacity licensing and regional balance, there were five special features of licensing as applied to agro-based industry. The first was the pursuit of the objective of generation and/or protection of employment. From the First Plan onwards each plan and industrial policy statement had a special emphasis on the employment generating capacity of village, cottage and small-scale

Table 10: Growth of gross value of output of agro-based industries at 1970 and 1980 prices for the period 1970-71 in the registered sector (% compound annual)

Sector	Growth of gross output			
		1970-1971 prices		1980-81 prices
	1971-72 to 1981-82	1971-72 to 1975-76	1976-77 to 1981-82	1980-81 to 1990-91
1. Food products	5.0	1.6	7.8	16.7
2. Beverages and tobacco	6.8	3.4	9.6	12.1
3. Textiles	5.3	4.4	6.4	2.1
4. Wood and products	-0.7	-3.3	1.4	12.2
5. Paper and products	4.8	1.6	7.4	6.5
6. Leather and products	1.8	-7.2	9.3	8.6
7. Economy level growth of registered manufacturing	6.3	4.6	7.6	7.8

Source: For Columns (2), (3) and (4), Alagh, 1991, p. 177. For Column (5), C.S.O.

Table 11: Growth of net domestic products in agro-based industries for the period 1971-91 in the unregistered sector (% compound annual)

Sector	Net value added at 1970-71 prices			Net domestic product 1980 prices
	1971-72 to 1981-82	1971-72 to 1975-76	1976-77 to 1981-82	1980-81 to 1990-91
1. Food products	3.5	3.9	3.2	3.4
2. Beverages and tobacco	5.1	6.8	3.8	1.3
3. Textiles	5.5	5.9	5.1	2.6
4. Wood and products	0.2	5.0	-3.8	-1.5
5. Paper and products	8.4	1.0	14.6	6.6
6. Leather and products	1.4	1.5	1.3	1.5
7. Growth of net domestic product in unregistered manufacturing sector	4.2	4.4	4.0	5.1

Source: For Columns (2), (3) and (4), Alagh, 1991, p. 179. For Column (5), C.S.O.

industries. (These statements of intentions have been summarized in a recent paper by S. K. Goyal, 1993.) However, apart from the general influence of such oratorical statements, their quantitative impact is exemplified in a linear programming exercise detailed in the early versions of the Sixth Five Year Plan in which results were detailed for sectors like textiles and sugar. Given an employment target and alternative techniques (handloom, powerloom and mill sector in textiles and village Gur, Khandsari and Factory production in sugar), investment constraints and output demand, the capacity requirements for each sector and technology were worked out. (See, Government of India, Planning Commission, 1978, for details.) These studies were then implemented in terms of licensing policies. This emphasis also meant that for a large number of agro-based commodities production is reserved for the small scale and village sector and continues to be so. This includes, for example, packaging of food items, spices, etc. The second major emphasis on licensing was an explicit policy of priority to the cooperative sector in licensing of agro-based industries. This includes major sectors like textile spinning, sugar, alcohol, dairying, and edible oil refining. In all these industries the private sector was allowed only if cooperative sector proposals were not available. Until 1991 such a policy continued and is to an extent enforced even today. For example, sugar is still a licensed industry and strong financial incentives for cooperatives continue. The third major plank was complementarity of capacity between large and small industry. This could mean for example that a part of a process could be reserved for small scale or village sector, say certain finishing processes could be controlled in textiles and allocated outside the large scale sector. Such programmes are called "joint production programmes". The fourth aspect in licensing was an attempt to balance commodity production and processing. Therefore, there were designated cane areas for sugar factories, raw cotton and "spinning balances" and so on. Finally, agro-processing generally got low priority on account of its 'elitist' demand character.

The second aspect of industrial licensing for agro-based commodities emerged from the fact that the 1973 Industrial Policy decisions placed restrictions on monopoly houses (MRTP concerns) and foreign concerns. Agro-industries were excluded from their capacity creation efforts. Cooperatives and small industries would "be encouraged to participate in the production of mass consumption goods". These policies were partially relaxed in 1976 ("regularization of excess capacity"), again in 1980 and then in 1985 (broad-banding, export set-offs for licensing, etc.). Compulsory licensing was abolished in 1991 and but exists still for the following agro-based sectors: sugar, alcohol distillation, paper and newsprint, leather products, animal fats and oils, cigars, cigarettes and tobacco products.

Control of prices of agricultural commodities was another policy followed extensively and continues up-to-date. While grain movement controls have been lifted, substantial public intervention systems still exist. Stock controls on oilseeds, alcohol movement controls by states, state level stocking controls on other raw materials are still common. Export Prices and quantity quotas even today for raw cotton and other items. Minimum Statutory Prices are fixed for cane purchase in each of eighteen sugar zones and each factory has to supply a certain quantity of sugar at a controlled price for the public distribution system (PDS).

Foreign investment and technology are still controlled in agro-processing items. But in 1991 the following industries of interest to agro-processing have been listed for foreign technology agreements and 51 per cent foreign equity approvals on an automatic basis: mechanical sailing vessels up to 10,000 DWT including fishing trawlers, agricultural and textile machinery of various kinds, fertilizers, technical grade insecticides, weedicides, fungicides, extraction and up-gradation of minor oils, soya products, hybrid seeds, all food processing industries and packaging for agro-processing other than milk food, malted food and flour, but excluding items reserved for the small scale sector.

Import of final consumer agro-processed commodities is on the banned list. Import of machinery and raw materials is allowed subject to the regulations of the exchange control regulations and on payment of tariffs which are being gradually reduced. Important inputs for the agricultural sector like fertilizers, and pesticides are price controlled both at the level of the producer and the consumer. There are also "guide- lines" or "allocations" for regional distribution of fertilizer and technical grade pesticides. State level controls are there for rates charged by cold storage.

Distribution of credit for the rural sector, for working capital and for fixed investment, is provided both through an elaborate cooperative credit system and the nationalized banking system. The private sector exists only in the Kerb market which is unorganized. Refinancing facilities at subsidized interest rates for borrowers in the rural sector exist and rural credit is a part of priority lending schemes. Both agricultural and agro- processing activities are covered by such schemes.

An extensive set of public investment programmes exist in the Five Year Plan. These relate to land water development projects, rural infrastructure including marketing and agro-processing, as also special area schemes for drought prone, desert, hill and coastal areas. There has been greater emphasis on non-crop based activities like fishing and forestry in recent years. There are also special programmes for rural employment generation and small and marginal farmers of special interest to agro-processing activities are the state Agro-Industries Corporations, state Forestry Corporations and new District level initiatives on agro-climatic planning and Small Farmer Business Consortiums. The purpose of this broad listing is to give an idea of the very wide range of public programme and policy regimes in India. It is obviously impossible to discuss their effectiveness in a comprehensive manner. We propose to follow a somewhat different route. We describe and discuss a few specific issues of policy reforms in the agro-processing sector and the relationship of agriculture and industry in the process of structural adjustment. The purpose is to gave a flavour of the nature of policy initiatives being taken, the options available and a critical assessment of the policies themselves and major gaps. We discuss as examples:

(i) specific cases of policy reform for sector like pesticides and fertilizers where reform has been initiated, although more can be done and sugar where reform policies have been talked about, but not much has been done;

(ii) rural credit, where reform has been proposed but not much is done;

(iii) rationalization of public investment policies for a more widespread programme of land and water development to serve as a base for diversification of cropping patterns and non-crop agro-based development;

(iv) rationalization of public intervention mechanisms in agro-commodity trade to serve as the basis of a more diversified agro industrial economy, at the same time protecting the interest of poorer regions and classes; and

(v) some concluding observations on alternative policy paradigms in the next phase of Indian development.

Moving from controls to fiscal methods

One of the major techniques of policy reform at the present phase is to move firms out of direct price control at the level of each individual firm to an industry level fiscal or tariff rule. Most of these reforms have been in the industry sector not related to agro-industry like cement, steel and aluminum. We give a few agro-linked examples to give a flavour of the approach and gaps. The main direction of reform in the fertilizer industry has been to raise nitrogen administered prices for the farmer to take account of the increase in world prices, as also Indian costs. Phosphatic fertilizer was decontrolled, since Indian demand was not a determinant of international prices, unlike nitrogen where past experience was that large Indian/Chinese deficits tended to influence world prices. However a policy package was proposed for the domestic fertilizer industry in the 1991/92 Budget speech. This has yet not been announced. The idea has been to move over from unit level to group wise prices to give incentives for cost minimization and modernization. Capacity utilization and plant improvement were the main determinants of costs. The government did move over to normative rather than actual costs for each feedstock for allowing capital related costs in 1990, but this has yet not been done for current input cost. This problem has been known since work was done by the present author since the mid-1980s, but the reform process is slow. It was felt then that individual firm level process would in a phased manner give way to normative group level pricing and then to a tariff regulated international price regime.

The impact of capacity utilization on energy efficiency in 17 fertilizer plants was econometrically tested. To estimate variation in energy consumption with the variation in capacity utilization, six equations, given below were fitted:

1. $Y = A + B x$
2. $Y = A + B \log x$
3. $Y = A + B/x$
4. $\text{Log } Y = A + B \log x$
5. $\text{Log } Y = A + B x$
6. $\text{Log } Y = A + B/x$

where Y = Energy consumption in million kilo calories and x is capacity utilization in percentage. Data of Energy consumption and capacity utilization quarterly for the period 1978-79 to 1982-83 were used and showed as expected a strong inverse relation between capacity use and energy cost.

The Long Term Fiscal Policy Statement had, therefore, stated "Fertilizer is an energy intensive industry and studies show that energy consumption per unit of output varies widely among units of the same vintage based on the same feedstock. The incentives to economize on energy and to reduce unit costs of production are also weak in a pricing system where retention prices are determined plant wise" (GOI, 1985, p. 16). Studies showed that energy saving possibilities were dramatic falling from 700 Kwh/tonne of urea to around 415 Kwh/tonne. But this reform still lies ahead.

Regarding pesticides the reform process goes back to the 1988 budget. The Framework Action Plan on Foodgrains Production headed by the present author (Alagh, 1988) recommended pricing strategies to meet the objectives of cheaper inputs to farmers, rather than direct subsidies. In inputs like pesticides and seeds, subsidies can become a method of supporting inefficient production units (high cost technical grade manufacturers or formulators) or high cost distributors in cooperative, state or private sectors, and the benefit may not go to the farmers. Thus subsidies can support high cost pesticides supply or seed prices say higher than Rs.450 per quintal. With a price rationalization scheme the farmer gets the benefit straight away.

Based on the recommendation of the Action Plan, the Finance Minister in the Budget Speech of 1988 indicated full exemption from excise duty for a large number of pesticide intermediates. Further, reduction of customs duty in respect of a number of pesticides and pesticide intermediates from the levels of 105 per cent and 147 per cent to 70 per cent and 60 per cent ad valorem.

Similarly, import of fungicides, weedicides and insecticides was permitted under OGL as recommended by the Action Plan. This covers Isoproturon, Benzene Hexachloride, Endosulfon, Malathion, Dimethoate, 2,4-D, Manganese Ethylene, Bis Dithicarbarmate (Maneb), Methyl Parathion, Monocrotophos, Phorate, TMI (thiram), Dithane, Butachlor and Benthocarb. These could be imported by Indian Farmers Fertilizer Cooperative (IFFCO), Krishak Bharati Cooperative (Kribhco) and state Agro Industries Corporation for stock and sale.

However in December 1988 the industry was able to get this policy changed. This policy has again been implemented in the 1993 budget, but by now the effective level of protection is much higher since the Rupee has been devalued considerably since 1988.

There has been since 1989 a policy for more liberal import of seeds. While self pollinated crop seeds are not allowed to be imported since India has great strengths in this area, seeds of the Hybrids for grains and of vegetables, fruits and flowers are allowed for import. There has been a reduction in tariff rates generally for agro inputs. However it is interesting that market prices for phosphatic fertilizers, pesticides on tariff based imports and hybrid seeds have not fallen, showing the somewhat limited nature of working of the strategy of alternative delivery channels of inputs to the former. This could be on account first of the devaluation of the Rupee and also imperfections in rural marketing and delivery systems.

The kind of phased reforms being implemented in Indian industrial sectors, have also been advocated for agro-based sectors like paper, newsprint and sugar but have not been implemented. Sugar is a case which illustrates the principles involved. At present the country is divided in 18 sugar zones, for each of which the Commission on Agricultural Costs and Prices recommends a Minimum Statutory Price (MSP) for sugarcane. The Bureau of Industrial Costs and Prices recommends a conversion cost for each of the zones based on cost studies of cane crushing in each zone. MSP plus conversion cost leads to a sugar price at which each factory delivers a pre-determined percentage of its production to the state for the public distribution system. The following phased reform was suggested in 1984 when the present author was Chairman BICP:

(i) reduce the sugar zones over a period and finally have one sugar economy;

(ii) work out the long range marginal cost of sugar conversion. It was shown that conversion cost of sugarcane can fall by 25 per cent as the capacity increases above 2500 t.p.d.;

(iii) vary the percentage of supply to the state in a manner such that each producer gets the normative long range marginal cost on capacity use. If he does better in capacity use let him keep the extra output for free market sale. This becomes a powerful incentive for fuller capacity use and cost minimization; and

(iv) after a transitional period, decontrol sugar and relate with a tariff based regime.

The only part of the recommendation accepted was to impose a minimum scale stipulation of 2500 t.p.d. for fresh investment.

In this dual pricing algorithm, however, if the shape of the levy and non-levy demand curves are known, the levy/non-levy proportions can be set to ensure the LRMC realization on the average. Radhakrishna has estimated econometrically that in the model:

$$\log D = \log a + \log Y + c \log P$$

where D = demand for commodity, Y = income and P = price,

The price elasticity of demand can be estimated for the open market demand. If pricing policy has to be used in a planned economy, the "price" which links the micro policy with the macro objectives of the plan, will be different from the market price. It is here that tariff and excise policy changes can be made. A dual pricing algorithm can be used for the same purpose. In this case, once the demand and supply curves are specified, the quantity ratios in a dual pricing policy can become the instrumental variable. In a review of the post socialist transition from a global development economics point of view, Lance Taylor has recently argued that from the mid-1980s onwards India followed a policy of switching industry from firm level controls to an industry level strategy integrated with a plan. He discusses the present author's description of industry level policies like dual pricing, threat of imports through tariff policies and export set-offs as "The Theory of a Multi-Faceted Price System" and argues that such marketization systems work more often than not as compared to simple globalization models.

Table 12: Share of gross bank credit to agriculture

Date	Percentage
June 1969	5.4
June 29, 1990	17.4
June 28, 1991	15.5
May 31, 1991	15.4
May 29, 1992	14.9

Source: RBI, Report on Trends and Progress of Banking in India 1991-92, p. 21, p. 26.

Table 13: Performance of PACS

Year	Loans issued (Rs. in crores)	Overdue
1988-89	4 197	38.6
1989-90	4 789	28.9
1990-91	4 681	45.1

Source: Ibid, RBI, p. 77.

(See Lance Taylor, 1992, pp. 7.) The reference here is to Poland and India. The Indian examples of econometric studies used to design industry policies as a part of a plan is to Alagh, 1991, Ch. 3. However, such reforms for the agricultural related and agro-based sector has been hesitant and slow. On the other hand for some sectors there has been (presumably under pressure) very rapid policy change. For example, in the 1993 policies, import of grand parent stock for poultry was allowed with zero duty as an exceptional case. Since poultry is a highly subsidized industry in the US and the EEC and the Indian industry was developing rapidly as shown earlier, the logic of this somewhat unique measure, in a general process of slow globalization was not quite clear.

Rural credit reform and private investment

Agricultural fixed investment in India has fluctuated in the 1980s and has fallen since 1991-92 on account of the macro reforms. In the 1993-94 budget, however, an attempt has been made to raise public investment substantially. Meanwhile private investment has been reeling under the impact of a rural credit cut back.

The 1990 "Agricultural and Rural Debt Relief Scheme" (ARDR Scheme) of the V.P. Singh Government had a crippling effect on India's rural credit system. The problem of overdue on loans was building up in the second half of the 1980s and the SFPP had a special component to rejuvenate defaulting primary agricultural cooperative societies. The ARDR Scheme 1990 destroyed that programme by providing that defaulters would be "eligible for relief" subject to a maximum of Rs.10,000 per borrower on loans for agriculture and allied activities from Regional Rural Banks (RRBs) and public sector banks. Fifty per cent of the liability to cooperatives was to be met from the Government of India. The result was enormous chaos in the rural banking system. The Economic Times of 4 February 1993, reports that even as late as 1993, Rs.1,250 crores of the budgeted rural debt waiver to be paid to the financial institutions to compensate the burden of state Governments was not paid by the Finance Ministry.

With refinancing drying up and the credit arteries choking, the share of agricultural credit in the banking system started falling for the first time in recent economic experience as the figures given in Table 12 show.

For the primary agricultural cooperative societies the absolute volume of loans in nominal terms disastrously declined as overdue mounted as the figures in Table 13 show.

Meanwhile instead of reorganizing the system various policy making bodies got into the framework of general rules like cut down priority credit, abolish the RRBs and merge with sponsor banks (ACRC) or commercial banks to sponsor rural subsidiaries (Narasimham Committee). N. A. Mazumdar has described how the Narasimham Committee's recommendation and the reduction of priority sector credit to 10 per cent will "impair agricultural growth" in his C.E. Kenal Memorial Lecture.

The painstaking efforts of the apex National Bank for Agriculture and Rural Development (NABARD) to restructure agricultural credit by allowing defaulters to phase repayment of overdue, guarantee by state Governments and provisions of refinance, needs to be implemented. Another set of restructuring proposals on financial sector reform relate to re-organization of the banking system itself. The Narasimham Committee, the Khusro Committee and the World Bank have made a set of proposals which include alternatives like:

(i) abolish Regional Rural Banks and merge with lead commercial bank;

(ii) drastically reduce or abolish priority lending targets to small farmers, landless labourers and backward regions;

(iii) replace NABARD role by a new Apex Cooperative Bank.

Many of these proposals would lead to a new para-statal agency rather than resolve the problem of efficient lending to the areas from which a large part of future agricultural growth is expected. The RRBs have to be put through a scheme of rationalization which would consist of:

(i) working out of reorganization based on studies of normative costs of services of target lending operations;

(ii) structured and limited subsidies for target groups for limited periods, to be met from government coffers;

(iii) write-off of past losses after restructuring proposals worked out and MOUs accepted by managements as for other PSUs; and

(iv) specific interest rate ceilings related to private sector 'non-institution' lending rates and all unprofitable activities below these rates and outside the defined subsidies to be phased out.

To illustrate these principles, the basic objectives of RRB lending cannot be given up. However lending targets for agricultural development and for small farmers, landless labourers and artisans, must be defined in bankable terms at the local level. The reorganization of RRBs at that level must be in terms of unit cost of such services. Efficiency cost norms must be developed and may in fact vary for different regions. For example the normative cost of servicing a small farmer land development account would be different in Silliguri District as compared to Ranikhet. Unit cost minimization should be the principle for reorganization of RRBs. No RRB should be allowed to enter an area of banking service if its unit cost is higher than the interest rate in the local Kerb market or in short by the moneylender.

Table 14: Plan outlay (Central, States and Union Territories) in current prices 1980-92 (Rs. crores)

Year	Plan outlay
Yearly average	
1980-85	5 226
1985-86	7 292
1986-87	8 733
1987-88	9 913
1988-89	10 403
1989-90	11 758
1990-91	12 381
1991-92	13 114
Average annual increase	
1985-90	1 306
1990-92	683

Source: Planning Commission.

Information available on such rates in the Rural Debt and Investment Surveys must be systematized and periodically updated by NABARD. Specific business and targeted subsidies must be developed in such an accounting framework and hard budget constraints and efficiency norms enforced.

The discussion however at present is on totally unreal lines of "minimalist agricultural credit theories", privatization of financial institutions, etc. No wonder, little progress has taken place on financial sector reform for agriculture.

It is somewhat early to speculate on the nature of reform for this sector promised in the Budget for 1993-94. The Government of India have stated that the policy advice of reducing priority sector lending to agriculture will not be accepted and this has slowed the discussion with international financial institutions on financial sector lending projects. But more serious is the drying up of credit channels and efficiency of moral lending operations, which need to be handled on a priority basis.

Also the whole agro-processing sector and agricultural export sector draw on the existing financial institutions for credit. Negotiations have been continuing from 1988 with the World Bank to develop a large project for infrastructure support to agro-exports with a credit, marketing and infrastructure component – but as yet the package is not ready.

Public investment and planning

The Plan plays an important role in triggering public investment and facilitating private investment in the agricultural sector. In the Sixth Plan period the sector was given less priority. Thus, in the original plan 25.3 per cent of the total outlay was allocated to agriculture and allied sectors, rural development, special area programmes and irrigation and flood control. But in the actual outlay the share of these sectors was only 23.9 per cent. The period 1985-90 showed an annual average increase of Rs. 1 306 crores in the outlay for these sectors (Table 14) but this went down to Rs. 783 crores per year in the period 1990-92. (Actual expenditure figures for 1992-93 are not yet available.)

For the future it is tempting to state public expenditure targets for agriculture and rural development in terms of percentage of plan outlay or total investment. This was alright in the past, but would now be dangerous in the future as a prescription for a priority sector since the Planning Commission has decided, for the first time in planning history to reduce the aggregate savings level in the period 1992-97 to 20.6 per cent from the level of 20.7 per cent achieved in 1989-90. Also since the targeted level of net inflow from abroad is reduced from the level of 2.9 per cent of GDP in 1989-90 to 1.4 per cent in the Eighth Plan – a reduction of the magnitude very seldom conceived in mahalanobis kind of models, the aggregate planned levels of investment will fall to 22 per cent from the level of around 23.5 per cent achieved in 1989-90. Since the scope of private investment is being enhanced (as a percentage of lower efforts) the crunch on public investment will be severe. For the present, therefore, the only way to protect the agriculture and rural development priorities is to press for increase in real terms in absolute amount. As shown above this increase in the period 1985-90 was Rs. 1 300 crores annual. An increase of around Rs. 1 300 crores annual in 1990-91 prices could sustain the kind of rural growth achieved in the 1980s. The kind of policies followed in 1990-91 continued in the future it can be shown would de-accelerate the effort to a growth rate of around 2 per cent annual. A 4 per cent growth rate would need an enhanced level of incremental public investment of around Rs. 2 000 crores annually in 1990-91 prices or around Rs. 2 500 crores annually in 1992-93 prices. This order of funding incrementally has to be earmarked for agricultural and water resources programmes out of the additions to the Eighth Plan outlay raised by the Prime Minister's directive for the agricultural and rural development sectors.

The long-term agricultural investment strategies currently encouraged emerge from India's agro-climatic planning strategy. The original agro-climatic plan of India is described elsewhere (Alagh, 1989) and is not repeated here. The Eighth Plan accepts this strategy as follows:

"Agro-Climatic Regional Planning Approach (ACRPA) was initiated by the Planning Commission in 1988 to formulate integrated development plans for agriculture and allied sectors differentiated by homogenous agro-climatic regions. During the Eighth Plan, emphasis is on development of resources and their optimum utilization in an integrated and sustainable manner for constituent sub-sectors. A macro level strategy for the 15 broad agro-climatic zones, is proposed to be incorporated in operational integration in state plans covering activities in crop and non-crop sectors. ARPU teams are preparing operational plans for about 30 districts. These will be implemented in pilot block/watersheds during the Eighth Plan, with the help of the state Agricultural University, ICAR, and state extension officials working at the district level." (Eighth Plan, Vol. 2, p. 10.)

The details of the strategy have been discussed earlier. The question is the macro-economic policies required to implement this strategy. We attempt in this paper to present an econometric model across agro-climatic zones to derive the operational policies. The macro policy question is the correct mixture of economic policies and public expenditure magnitudes to implement the plan. The following issues arise in this context:

(i) The mix of public investment and economic incentives, i.e. price policies to encourage the land and water investments and the cropping strategies derived in the agro-climatic plan.

(ii) the role of markets tax and tariff reforms in operationalizing the developmental strategy; and

(iii) the role of economic incentives to encourage the kind of institutional reforms required.

Table 15: Terms of trade for the agricultural sector in India 1970-71 and 1980-81 to 1987-88 (1970-71 = 100)

Year	Terms of trade
1970-71	100.0
1971-72	97.5
1972-73	103.6
1973-74	109.6
1974-75	100.0
1975-76	84.6
1976-77	90.6
1980-81	87.3
1981-82	82.9
1982-83	84.7
1983-84	86.3
1984-85	86.0
1985-86	82.4
1986-87	88.0
1987-88	87.5
1988-89(P)	87.6

Note: P = Provisional; Source: Kahlon and Tyagi, p. 270 have estimates for 1969/70 base for Rows 1 to 7; Table 4.6 p.67 for Rows 8 to 13 and CACP (1991) and CACP (1992) Table 1.2 p.23 for Rows 1 to 7, 14 to 16. Whole series at 1971/72 prices is only now available.

An important macro policy aspect is that the concept of inter-sectoral flows defined earlier can be used to measure the terms of trade of the agricultural sector. A.S. Kahlon and D.S. Tyagi (Kahlon and Tyagi, 1983) had used a macro inclusive concept to measure the terms of trade of the agricultural sector which generally corresponds to the relative process of the agricultural sectors sales to the sectors' purchases, as defined in the Annex. The results for the period in which the terms of trade of the agricultural sector fell and for the recent period are given in Table 15. The terms of trade for the agricultural sector fell significantly in the first half of the 1970s; the so-called post-green revolution, declining "profitability" phase. They improved in the early 1980s, but have fluctuated between 83 to 88 (1971/72 = 100) since then.

The more important issue, however, is whether relative prices determine output response as compared to say agricultural infrastructure investment. Using social accounting matrices de Janvy and Subba Row (1986) and more recently K.S. Parikh (1991) have argued that reduction in agricultural prices/subsidies and a corresponding increase in public investment would have significant positive production and welfare effects. The de Janvry Subba Rao analysis considers social accounting as a matter of analysing components of final demand or factor income flows (class-wise distributions) in different ways, as emerging from alternate policy simulations rather than looking at the integration of the production system in a system of social accounts. The analysis is interesting and reveals a number of insights. Yet it does not get at the central issue of the integration of demand or value added changes with production systems and, therefore, does not use a fully integrated SNA framework. Their analysis as also that of K.S. Parikh are based on the assumption that the agricultural sector is a closed economy in the sense of flows to it being fixed and hence all the choices are within the sector, while the macro policy problem is to set the "desirable" levels of flows to the sector. It is the choice of relative price configurations and public investment levels for the agricultural sector - which we determine through disaggregated empirical analysis.

Price policy as an instrument would determine agricultural productivity by permitting the farmer to improve his cropping pattern given the agro-climatic constraints he faces. The argument of this paper is that suitable land and water management strategies through an appropriate mix of public and private efforts, household savings, strategies of providing collateral for community works by making community labour bankable and selective public subsidies for such works (for example a rural employment programme) would provide the preconditions of the working of decentralized rural markets. Otherwise "getting prices right alone" may not work.

To test the importance of public investment in land and water, cropping pattern and other variables cross-section regressions were tried to explain differences in agricultural productivity. Keeping the agro-climatic effect under control by dummy variables. The estimates are based on District level data for 1983-85. The results are shown in Table 16.

The estimates show the importance of the cropping pattern or relative price variable, but also the significance of irrigation, literacy and bank credit. It is quite obvious that price policies can work in a regime of shifting of supply possibilities through physical and financial infrastructure creation.

Organizations and institutions for land and water development programme

Land and water development programmes of the kind emerging from the agro-climatic plan are very different from earlier schemes. The Eighth Plan included the agro-climatic plan's targets as emerging from the detailed regional systems below distributors and minors to reach water to farmers in 8 mm. hec of land. Separate targets for tank irrigation have been given, as also for horticulture crops. Targets for watershed development and crop diversification have been substantially modified as emerging from the regional exercises.

The main features are as follows:

(i) fifty per cent of government canals must be equipped to deliver water to each field in the command area. Such a programme costs around Rs.3000/hec. as seen in over twenty projects in the National Water Management Programme in the late 1980s and the SFPP evaluations. Out of the total area of 130.8 million hectares, the Ministry of Water Resources has identified 33.8 mn. hec. as the first priority and a target of between 6.7 to 12.6 mn. hec. is set for Zones 3,4,5,6 and 11 namely the Middle Gangetic Plain, the Upper Gangetic Plain and the East Coast Plains and Bills Regions;

(ii) 4.2 mn. hectares of area is to be benefitted by improvement of construction of tanks or other traditional water harvesting structures. This is particularly important in Zones 3, 7, 10 and 11 or the Middle Gangetic Plains, the Eastern Plateau and Hills the Southern Plateau and the Hills and the East Coast Plains and the Hills. A subsidy of up to Rs.2000 per hectare of irrigated area can be given to a village community for desalting and in the Plateau and other Hilly regions up to Rs.20,000 for a tank for a complete restoration package;

(iii) 54.8 million hectares will need to be brought under integrated watershed development. This would include soil amendments and land shaping, contour binding, gulley and nallah plugging, ridge ploughing practices, appropriate soil cover, traditional surface and ground water harvesting and improved conjunctive use of ground water. The major areas are in zones

Table 16: Determinants of the agricultural productivity dependent variable at agro-climatic levels

Independent variables	Dependent variable: land productivity (Rs. per hect.) Beta coefficient	
	Linear	Log-linear
Intercept	–809.058	2.411
	(–2.28)	(6.89)
Irrigation (%)	24.52	0.124
	(6.18)	(6.45)
Fertilizer	6.907	0.0364
	(3.65)	(2.03)
Op. holding	–35.63*	–0.054*
	(–1.06)	(–1.69)
Rainfall	0.051*	–0.293*
	(0.407)	(–0.649)
Tractor	54.02	–0.0043*
	(2.25)	(–0.455)
Tubewell	3.833	0.0021*
	(3.66)	(0.239)
Cropping pattern	26.563	0.943
	(21.37)	(18.69)
Bank credit	–0.684*	0.081*
	(0.91)	(3.67)
Literacy	14.390	0.194
	(3.13)	(4.10)
Dummy 1	–16.91*	0.067*
	(–0.075)	(1.50)
Dummy 2	–65.96*	0.067*
	(0.258)	(1.20)
Dummy 3	317.27*	0.117*
	(1.07)	(1.65)
R2	0.8434	0.8334
F	119.75	121.22

Notes: (1) dummy 1 = 1 if a district belongs to zone 7, 8, 9 or 10 = 0 otherwise; dummy 2 = 1 if a district belongs to zone 11 or 12 = 0 otherwise; dummy 3 = 1 if a district belongs to zone 13 or 14 = 0 otherwise.
(2) * indicates coefficient not significant at 5 per cent level.
(3) Figures in the brackets are the 't' statistics of the coefficients.

7, 8, 9, 10 and 13 namely the Eastern Plateau and hills, the Central Plateau and Hills, the Southern Plateau and Hills and the Gujarat Plains and Hills. These regions would also need extensive soil development measures for their diverse soils;

(iv) wells and tube-wells would need a major priority in the Gangetic Plain (shallow wells) and the plateau and hill regions. In terms of levels of activity the programme has peaked in annual terms and the studies mounted on aquifier management in problem areas like salinity ingress zones and grey areas need to be used for action programmes. Ground water markets need to be strengthened in areas of safe withdrawal and state sponsored programmes in tribal belts and difficult areas;

(v) modern irrigation management techniques developed for projects like Sardar Sarovar and IGNP Phase II need to be implemented in other projects -- some of which should be treated as national projects. Extensive catchment area treatment needs to be implemented as outlined by the Ganga Aflood Control and Brahmaputra Master Plans;

(vi) with the land and water development programmes as indicated above implemented - extensive changes in cropping patterns identified for each agro-climatic sub-zone would become feasible. In some regions non-crop based agriculture could be aimed at. Tree crops, horticulture crops and fodder for dairying are increasingly possible. The institutional and policy reforms required for these outcomes are discussed below;

(vii) the institutional and organizational changes required for these kinds of developments would become the heart of rural development strategies. These would include policy support for input supply and output disposal. Employment and regional development programmes would be integrated with this focus. Market development, technological and commercial policies, community organizations, credit and land and river rights would all require attention. We turn to some of these aspects.

In spite of integration at the level of formal structures official schemes can be expensive (direct and indirect) costs of up to Rs.40,000 per hectare have been reported as compared to around Rs.10,000 per hectare for land reclamation schemes by voluntary organizations) and have low benefits on account of lack of integration say between agriculture, forestry and the project authority, as also lack of understanding of the basic concepts by the project authorities and the beneficiaries. Instances exist of little improvement in yield at the end of the project cycle and loan repayment obligations remaining for the farmer. Another shortcoming is simply the fact that in a very large area, the land and water problem is simply not addressed in spite of the availability of schemes. This is a more difficult issue. Existing official machineries find it difficult to coordinate efforts and resolve land and water problems at the village level. In most stages Rozgar Yojana funds are used for such schemes or common facilities like approach roads rather than attaching the problems of the land commons. This problem needs to be addressed by planning agencies and voluntary organizations.

Public intervention in commodity trade

The basic objective of a public distribution system in India is supported by most careful analysts. In fact, in the last few years, the Government has tried ito strengthen this system and make it more target oriented. A suggestion made many years ago for Gujarat by the present author, to exclude well-off sections of the population from the system, is now being implemented, since it is easier to implement than identifying poor persons. Policy makers in India are however resisting the advice to abolish the public distribution system.

We address four questions. We note, to begin with, that the basic objective of agricultural price policy in India will be to provide support to the farmer in improving productivity and output growth, particularly in lagging regions and to balance this with the interest of the poor households who are purchasers of cereals. The dilemmas this leads to are addressed elsewhere and I do not propose to go through them here. The first point we note is the need to bring quality considerations into play in agricultural price policy. The second consideration is the whole question of agricultural price policy in deficit regions. The third aspect is the need to support commercialization of agriculture in dry land areas. Finally, there is the question of input price rationalization. We briefly comment on each.

It is heartening to note that the Government has accepted the recommendation of the APC and later the CACP, to increase the price differentials in paddy. In some states of India, more than 40 per cent of the area is under high yielding surfing paddy (PR series). Market price differentials were over 60 per cent but the procurement price was only marginally higher than that of coarse varieties. The farmer must benefit from demand patterns of his products and must be rewarded for such efforts.

As regards inter-regional price differentials, a proposal of the APC needs serious consideration. It is as follows:

> "A peculiar feature of the wheat economy is the localized nature of supply particularly marketable surplus, in relation to demand. The Commission reiterates that a uniform national procurement price needs to be continued as creation of a national market encourages crop specialization and optimal use of nation's land resources. The price structure of wheat indicates that in the deficit regions the spread between the farm harvest and lean season prices is much higher than in the surplus regions. Transport cost only explain a part of these differences which in no small measure are due to the weakness of public marketing agencies in ensuring purchase channels, marketing support and other infrastructural facilities which are least developed in these regions. To ensure price support to the farmer in the peak marketing season, to even out inter-seasonal price differentials (the advantage of which presently accrue to private trade) and to increase the possibilities of enhancement of public stocks, the Commission recommends that the feasibility of public agencies conducting market operations in the deficit regions should be examined by the Government." (APC, 1982, p. 23.)

An aspect of Indian agriculture which needs to be more carefully studied is the fact that some regions of dry-land agriculture are showing relatively high value added per worker. Thus after Punjab and Haryana, states like Gujarat and Karnataka, which have very low irrigation intensities are showing relatively high value added per worker.

These regions have benefitted from concentration on "high values" crops. Behind these "trends" however, is probably organizational and institutional systems, which have led to successful commercialization of agriculture, including relatively successful cooperative marketing systems. Improved price support operations for commercial crops and strengthened marketing systems, are important aspects of the strategy of reducing the uncertainty of dry land agriculture and internalizing the benefits of the available technologies. These policies will have to be an important part of the overall strategy as Indian agriculture moves over to a more regionally diversified phase, from its earlier "favoured crop-region" pattern. The public intervention systems in crops like cotton, tobacco and oilseeds have to be of a limited nature to ride through the agricultural cycle and be made more efficient. Interestingly India has reserved the right to intervene at the crop level and has not accepted the Dunkel proposals for limits on crop support.

Crop and non-crop diversification strategies

Rural development in many parts of India now rests on crop diversification from inferior low yield cereals to a variety of new crops. Water harvesting and land management permits a fascinating vista of value added possibilities. The drought of 1986/87, led to thousands of hectares under drips, for example in the sugar belt say in Nagar Taluka in Maharastra. Grapes, fodder and dairying, dry land horticulture emerged in a substantial way and led to further spread in Maharastra. It is not an accident that Shanker Rao Kolhe has led the plan for horticulture in Maharastra, since he himself comes from Kopergaon in Nagar Taluka. While many such experiences exist a lot more needs to be done. High price and inefficient distribution systems for good seeds, pesticides, energy saving devices, packing material and cooling facilities make the pace of diversification slow. It is true that non-foodgrain crops are growing faster, the per

Table 17: Income distribution of person days worked by rural males in 1987-88 (% of total person days)

Sector	Consumption levels per capita worked per month	
	Below poverty levels consumption classes (Rs. 125)	Above poverty levels consumption classes (above Rs. 125)
1. Workers in agricultural sector	17.28 to 22.9	24.5 to 27.9
2. Workers in non-agricultural sector	3.5 to 6.1	6.9 to 8.6

Source: National Sample Survey Organization (1990b).

capita availability of sugar, oils, eggs and fruits and vegetables is rising fast and yet a lot more can be done. Exports add on to income even though the quantities involved are generally small. (The present author was one of the team members of FAO's famous study on *Agriculture towards 2000*, Rome, FAO, 1979. The study shows that a very large increase in world trade of agriculture will have a very beneficial income effect, even though its quantitative impact would be low on output produced.) Domestic competition will need to be fostered on a much larger scale in industries supplying inputs to Indian agriculture and processing and buying its outputs. Success stories of fast productivity change and cost-reduction, for example organized poultry in India and selected horticulture lines, need to become the standard case. Policies will need considerable reform from the existing mould. Take the example of the Government's recent ban on raw cotton and yarn exports. This kind of mindset is completely against diversification of Indian agriculture.

Two major reform preconditions are well known so we will only list them – records of tenancy and ownership rights on land and reform of the agricultural credit system particularly NABARD'S restructuring proposals of cooperative agricultural credit. Poultry, milk and dairying and fish need major reform. In most states land rules and other bottlenecks still militate against these activities. Land release for agriculture, large scale grass land and herd management are extremely difficult. The laws of control on establishment of dairies, cold storage and poultry units and tax man's attitude – "black money activities" – are still major bottlenecks. Most public facilities are highly inefficient or out-of-date for example, poultry training in agricultural universities, capacity utilization and energy use in public dairies, cold storage, etc. In spite of all this, recent achievements are impressive. Poultry growth is around 7 per cent annual. In fish the IIMA's recent evaluation of the Fish Farmer's Development Agency shows that in 300 main fishing Districts yield has gone up from 50 kgs/hec. to 165 kgs/hec.

It is important to appreciate that in rural areas, productivity levels are low and lead to poverty and malnutrition. Non-agricultural work opportunities supplement income. This feature of the rural economy can be seen from the estimates in Table 17.

It is quite obvious that in the consumption classes above Rs.110 to 125 the percentage of workers working in the nonagricultural sector is higher than in consumption classes below the poverty line i.e. Rs.110 to Rs.125 per month. It is also important to note that low-income employment is widely prevalent in rural India.

The challenge is to generate productive employment for workers in the low consumption level of the population. The whole question of technological choice (large vs. small) is in a sense a red herring. Projects and programmes which generate productive employment for this section of the population directly or indirectly, are to be encouraged. Cooperative dairying in some parts of India, private sector poultry in other or multinational distribution activities in another area in agriculture, all fit the bill. The whole question of land and water development projects on an agro-climatic mould is related with this question. There are as discussed in this paper now specific projects to implement this strategy. The question is to set these projects in a policy and institutional frame such that they succeed and replicate. The Planning commission has now carried the agro-climatic project started by the present author (Alagh, 1989) to specific District level projects directly funded by it (Planning Commission, 1993). Table 18 gives the local level strategies being implemented.

The more important question is which are the policy regimes which will make use of these identified potentials.

The analytically interesting feature is that labour intensive projects are generally efficient, provided the infrastructure or "start up" costs are accounted for. In 1990, the present author had prepared a table which has been replicated in a number of studies (See Table 2.24, in Alagh, 1991 and compare with Chopra and Kadekodi, 1993). The sequence in such land and water development projects now identified at each agro-climatic region in India is that initial investments in land and water suitable to the agro-ecological regime, provide for opportunities for change in the cropping pattern. Harvesting of even 20" of water can provide irrigation for a two crop season economy moving from a low yielding millet say to a high yielder grain and either a high yielder commercial crop or fodder for animal husbandry, farm forestry or a tank for aquaculture. The precondition for this kind of development is meeting "front up costs" (an expression owed to I. Sachs, 1991) of either an initial subsidy, or financing and infrastructure costs. However marketing reform – in short liberalization at a highly decentralized level is also essential for agro-inputs must be available at cheaper rates and output processing opportunities of a commercially viable kind expand. It is here that large organizations become important and the private sector or cooperatives can probably link up: Indian experience is that such opportunities are profitable since the peasant householder provides 'cheap' embodied labour to the large organizations. Large cooperative dairies or corporate poultry units have succeeded only on account of this.

In fact it is now being argued that poultry is expanding faster than dairying in India, because it is more cost effective although demand elasticities are roughly similar.

A similar plan is now proposed for horticulture for exports and domestic markets. It is planned to raise investments from Rs. 172 crores in 1992-93 to Rs. 423 crores (1 crore = 10 million) in 1996-97, out of which 60 per cent will be bank financed as at present.
Regional plans are available.

The kind of land and water development schemes discussed above are labour intensive. Around 40 to 60 per cent of the capital cost is generally labour. Thus employment programmes can be integrated with them. Also if community labour is available the scheme becomes bankable. Since the gestation period is one to three years, community involvement is therefore necessary. However, most evaluations show that while such schemes generate employment and resolve energy and food deficits, they imply financial losses. Some of these losses arise on account of the small farmer families contributing their own labour at imputed rates less than going wage rates - also on account of initial investment costs in "poor lands". Normally yields take time to improve as the organic composition of the soil improves. Thus it is important that the limited and targeted subsidies given for programmes like watershed development, tank irrigation, field channels, shallow tubewells, land reclamation and soil improvement continue. Also such programmes should be continued for priority lending by the banking system. This is important such the World Bank has recommended the abolition of the existing policies as a part of their conditionality for assistance to the financial sector and the Government had referred these issues to the Narasimhan Committee, which had taken as we will see a monetarist role.

Table 18: Strategies for suggested in district exercise

Method/Strategy	Districts
Integrated watershed development	Almora, W.Kameng, Purulia, Koraput, Aurangabad, Jabalpur, Yavatmal, Bijapur, Tumkur, Rangareddi, Sindhudurg, Goa, Shimoga, Andaman & Nicobar.
Correction of problem soils	Etawah, Trichur, Krishna, Nagaon, Bulandshahr, Bhatinda, Tiruchirapalli, Pondicherry.
Ground water exploitation	Nagaon, Midnapur, Samastipur, Bulandshahr, Etawah, Purulia, Koraput, Jabalpur, Tumkur, Tiruchirapalli, Puri, Krishna, Pondicherry, Ramanathapuram, Shimoga.
Crop rationalization	Midnapur, Samastipur, Bhatinda, Karnal, Patiala, Purulia, Shimoga.
Restrict withdrawal of ground water	Karnal,Patiala, Mehsana.
Desalting and restoration of tanks	Purulia, Bijapur, Tumkur.
Rainwater harvesting through construction of storage tanks	Jhabua, Solapur, Aurangabad, Rangareddi.
Rainwater conservation through underground storage	Barmer.
Development of brackish water fisheries	Midnapur, Krishna, Trichur, Goa.
Convert water logged areas into fishery ponds	Puri.
Wastelands development for fuel, fodder and fruit	Jabalpur, Solapur, Tumkur, Rangareddi, Sindhudurg.
Improvement of flood prone lands chaur lands	Nagaon, Midnapur, Bulandshahr, Samastipur.
Removal of water congestion through drainage conjunctive use of canal and ground water	Puri, Krishna, Samastipur.
Development of livestock and crop sector integration through fodder development and drinking water supply	Barmer, Mehsana.
Development of sericulture	Nagaon, W. Kameng.
Horticulture development along with floriculture	Shimla, Almora, Shimoga.

Source: Planning Commission, 1993.

The present state of India's rural development programmes is therefore somewhat nebulous since earlier commitments are now being reviewed. Meanwhile there is an urgent requirement to tie together fiscal subsidies, credit availability and extension with the land and water development programmes involving community labour.

Conclusions

The main analytical conclusions of this paper are: to begin with that the macro integration of the agricultural sector with the rest of the economy has remained roughly constant in the last decade and a half. However significant structural changes are taking place in the economy. The share of the agricultural sector is falling in output and the work force. This is more dramatic in regions with high manufacturing growth rates. Poverty levels are lower in areas of higher diversification of the economy. Unorganized employment in agro-based sectors is falling. The 1980s show a remarkable diversification of India's agro-based economy in response to substantial acceleration of demand. Fixed capital formation in the agricultural sector has fluctuated. The early 1980s and the early 1990s are, however periods of low capital formation in a fluctuating trend. Similar trends are seen in public investment and plan outlay. The Agricultural and Rural Debt Relief scheme of 1990 was a disaster and has crippled India's rural credit system, since the share of bank credit to agriculture and cooperative rural credit in aggregate money terms is falling. Private investment is therefore affected. Analytical work on the economy at a regionally disaggregated level shows that both economic incentive variables like prices received and infrastructure investments determine variations in agricultural productivity. Thus apart from development of markets and incentive based economic policies, the appropriate package of infrastructure investments in relation to land and water is also important. The "right" prices are important but as a part of a larger development strategy. The terms of trade moved against agriculture in the 1970s but improved in the 1980s. The pace of tax and tariff reform for the agricultural sector is slow in India and major reforms lie ahead.

The main policy conclusions that emerge are: first that the deceleration of capital formation in the agricultural sector will require both the revival of public investment and the rural credit systems. Agro-based industrialization can base itself only on a schema of faster and more widespread growth. This kind of growth will require implementation of regional land and water development policies, which have already been developed. Market, tax and tariff reform will need to be meshed with such reform. Industrial coordination with these policies will require an understanding that modern technology has to be integrated with the small peasant base of the Indian economy, since this leads to internationalization of labour cost advantages.

For public investment the target level will have to be an annual increase of around Rs. 2,500 crores in 1992-93. After many years this order of magnitudes has been attempted in the Central budget of 1993-94, but will have to be sustained and complemented by state governments. The revival of private investment will critically hinge on reversal of the trends in rural credit. This requires that defaulters be encouraged by systematic schemes to repay their debts in a phased manner as envisaged in the Special Foodgrains Production Programme. The public sector banking system will have to work with well defined norms of efficiency in terms of running costs of specific rural operations in specific regions. Cost of credit by the public sector has to be lower than the interest rate charged by private money lenders, for each service or the system should be withdrawn.

Indian agricultural policies did succeed in putting India on a growth path of around 3 per cent annual in the agricultural sector, many of its components like minor irrigation, credit revamping and pesticide policy reform failed. For the long run the agro-climatic strategy of the Eighth Plan requires that plan schemes and subsidies have to be clearly dovetailed to the land and water development strategy required and developed for each region and detailed in the Eighth Plan.

The Eighth Plan has included the agro-climatic plan's targets as emerging from the detailed regional exercises. For the first time separate targets have been laid for completion of canal systems below distributors and minors to reach water to farmers in 8 mn. hec of land. Separate targets of tank irrigation have been given, as also for horticulture crops. Targets for watershed development and crop diversification have been substantially modified as emerging from the regional exercises. Market development and individual and community based incentives for land management and water harvesting schemes are also required to implement this strategy.

The process of tariff reform has to be much faster for inputs like pesticides, seeds, fertilizer, pumping equipment, etc. Quantitative restrictions on stock and domestic movements of agricultural commodities have to be removed, as also restrictions on exports. Market development and processing infrastructure need to be developed with social policies. Restrictions on infrastructure like price control on cooling equipment, and high tariff and tax rates on agro-processing machinery will need to be removed. Restrictions on investment in agro-processing, distribution and marketing should be abolished. Modern cooperative and corporate organizations linked with India's household agricultural and rural base supplying inputs and procuring and processing output must be encouraged. There are a number of Local, State and National level policies inhibiting agro-processing and diversification of the Indian economy. These include farm level price, capacity creation or use controls on input supplying or output disposal industries. Industry reform in the nitrogenous fertilizer industry emerging from the mid-1980s has not been effected. Tariff reform in pesticides is halting and slow. Much of the tariff reductions in agricultural output and machinery have been counterbalanced by devaluation and farm level input prices are not falling. On the other hand in some industries like poultry, imports are on OGL with zero tariffs, although the domestic industry has to compete with highly subsidized imports. Reform for major industries like sugar, however is not on the agenda, although worked out proposals are available. Commodity movement controls and agro-processed restrictions continue; also land use restrictions. A well worked-out and coherent policy design is required with phased implementation set out, within the broad thrust of the direction of reform which is well taken and probably supports the diversification of agriculture.

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The agricultural system, industrialization and development in Brazil

Décio Zylbersztajn [1]

Introduction

The task of addressing the Brazilian agricultural system is a very demanding job. A comprehensive paper designed to permit some common ground for contrasts between the agricultural systems of Brazil and India is still an almost impossible task considering the complexity of both countries and the limited information available.

The objective of the Round Table is to permit the establishment of comparisons between the experiences of two very diverse and complex countries that share a few common features. Both are low-income countries, both countries have experimented a history of colonization, both countries have had a post-war industrialization period and both countries are engaged in a state reform programme. Besides that, what is shown is a deeply rooted difference between the cultural, religious and historical elements, that have shaped both societies.

Given that background the author assumes that the focus of the paper should not be directed to the traditional aggregated data, provided that comparing per capita income or agricultural productivity add nothing to the objectives of really understanding the contrasts between both agricultural systems. However some aggregated information will be presented. The focus of the present essay will be directed to the Brazilian institutional organization that provides the background to the functioning of its agribusiness system.

The paper is organized in four parts. The first part presents a basic historical perspective of Brazilian agriculture that supposedly is well known to the Brazilian readers, but not necessarily to the Indian readers. The second part of the text presents some aggregated information and some characteristics of the Brazilian agribusiness as well. The third part is centred on some of the tendencies and problems faced by the agribusiness system and the fourth and final attempts to present some conclusive thoughts.

Historical overview

The recent organization of Brazilian agribusiness is the result of an agricultural system characterized by a heterogeneous structure. In terms of its targets, viewed as the supply of food and fibre products to local and international markets, Brazilian agribusiness faces three specific challenges:

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- first to offer food to the domestic market, that is represented by a very large proportion of low income families (whose quantitative aspects of demand prevail over specific qualitative aspects);
- second, to supply food products demanded by a large absolute market characterized by average and high income families, with a standard of demand similar to the typical trends of developed countries;
- third, to participate in an international market characterized by strong protectionist policies, either organized in terms of tariff barriers or, as is becoming more important, non-tariff ones, despite the efforts of the GATT negotiations.

Looking back in history, there is a necessary step to understand the recent organization of Brazilian agribusiness. Until the middle of the 19th century, the country did not have an independent economic life. During the colonial period, the large plantations could be considered as an extension of the Portuguese market. The system was intermittent and almost "extractivist". This characteristic only changed with the arrival of the royal family in 1808.

Agricultural cycles

The first agricultural activity developed in the country will be related to the first economic cycle of the Brazilian economy: "pau brasil", the name given to an important botanic species largely employed in Florence, Italy, to colour textiles. During the period that ranges from 1500 to 1532 the exploration of this tree occurred at a rate of 300 tons/year.[2] Since the production was carried out on an "extractivist" basis, in less than 50 years the costs have increased too much to keep the production profitable.

The Portuguese government needed to find a way to guarantee property in the new colony, at that time threatened by other colonial countries, specially France. The sugar cycle began with the introduction of the system of "capitanias hereditárias", large areas given to Portuguese entrepreneurs interested in establishing themselves in the new colony. The first sugar cane plant (engenho) was built by Martim Afonso de Souza in 1532, in other words, the first agro-industry to operate in Brazil and the only large scale industry allowed by Portugal.

As stated by Caio Prado Jr,[3] it can be said that the sugarcane exploration shaped the social, political and economic characteristics of the country. The sugar industry needed considerable investments and employed large amounts of slave labour. The large scale farm production was the characteristic of this cycle, with productive units that had their own labour force. In some sense these units were largely self sufficient and independent from the market, since they produced their own food and clothes and exported sugar, the only marketable product.

In 1570 about 60 "engenhos" were in operation, exporting more than 2,700 tons. This number grew to 528 industries by 1710, producing 19,500 tons and to 78,000 tons in 181.[4] From then on the rôle played by the dutch traders in Rotterdam was very important, as it is today. They supplied a significant parcel of the investments needed to organize the sugar business and guaranteed the placement of the product at stable prices on the international markets.[5]

[2] Simonsen, R. C.: *História Econômica do Brasil.* Comp. Editora Nacional, 1969, p. 325.

[3] Prado Jr., C.: *Formação do Brasil Contemporâneo.* Ed. Brasiliense, São Paulo, 1953, p. 117.

[4] Furtado, op. cit.

[5] It is important to stress the aspect that this very same role is still being played by Holland at the international Agribusiness. For details see Zylbersztajn, D.: *Holanda um modelo de agribusiness.* FIA-FEA-Universidade de São

The end of this cycle was a result of the organization of the production by the Dutch colonies that were able to vertically integrate distribution and production, displacing the Portuguese from the market. It can be said that this also shaped one of the characteristics of Brazilian agribusiness, that is, to be strongly production oriented, however lacking strength to participate in the market operations with its own products.

The gold cycle began in the 17th century lasting through the 18th century. The real impact of this production did not happen in Brazil, but in Portugal. Nevertheless, important social and political outcomes are related to this period.

Three products found a place in Brazilian agriculture in the 18th century: cotton, tobacco and cattle. First, cotton was known by the local Indians, but not explored on an industrial basis. With the development of the textile industry in England the prices of the product rose sharply. The British demand increased from 4,76 million pounds in the period 1771-75 to 26 million in 1791 trough 1795. Beginning in 1760 it became an important export crop and the production was carried on in the states of Bahia, Pernambuco, Maranhão, Goiás and throughout the south.[6]

Tobacco experienced a rapid introduction but was not able to compete with the US on the international markets, and cattle has been growing steadily, as a product oriented to the internal market. It is important to mention two other cycles. Rubber and coffee which provided the bridge to the industrialization period of the country.

At the beginning of the 20th century, rubber represented about 42 per cent of the Brazilian export income. Its production was a result of the large utilization of rubber specially for rubber tires for bicycles and for cars. The Brazilian production grew rapidly reaching 42,000 tons by 1910, but by 1937 the production represented only 2 per cent of the international consumption, being displaced by the organized production of competitor countries.

The rubber cycle left two lessons to the Brazilian producers. First, the very same process of being production-oriented, but not market oriented, and second, the production system being inefficient when compared to the organized production of other countries.[7]

The most important cycle in Brazilian agriculture is certainly the coffee cycle. This product was brought to the former Dutch Guiana and from there to the former french Guiana and then to Brazil in 1727. By 1826 Brazil exported 20 per cent of the total world exports. The crop was being produced in the states of Rio de Janeiro and São Paulo. The expansion found no obstacles since the soil and ecological conditions were very fit to coffee production.

From the introduction until 1894, the state of Rio de Janeiro was the most important producer, being displaced by the state of São Paulo which became that was the main producer up to 1960, when the state of Paraná became the larger producer. The seventies and eighties showed an increase in the production for the state of Minas Gerais. The nineties, as a result of the deregulation in the coffee market, is showing important changes, being the improvement of quality the most important one.

Brazilian exports reached 15 million bags in 1901, showing that the over-production could easily be the most important problem to deal with. By 1992 Brazil exported about 20 million bags no longer being the largest exporter in the world. International agreements have been placed to stabilize the prices and establish quotas for production in different countries. Brazil,

Paulo Estudo PENSA, 1992.

[6] Paiva, R. M.; Schattan, S.; Freitas, C. F. T.: *Setor Agrícola do Brasil: Comportamento Econômico, Problemas e Possibilidades*. Ed. Forense-Universitaria, São Paulo, 1976.

[7] The very same problem is being faced by the rubber collectors from the rain-forest today. While they keep the inefficient process of collecting rubber from trees spreaded over very large areas, small producers at the State of São Paulo are entering the market with large competitive advantages.

as the larger producer has been the country that pays the costs of holding back its production in order to balance the international markets. Other countries, like Colombia, have increased their participation in the market.

More than simply increasing its share, Colombia invested in quality and in international promotion of its brand name. Again the same result is being achieved, as discussed in the case of rubber and sugar, namely the strong production orientation of Brazil in products in which large margins are present at the final markets.

The linkage with modern agriculture

The political results of the presence of the royal family in Brazil was the opening of the country to the international commerce. However, the first half of the 19th century must be considered as a transition period, where the role of the coffee production was being defined, contrasting with the short cotton production boom in São Paulo, a consequence of the U.S. civil war, and with the still limited production of cocoa in the southern region of the state of Bahia.

The rupture of the stagnant phase, characteristic of the previous activities, started with the expansion of the coffee production during the middle 19th century. The main results can be defined as:

- differently from the rest of Latin-American countries, territorial unity has prevailed in Brazil;
- new connections with international financial and commercial partners have evolved;
- reorientation of the economic production area, from the northeast to the southeast;
- finally, the emergence of the factors that contributed to the posterior industrial phase.

On the other hand, the coffee production in the plantation system revitalized slavery, while in other countries the opposite was occurring. The production system based on a slave labour force postponed the immigration of qualified workers and as a result, represented an additional obstacle to the development of an internal market.

Therefore, it was only with the international economic crisis of 1870-95, that the necessary conditions for the productive diversification emerged, enabling the first development wave in the Brazilian economy. Signs of this process were registered at the end of the 19th century, as shown in Table 1. As expressed by Szmrecsányi (1990), the Brazilian agricultural system is a phenomenon that is less than one hundred years old.

Another important characteristic of Brazilian agribusiness is its heterogeneity. The increasingly important relations between farm production and other economic activities have not produced any type of uniformly organized production. Instead, it has deepened the pre-industrial regional differences. In that sense clear contrasts can be observed in the Central and Southern areas, and in the recently occupied area of the production frontier in the Center-Western and Northern regions.

Until the middle of the sixties, the technological standards of agricultural production were very rudimentary, except for the states of São Paulo and Rio Grande do Sul which used 44 per cent and 25 per cent respectively of the total mechanized equipment. It was during the sixties that governmental credit policies were adopted aiming at the increase in the use of the so called "modern inputs", specially fertilizers and other chemical inputs. The increase in the demand of these inputs, mainly during the seventies, settled the grounds for the expansion of their internal industrial production.

Following the military coup of 1964, Brazilian Agriculture faced a real deep transformation process. In part it was favoured by the following factors:

- the growth cycle labelled as "Brazilian Economic Miracle", that boomed from 1968 to 1972;
- the organization of a strong and highly subsidized system of farm credit, that allowed huge investments in production while at the same time worked to counter-balance the transfer of income from the agricultural sector to the industrial sector. This process was a result of the import substitution policy that was also a characteristic of the period;
- the internationalization of the green revolution; and
- the improvement of international commodity prices were conditions that prevailed during that period and helped the transformation of a significant part of Brazilian agriculture.

Internally, however, the social distribution of the benefits of the cycle was unequal, either when evaluated in terms of the sectors of the economy that were benefitted, or when analysed from the geographical point of view. The impacts of the technological changes on the production scale worked towards land concentration ownership, already considered an important social problem. The strong rural-urban immigration trend have resulted in the migration of 30 million people towards the large cities in the span of 20 years (1960-80). At the same time the labour force on farms has changed from small land-owners to hired, part time or full time workers. Definitely the urbanization process of the country occurred with all the typical unbalances that usually follow these processes.

During the seventies the rural areas had an absolute decrease in population, while small city population moved to new or larger urban areas such as São Paulo, Recife and Rio de Janeiro. The crisis of the eighties motivated the increase of small productive areas, showing an increase from 2.6 to 3.1 million in properties with less than 10 hectares, representing an unchanged proportion of about 2.5 per cent of the total area.

The intense change in the standard of the farm area was particularly strong in the northeast. Regardless of the high performance of the Brazilian agriculture in the post-war period, in 1980 still only 7 per cent of the farms had a tractor (Martine, 1991). The dichotomy of the Brazilian agricultural production deepened during the seventies. While modern producers accessed subsidized credit, the smaller farmers, oriented to local market products, were kept at the margin of the process. Table 2 presents the rates of change in the harvested area and production of the main crops in both groups. Modern crops include corn and rice, previously evaluated as traditional crops. The former because it is strongly incorporated into the production system of poultry and hogs and the latter, due to the importance of the highly productive irrigated areas in the south of the country (Muller, 1992).

Finally, it should be mentioned that in 1980, the farms with less than 50 ha contributed with 40 per cent of the total production value in spite of the fact that they represent about 12.6 per cent of the total harvested area and hired 60 per cent of the total workers of the sector.

This former aspect is used to support the concept that the concentration of land ownership did not preclude the process of economic growth, but is a serious obstacle to the process of economic development. Most of the highly productive areas and most of the better living standards in the country are found in the regions characterized by farms with less than 100 ha, as can be seen in the north and northwest of the state of Paraná. Those are areas with strong cooperative structures, vertically integrated and motivated by the addition of value to the product of their farm members (PENSA, 1992). Thus the small producers can be highly organized and productive based on very modern technology.

At the end of the 1950s, after an intense period of industrial growth and urbanization, the Brazilian economy faced its first post war crisis, characterized by an increase in inflation and decline in industrial production. The debate that followed this period was centred in the causes of the problems. The concentrated land ownership structure has been seen by many, as one of the causes of the problems and an obstacle for the continuity in the process of economic growth. On the other hand, some have proposed that land ownership was a consequence rather that the cause of the problems.

Kennedy's government argued in favour of agrarian reform programmes (after the Cuban experience), as a manner of stopping leftist influence in Latin America. As a result, in 1964 the Brazilian government passed the first agrarian reform law – Estatuto da Terra – totally unconsidered during the two decades of military dictatorial government. After 1985, with the so-called, "New Republic" the tentatives of implementing a programme of agrarian reform faced strong opposition of land owners and economists that were not convinced that the structural interference on property rights would provide the solution to the problems faced by agriculture. This position regarding the reform is not prevent the partial modernization of Brazilian agriculture, considered as conservative or traditional. The agrarian structure that prevails in most of the country is not in line with the expected socio-economic maturity of the sector. On the other hand, it seems that no new approaches have been tried towards a system that could do more than distribute land. Given some experiences in the states of São Paulo and Mato Grosso, it seems that the proposals must evolve to more integrated programmes that provide the link between the new farmer and the market.

Nevertheless, it is obvious that the organization of the production in large parts of the country is not in line with the objective of the incorporation of a large part of the Brazilian population in a market economy.

The re-organization of the productive structure of Brazilian agribusiness must touch some basic aspects and face specific challenges. First, it must solve the problem of hunger; second, guarantee the production under an environmentally sound approach; third, find ways to provide grounds for negotiation among the actors of the different agribusiness chains. These points are to be discussed in the next chapter.

Diagnosis

This section is structured in two parts. The first presents chosen aggregated information regarding the agricultural and agro-industrial sectors, as available in traditional sources (IBGE census). The focus is going to be the problem of hunger and the sustainability of the productive system.

The second part will stress the linkages between the agricultural and industrial sectors focusing on the Brazilian agribusiness organization. The reason of presenting this recent analytical trend is related to its importance in understanding the strategies that are emerging, from the governmental or private points of view. The challenge of coordinating agribusiness chains will be discussed, specially in face of de-regulatory measures characterized by liberal governmental policies.

Specific aspects will also be discussed in light of the concept of agribusiness, such as the consolidation of specific agribusiness chains focusing on the modification in the contractual relations between agriculture, industry and distribution; the system of research and technology; the emerging social pressure groups, in special the consumers as organized actors; and finally the financial system of the agro-industrial system. The aim of this discussion is more to raise the right questions rather than to obtain the answers.

Aggregated information

The aggregated data recently divulged by the federal statistics agency (IBGE) has shown a 16.94 growth rate in the Brazilian economy during the 1980s (Table 4). The modest average rate has been supported by the 43.07 per cent of growth in meat production and 22.7 per cent in the crop production. In the same period the aggregated growth of the industrial sector was 2.37 per cent. Considering the main agro-industrial sectors, tobacco has shown an impressive 43.43 per cent, followed by 41.97 per cent in the beverage industry, 36.06 per cent in the pulp and paper industry and 19.94 per cent as an average in the food industry.

The average data is still being strongly affected by the positive figures from the first years of the decade. In fact, after 1984 credit system to farm production, including long and short term financial contracts, has been dismantled. The only credit still available is from the federal system (Banco do Brasil) and from some state owned banks.[8] The highly subsidized interest rates in loan contracts that characterized the sixties and seventies, have been replaced by positive interest rates, motivating a sharp reduction in the demand for credit.

As a result of this policy in conjunction with weak price support policies, the production of grains has oscillated particularly during the 1986-87 to 1990-91 period. The 1991-92 production was the smallest of the last five years, motivating the import of rice (700 thousand tons), corn (1.2 million tons) and wheat (4 million tons). Import costs have reached US$ 1.3 billion, an unusual figure, counter balanced by expressive export figures in the same period.

The per capita availability of food has decreased during the 1980s, as shown in Table 5, for crops as sugar, potatoes, beans, manioc flour, wheat, wheat flour and animal protein (bovine and hog meat). It increased or became stable for rice, corn, soybean, chicken, milk and eggs. Tables V, VI and VII show an overall reduction of per-capita availability of calories and proteins, except for animal proteins which presented an increase. Seen as an asset, land has been part of the portfolio of investments of different categories of economic agents, being or not farmers. Incentives of different types and a system of land taxes have motivated the increase in real land value at rates that are higher than most of the financial alternatives. One must consider that the value increase can also reflect the expected returns that some crops are showing in specific areas of the country, as the growth of coffee in the "cerrado" in the state of Minas Gerais and cassava in some areas of the state of Paraná.

Whatever the reason for the increase in the value of land, there has been an increase of landless workers and of part time farm workers deepening land conflicts and resulting in violence in some areas. According to data organized by the "Comissão Pastoral da Terra" (left-wing organization structured by the Catholic Church), in the period from 1987 to 1991, about 10.387 people have participated in more than 70 land invasions or occupations every year. In the same period 382 activists of the movement for the landless were assassinated (Vilarinho, 1989; Reydon, 1993).

The environmental aspect of the agricultural production in the country is following the same tendencies imposed by the standards of the green revolution. The social reactions that are progressing sharply in the developed countries still have not reached Brazilian reality at the same rate. There is a tendency to homogenize technological systems induced by the green revolution, represented by the intensive use of mechanization, chemical fertilization, chemical insecticide products, irrigation practices, specialization and mono-culture, which have originated alarming rates of soil erosion, affected water resources, bio-diversity and also food quality at the market place.

[8] The Bank of the State of Sao Paulo is one example.

If on one hand these results are associated to the large scale and to the capita; intensive production system, one cannot have those one sided stereotypes. Some highly intensive production that can be seen at the Cooperativa Batavo at the state of Paraná, is conducted under a small ownership structure and very diversified portfolio of crops and productive activities. The standards of soil control practices are much better than the ones one can find in the land settlement of Mirassolzinho, in the state of Mato Grosso do Norte. This poses the importance of considering other variables as the educational level of the farmer, as explanatories of soil erosion control, and shows the lack of technical care that is characterizing the so-called land settlement projects.

The fact is that the soil losses from erosion have reached levels of 25 tons of top soil. The 200 million tons of soil eroded each year are carried to water resources (lakes and rivers) with very drastic environmental results. The desertification process is already showing its face particularly in some areas of Rio Grande do Sul and in the Northeast.

During the seventies the increase in the use of agro-chemicals was more than the technically recommended. Studies of EMBRAPA (Brazilian agricultural research agency) have shown that no necessary correlation has been found between the use of chemical inputs and productivity gains. Again this process is not a local Brazilian problem, but is the result of the post-war technological chemical paradigm. Developed countries are already reacting to this trend which has not taken place yet in Brazil.

As a result of the shortage of resources for investment programmes, the agricultural sector is having its productive capacity depleted. Machinery and equipment are becoming obsolete and its replacement only partially supplied. The erosion of the productive infra-structure, including roads, railroads, ports and storage, are resulting in an increase in the losses of the agribusiness chains. The losses that have reached 20 to 30 per cent of the total production represent a decrease in the food supply and exports, rise in food prices, decreasing and a generalized decline in the productive capacity (ABAG, 1933).

The absolute figures to express the number of citizens with incomes below survival needs in 1988 was only 5.1 per cent below the figures registered in 1960. Looking deeply into regional differences, these figures were even worse than in 1960 for three regions in the country. Poverty level is extremely high, but concentrated in the Northeast of the country. This reality is motivating a nation wide campaign, motivating the community to generate solutions to the problem. In a study by Peliano (1933), the number of families with income below the level to assure the acquisition of a minimum basket of food under the standards proposed by FAO have reached 4 million, excluding the Northern region (Table 8). At the same time basic food production is being penalized by taxes that are in average 20 per cent higher in terms of its added value (Table 9).

The Brazilian agribusiness

The food and fibre production system in Brazil is facing several structural problems, as stated in the previous chapter. However, it is also showing signs of an increasing dynamism. What can be seen is the pressure for re-organization of local agribusiness chains in order to face new challenges as:

- to keep and increase the competitiveness of the agribusiness chains;
- to organize (coordinate) the chains in terms of their internal contractual relations;
- to respond to consumer needs;

- to replace the state as the main actor in the coordination process inside the agribusiness systems;
- to follow and to anticipate the new global trends in agribusiness, that include environmental soundness, focus on the consumer, globalization of the system.

Apart from the aspects mentioned above, Brazilian agribusiness must face the duality of its internal market. In other words, it must be able to organize the production in such a way that enough food for low income people can be offered, besides being ready to produce and deliver high quality food to the internal market that can afford to pay for quality, while at the same time offer food to the international markets.

The traditional organization of the food production in terms of market relations usually focuses the conflicts in terms of income transfers from the competitive environment at the farm level, towards the more concentrated industry. Despite the importance of monopolistic forces, this trend is changing for different reasons:

- first there are many transactions that are organized out of the market, with contractual relations of different fashions;
- second the increasing specificities that are characterizing the agribusiness systems are motivating the establishment of closer relations between the farmers and the industry;
- third, farmers are aware of the decreasing prices of commodities, perceiving the need to add value to their products. In that sense the farmer cooperatives are becoming more and more important as agribusiness coordinators;
- fourth, the new role of the distribution system is changing from a market power discussion, previously focused on the farmer-industry conflict, toward an industry-distribution bargaining.

To understand the importance of Brazilian agribusiness in terms of the local economy, it is important to discuss the typical trends observed in the world organization of production. As expressed by Goldberg (1957) the participation of the agricultural sector in the total agribusiness income has been declining since the beginning of the century. The value added from the inputs industry, the agriculture production, the food industry and the distribution system represents an important share in the total national product. Looking into the participation of each segment, the trend shows that the industrial and distribution sectors are becoming relatively more important.

The participation of the input industry increased from 11 per cent in 1910 to 21 per cent in 1954, in terms added value. On the farm the total production level has declined from 54 per cent to 17 per cent in the same period and in the industry and distribution segments there has been an increase from 35 per cent to 62 per cent.

In Brazil, as stated in 1980, the participation of the farm industry (agriculture) is of 29.3 per cent, in face of 8.5 per cent for the input industry and 52.1 per cent for the industry (figure 1). The decline of the relative importance of the farm production is a trend that will possibly be present in Brazil. However the participation of the farmers' cooperatives in the food industry is growing, following the process of vertical growth for this type of organization.

The agribusiness system plays an important role in generating employment and income. One of the most important characteristics of the food industry is its counter-cycling dynamic. Agro-industry shows a more stable pattern than the rest of the economy.

To understand competitiveness in agribusiness systems it is important to consider the capacity that specific agribusiness chains have in reacting to the changes in the economic environment. The more coordinated the chain, the better the answer, both in terms of adjustment timing and in terms of the decodification of consumer needs.

In Brazil, the government has played an important role as the coordinator of the agribusiness chains. Intervention has been continuous and, in many cases, done in a manner which has resulted in the decline of the competitiveness of the system. Coffee is an example where the aspects of quality in the internal market have been neglected, as a result of fixed prices at the different levels of the productive chain.

Given the de-regulatory policies the changing role of the public sector is imposing new needs for the coordination of the different agribusiness chains.[9] The coordination through market prices is being replaced by contractual relations, vertical integration and other coordinating tools.

At each chain, the search for profit at each level does not necessarily lead to the best results for the system. In those situations the bargaining can bring potential Pareto improvements to the system. However, the contracts are always subjected to restrictions related to opportunistic behaviour of the parts and are always incomplete on an ex-ante perspective. The government can play an important role serving as mediator in such cases.

Given the rapid change in the governmental role in Brazilian economy and specially, in agribusiness, some chains are experiencing a rupture of their organization with redistributive effects at the farm level. This has happened in the dairy and coffee sectors. Other chains that traditionally had not experienced strong governmental intervention, as the orange and poultry chains, were clearly superior to government intervened systems due to better organizational capacity which allowed for internal re-organization in order to attend market needs. The transition period is, therefore, characterizing specific agribusiness chains in Brazil, from a situation with strong governmental action to a de-regulated type of organization.

Self-regulatory measures are emerging in some chains such as the quality standard established by the coffee system associations and the organization of product origin control in the "cerrado" of the state of Minas Gerais.

If on one side less governmental participation is desirable, on the other some areas need it. For the functioning of agribusiness there is a feeling of lack of support of the state in the credit, information and research systems. Those activities can only be partially substituted by private organizations, as can be exemplified by R&D activity. The role of the producers' associations is becoming more important and the rise of the Brazilian agribusiness Association is an example.

The role of these associations is very important in providing continuity in the policies, in supporting governmental decisions and in providing internal mechanisms of regulation at the several agribusiness chains. The consumer associations also represent a very important new type of social group pressure in the organization of the food system. In fact, these associations provide the signals to the chains in order to attend specific market needs. The problems that affect Brazilian agribusiness today are of the same magnitude as the ones that affect the rest of the economy. However, the agribusiness system is showing signs of efficiency in proposing solutions to the problems although there is the need to organize a system for financing food production differently from the subsidized model of the 1970s, besides a R&D system with more market and quality orientation instead of the traditional focus on productivity.

These tendencies are to be further discussed in the following session.

[9] See Farina, E.; Zylbersztajn, D.: *Agribusiness: Coordenação das relações de conflito e cooperação*. Estudos Temáticos PENSA/FEA/USP. São Paulo, 1993.

Future strategies and tendencies

To discuss the expected tendencies and strategies for Brazilian agribusiness one must consider that the background introduced in the previous sections is only part of a very complex evaluation of the forces shaping the agricultural and agro-industrial system. The Brazilian economy is facing a clear exhaustion of the post war period standards, yet it has not been fully replaced by other proposals (Tavares, 1993).

As a large country and having the largest population among all Latin American countries, Brazil does not face typical conflicts that are common to most continents such as border conflicts, migration, ethnic contrasts and religious intolerance. The rate of population growth is declining, the industrial structure is relatively new, the financial system is sophisticated. Most all of the country has important entrepreneurial skills available (Castro, 1993).

In regards to its own potentials, the agribusiness sector can respond rapidly to some of the questions proposed, and specially to social and economical distortions. This part of the paper aims to point to general and programmatic objectives, instead of localized solutions.

The expected outcome of Brazilian agribusiness is to generate enough food and income to assure a safe level of access to food. To reorganize the agribusiness chains, developing more efficient contractual systems among the actors of the agribusiness system, from the input industry to the distribution system, demands a re-evaluation of the cultural and social space where the activities are developed.

Food security and safety

The concept of food security has been the keystone for most internal policies, either in Europe, Asia or North America. It seems that the developed countries are the ones that do protect their local food systems and are very reluctant to adopt free market rules in-totum when dealing with the agribusiness sectors.

There are two expected outcomes from the internal re-organization of the agribusiness sector. First it must respond the social needs offering food at lower prices to the urban consumers. This will help in shaping real income policies with positive welfare effects. It is a must to face the reality of 80 per cent of the population with low income that has to have their basic nutritional needs supplied. The proportion of the income spent with food is about 44 per cent for those earning less than two "minimum wages" of monthly income (about US$ 140.00), and in about 25 per cent for the sample used by the IBGE in the family income study.

On the other hand, the agribusiness system can also add other important characteristics to the picture described. The food industry, the distribution system, here considering wholesales and distribution is labour intensive. The more diversified the agribusiness system, the more services are being added to the food products reaching the consumer. Labour demand characteristics are changing rapidly and must be followed and anticipated by Universities and other educational systems.

Self-sufficiency in some products that are considered basic food products for consumption is possible to be attained in a short span. The bottleneck is not at the farm level, but at the industrial and distribution levels. Therefore, as important as the modernization of agriculture observed the last two decades, the agro-industrial policy plays a basic role in this scenery.

The organization of better communication systems among the actors of the agribusiness chains, and the integration of the research system with the new trends observed at the consumer level are important tools to help improve the efficiency of the system.

Care with the environmental variables is becoming a need, not only for ethical reasons, but because the productive system is reaching its limits and production is being limited in terms of the resulting costs. Examples of these externalities can be observed in the alcohol production, where the volume of "vinhaça", a residual of the alcohol production applied to the soil is reaching the subsoil water reservoirs in the state of São Paulo. It is known that the drinking water in this state is at its limit and the expansion will have to use sub-soil supplies.

Therefore, to increase real income is one of the main challenges that the agribusiness system faces either by lowering food prices or increasing labour income. To do that under an environmentally sound production system is another restriction to be considered.

Institutional re-organization

The revaluation of the organization of the rural activity and specially the way the decision makers in the urban areas deal with this reality is a problem to be proposed for deeper discussion. If today it is recognized that the small family production is important to many industries, why not consider this possibility in the rural areas.

As stated previously, many of the most productive farmers' cooperatives in the country are organized as vertical extensions of small and average farmers. There is no strong argument to link small production and old fashioned technological systems. Scale and productivity are not necessarily related as it is commonly considered in the typical urban areas and even if so, scale gains can be fully or partially captured by cooperative systems.

A balanced economic environment cannot be framed without considering the small production at the farm level. Along the food system it is a reality, with important activities being developed by small companies, either associated to large companies or managing their own business.

The challenge is to organize access systems not only to the land, but specially to education, health, and technology for the landless workers besides recognizing that there are important opportunities within the agribusiness sector and outside the farm-gate that can be explored successfully.

Conclusions

Among the important issues discussed during the World Ceres Conference[10] about the future of the food system were themes as food technology, information, biotechnology, distribution systems, regulatory and legal issues, safety regulation, consumer perception of food safety, among others.

At the same time that these issues are of fundamental importance for the future of Brazilian and Indian agricultural industries, both countries have to face a more immediate problem, that is to feed its low income population. Despite putting the blame of low standards of food availability on the agricultural system, these must be seen as a result of the general economic organization of the countries.

[10] Gaull, G.; Goldberg, R. *The Emerging Global Food System*. John Wiley & Sons, New York, 1993, 252 pp.

The Netherlands is an example of a country with a large agribusiness basis which at the same time has a very limited agricultural structure. Brazil and India are on the other side of the coin, having important land and water resources available, but still to develop a real agribusiness orientation.

The de-regulatory measures that are in motion in both countries are an important step to reform local states. Whether these reforms will change the production oriented view towards a market oriented approach of the agricultural and industrial systems is a question to be answered. Opportunities are there, but will depend on variables that are not under complete influence of both countries, as the GATT negotiations.

More open agricultural markets will surely help solve the famine problem faced by Brazil. Not because more food production will necessarily be available, but because more income will result from the increase in the participation in the world markets.

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T A B L E S

Table 1 - EVOLUTION OF CROPPED AREA, State of São Paulo, 1894/5 a 1918/19

Crop	1894/5	1900/01	1904/5	1910/11	1914/15	1918/19
Coffee	382,1	751,1	875,0	900,1	1023,8	1164,1
Cotton	4,0	8,3	8,4	19,2	12,2	148,0
Sugar Cane	9,4	25,9	48,7	49,7	62,2	80,3
Tobacco	6,2	5,0	4,8	5,3	4,4	32,1
Rice	5,2	49,2	66,4	72,5	100,3	168,9
Beans	38,7	99,5	156,6	183,7	228,7	130,2
Corn	101,6	220,2	347,0	372,9	508,1	815,2
Others	14,5	24,2	31,0	36,3	48,4	195,6
TOTAL	561,7	1183,4	1538,1	1639,7	1987,9	2734,4

Source: Szmrecsányi (1984:27) & (1990:68)

Table 2 - Brazil, Percentual change in the cropped area and in "modern" and "traditional" agricultural production.

Products	Change in area (%)		Change in Production(%)	
	1970-79	1979-87	1970-79	1979-87
MODERNS				
Cotton (Herb.)	-31.8	16.8	-10.0	39.1
Rice	23.9	-14.8	24.6	18.3
Sugar Cane	55.6	56.4	88.4	74.5
Orange	172.4	59.8	225.1	64.1
Corn	14.1	9.3	40.8	25.7
Soybean	547.6	34.0	770.0	53.4
Wheat	41.3	20.0	49.9	83.8
Moderns (area)	50.7	17.1		
TRADITIONALS				
Cotton (Arb.)	-1.9	-72.6	-53.5	-74.2
Peanut	-58.0	-64.8	-50.6	-64.9
Banana	34.9	30.5	-10.7	23.7
Potatoe	-13.6	-11.9	-6,2	11.0
Coffee	1.0	19.4	23.3	-1.5
Beans	25.6	12.7	-8.4	13.2
Cassava	1.1	-9.7	-18.9	-4.5
Tradit. (área)	9.0	-7.3		

Source: Mueller (1992:12), data from IBGE & LSPA

Table 3 - Brazil, Production and yields for selected crops, averages 1973/1980 & 1981/1987 and annual rates

CROPS	PRODUCTION			YIELD		
	73/80 1000t	81/87 1000t	rate %aa	73/80 t/ha	81/87 t/ha	rate %aa
Rice	8140	9581	0.91	1.45	1.79	1.95
Beans	2153	2391	0.62	0.50	0.46	-0.73
Cassava	25289	23461	-0.23	12.11	12.03	-0.11
Orange	31911	70302	7.33	82.28	98.73	3.08
Soybean	10182	16900	8.11	1.54	1.73	1.38
Corn	16756	22630	2.66	1.51	1.84	1.71
Tomato	1246	1918		24.45	34.21	3.38
Wheat	2404	4131	5.91	0.83	1.41	2.67

Source: Farina (1992:61) com dados do IBGE

TABLE 4
GROWTH RATES OF PRODUCTION, BRAZIL, 1980-1991

	Growth rate of production (%)
BRAZILIAN ECONOMY	16.94
Industry	2.37
Services	31,36
Agriculture	31.57
Crops	22.76
Livestock	43.07

Source: IBGE

Table 5 - Daily per capita availability of food products, Brazil, 1980-88, averages in grams.

Products	1980/82	1983/85	1986/88
Sugar	126,3	118,0	121,1
Rice	106,4	94,0	120,5
Potatoes	30,0	27,8	28,8
Beans	32,9	28,3	28,4
Manioc flour	57,2	49,3	49,3
Corn flour	31,1	23,7	33,9
Soybean oil	28,0	26,2	30,1
Wheat flour	142,5	122,4	109,4
Meat	9,4	9,6	10,6
Pork meat	5,5	4,6	5,0
Milk	261,9	255,1	291,4
Eggs	13,0	14,4	18,3

Source: IEA/SAA/SP

Table 6
Daily Per Capita availability of proteins and calories, Food groups, Brazil, 1980/88

Source	1980/82	1983/85	1986/88
Vegetal(1) cal.	2075 Kcal	1841 Kcal	1972 Kcal
Animal (2) cal.	300 Kcal	287 kcal	323 Kcal
TOTAL CALORIES	**2375 Kcal**	**2128 Kcal**	**2295 Kcal**
Vegetal prot.	33,6 g	29,0 g	30,3 g
Animal prot.	20,2 g	19,3 g	21,2 g
TOTAL PROTEINS	**53,9 g**	**48,2 g**	51,5 g

(1) Rice, potatoe, beans, cassava, corn, sugar e soybean.
(2) Meats and eggs.

Source: IEA/SAA/SP

Table 7 - Per Capita Availability for Human Consumption

(Kg/hab)

Period	Rice	Beans	Orange	Corn	Soy-beans	Wheat
1973/75	52.6	13.6	31.2	5.6	32.0	53.0
1974/76	57.3	12.5	33.1	2.2	35.5	55.9
1975/77	59.5	12.5	31.8	2.0	39.3	62.2
1976/78	55.9	12.2	29.5	8.2	41.5	64.0
1977/79	53.0	12.4	29.0	16.2	47.7	70.4
1978/80	56.2	11.3	30.9	24.7	54.4	70.8
1979/81	57.3	11.3	28.6	25.2	55.0	70.3
1980/82	57.9	12.2	27.9	20.3	57.6	63.9
1981/83	52.4	11.1	24.4	13.7	49.2	63.2
1982/84	52.6	11.5	19.2	10.7	53.5	60.5
1983/85	51.1	10.6	25.4	12.3	53.9	57.6
1984/86	59.3	11.6	20.9	19.7	61.8	56.4
1985/87	61.1	10.2	28.2	22.8	58.5	53.5
1986/88	63.6	10.4	24.4	22.5	61.4	52.3
1987/89	58.6	10.2	34.4	18.1	65.5	48.0
1988/90	52.8	10.5	33.6	15.9	68.4	
Average growth	0.26	-1.55	2.08	25.41	5.50	-0.49

Source: Farina (1992:61), data from FGV: "Balanço e Disponibilidade Interna de Gêneros Alimentícios", 1986 - 1990.

Table 8 - Number of families with income level below the minimum levels indicated by FAO, Brazil, States and Regions, 1990

	TOTAL	METROPOLITAN	URBAN NOT METROPOLIT.	RURAL
NORTH	198.250	43.320	154.930	...
Rondônia	21.214	-	21.214	...
Acre	12.169	-	12.169	...
Amazonas	36.673	-	36.673	...
Roraima	1.139	-	1.139	...
Pará	122.065	43.320	78.745	...
Amapá	4.990	-	4.990	...
NORTHEAST	4.464.839	437.713	1.662.318	2.404.809
Maranhão	551.349	-	159.337	392.012
Piauí	339.732	-	116.116	223.615
Ceará	757.145	135.304	212.559	409.283
R.G.Norte	255.187	-	144.217	110.970
Paraíba	406.708	-	211.711	194.367
Pernambuco	656.353	190.749	214.022	251.582
Alagoas	229.409	-	116.162	113.247
Sergipe	128.437	-	59.062	69.375
Bahia	1.141.148	111.660	389.130	640.357
SOUTH-EAST	2.613.588	902.289	950.806	760.493
R.Janeiro	622.951	445.698	86.026	91.228
Minas Ger.	970.071	127.515	429.007	413.549
Esp.Santo	185.185	-	83.802	101.383
São Paulo	835.381	329.076	351.972	154.333
SOUTH	1.297.736	144.557	478.711	674.467
Paraná	563.505	57.277	209.527	296.701
Sta.Catar.	213.920		93.855	120.065
R.G.Sul	520.311	87.280	175.329	257.701
OUEST/ CENTER	600.187	-	385.707	214.479
M.G.Sul	118.931	-	85.671	33.260
M.Grosso	92.145	-	46.482	45.662
Goiás	333.500	-	197.944	135.557
D.F.	55.610	-	55.610	-
BRAZIL	9.174.598	1.527.879	3.592.472	4.054.247

Source: Peliano (1993:8) data from PNAD/IBGE,1990

Tabela 9
Estimate of Taxes for food products as a percentage of added value

PRODUCTS	ICMS	CONTRIBUIÇÕES SOCIAIS	TOTAL
Meat	13.64	8.8	22.14
Rice	13.64	8.8	22.14
Beans	13.64	8.8	22.14
Milk	00,00	8.8	8.80
Bread	13.64	7.5	21.14
Sugar	21.75	7.5	29.25
Coffee	21.75	7.5	29.25
Oils	21.75	7.5	29.25
Pasta	21.75	7.5	29.25
Salt	13.64	7.5	21.14
Vegetables	00.00	8.8	8.80

Source:Rezende (1991:24)

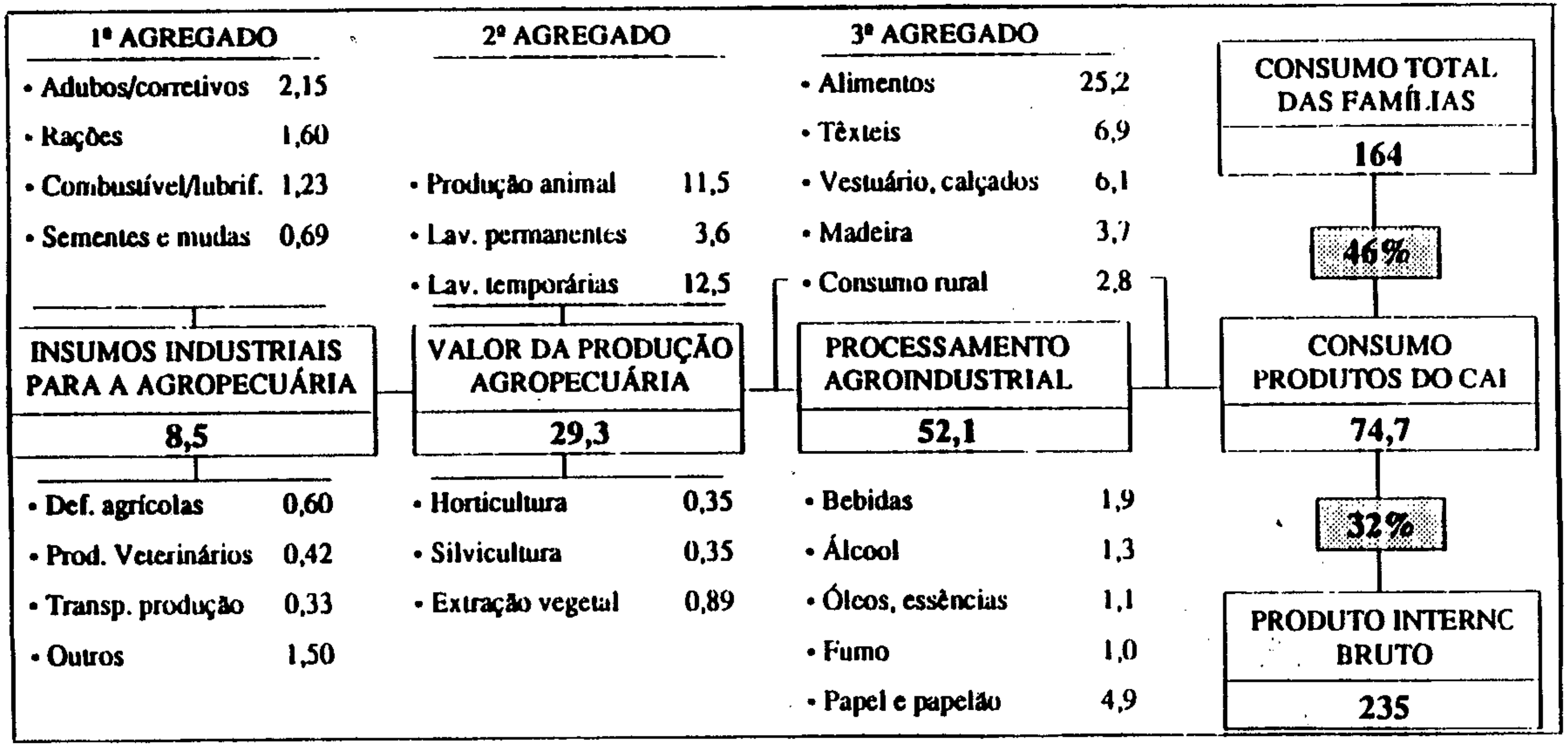
Table 10
Land distribution among farms, Brazil, 1970 a 1985

	1970	1975	1980	1985
Nb.of farms (millions)	4,9	5,0	5,2	5,8
Total area (millions ha)	294,1	329,9	369,6	376,3
Average area (ha)	60,0	64,9	71,7	64,6
Mediane area	9,3	8,9	9,7	8,3
Gini Index	0,844	0,855	0,859	0,858
Area for the 50% -	2,9	2,5	2,4	2,2
Area for the 5% +	67,0	68,7	69,7	69,2

Source: Reydon (1993:13), data from IBGE

Brasil: Síntese do Complexo Agroindustrial - CAI, 1980

(valores em US$ bilhões)



Employment growth and social protection of labour in India

Trilok Singh Papola[1]

Introduction: The issues

The issues relating to employment generation and institutional arrangements for social protection of workers have featured as important aspects of economic and social development policy in India over the past four decades. The phenomenon of large and rapidly growing labour force has led to the focus of attention on its utilization for development through creation of expanding productive employment opportunities. Besides viewing labour force as a resource for growth, the concern for employment as the means of livelihood has been an equally important consideration in determining policies and programmes. It has been recognized that in a labour surplus economy, the employers may tend to exploit labour by paying very low wages and setting poor working conditions and unfavourable employment contracts. The State has, therefore, passed several legislations and also facilitated organizations of workers to protect them from various forms of exploitation.

The employment has thus been viewed both as an economic and social issue. The development strategy implicitly recognized the potential available in the surplus labour force for capital formation *a la* Nurkse and Lewis. Initial thinking on development planning perceived a shift of labour from low productivity subsistence agriculture to the surplus generating capitalist industry not only as a concomitant process of, but also as an important factor contributing to development. The phenomenon of surplus labour was viewed, not so much as the 'employment problem', as an opportunity and source for capital accumulation and economic development. Unemployment, in any case, was not expected to emerge as a major problem and providing employment to all on a sustainable basis was seen as a goal to be achieved in the long run primarily on the basis of a reasonably high rate of economic growth, particularly in the industrial sector (GOI, 1957). While basic strategy of industrialization emphasized capacity building through the development of capital goods industry, which, it was recognized would not be able to absorb large amounts of labour, a simultaneous growth of consumer goods industries, particularly in the small scale sector was expected to utilize most of the available labour as well as additions to the supply of labour resulting from increase in labour force.

At the same time, the idea that labour is to be treated not merely as a resource for development, but as a partner and beneficiary, was an essential ingredient of social policy. It had its roots in the independence movement and, in fact, a number of legislative measures for social protection of labour had been taken before national independence was achieved. But the process was widened and accelerated by the national government. Thus the legislation regulating conditions of work in factories, mines and plantations, which already existed, was elaborated and sharpened; the provisions of social security were made more comprehensive and the coverage expanded to include various kinds of risks; detailed laws governing industrial relations and industrial disputes were enacted, and mechanism for fixing and implementing minimum wages was developed. The basic philosophy behind all these measures was to ensure that labour is not employed in sub-human conditions, and is

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not subjected to unfair practices in payment of wages, dismissals and retrenchments, and to see that the wages paid are reasonable and fair, and minimum security is provided against risks, such as injuries and accidents at work, sickness, maternity and old age. Industrial relations law, besides specifying procedures for settlement of industrial disputes, also stipulated restrictions on employers in laying off and retrenching workers, thus providing a measure of job security.

Indian labour legislation has, in fact, often been described as providing 'excessive' protection to labour. Social protection of labour, beyond a point, may prove counterproductive in so far as it discourages investment and growth and consequently employment. Further, when such protection is available to a few workers in one segment and not to others who, in fact, constitute the majority, as is the case in India, employment mostly takes place in the unprotected segment and thus proportion of protected workers declines. In the process, the very objective of providing social protection to large majority, if not all, gets defeated.

The issue was not seen in this light in the earlier years when with expectations of faster economic growth and slower population growth, employment was not conceived as a problem. Over the decades, however, these expectations were not realized; growth of employment was lower than that of labour force; and the backlog of the unemployed and underemployed increased. Employment growth was particularly low, and decelerated over the years, in the organized industry where degree of social protection to labour is high, and, therefore, the former is quite often projected as a result of the latter. According to a study, for example, employment in the Indian organized industry during 1976-1982 would have been 17 per cent higher in the absence of protective legal provisions on job security (Fallon and Lucas, 1991). Of late, restrictive provisions in this regard have come under attack, as they are supposed to negate an 'exit policy', considered necessary for industrial restructuring and attracting foreign investment.

The present paper aims at examining social protection to labour in India particularly with reference to growth and structural change in employment on the one hand, and industrial restructuring, structural adjustment and economic reforms, on the other. It begins with an account of the trends and structure of employment, particularly over the past two decades. This account is followed by a description of the institutional framework governing employment and an assessment of its possible impact on the growth and structure of employment. A brief examination of the problems and prospects of labour adjustment required in industrial restructuring follows. In the final part of the paper, attempt is made to assess the impact of structural adjustment programme initiated by the Indian Government in 1991, on employment and labour market trends in the medium term.

Employment growth and structural changes

Employment in India has grown at an average annual rate of around 1.9 per cent over the past four decades (Table 1). The growth rate has varied among different sub-periods. Employment grew at less than one per cent during the 1950s, but at over two per cent during the 1960s. The 1970s saw an employment growth of slightly lower than two per cent per annum, but the rate decelerated to about 1.8, during the 1980s. Overall, there has been an increase of about 87 per cent in total employment over the period 1951-1992 from 162 million in 1951 to 302 million in 1992 (Table 2).

Growth of employment over the past decades needs to be seen in relation to demand and supply of labour. Demand for labour is basically determined by the growth of the economy. The Indian economy registered an annual average growth of around 3.5 per cent per annum in Gross Domestic Product (GDP), during the 1950s to 1970s, and over 5.5 per cent during the 1980s. The growth rate has, of course, fluctuated over different sub-periods, as can be seen from the estimates of GDP growth in different five year plans and during the intervening annual plan periods (Table 1).

With a relatively low growth of GDP, employment could not have been expected to experience a fast growth.

Table 1: Growth rate of GDP and employment (five-year plan and intervening annual plan periods) Annual average growth rates

	GDP	Employment
1951-56 (First five year plan)	3.6	0.39
1956-61 (Second five year plan)	4.2	0.85
1961-66 (Third five year plan)	2.8	2.03
1967-69 (Annual plans)	3.9	2.21
1969-74 (Fourth five year plan)	3.3	1.99
1974-79 (Fifth five year plan)	4.8	1.84
1980-85 (Sixth five year plan)	5.7	1.73
1985-90 (Seventh five year plan)	5.8	1.89
1990-92 (Annual Plans)	3.4	1.50

Table 2: Labour force, employment and unemployment (at the beginning of each five year plan) (in millions)

Year	Labour force	Employment	Unemployment	Unemployment rate
1951	162.01	161.67	0.34	0.21
1956	167.13	164.87	2.26	1.35
1961	178.44	171.96	6.48	3.63
1969	208.20	203.01	5.19	2.50
1974	234.15	224.04	10.11	4.32
1980	256.34	244.75	11.50	4.52
1985	279.38	266.69	12.69	4.54
1992	318.73	301.73	17.00	5.33

Notes: (1) Figures are on current weekly status or comparable criterion.
(2) Unemployment rate in column 4 is percentage of unemployment to labour force.

Besides, the economic growth during the early years, say 1950s, focused in large investments in infrastructure industries with little potential for direct employment generation and relatively long gestation periods. So employment growth was very low even in relation to the relatively low growth of GDP. In the 1960s, employment grew faster even with low GDP growth as a result of secondary effects of heavy investments made earlier. GDP growth picked up with the middle of 1970s and accelerated during 1980s. But employment growth did not accelerate correspondingly, as the major part of growth was derived from productivity growth; and, the lines of production which grew faster

Table 3: Employment elasticities in major sectors

Sector	1972-73 to 1977-78	1977-78 to 1983	1983 to 1987-88
Agriculture	0.66	0.49	0.36
Mining	0.95	0.67	0.85
Manufacturing	0.55	0.42	0.26
Construction	0.35	1.00	1.00
Electricity, gas and water supply	1.00	0.74	0.48
Transport, storage and communications	0.76	0.92	0.35
Services	0.80	0.99	0.42
All Sectors	0.61	0.55	0.38

were not employment intensive. As a result, employment elasticity of GDP growth declined continuously during 1970s and 1980s (Table 3). Employment elasticity was 0.61 during 1973-1978, it declined to 0.55 during 1978-1983 and further to 0.38 during 1983-88. During the period 1988-92, it is estimated to have risen slightly to around 0.41. The declining trend in employment elasticity has been observed in all the major sectors of economic activity, except in construction. But the decline has been the sharpest in manufacturing and agriculture, the two major sectors of the economy.

Labour supply, on the other hand, is broadly indicated by the figures of labour force. Labour force increased from 162 million in 1951 to 319 million in 1992, that is, by about 97 per cent over the period 1951-1992, or at an average rate of 2.36 per cent per annum. Growth of labour force was relatively low till around the middle of 1960s, but accelerated during 1966-80.

It has shown some deceleration since 1985 and has been around 2 per cent during 1980-92. It is, however, seen that all along the growth of labour force has been higher than that of employment. As a result, the magnitude of unemployment has been steadily rising (Table 2). It was estimated at 0.34 million in 1951, rose to 6.48 million by 1961, and further to 10.11 million by 1974. In 1992, it is estimated to be around 17 million. It showed a decline during 1960s only, as during 1961-69, employment growth was higher than the growth in labour force. The long term trend has been not only of a rise in the magnitude, but also the rate of unemployment. Thus, unemployment was 0.21 per cent of labour force in 1951, rose to 3.63 per cent by 1961 and 4.32 per cent by 1974. It has shown steady increase since then and stood at 5.33 per cent in 1992.

The trends in employment growth and unemployment, as described above can possibly be seen in at least three different ways. One, it could be argued that employment growth of almost 2 per cent over a long period of 40 years is, in fact, a reasonably good record, particularly against the background of a relatively slow growth of the economy for major part of this period. The problem, primarily lay, it may be argued, in the rapid growth of population. In fact, when it was assumed in the initial years of planning that the problem of 'unemployment' was not likely to emerge as serious, it was on the basis that labour force would be growing at an average rate of about 2 per cent per annum, while it actually grew at an average of 2.36 per cent per annum.

Second, the cause of the slow employment growth and increase in unemployment can be seen in the low rate of economic growth. If the economy grew at the rate of 5 per cent per annum, as envisaged repeatedly in every five year plan, in spite of lower achievement in the earlier one, employment could have grown fast enough to take care of the growth in labour force. It must, however, be noted that the rates of GDP growth and employment growth have not necessarily moved together. During the 1960s, the Indian economy grew at about 3.5 per cent and employment grew at over 2 per cent per annum; during the seventies GDP growth was about 4 per cent but employment

Table 4: Growth rates of employment by major sectors, 1973-88

Sector	1972-73 to 1977-78	1977-78 to 1983	1983 to 1987-88	1972-73 to 1987-88
Agriculture	2.32	1.20	0.65	1.37
Mining	4.68	5.85	6.16	5.47
Manufacturing	5.10	3.75	2.10	3.61
Construction	1.59	7.45	13.69	7.23
Electricity, gas and water supply	12.23	5.07	4.64	7.06
Transport, storage and communication	4.85	6.35	2.67	4.65
Services	3.67	4.69	2.50	3.05
Total	2.82	2.22	1.55	2.17

growth was lower than 2 per cent; and during the 1980s, GDP grew at the highest ever average rate of over 5.5 per cent, but employment growth was the lowest at about 1.80 per cent per annum. Thus over the decades, the growth of national income has gradually accelerated, while that of employment has decelerated. This experience goes to suggest that a high rate of economic growth is a necessary but not a sufficient condition for a rapid growth of employment. Employment elasticity is observed to be generally inversely associated with the rate of economic growth, because a high growth is mostly contributed by productivity growth.

Thirdly, a relatively slower employment growth experienced in India over the past decades could be attributed to the failure of the non-agricultural, particularly the industrial sector, to generate enough jobs. Industrial growth has all along been relatively higher than average growth of the economy; during the three decades up to 1980, it averaged 5.5 per cent (Ahluwalia, 1985) and was higher at 7.5 per cent during the 1980s. Employment in the industrial sector grew at an average of about 3 per cent per annum over the four decades. It, however, grew at a lower rate of about 2.3 per cent during the 1980s. The non-agricultural sector, as a whole, registered a higher growth rate in employment, over 4 per cent, as a result of high growth of employment in construction, transport and services sectors. During the period 1972-73 to 1987-88, for which more detailed information on a comparable basis is available, the overall employment growth was estimated to have been 2.17 per cent and all non-agricultural sectors registered an employment growth of over 3 per cent, while agricultural employment grew at only 1.37 per cent per annum (Table 4).

A relatively higher growth in employment in the non-agricultural sectors has, however, not been able to bring in a major change in the sectoral composition of employment, because of an overwhelming dominance of agriculture in the structure of workforce. Over three-fourths of the Indian workers continued to be engaged in agriculture till the beginning of 1970s. Thus, in 1972-73, 74 per cent of total principal and subsidiary workers were engaged in agriculture. The proportion declined marginally during the next five years to 72 per cent in 1977-78.

Since then, there has been a significant trend towards a decline in the share of agriculture in total workforce; it declined to 68 per cent in 1983, further to 66 per cent in 1987-88 and is estimated to be around 63 per cent in 1992. The observed structural change in workforce in recent years is attributable to a relatively fast deceleration in the growth of employment in agriculture, rather than to an acceleration in employment growth in the non-agricultural sectors. As can be seen in Table 4, there has, in fact, been a decline in the growth rate of employment from one-sub period to another, in all the sectors, but the deceleration has been steeper in the case of agriculture.

The relatively small change in the structure of workforce is rather intriguing when seen in relation to a significant structural change that has taken place in the composition of national income. The share of agriculture in GDP has declined from about 64 per cent in 1961 to about 33 per cent in 1991; the corresponding decline in the share of agriculture in workforce has been from 75 to 64 per cent. True, both the secondary and tertiary sectors shave shown a much lower growth in employment than in GDP and, therefore, the structural changes in GDP have not been accompanied by similar changes in the structure of workforce. But, at the same time, it needs to be noted that even relatively high employment growth in these sectors than in agriculture have not resulted in the expected shifts in workforce due to large initial weight of agricultural sector accompanied by high growth of population and labour force – most of which took place in agricultural households – and the residual nature of agriculture employment.

During the last 15-year period, that is during 1977-92, however, a steady trend towards a relative shift from agriculture to non-agricultural employment is discernible (Table 5). Each of the non-agricultural sector has shown an increase in its share in total employment at the cost of agriculture. Construction, trade and transport sectors have particularly gained in this process; the community, social and personal services have also improved their share but to a much smaller extent. The share of manufacturing employment has increased much less than of these sectors. Since it is the largest sector, contributing about 30 per cent, of the non-agricultural employment, only a small improvement in its share dampens the impact of even substantial improvements in the case of other smaller sectors. The other important sector, viz., social, community and personal services, accounting for 24 per cent of non-agricultural employment also did not have a substantial gain in its share of employment. As a result, in spite of a significant trend towards structural shifts, workforce continues to be dominated by agriculture.

Another notable feature of the employment pattern in India is the preponderance of the unorganized sector. Public sector employment and employment in the private sector establishments employing 10 or more workers, which broadly constitute the organized sector, account for a mere 10 per cent of the Indian workforce. Of the organized sector employment, over 70 per cent is accounted for by the public sector. During the recent years, growth in organized sector employment, which has been rather low, was mainly accounted for by the public sector. About 90 per cent of employment is in the unorganized sector. Practically, all the agricultural employment is in the unorganized sector. Over three-fourths of the manufacturing employment is also in the unorganized sector. In construction, the share of unorganized sector employment is as high as 86 per cent and in transport, storage and communication, despite a strong public sector presence, it is over 50 per cent.

Employment growth in the unorganized sector as a whole has been almost similar to that in the organized sector during the past two decades; during 1972-73 to 1987-88, the former was about 2.21 per cent and the latter 2.11 per cent per annum. But unorganized sector employment has grown much faster than the organized sector employment in some sectors of economic activity. Employment in the organized manufacturing grew at an average annual rate of 1.44 per cent, and in the unorganized manufacturing at 4.57 per cent. Similarly, employment in the unorganized segment of the construction sector registered an increase of almost 10 per cent per annum, the rate of employment growth in the organized part of this sector was only 0.37 per cent. The growth rates of employment in the organized and unorganized segments in the transport and communication sector were 1.7 and 10.2 per cent respectively. Similar difference in employment growth between organized and unorganized parts are observed in all other non-agricultural sectors of the economy. As a result, the share of the unorganized employment has increased in these sectors over the past two decades; in manufacturing, it increased from 67 per cent to 76 per cent, in construction from 78 per cent to 86 per cent and in transport from 24 per cent to 51 per cent.

Another important feature of the pattern of employment in the Indian economy is the dominance of self-employment. About 56 per cent of all workers work on a self-employed basis. The remaining 44 per cent work for wages and salaries, 30 per cent on irregular, casual basis and 14 per cent on regular basis. The rural workers, constituting about 77 per cent of total workers, are mostly self-

Table 5: Percentage distribution of workers by nine major sectors

Industry division	1972-73	1977-78	1983	1987-88	1992
Agriculture	74.0	72.3	68.4	65.5	63.5
Mining & quarrying	0.4	0.5	0.6	0.7	0.8
Manufacturing	8.8	9.8	10.6	10.8	11.0
Electricity, gas and water supply	0.2	0.2	0.3	0.3	0.4
Construction	1.8	1.7	2.2	3.7	4.2
Trade	5.0	5.8	6.2	6.9	7.5
Transport	1.8	1.9	2.4	2.5	2.8
Financing, real estate insurance and business services	0.5	0.5	0.7	0.8	0.9
Community, social and personal services	7.3	7.2	8.1	8.2	8.9
Total	100.0	100.0	100.0	100.0	100.0

employed, due to the preponderance of own-account cultivators in agriculture. About 60 per cent of those working in rural India work for themselves. But even in urban areas, 43 per cent work on self-employed basis. Those employed on wages and salaries on a regular basis have a much higher proportion (40 per cent) in urban than in rural areas (8 per cent). Casual wage earners account for 33 per cent of the rural and 17 per cent of the urban workers.

Significant changes have been taking place in the structure of workforce in terms of employment status during the past two decades. The proportion of those working as self-employed has been declining, and that of casual workers has been rising (Table 6). Self-employed accounted for 61 per cent and casual workers for 23 per cent of total workers in 1972-73, their respective proportions have changed to 56 and 30 per cent in 1987-88. The share of regular wage and salary earners has slightly declined from 15 to 14 per cent during this period. These changes are commonly observed both in rural and urban areas, except that in urban areas, there has been a marginal increase from 41 to 43 per cent in the share of the self-employed workers.

A relatively fast increase in the share of casual workers is observed in aggregate as well as both in rural and urban areas. This phenomenon has often been characterized as increasing 'casualisation' of workforce implying a deterioration in the quality of employment in terms of security and earnings.(e.g. Mukhopadhyay, 1992). Relatively speaking, casual employment has increased, but it is not as if it represents a conversion of regular wage and salary earners into casual workers which would definitely mean a worsening of the quality of employment.

It is true that a certain number of workers have been rendered redundant and have lost their permanent jobs in the organized sectors, and some of them might have joined the ranks of casual earners, but their number has not been large enough to result in a sizeable shift seen in the overall structure. In the urban areas, where the trend towards casualisation has, in fact, been slower than in rural areas, the rise in the share of casual workers is primarily a result of slow growth of employment in the organized sector which is the main source of regular wage employment. The increasing labour force has, as a result, resorted to work in the unorganized sector, either as self-employed or then as casual workers.

In rural areas, the increase in "casualisation" primarily reflects the phenomenon of occupational shift of workforce from agricultural to non-agricultural activities Table 7). There has been only a small decline, in the proportion of regular wage and salary earners in rural areas. The major shift is observed

Table 6: Percentage distribution of workers by category of employment

	Rural Male	Rural Female	Rural Total	Urban Male	Urban Female	Urban Total	Total (R+U)
Self-employment							
1972-73	65.9	64.5	65.4	39.2	48.4	40.9	61.4
1977-78	62.8	62.1	62.5	40.4	49.5	42.4	59.3
1983	60.4	61.9	61.0	40.9	45.8	41.9	57.3
1987-88	58.6	60.9	59.4	41.6	47.1	42.8	56.3
Salaried regular employment							
1972-73	12.1	4.1	9.2	50.7	27.8	46.4	15.3
1977-78	10.6	2.8	7.8	46.4	24.9	41.7	13.2
1983	10.3	2.8	7.5	43.7	25.8	39.9	13.7
1987-88	10.0	3.6	7.7	43.4	27.5	40.2	13.7
Casual wage employment							
1972-73	22.0	31.4	25.4	10.1	23.7	12.6	23.3
1977-78	26.7	35.1	29.7	13.2	25.6	15.9	27.5
1983	29.2	35.3	31.5	15.4	28.4	18.2	28.9
1987-88	31.4	35.4	32.8	14.7	25.4	17.0	29.9

from self-employment in agriculture to casual work in non-agricultural activities. This phenomenon needs to be specially noted for drawing implications regarding the improvement and worsening of employment situation accompanying the overall process of 'casualisation' in rural areas. While in urban areas, an increase in the share of casual workers is accompanied by a decline in the share of regular employees in the organized sector and, therefore, could be seen as representing an overall deterioration in the quality of employment. But this is not necessarily true for rural areas where the shift observed is from self-employment in agriculture to wage labour in non-agricultural activities. Self-employment in agriculture, no doubt, provides a safety net for survival as a part of the household, but, at the same time, in many cases, the individual earnings from (or contribution to) family farming are very small. Thus, one is not compelled to move away from self-employment in agriculture, unless the income situation is likely to improve. It has generally been observed that earnings in most non-agriculture activities are higher than in agriculture. In these circumstances, it would be quite safe to surmise that the 'casualisation' that is taking place in rural India is a positive process induced by higher earnings outside agriculture (Papola 1992).

To sum up, the employment situation in India has been characterized by the following features. First, growth in employment has been slow relative to increase in labour force. A slow employment growth was a result partly of the low rate of economic growth. But growth of employment was slow and even decelerated in the 1980s when economic growth accelerated to a relatively high level. Second, a substantial structural change in the composition of national output has not been accompanied by similar change in workforce. Employment pattern continues to be dominated by agriculture though its share in GDP is now less than one-third. The growth in non-agricultural sectors particularly industrial sector, has not been employment-intensive. Third, employment growth has been particularly slow in the organized sector of the economy.

The unorganized sector, therefore, continues to absorb nine-tenths of all workers and its share has shown an increasing trend in most of non-agricultural sectors. Fourth, the growth of regular employment on a wage or salary basis has been particularly slow, its share in total employment which was already low at about 15 per cent has declined. Thus, the relative extent of stable and protected employment has declined. Self-employment continues to be the major mode of employment, there has been some decline in it in recent years, and correspondingly, the share of casual wage earners has increased.

Table 7: Self-employment, regular and casual workers' distribution by major sectors for 1977-78and 1987-88 in rural areas

Category of employment	Year	Per cent distribution of usually employed persons in		
		Agriculture	Non-agriculture	Total
Self-employment	1977-78	53.39	9.13	62.52
	1987-88	49.07	10.35	59.42
Regular salaried/wage employee	1977-78	3.22	4.53	7.75
	1987-88	2.45	5.28	7.73
Casual wage labourers	1977-78	26.49	3.24	29.73
	1987-88	26.64	6.21	32.85
Total workers	1977-78	83.10	16.90	100.00
	1987-88	78.16	21.84	100.00

Labour institutions and employment growth

The growth and pattern of employment primarily depends on the rate and structure of economic growth. Labour institutions can, however, significantly influence the labour market outcomes such as employment, productivity and earnings. These institutions, in the first instance, can influence the pace and pattern of growth itself. It has been observed in the Indian case, that the labour market institutions do not seem to have encouraged either large scale or efficient use of plentiful labour supply for rapid industrialization and economic development (Papola 1992 b). Given a rate of economic growth, these institutions can also influence the labour market variables such as demand for labour and pattern of employment. A view has significantly emerged recently, particularly in the context of the structural adjustment programme in India that the existing pattern of labour institutions impedes restructuring and growth of enterprises and thus discourages expansion in employment, particularly of the regular and stable type, due to the rigidities and inflexibility created by such institutions as labour legislation and trade unionism.

The argument can be split into two parts. First, a high degree of protection provided to workers in the organized sector by the legislative provisions and union actions has resulted in high labour costs, on the one hand, and severe limitations on the restructuring and reduction in the workforce, if required by technological and market conditions, on the other. For this reason, the enterprises have avoided employing more labour and resorted to technologies using less labour, or subcontracting mostly to the unorganized sector, if possible, or then simply decided not to expand where these options were not available. As a result, either there has been no expansion in employment at all, or whatever increase in employment has taken place, it has been mainly in the unorganized sector. Second, the inflexibilities in labour adjustments are seen as obstacles in investment and industrial growth in the context of the structural adjustment programme. It is argued that the free entry introduced by de-licensing of industry and liberalization of foreign investment regime should also be accompanied by the provision of free 'exit'. Exit has several, including non-labour dimensions. But specifically in the case of labour, free exit implies freedom to an enterprise to hire and fire, particularly the latter whenever necessitated by restructuring, technological change and closures. Non-availability of such freedom is seen as an important disincentive to entrepreneurs, particularly foreign, to invest, as, it is argued, that they would not like to be saddled with the problem of carrying the burden of redundant labour or a non-viable enterprise.

The state policy in India has been highly interventionist in the field of labour and employment as in most other fields. This has been in line with the philosophy of social justice enshrined in the Indian Constitution. Labour has been recognized as a weaker party deserving protection. The state has legislated on practically all aspects of employment primarily to ensure fair play in the labour market. Most of them provide stipulations on minimum conditions of work, wages, and termination of employment and could be regarded as essential requirements of any employment contract. But some of them have come under serious questioning from the viewpoint of their adverse effect on industrial efficiency.

The basic institutional framework within which the enterprises employ workers in production process is provided by several legal enactments dealing with employment, conditions of work, wages, industrial relations, social security and labour welfare. Most aspects concerning labour are in the Concurrent List of the Indian Constitution which implies that both the Union and the State Governments can enact laws on various labour matters. But most legislative enactments determining the basic conditions of employment have been made by the Union Government.

Payment of Wages Act (1936) stipulates regular payment of wages, prohibits unauthorized deductions and fines and lays down penalties for non-compliance of its provisions. The Minimum Wages Act (1948) requires the Government to fix minimum wage rates payable to workers in scheduled employments. It does not define 'minimum wage', but the machinery and institutions created under the Act, have, in practice, applied the principle of subsistence minimum for fixation and revision of minimum wages. The scheduled employments include industries mostly operating on a decentralized and unorganized basis and also include agriculture. Minimum Wages are also fixed by other bodies like the Tripartite Wage Boards constituted from time to time, in the case of large scale industries like cotton textiles, jute textiles, sugar and cement. Recommendations of these Boards once accepted have led to the formation and revision of wage structure to be followed by the enterprises in these industries. Bonus has also become a regular statutory part of the workers' earnings with the passage of the Payment of Bonus Act 1965, which makes it obligatory for any employer operating a 'factory' to pay to each worker drawing up to a specified wage, an annual bonus equivalent at least to one months' emoluments.

Provision of social security measures like sickness and accident benefits, maternity benefits and provident fund also form statutory obligations of industrial enterprises. Under Workmen's Compensation Act 1923, the employer is made liable to pay compensation in the case of accident at work resulting in death, and permanent and partial disability. Maternity Benefit Act 1941 provides for leave and payment for expenditure related to maternity, to the women workers. Employees State Insurance Act 1948, combines both the accident benefits and maternity benefit, along with sickness benefits and is applicable in lieu of the other Acts providing these benefits. Employees Provident Fund Act 1952, provides for a contributory scheme of retirement/ separation benefit in the form of a lump sum payment. Gratuity equivalent to 15 days wages for every completed year of service, subject to a maximum , is also statutorily payable to an employee on termination of employment, under the Payment of Gratuity Act 1972.

Various aspects relating to industrial relations are comprehensively regulated under the Industrial Disputes Act 1947, besides the legislation enacted in different States of the Union. The Act applies to all factories and covers all 'workmen' employed in them, and aims at prevention and settlement of industrial disputes. It lays down the procedure for settlement of disputes on the basis of bipartite negotiations, conciliations and adjudication. It also lays down the conditions relating to strikes, lockouts, layoff and retrenchment. Of particular relevance are the provisions relating to protection of workers against any adverse effect on them by introducing any change in conditions of employment and those relating to retrenchment due to rationalization and closures. The Act requires that any change in terms and conditions of work that is likely to affect the workers prejudicially, e.g. involving increase in workload etc., can be effected only after giving 21 days notice to the workers likely to be affected by the change. No worker having worked continuously for one year can be retrenched without giving a notice for one month, and without payment of compensation equivalent to 15 days wages for every year of completed service. In the case of larger establishments employing 100 or more workers, the notice period required is three months and the permission of the appropriate government is also to be sought. In the case of closure, the Act stipulates a 60 days' notice to the appropriate government if the enterprise employs less than 100 workers and prior permission of the appropriate government if it employs 100 or more workers. The notice is also simultaneously to be served on the representative of the workmen.

The overall "pro-labour" bias that exists in the legislative provisions is further buttressed by trade unions. The Indian trade unions are not necessarily very strong either in terms of their membership base or solidarity. But many view them as highly militant with a tendency to resort to work-stoppages too often. This view is also somewhat exaggerated. But it must be recognized that the trade unions have been accepted by law and social philosophy as legitimate institutions not only for the protection of workers but also as important pressure groups on political, social and economic issues.

Trade Unions are recognized as the legitimate organizations to represent the workers' interest. The Indian Trade Union Act 1926 provides for conferring a legal and corporate status to the registered trade unions. It lays down the procedures for formation, registration, funding and functioning of trade unions, which under the definition of the Act also include employers' associations. Any seven or more persons can combine to form an association and apply for registration, with details of its executive constituted and rules framed in accordance with the provisions of the Act. At least one-half of the officials of a union should be actually engaged or employed in an industry with which the trade union is connected.

Trade Unions in India are characterized by their affiliations and links with political parties and consequently by multiplicity even at the level of a single enterprise. The provision enabling any seven workers to form a union and be entitled to negotiate with management, in the absence of clear rules and procedures for recognizing a union as the sole representative of workers of an enterprise or industry, has also contributed to the phenomenon of multiplicity. Since the law also insists only on one-half of the numbers of the executive to be actual workers, the phenomenon of outside or non-worker leadership, often drawn from political parties and groups, is also common. The approach and strategy of the unions at the enterprise level is quite often conditioned by the ideology of the national federation to which the union is affiliated and the political party with which the federation is linked. The major trade union centres or federations are: Indian National Trade Union Congress (INTUC), linked with the Indian National Congress; All India Trade Union Congress (AITUC), linked with the Communist Party of India; Centre of Trade Union Unity (CITU), linked with Communist Party of India (Marxist); Hind Mazdoor Sabha (HMS), linked with the erstwhile socialist parties and groups; and Bhartiya Mazdoor Sangh (BMS), linked with the Bhartiya Janata Party (BJP). Of late, a tendency towards internal leadership and only loosely linked unions is seen to have emerged.

Most of the labour laws apply only to relatively larger establishments. Unions are also confined, by and large,to these establishments. Any piece of labour legislation involves a cost to the employer in terms of enhancement of wages, maintenance of certain minimum conditions of work, contribution towards social security and welfare, retrenchment and lay-off compensation, and transaction costs in following legal process in the settlement of industrial disputes, or, then, payment of consideration money to officials for ignoring non-compliance. Trade unions can further contribute to the increase in costs and reduction in functional flexibility. The cost of labour in the organized sector establishments could easily be three to four times higher than in the unorganized sectors. There has, therefore, been a tendency to avoid application of laws and organization of trade unions by keeping the workforce small. For example, it is observed that an increasing proportion of manufacturing establishments report employing *nine* workers each, as employment of 10 or more workers invites application of Factories Act. Practices of employing more workers, if necessary, on a casual basis or subcontracting work to other, mostly smaller enterprises have been on an increase. More rigid employment security provisions which apply to larger establishments have also discouraged expansion of regular employment in such enterprises. Slower growth of organized sector employment accompanied by relatively high employment growth in the unorganized sector in manufacturing could partly be attributed to these tendencies.

Slow growth of employment in aggregate, however, cannot be attributed to protective labour legislation and unionism. As already pointed out, these phenomenon are prevalent only in a small part of the economy, accounting for less than 10 per cent of total employment. The pattern of growth itself in most of the sectors has tended to be less employment-intensive in recent years. Agriculture, particularly in the faster growing areas of the country has become more input-intensive and less labour-intensive. Manufacturing growth, particularly during the 1980s have been contributed mainly by capital-intensive sectors like chemicals, fertilizers, petroleum products and electrical machinery or by industries though labour-intensive but experiencing rapid rate of technological changes such as food products. As a result, economic growth during the 1980s has mostly been contributed by increases in labour productivity and only to a small extent by employment growth. In the organized industry as a whole, the entire growth of about 8 per cent has been due to productivity growth; in fact employment had a negative growth of around 0.5 per cent, against an over 9 per cent growth in value added per worker during 1980-81 to 1987-88. Real earnings grew by about 3.8 per cent per annum.

Irrespective of its impact on employment, a high degree of social protection to labour may lead to inflexibility in labour adjustment required for restructuring of enterprises in the interest of competitive efficiency. This problem has been faced by the Indian industry in the past decades but has been brought into forefront in the past two to three years in the wake of liberalization and economic restructuring. The major bone of contention in this respect lies in the provisions in the Industrial Disputes Act which lay down conditions and procedures for retrenchment of workers necessitated by restructuring and closures. It is contended that the provisions are so restrictive that reduction in workforce or closures are "virtually impossible" even when the employer is agreeable to pay the compensation as required under the law, primarily because of the condition that prior permission of the government is necessary for retrenching workers or effect closures in the case of enterprises employing more than 100 workers. The governments generally do not grant such permission.

Labour adjustments in industrial restructuring

Restructuring involving reallocation and redundancies of labour has been taking place in the Indian industry during the past several decades. Labour legislation and union resistance notwithstanding, rationalization and technological changes as well as closures have taken place, particularly in the traditional industries like cotton textiles, beginning with 1950s. As early as 1951, the problem was explicitly recognized and certain basic principles were laid down as guidelines for tackling it, in the First five year plan. These principles included, in the case of rationalization, technical examination of the workload, stress on natural separation, liberal separation allowances for those who opt to quit, provision of alternative employment to those affected and retraining arrangements (GOI, 1951). These principles were further reiterated in the tripartite Indian Labour Conferences in 1957 and 1966. Government Policy on the subject had been characterized as 'rationalization without tears'. The progress towards rationalization was rather slow in the beginning and was marred by severe industrial unrest in several centres of textile industry. The attitude of unions was generally negative; but the inability of the industry to find adequate financial resources was a more important reason for failure (GOI, 1969).

Still many enterprises were able to adjust their workforce as was necessitated by rationalization and technological change. Success in this regard varied among enterprises and industrial centres depending on the capacity to expand to absorb surplus labour and the union situation. For example, textile mills in Ahmedabad were able to reduce their workforce by 15000, about 15 per cent of the workforce, during the period 1963-68, mostly on the basis of 'voluntary resignations'(Papola 1971), but those in centres like Kanpur where industry was financially week and union situation characterized by multiplicity and rivalry, rationalization could not be undertaken and attempts in that direction resulted in severe and prolonged industrial strife and work stoppages. But the process caught up in Kanpur as well during the 1970s and 1980s and retrenchments and closures resulted in the reduction in the workforce in the organized private sector industry by about 44 per cent involving over 40,000 workers in a short period of five years during 1983-88.(Singh, 1990). In Ahmedabad, about 36,000 workers lost their jobs in the textile mills due to retrenchments and closures in just two years, 1983 and 1984 (Patel, 1990). Data are not available from other industrial centres, but similar trends are reported as taking place in traditional industrial sectors in all other areas. In the entire organized cotton textile industry in the private sector, employment declined by 2,42,000 during the period 1980-87, a major part of which is attributable due to closures and technological change.

The process of adjustments has, of course, not always been smooth. Different factors such as the magnitude of redundancy involved, the manner – planned, phased or sudden – in which the change was sought to be introduced, package of terminal benefits, incentives to workers for relocation of jobs, schemes for sharing productivity gains, nature of unionism – single or multiple, moderate or militant, and timeliness and adequacy of management efforts to take unions into confidence, have affected the nature and speed of outcome (Papola, 1989). Over the years, the unions seem to have by and large accepted the inevitability of technological change and the necessity of labour adjustments including redundancies. This is partly due to the staggering picture of sickness and non-viability that is revealed in the Indian industry. As at the end of December 1988, financial institutions had identified over 240,000 industrial units on their borrower lists as sick and weak. A major proportion of these units were in the small scale sector. But even in the medium and large category, about 1800 private and 50 central public sector units were considered non-viable for revival and, therefore, fit for closure. These enterprises employed about 900,000 workers.

The unions while generally accepting the inevitability of adjustments in workforce of industrial enterprises, obviously cannot take redundancies on such a large scale lying low. They, therefore, continue to be strongly opposed to any legislative or executive move to make closures and retrenchments easier. The government has set up a mechanism in the form of an organization called Bureau of Industrial and Financial Reconstruction (BIFR) to examine and decide whether the sick private sector, and lately also public sector enterprises can be revived with restructuring or have to close down. In the case of public sector enterprises, the pronounced policy of the government is to have closures or retrenchments only as the last resort, after all avenues of reviving the unit and maintaining employment are exhausted. And where these measures are inevitable, a National Renewal Fund has been constituted to enable enterprises to pay reasonable separation benefits, and assist the workers rendered redundant in their retraining and re-deployment. In concept the Fund is also expected to provide for a measure of insurance to deal with need for labour adjustments which may arise in restructuring and technological changes in future in individual enterprises and also for funding employment generation schemes for re-deployment of displaced workers. As of now, however, the Fund is primarily used to assist the sick Central Public Sector enterprises to reduce their workforce under the Voluntary Retirement Scheme (VRS), by providing financial assistance to pay separation allowances.

The continuation of non-functioning and non-viable enterprises, irrespective of the reasons for sickness, does not serve the interest of any party, including the workers. Also, continuation of the burden of more workers than are actually required for efficient production, whatever may be the reason for employing them in the first instance, could finally land the enterprise in sickness and non-viability. But the workers should not be made to bear the entire or even the major part of the cost of closures and restructuring. Thus, while the processes of closures and labour adjustments for restructuring of enterprises need to be simplified and made quicker, compensation packages require to be more substantial. Also schemes to assist the displaced workers to get redeployed in wage and self-employment need to be evolved.

Provisions relating to closure in the Industrial Disputes Act allow closures after fulfilling certain conditions. Enterprises employing less than 50 workers have to give necessary notices to workers and their representatives. but do not have to notify or seek permission from the Government. Those employing 50 to 99 workers are required, in addition, to give a 60 days notice to the appropriate government stating the reasons for closure. Those employing 100 or more workers, are required to seek prior permission of the appropriate government after giving a notice of at least 90 days. For retrenchment, the Act provides that a worker who has completed one year of continuous service under an employer, can not be retrenched without having been given one month's notice or pay in lieu thereof and paid compensation equivalent to 15 days average pay for every completed year of service. In the case of an industrial establishment employment 100 or more workers, the employer is required to give the worker three months notice or to pay three months' wages in lieu thereof, and also seek prior permission of the appropriate government.

The provisions relating to notices and compensation to workers seem to create no great problems for the employer. There have, at least, been no strong public protest against them. It is, however, noted that the employers generally attempts to see that, to the extent possible, workers are prevented from continuing in service regularly for one year, so as to avoid not only the necessity of paying compensation if retrenchment becomes necessary, but also to save other costs like social security contributions for which a worker becomes eligible once he attains a permanent status. The major bone of contention have, however, been the provisions relating to prior government permission required for closures and retrenchment, in the case of establishment employing 100 or more workers. It is true that the permission of the appropriate governments, which in most cases happen to be State governments, have not been forthcoming. There has, therefore, been a demand from industry that these provisions are repealed. Some circles have argued for raising the applicability limit of these provisions to only those establishments which employ 300 or more workers. Even if that is done, it must be recognized that the establishments will still have to confront the unions, and, therefore, a legislative change, without greater understanding between unions and management may not prove very effective.

Resistance to restructuring and closures could certainly be softened by more liberal compensation packages. Under the scheme of Voluntary Retirement Scheme(VRS) being implemented by Government of India for workers in public sector enterprises, a worker is paid 45 days salary for every completed year of service, whereas the provision under the Industrial Disputes Act requires payment of 15 days' salary only. It is certainly reasonable to argue that 'exits' be made relatively easier but costlier (Fallon, 1987). It is, however, observed that in many cases, the management has drained the establishment of its assets by transferring them to other companies under its control, and left it with very little resources to pay the workers statutory dues, leave aside enhanced compensation. Changes in company and ownership laws may be necessary to ensure payment to workers in such cases.

The process of industrial restructuring requiring adjustments in workforce at the enterprise level has been a continuous process in the past decades, but is likely to get accelerated in the coming years with the internal and external liberalization of the Indian economy. It seems that apprehensions on 'exit' are rather exaggerated both by industry and labour. The past experience of restructuring and rationalization in Indian industry casts serious doubts on the proposition advanced by industry that 'exit' and labour adjustments are virtually impossible. In fact, success of restructuring at the enterprise level has depended mainly on the approach of the management and unions: law as such has not come in the way of restructuring when both had a positive approach. It is also not true that restructuring will necessarily lead to large scale redundancies and fall in aggregate employment levels. Redundancies involved would constitute a minuscule proportion of aggregate employment or even of the total unemployment in the economy and a higher growth of economy with expanding employment opportunities should be able to easily offset the adverse employment effect of restructuring.

Structural adjustment and employment

It is, however, generally feared that the growth of employment may slow down in the initial years of structural adjustment. The basic reason behind this apprehension is that the stabilization measures which form an essential and first stage in the structural adjustment programme result in a general slowdown in the rate of growth of the economy. Such measures aiming at fiscal and monetary contraction and import restrictions were introduced in India in 1991. Growth of GDP during the fiscal year 1991-92 is estimated to have been 1.2 per cent, as against over 5.5 per cent on an average in the preceding ten years. Growth rate of GDP during the year 1992-93 is estimated at around 4.2 per cent, higher than 1991-92, yet still lower than in earlier years.

A slow down in the growth rate of GDP is likely to have caused a fall in the rate of employment growth. It is difficult to precisely estimate the change in employment growth, as the employment elasticity varies significantly with the growth of GDP, generally inversely. According to one estimate (Mundle, 1992), a growth rate of 3.9 per cent in GDP would lead to an employment growth of 4 million and a growth of 2.8 per cent would result in the addition of only 2 million in employment opportunities per year. This study estimated additional employment growth of about 10 million in a projected low growth scenario of 1.7 to 3.8 per cent in different years during 1991-92, 1992-93 and 1973-1994. In a high growth scenario of 3.0 to 5.7 per cent in different years, it estimated growth of employment opportunities by 16 million during the three year period. These figures may be compared with a growth of 5 to 6 million employment opportunities in a year during the years preceding 1991 when stabilization measures were introduced. They could also be seen against a backlog of 14 million unemployed in 1991 and an annual addition of about 7 million in the labour force during this period. The study concludes that employment could have been higher by 10 million than that projected in the low growth scenario with stabilization and by 4 million higher than in the high growth scenario with stabilization, if the economy continued to grow at the same rate during 1991-94 as in the preceding years. Unemployment would, therefore, be higher by four to 10 million because of stabilization measures during the period 1991-94.

Estimates of employment generation during the period of stabilization and structural adjustment, like in any other scenario, of course, depend on the assumption regarding growth rates of GDP and employment elasticity. As stated earlier, GDP growth is estimated to have been 1.2 per cent in 1991-92 and 4.2 per cent in 1992-93 and expected to around 5 per cent in 1993-94. The structure of growth observed during 1991-92 and 1992-93 suggests that employment elasticity of growth during these years would have been higher than observed in the past and assumed for these years in the study cited above, i.e. 0.34 per cent. Employment elasticity has, in any case been observed to be relatively high in the situation of low growth. On this basis, the growth of employment opportunities during 1991-92 is estimated by us to have been about 3 million and in 1992-93 about 6 million (GOI, 1993). With a projected growth of about 5 per cent, employment opportunities are likely to grow by about 7 million in 1993-94. Unemployment which was estimated to be about 14 million in 1991, is thus likely to have risen to 17 million in 1992, 18 million in 1993 and stay at that level at the end of 1993-94.

An acceleration in the rate of growth of the Indian economy in the coming years, after the initial slow down effect of stabilization are over and economic reforms start showing results, is expected to have a positive impact on employment growth. It is also expected that the restructured economic growth would be more employment intensive than that in the past decade and, therefore, employment elasticity may improve to a certain extent. The economy growing at about 6 per cent per annum with an employment elasticity of around 0.45, is likely to generate employment opportunities of the order of 8 to 8.5 million per year. Unemployment would still continue to be high with the given large backlog and addition of about 7 million per year in the labour force. But continuation, even if not acceleration, of this trend would lead to a steady reduction in unemployment over the years (Papola, 1992c).

There is, however, a serious question mark on the quality of new employment in terms of job security, conditions of work and earnings. Public sector employment is not likely to grow. Employment growth in the organized private sector also likely to be slow, both because of the nature of new industrialization which facilitates decentralized production, and relatively high direct and transaction costs of labour, in comparison to the unorganized sector. Therefore, the major part of the new employment is likely to take place in the informal and unorganized sector. In the absence of any legislative and union protection, major part of new employment may, therefore, be insecure and with relatively poor working conditions and low wages. Dichotomy in the labour market may widen, with larger proportion of workers in the 'lower circuit'. How a minimum degree of protection and security is provided to the workers in the unorganized sector and thus reduce the disparity between them and the organized sector workers, without rendering the entire labour market highly rigid and inflexible is, therefore, likely to be a major challenge before the government and the trade unions.

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Structural adjustment and the labour market in Brazil

Hélio Zylberstajn and Amaury de Souza[1]

Introduction

The 1980s were a period of unprecedented economic adjustment for Brazil. In sharp contrast to the preceding two decades, the country plunged into alternating short-term cycles of recession and expansion with spiralling inflation.

In the mid-1960s, a combination of institutional reforms, a successful stabilization program, and an uncommonly favourable international environment paved the way for a period of rapid economic growth. From 1967 to 1973, real output grew at 11.5 per cent per year. The first oil shock in the fall of 1973 slowed down but did not halt growth. In spite of a rising import bill, government decided to borrow heavily abroad and to thrust forward with an ambitious capital goods import-substitution strategy. Exports grew from $6 to $12 billion between 1973 and 1978 but the annual growth rate declined to 6.4 per cent between 1974 and 1979.

In the early 1980s, however, growing trade deficits and unfavourable external borrowing conditions made a recession unavoidable. The growth rate fell from 9,2 per cent in 1980 to −4.4 per cent in 1981, to 0.6 per cent in 1982, and to −3.4 per cent in 1983, creating the most severe economic contraction since 1929 (Figure 1). The 1981-1983 recession was followed by a vigorous but short-lived expansionary cycle which ended after the collapse of the Cruzado Plan in late 1986. The unorthodox mix of a price freeze with a real wage hike and the failure to deal with government deficit launched Brazil's economy into skyrocketing inflation. The annual rate of inflation hovered around 200 per cent between 1984 and 1987. It jumped to 684.6 per cent in 1988 and finally to over 1.700 per cent in 1989 turning into a hyperinflation. Faced with an 80 per cent monthly inflation rate, the newly inaugurated government of Fernando Collor de Mello adopted draconian stabilization measures. Inflation halted abruptly as government blocked over two-thirds of all short-term financial assets, siphoning off liquidity. A major economic contraction followed with real output falling to −4.0 per cent in 1990. It did not succeeded in keeping inflation down, however, and a cycle of stagflation has prevailed since.

It is failure of macroeconomic policies that sets Brazil aside of other Latin American countries with regard to the process of adjustment to a balance of payments deficit. Morley (1992) has argued that in effect Brazil went through two adjustments, one between 1980 and 1985 in which it improved its current account deficit "at a relatively low cost in terms of poverty or output foregone". A second adjustment phase began after 1986, largely as a result of unsuccessful attempts to control spiralling inflation. Since 1990, it appears that Brazil entered a third and more radical period of adjustment as the country seeks to shrink government through privatization and to adapt its production structures to compete internationally.

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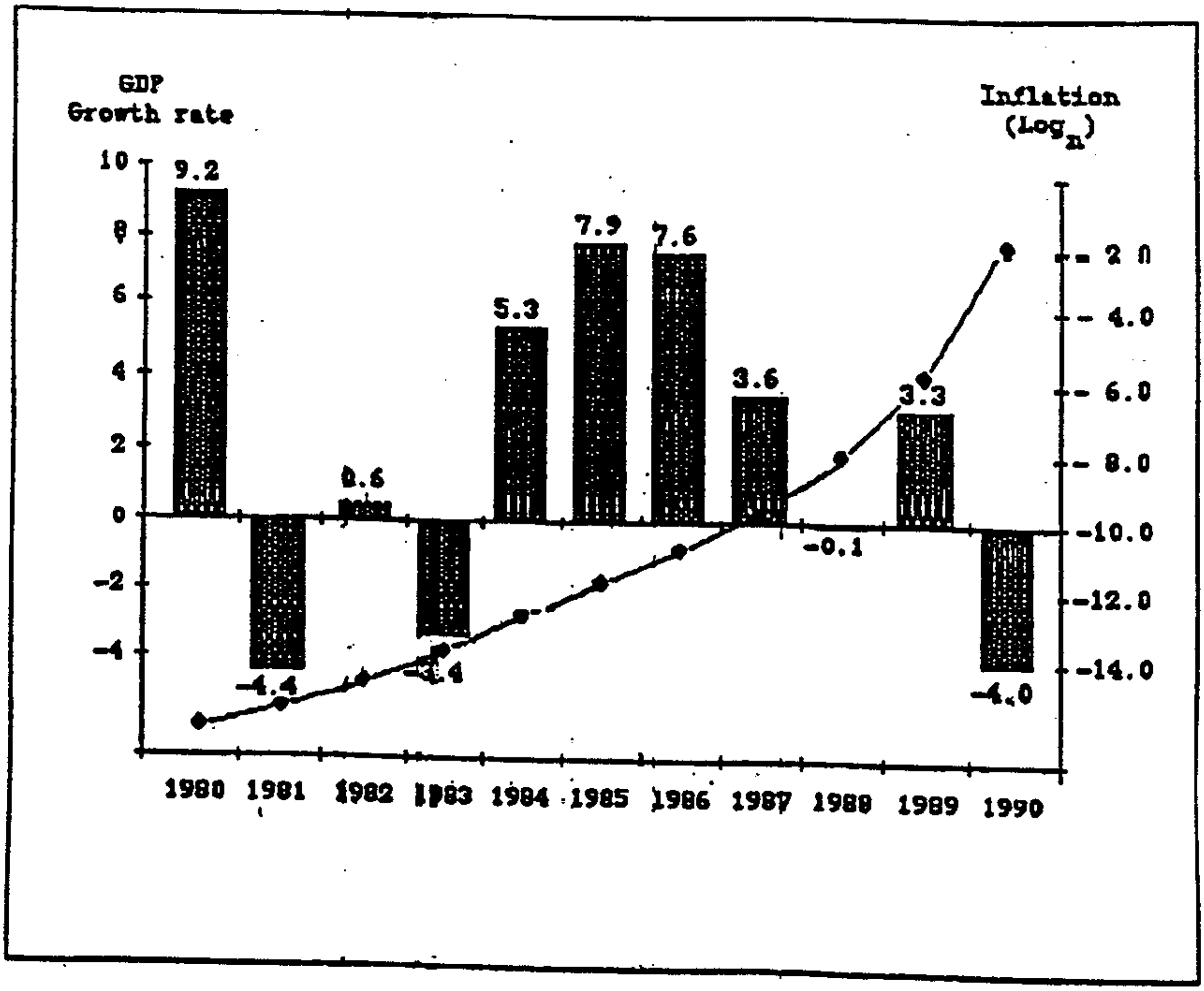
Figure 1: Economic growth and inflation, 1990-90 (in percentage)



Sources: FIBGE and FIPE/USP (IPC, June, 1993 = 100).

What were the effects of this seemingly endless cycle of stagflation and failed economic adjustment on labour ? Two characteristics of Brazil's economy seem to make labour particularly vulnerable to cyclical upturns. One is extreme poverty and steep inequalities in the distribution of income. To wit, 44 per cent of Latin America's poor are in Brazil although it has only one-third of the continent's population. The other distinctive trait is a highly segmented labour market where a vast informal sector coexists with a modern and competitive industry.

This paper is organized as follows. First, some long run trends are summarized , in order to provide a historical perspective of the Brazilian labour market. Second, the impact of economic adjustment on poverty and income inequality is analysed. In the same section, recent changes in employment and the interaction between the formal and informal sectors are described. Third, the legal and institutional framework that surrounds the labour market is examined. Finally, institutional factors affecting labour relations, employment contracts, and social protection, and their changing role in the face of structural economic change are discussed.

Long run trends in the Brazilian labour market

Perhaps, the most important feature of the Brazilian economy in this century, is the fast pace of the industrialization process. Until 50 years ago, Brazil was a typical rural society; but today, it may be considered as a industrial economy. In 1940, about 69 per cent of its population lived in rural areas, and 2/3 of its labour force was made up of rural workers. In 1989, only 26 per cent of the Brazilians lived in non-urban areas, and just 23 per cent of the Brazilian workers were making their living in rural activities (Table 1).

The economic transformations of the last decades have impacted on the employment structure in many ways. For instance, the participation of women in labour market activities has increased dramatically. In 1940, only 19 per cent of the jobs were given to women, but in 1989, this proportion had reached 39 per cent (Table 1).

Employment relationships have also evolved during the period considered. Today, wage-earners are the predominant category of workers (66 per cent), while in 1940, they were less then 45 per cent of the total labour force. The proportion of wage-earners in urban activities is even larger, and reaches almost 75 per cent. In the rural sectors, however, wage earners are still a minor category, making up just about 38 per cent of the total rural labour force (Table 1). The fact that wage-earners are increasing their participation in the rural labour market indicates that the transformation of rural activities is still under way (Table 1). Traditional agriculture has been replaced by capitalistic agriculture, and the process is not completed yet.

The performance of the Brazilian economy, up to the late 1970s, was impressive. During four decades, starting by 1940, the annual rate of growth of the GDP was always above 5 per cent. In the 1970s, it was even larger, reaching 12 per cent (Table 1). Leaded by Manufacturing, all the economic sectors grew at high rates. Growth was particularly intense in the 1970s, when the country completed the cycle of the import-substitution model, and established its last domestic basic industries. In the 1980s, the State could no longer continue to lead and to finance growth. As a consequence of the exhaustion of the import-substitution model, GDP figures became extremely poor, if compared to the previous decades.

While it lasted, the import-substitution strategy was able to create jobs. In the 1950s and 1960s, total employment grew at rates similar to those of total population growth. In the 1970s, the rate of growth of total employment was even larger than the rate of population growth. Performance of the industrial sector in terms of job creation was remarkable (Table 2). In that sector, output/employment elasticity evolved from relatively low values in the 1940s and 1950s, to values closer to 1 in the 1960s and 1970s (Table 2). Other authors' estimations of manufacturing output/employment elasticities seem to indicate similar results (Chahad and Luque, 1986; Ministério do Trabalho, 1987).

The intensity of the Brazilian industrialization has impacted on the distribution of population throughout the country. A large flow of internal migration from the poor regions to the more industrialized places has been observed, since the beginning of the century. In national terms, the North-East decreased its share in total population from 35 per cent in 1940 to 29 per cent in 1980. But intense intra-regional migration has also been observed. Minas Gerais, for instance, a large, and relatively poor state in the South-East region, is a traditional source of migrants to other regions. São Paulo, on the other hand, the richest state in the Brazilian federation, is the most important destiny of migration flows. By 1980, about 20 per cent of the entire Brazilian population lived in that state. Other important attraction points for migrants are Paraná (South), and, more recently, Rondonia (North), and Brasília (the Federal District), the country capital city since 1961 (Table 3).

The Brazilian development process has also impacted on the sectorial structure of employment. In the 40-year period from 1950 to 1990, the total labour force grew from 17 million to 62 million. Employment in Agriculture grew only 40 per cent. On the other hand, employment in Manufacturing and Construction was multiplied by a factor of 5.8; in Commerce, by 8,5; in the Service sector, by 7.6; and in Public Administration by 6.1. As a consequence of industrialization and urbanization, the

Table 1: Population and labour force distribution according to some selected criteria. Brazil, 1940-89

	1940	1960	1970	1980	1989
Percentage of rural population in total population	68.8	55.3	44.1	32.4	25.7
Percentage of rural labour force in total labour force	66.7	54.5	44.6	30.2	23.2
Percentage of female women in total labour force	19.2	16.1	18.5	26.6	39.2
Percentage of wage-earners in total labour force	44.8	47.9	55.2	66.4	66.0
Percentage of wage-earners in rural labour force	33.3	25.9	25.4	38.0	37.5
Percentage of wage-earners in non-rural labour force	67.9	74.2	79.2	78.7	74.6

Source: Dedecca and Brandão (1993), p. 313.

Table 2: Selected economic and social indicators. Brazil, 1940-90 (in %)

	1940-50	1950-60	1960-70	1970-80	1980-90
Annual rate of growth of total and sectoral GDP:					
– total GDP	5.6	6.1	5.4	12.4	1.5
– agriculture	–	2.8	1.3	10.3	2.5
– manufacturing	–	9.4	6.5	13.0	–0.1
– construction	–	7.8	7.0	14.1	–0.7
– commerce	–	6.9	5.4	7.3	0.5
– transportation and communications	–	7.6	6.7	12.7	6.6
– banking	–	3.1	14.5	14.5	2.5
– public administration	–	5.7	9.8	7.7	2.1
Annual rate of growth of total population and employment:					
– total population	2.4	3.0	2.9	2.5	1.5
– total employment	–	2.9	2.7	4.0	–
– industrial employment	3.9	2.0	5.2	7.9	–
Output/employment elasticity in the industrial sector:	0.3	0.1	0.7	0.8	–

Sources: Dedecca and Brandão (1993), p. 314; Pastore et al. (1983), p. 8.

participation rate evolved from 47 to 55 per cent (Table 4).

Many of the political, social and economic problems the country is facing in the 1990s are related to the remarkably fast pattern of industrialization it has experienced. In a period smaller than the life cycle of two generations, a rural society was transformed into an urban and industrialized country. Rural populations had to adjust very quickly their cultural and social habits and values to the urban life. Cities grew at a pace policy makers could not anticipate and plan. The educational system was

Table 3: Regional distribution of total population. Brazil, 1940-91 (in %)

Region	1940	1950	1960	1970	1980	1991
North	1,463	1,846	2,563	3,604	5,881	10,257
	(3.6)	(3.6)	(3.7)	(3.9)	(4.9)	(7.0)
North-East	14,436	17,975	22,181	28,112	34,813	42,470
	(35.0)	(34,6)	(31.7)	(30.2)	(29.3)	(28.9)
South-East	18,346	22,547	30,631	39,853	51,734	62,660
	(44.5)	(43.4)	(43.7)	(42.8)	(43.5)	(42.7)
South	5,735	7,840	11,753	16,497	19,032	22,117
	(13.9)	(15.1)	(16.8)	(17.7)	(16.0)	(15.1)
Center-West	1,259	1.737	2.942	5,074	7,546	9,412
	(3.1)	(3.3)	(4.2)	(5.5)	(6.3)	(6.4)
Brazil	41,239	51,945	70,070	93,140	119,006	146,917
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Population of some selected states as a percentage of the respective region total population						
Rondonia (North)			1.9	2.7	2.0	8.3
Minas Gerais (South-East)			34.4	31.9	28.8	25.8
São Paulo (South-East)			40.9	42.4	44.6	48.4
Paraná (South)			26.7	35.9	42.0	40.1
Rio Grande do Sul (South)			53.2	46.0	40.4	40.9
Goiás (Center-West)		70.0	65.0	57.9	51.1	
Federal District (C.West)			–	4.8	10.6	8.1

Source: Ministério do Trabalho (1987), p. 216, for the period 1940-80; FIBGE for 1989. State data reproduced from PREALC-OIT (1990), pp. 22-23. The first raw for each region represents the regional population (x 1,000); the second raw represents the regional percentage.

Table 4: Distribution of the labour force, according to economic sectors. Brazil, 1950-90 (in thousands)

Economic sector	1950	1960	1970	1980	1990
Agriculture	10,253	12,278	13,086	12,661	14,181
	(59.9)	(54,0)	(44.3)	(29,3)	(22.8)
Manufacturing and construction	2,428	2,939	5,294	10,772	14,094
	(14.2)	(12.0)	(17.9)	(24.9)	(22.7)
Commerce	943	1,478	2,247	4,038	7,976
	(5.5)	(6.5)	(7.6)	(9.3)	(12.8)
Services	2,981	5,342	7,774	14,042	22,732
	(17.4)	(23.5)	(26.3)	(32.5)	(36.6)
Public administration	512	713	1,152	1,722	3,117
	(3.0)	(3.1)	(3.9)	(4.0)	(5.0)
Total labour force	17,118	22,750	29,553	43,235	62,100
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Population (10 years and +)	36,558	48,829	65,862	87,811	113,629
Participation rate (in%)	46.8	46.6	44.9	49.2	54.7

Source: Chahad and Macedo (1993), p. 7.

Table 5: **Labour incomes distribution and Gini Coefficient. Brazil, 1960-90 (in %)**

	1960	1970	1980	1990
20 per cent poorest	3.9	3.4	2.8	2.0
50 per cent poorest	17.4	14.9	12.6	8.4
10 per cent richest	39.6	46.7	50.9	53.2
5 per cent richest	28.3	34.1	37.9	39.4
1 per cent richest	11.9	14.7	16.9	17.3
Gini coefficient	0.49	0.56	0.59	0.65

Source: Dedecca and Brandão (1993), p. 317.

Table 6: **Employment distribution according to the employment relationship. Brazil, selected years, 1980-92**

Employment sector	1980	1985	1990	1992
FIBGE criterion				
Formal employment	46.0	39.5	37.7	—
Private sector	38.6	31.4	29.5	—
Public sector	7.4	8.1	8.2	—
Informal employment and others	54.0	60.5	62.3	—
PREALC criterion				
Formal employment	66.3	55.4	47.9	45.8
Private sector (large firms)	55.2	43.4	36.9	35.4
Public sector	11.1	12.0	11.0	10.4
Informal employment	33.7	44.7	52.0	54.1
Self-employed	17.3	21.1	21.1	22.5
Domestic services	6.7	9.1	7.7	7.8
Small firms	9.7	14.5	23.3	23.8

Sources: Chahad and Macedo (1993), p. 7 (FIBGE criterion); PREALC-ILO (1993), p. 4 (PREALC criterion).

not designed to provide good schooling to the waves of children brought to the cities. Health and other social systems were not prepared to supply the services demanded by the growing population of clients.

While jobs could be created, it was possible to live together with those problems. Social mobility could take care of social tensions, through the expansion of jobs opportunities. With the interruption of growth, in the 1980s, however, the country could not ignore any more there was a social problem. The intensity of the Brazilian social tensions may be evaluated by the pattern of income distribution in the country. In 1990, the share of 20 per cent poorest in the national income was just 2 per cent (about 4 per cent in 1960) and the share of the richest 1 per cent was about 17 and 12 per cent in 1960 – Table 5).

Another important feature of the Brazilian pattern of economic development is its large informal sector. Even though job creation was very impressive, import-substitution industrialization was never able to extend minimum wage and legal protection to all workers. The structural excess of labour supply had to be accommodated through other forms of employment relationship. According to FIBGE (the Brazilian institution responsible for the collecting of the more important labour statistics), in 1990, about 2/3 of the labour force was in the informal sector. In that year, formal jobs were given to just 38 per cent of the workers. The ILO-PREALC criterion, when applied to the Brazilian labour market, results in some different figures: according to that source, the size of the informal sector is 54 per cent in 1992 (Table 6). Since both sources cover a similar period, the comparison of the evolution of the respective figures lead to an important conclusion: The size of the informal sector is increasing since 1980, whatever the criterion is used. This trend is related, of course, to the economic stagnation of the 1980s, but, in the more recent years it is also related to the structural adjustment of the Brazilian economy.

The impact of adjustment on poverty, income inequality and employment

Brazil has long had one of the most inequitable distribution of income of the industrial world, making the bulk of labour highly vulnerable to economic fluctuations. Predictably, recessions have imposed significant real losses on labour earnings (Figure 2).

It is a matter of controversy, however, how rising poverty and inequality are related to the economic cycle resulting from structural adjustment. Morley (1992) has suggested that poverty and inequality in Latin America tend to be strongly counter-cyclical, *rising in recession and falling in recovery*.

As regards to poverty, this can be shown to be the case of Brazil. Recessions have an unusually hard effect on earnings and employment of the poorest segment of the population as they are more likely to have higher unemployment. In the aftermath of the post-1967 boom, the proportion of poor families – i.e., those with a monthly per capita income of 1/4 of the real minimum wage, or about $20 at the current exchange rate – dropped nationwide from 43.9 per cent in 1970 to 17.7 per cent in 1980 (Figure 3). Between 1981 and 1983, however, the relative number of poor families rose again to 30.9 per cent but only to recover the ground they had lost in the next three years.

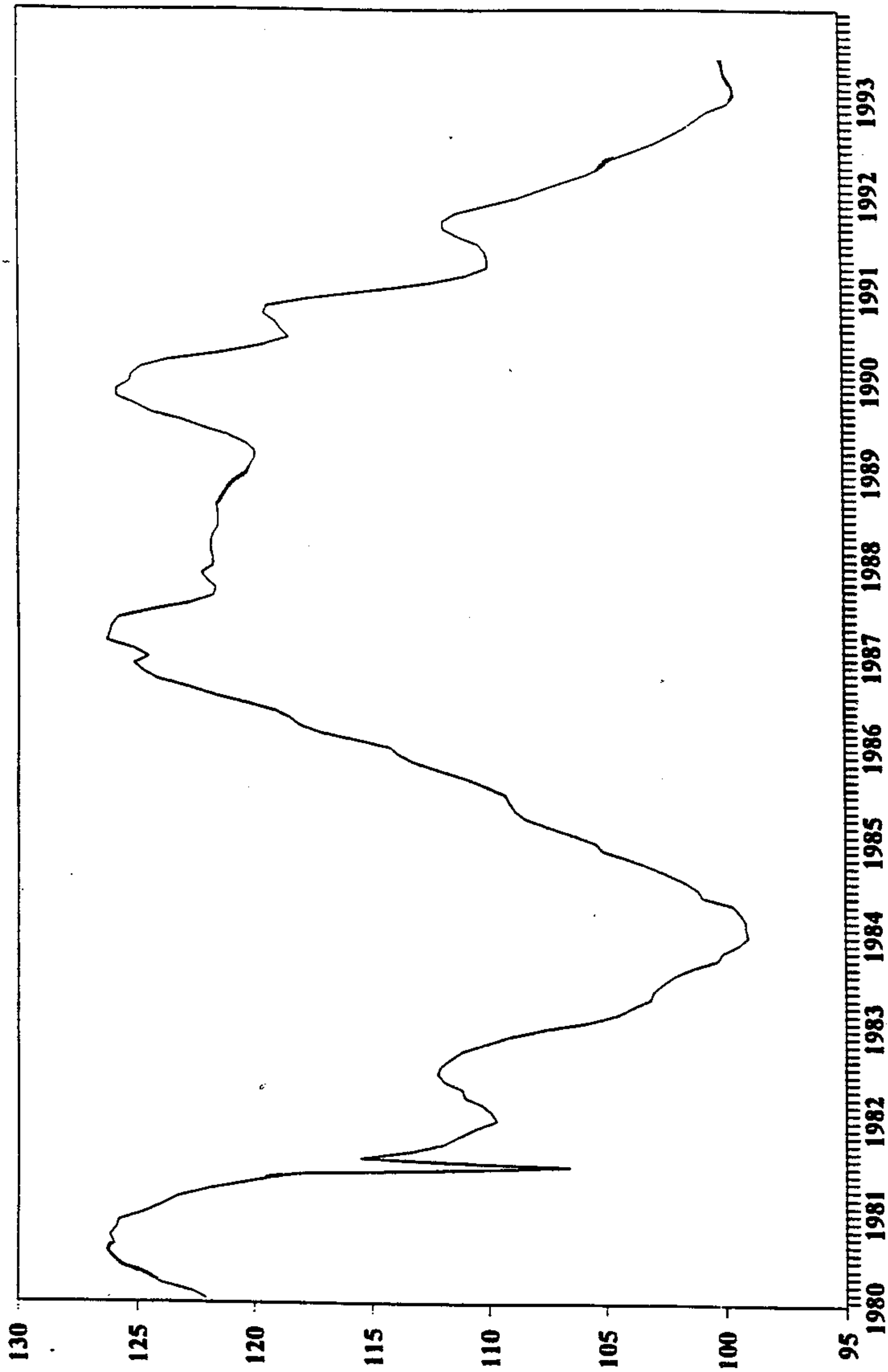
Inequality, in turn, seems to be more problematic. It is hypothesized that because unskilled workers are the first to lose their jobs in a recession, higher rates of unemployment tend to worsen the inequality of labour earnings. In recovery, they are hired again and inequality declines. In Brazil, however, inequality tends to rise both in the upswing and the downturn phases of the economic cycle as unemployment and human capital factors interact (Table 7). "Labour hoarding" by firms in a recession, for instance, tends to protect the better educated and more skilled workers who already belong in the higher income brackets.

An intense debate over the relative importance of schooling and labour policies in rising inequality during the economic cycle has been sustained over the years. Sharp increases in inequality during the 1960s and 1970s have been attributed to quasi-rents to human capital resulting from rapid economic growth (Langoni, 1973). Indeed, there is evidence that shows strikingly high returns to schooling in Brazil. Estimated returns to schooling in the country have been shown to be higher by around five percentage points than returns to schooling in the United States for almost every age group (Lam and Levinson, 1987). That is to say that widening wage differentials results from very large gains for better educated labour while the real income of the less well educated remains constant (Morley, 1982).

Unemployment has been singled out as a major negative consequence of structural adjustment. Little attention, however, has gone to the consequences of avoiding stabilization and adjustment efforts. Brazil is a prime example of how the failure to balance the budget, reduce government spending, and deregulate market forces can impose extraordinarily high social costs through inflation.

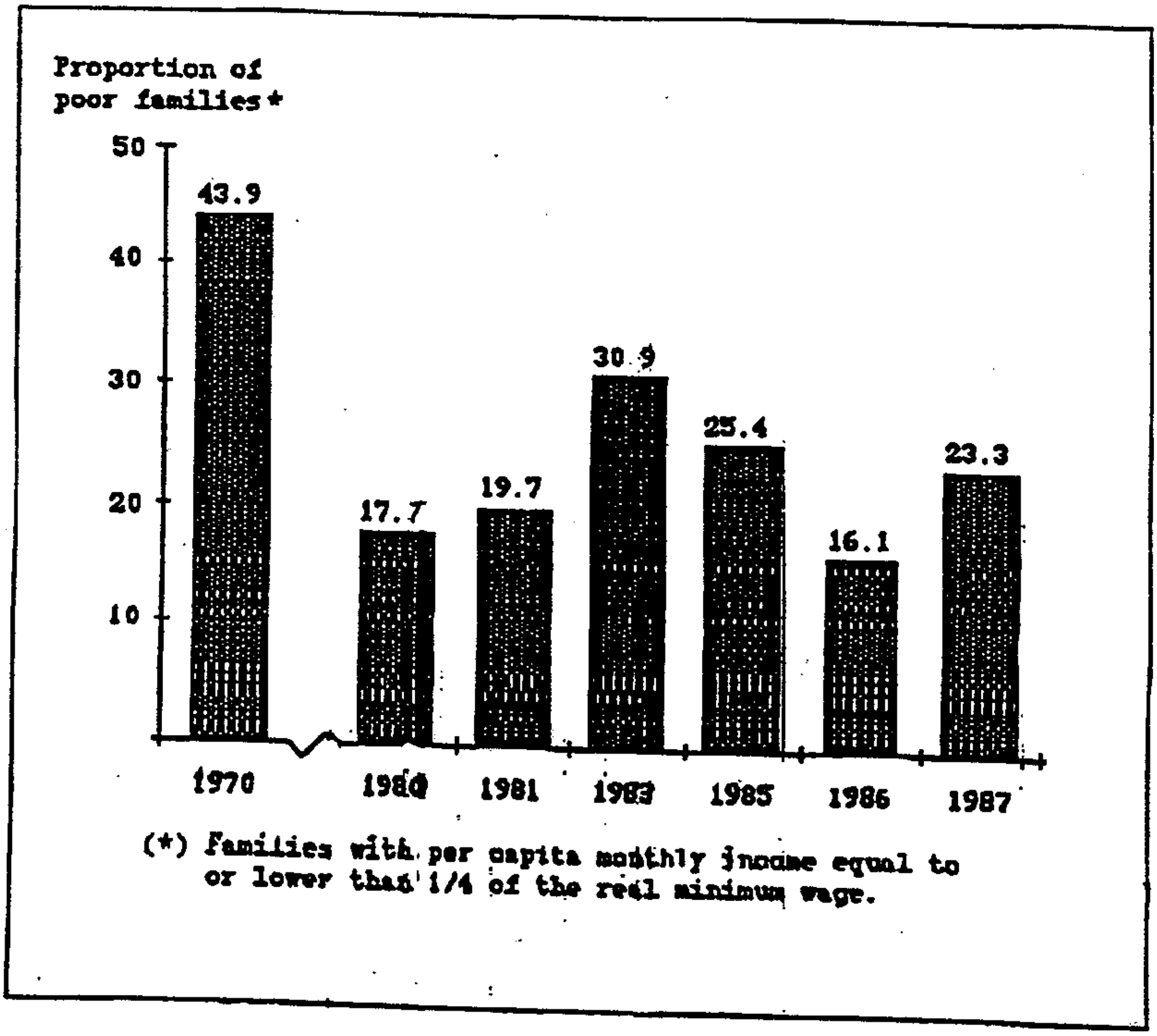
Using monthly survey data on employment and income in six metropolitan regions in Brazil from 1981 to 1991, Cardoso, Barros, and Urani (1993) analysed changes in income inequality within and between groups with equal years of schooling. They showed that short-run variations in inequality are unrelated to changes associated with education, although schooling differentials remain a determinant factor.

Figure 2: Real mean wage (June, 1993 = 100)



Source: FIESP.

Figure 3: Poverty in Brazil. 1970-87 (in %)



Source: Fox and Morley (1991).

In contrast, variations in unemployment and inflation explain about one third of the historical evolution of inequality in labour earnings in the past decade. Unemployment hits harder workers in the lower income brackets but higher rates of inflation amplify income inequality by wiping out savings of middle income groups and pushing them into poverty.

Employment and labour market dynamics

A more detailed analysis of employment during the 1980s indicates the importance of highlighting three periods. The first period runs from 1981 to 1983 and formed a typical adjustment cycle of recession and recovery. The level of employment fell 6 per cent overall, 15 per cent in manufacturing, and 31 per cent in construction. The heavily industrialized area of São Paulo was hit the hardest with open unemployment rising from 15.9 per cent in 1981 to 17.5 per cent in 1983. The recession had two lasting effects. One was the reduction of employment in manufacturing and construction and the consequent expansion of jobs in the supporting tertiary sector. The other was a rise in the proportion of labour working without a formal work contract.

Table 7: Income distribution in Brazil, 1981-89

	1981	1984	1986	1987	1988	1989
Lowest 20 per cent	2.7	2.5	2.7	2.2	2.0	2.0
Lowest 40 per cent	9.5	8.8	8.9	8.4	7.9	7.2
Lowest 80 per cent	35.9	36.6	36.5	36.1	34.4	31.9
Highest 10 per cent	49.6	47.1	47.8	47.5	49.5	52.2
Highest 5 per cent	37.0	33.4	33.4	34.1	35.5	38.4
Highest 1 per cent	14.1	13.7	15.2	14.5	15.1	17.3
Gini coefficient	0.592	0.587	0.588	0.595	0.612	0.635

Sources: Hoffman (for 1989), and Bonelli and Sedlaceck.

In the following period, from 1984 through 1989, employment resumed growth albeit at more modest rates than in the past. Two trends are noteworthy. First, employment in the informal sector continued to increase rapidly in contrast with the lower employment growth in the formal sector and the near stagnation of agricultural employment (Table 3). Underemployment is, in a sense, an unavoidable result of recessions in Brazil. In the absence of significant unemployment insurance coverage, unemployment can not be afforded by the bulk of workers. Accepting to work without a formal contract is one way to cushion the loss of a regular job even though it pays, on average, about half the wages of workers with a formal contract. Informal contracts of this sort accounted for some 20 per cent of nonagricultural, non-government jobs from 1981 to 1989, a sufficiently large number to explain the low rates of open unemployment (Barros, Mello, and Pero, 1993). Self-employment, usually in the services sector, is another survival strategy. In both cases, rising informality means that a smaller proportion of workers are being effectively protected by labour laws and institutions, increasing their market vulnerability.

The second important trend of the 1984-1989 period is the sharp growth of employment in government. From 1979 to 1988, government employment grew 5.6 per cent per year in contrast with an annual rate of 1.3 per cent for overall urban formal employment. In other words, the number of public servants jumped from 3,15 million in 1979 to 5,13 million ten years later. This development peaked in 1988 as the new Constitution granted job tenure to all public servants and extended to them the rights to unionize and to strike.

The third period, from 1989 on, is the present recession. The 1989 hyperinflation, followed by Collor's adjustment attempt dropped once more the general level of employment, until 1992. Since mid 1992, however, the level of employment has begun to recover, indicating an upturn in the falling trend. However, in this last period, the effects of structural adjustment have been more evident. First, employment in the manufacturing sector is growing at a much slower rate when compared to the growth of productivity. Second, self employment and employment in the Service Sector are growing faster than employment in the manufacturing sector is. Third, the growth of employment in the public sector was halted, as a consequence of the fiscal crisis. Finally, the proportion of wage-earners is falling, indicating that alternative forms of labour contracts are expanding.

In short, during the last decade, the burden of recession and inflation has been unevenly supported by the Brazilian population. The failure of politicians and policy-makers to carry out a full blown economic adjustment has exacted a higher price from workers.

However, even among the working population, the burden has been unevenly divided. Jobs in the public sector, were preserved and even expanded. It is true that real wages in the Public Service have been sharply diminished, but jobs were kept, nevertheless. In the state-owned corporations, not only jobs were kept, but wages were either increased or, at least, had their real value protected.

To understand why some groups of workers are less susceptible to the burdens of recession and inflation, one must understand how the Brazilian labour relations system has evolved.

Labour relations

The world recession's impact on national labour markets resulted in higher unemployment and weakened unions. Throughout the last decade unions lost power and membership density nearly everywhere.

In Brazil, the mix of economic stagnation and high inflation put the labour market under tremendous strain. Paradoxically, however, in the past ten or twelve years the labour movement has experienced not decay, but extraordinary growth. This is probably the key feature of the Brazilian labour system in the 1980s and early 1990s.

Organized labour's growing strength is evidenced by the following developments. First, since the early 1980s, three major peak labour organizations were created: CUT (Central Única dos Trabalhadores); FS (Força Sindical), and CGT (Confederação Geral dos Trabalhadores). Second, industrial conflict, as measured by strike frequency, rose sharply in the mid-1980s (Figure 4). Third, the union leadership has effectively lobbied Congress to vote favourable labour legislation. Union lobbies were particularly effective in the making of the 1988 Constitution. They won an impressive number of very detailed "social rights", and assured that the corporative privileges that they have enjoyed since the 1930's were left intact. Fourth, union leaders were among the founding fathers of a new political party, the PT (Partido dos Trabalhadores – Workers' Party) in the early 1980s. The party gained electoral strength in the following years, and in 1989 it almost succeeded in electing its own candidate, Luiz Inácio Lula da Silva, the former president of São Bernardo's metalworkers union. He came second in the first round of the presidential elections, and lost the run-off election to Collor by a difference of barely 5 per cent. Pools recently conducted indicate that if a presidential election was held today, Lula might win the first round. How to explain this extraordinary performance by the Brazilian labour movement, in a strong adverse environment?

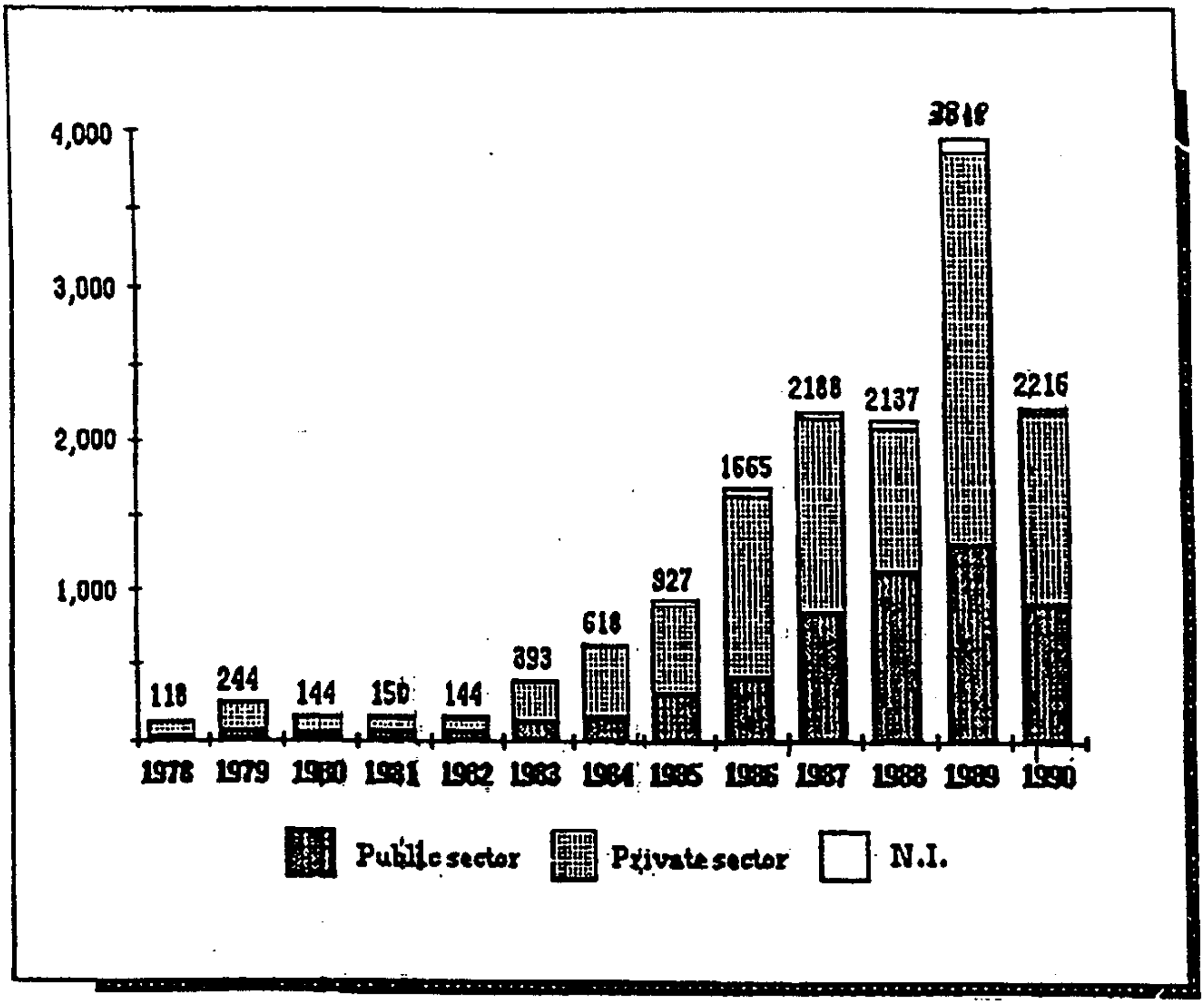
Brazilian unions have drawn strength from several circumstances. The first one is the political life in the twilight of the military regime that ruled the country from 1964 to 1984. In the late 1970s and early 1980s, unions were in the forefront of the struggle for democratic politics and they were quick to respond to the "repressed demand" for collective action from workers. Unions also benefitted from prevailing social conditions. Income inequality, poverty, and unattended basic needs have lend credence to union claims that they speak for the bulk of the workers and are entitled to demand the improvement of living standards in general.

Inflation is a second source of union strength. Under chronically high inflation, real wages are dramatically eroded, almost on a daily basis. Wage indexation thus becomes an extremely effective rallying banner for union action. In addition to that, highly concentrated structures of the Brazilian economy facilitates the extensive use of mark-ups to accommodate union pressures. Import substitution strategies created many protected and concentrated industries, with a small number of firms dominating the market. Under such conditions, union action does not represent an imminent threat to business, since dominant firms are able to pass increased labour costs on to prices. Consequently, unions tend to be stronger in oligopolized sectors and in the state-owned corporations.

The changing basis of unionism has also contributed to union strength. Union activity in Brazil has not been immune to the effects of the business cycle. After steeply rising rates of industrial conflict in the late 1970s and early 1980s, the frequency of strikes dropped, as the 1981-83 recession hit the economy. Economic growth from 1984 to 1989 again induced high strike activity, especially in the public sector (Figure 4). In more recent years, as a result of a long period of stagflation and the implementation of economic adjustment programs, the industrial basis of unions seems to be eroding. But union growth in the public sector has largely compensated for these losses, in addition to increasing their political power.

Power, in turn, enabled Brazilian unions to influence the drafting of the 1988 Constitution, and to preserve the institutional structure of the labour relations system. In a typical corporative arrangement, unions were organized from the top down by government in the 1930's, and granted a virtual monopoly over whole groups of workers in industry and services and, more recently, in

Figure 4: Urban strikes in Brazil. 1978-90



Source: NEPP (1989).

agriculture and the civil service. Exclusive representation rights also entailed the power to levy compulsory dues on wage-earners, regardless of union affiliation. A peculiar situation resulted from this comprehensive grant of authority to unions. In 1988, nearly 14.5 million workers were unionized, representing 28 per cent of a total labour force of about 62 million workers. However, thanks to the representational monopoly granted to unions, all workers with a formal labour contract – who represent about half of the labour force – are covered by union agreements.

Institutional power, therefore, has been a crucial component of total union power. Traditionally, grants of authority to unions were contingent upon governmental oversight. For decades, the government controlled the union movement through a combination of coercion and incentives, keeping in power a docile union leadership in exchange for accepting some limitations on union autonomy. In 1988, control provisions were either abolished or reduced, but union rights were kept or even expanded (Souza, 1990). Union privilege, therefore, became a central element of the emerging model of unions.

Institutional structures, public opinion, and industrial concentration have contributed to shield organized labour from the impact of recession and inflation, increasing the inequality of labour earnings, and widening the gap between the formal and informal sectors of the economy. It is thus hardly surprising that unions in Brazil tend to lean toward political and legal action, rather than collective bargaining. The law has been long regarded as the paramount way for dealing with industrial conflict. From labour's standpoint, the law is seen as a source of protection for workers. Also, wage increases may be granted by a labour court judge as a right, regardless of economic considerations. Management, in turn, favours the legal approach because labour disputes are channelled through the labour courts rather than the work place. In many instances, management welcomes mandatory wage hikes because judicial settlements may serve as a justification for passing on costs to prices. Finally, labour law provisions also broaden the scope for government intervention in labour relations, given the judiciary's prominent role in dispute resolution. The net result of such regulation has been to turn labour disputes into legal conflicts.

Excessive emphasis on the law has greatly narrowed the range of terms that remain open to collective bargaining. In fact, the labour courts' authority to settle labour disputes by a judicial determination is often activated by unions and management alike to preempt a negotiated settlement. When bargaining is the chosen strategy, unions prefer to negotiate at the industry level. Direct negotiation at the plant level is relatively rare, since the legal framework and strong opposition from management have kept unions out of the shop-floor.

More important, the fact that labour laws have been inflated with detail leaves little room for the negotiation of a collective labour contract. Individual contracts are burdened by regulations, creating rigidities in labour markets. However, in order to create a more flexible labour relations system it is necessary that collective bargaining – i.e., the determination of conditions of employment through negotiations and enforcement of labour agreements by unions and management themselves, with minimum government interference – be adopted as the fundamental labour institution. Two institutional changes appear to be indispensable. First, the legal framework should be reduced to broad guidelines, not minutely detailed regulation. Second, the labour courts should have jurisdiction to hear disputes over rights, but not interests. If the courts can not be divested of such powers, then access to the compulsory arbitration of disputes should be made extremely difficult (Zylberstajn, 1992).

Union strategies have been designed to deal with an external environment characterized by extensive legal regulation of labour relations as well as highly concentrated market structures. The consequences are twofold. On the one hand, a wide chasm between union rhetoric and union practices has come to light. As the "repressed demand" for union action vanishes, the language of broad class interests tends to clash with the active pursuit of narrow sectorial interests. In addition, strike waves, especially in the public sector, eroded public support for unions (Souza, 1992). On the other hand, unions are weary of challenging the status quo of protected industries, public monopolies, and state interventionism. In fact, unions have spearheaded opposition to privatization, deregulation, and tariff reduction in Brazil, running against the rising tide of liberalization.

Recession and structural adjustment may have set in motion a process that will radically alter some of the conditions which spurred union growth. The import substitution industrial strategy has been superseded by the drive to open the economy to foreign competition. Protective tariffs have been reduced, state corporations privatized, and it is not altogether inconceivable that decisive measures be taken in the near future to reduce the degree of industrial concentration. Lastly, the need to bring inflation under control and stabilize the economy has gained a sense of urgency.

These development have place the unions at the crossroads. The need to preserve institutional privilege and to pressure for policies to redress poverty and income mal-distribution indicates that political action is likely to remain part and parcel of union strategies. However, as markets become more open and competitive and inflation is brought under control, unions must devise new labour relations strategies. If, however, unions persevere in the defense of the old industrial model and their own narrow interests, they risk loosing ground. A more pragmatic view is needed if unions aim to participate in the making of new social and economic policies to increase labour flexibility, promote the adaptation of skills to new economic structures, and reduce unemployment.

Social protection

Brazil's social security is public, centralized, and ill-managed, operating on a come-and-go basis, whereby resources are spent as they are collected. The system is supposed to provide a social protection net in the form of pensions for retired workers, health assistance for the entire population, partial protection for unemployed workers, and many other benefits to the needy.

In the past two decades, the social security system has faced a deepening crisis. In the early 1990s, however, it came to the brink of collapse. There exist today about 30 million contributors and about 13 million recipients of social security benefits, such as health care and retirement pensions. The ratio of 2.3 active workers per each retired worker represents a very high dependency rate. Consequently, social security benefits must be modest. They currently average some US$ 70.00 per month. To compare: in 1982, there were about 9 million recipients and benefits averaged US$ 100.00. In other words, in order to attend a bulging population, the social security system reduced the value of benefits. In this sense, inflation has been instrumental to the system as it automatically reduces the real values of benefits.

The current crisis is not solely the result of protracted recession and structural adjustment. Even though it is difficult to assess its extent and impact, corruption and political patronage are also to be blamed. Demographics is another important factor as Brazil's population began ageing, thus aggravating the dependency rate. Irresponsible paternalism is yet another cause of the ills of the social security system. In the 1980s notably in the aftermath of the promulgation of the 1988 Constitution, the population of potential recipients was enlarged to include rural and informal workers, regardless of past contribution to the system.

The social security system is financed mainly by payroll taxes imposed on wage-earners and employers alike. This means that revenues are raised almost exclusively in the relatively small formal sector of the economy whereas practically the entire population is eligible for health care and retirement pensions. It is hardly surprising that the system is now virtually bankrupt. There are at least three grave consequences that follow from the collapse of the social security system. First, the system is currently unable to provide a social protection net to the population, indicating a worsening of social welfare. Second, to offset mounting deficits, payroll taxes have been systematically raised in the past ten years. Nowadays, contributions to social security average about 35 per cent of total payroll. Needless to say, the employment effects are far from negligible. Finally, the failure of social security has inhibited the creation of a long-term savings system in Brazil, hence hampering economic growth.

To overcome the social security system's incapacity to sustain long-term savings, the government created new social funds. The Fundo de Garantia de Tempo de Serviço (FGTS), created in 1966, is a kind of unemployment insurance fund supported by a 8 per cent tax over the payroll. Each wage-earner is assigned an individual account number in the fund, from which he can draw the balance in the event of dismissal. Originally designed to fund housing development programs, mismanagement has reduced the FGTS to a situation similar to that of the social security funds.

The PIS/PASEP is still another social fund. Created in 1975, it is funded by a tax rate of 0.65 per cent over total gross revenues. It was originally designed to provide the government with resources for development projects. Since 1988, it has been also used to fund a new unemployment insurance program as well as to grant low-income workers an annual bonus of about US$ 70.00. Recent developments indicate that the PIS/PASEP is bound to repeat a path similar to FGTS'.

The new unemployment insurance program collects about US$ 4 billion annually. The 1988 Constitution established that 40 per cent of total revenues be invested by the government-owned Social and Economic Development Bank (BNDES) in long-run development projects. The remaining 60 per cent should be used to pay unemployment insurance benefits. However, only about 300.000 unemployed workers have applied for the benefit monthly. Consequently, the unemployment fund accumulated several billions dollars since its creation. Stringent requirements have greatly restricted eligibility, creating the paradoxical situation of scarce demand for unemployment insurance benefits in a labour surplus economy.

Even a cursory description of social protection programs in Brazil suggests that the strategy adopted is far from successful. Rather than placing the blame on economic fluctuations, the source of failure may be a common feature of all such programs: they are centrally managed by government with almost no outside control. The alternative strategy is to design smaller, decentralized programs, responsive to market mechanisms and social influence.

It is also necessary to increase the efficiency of social security as an income transfer mechanism given the extent of poverty and the inequality of labour earnings in the macroeconomic environment. To that effect, existing institutions should be thoroughly overhauled to assign greater emphasis to minimum guaranteed income schemes on behalf of the elder and the disabled.

Conclusions

Stabilization and structural adjustment policies everywhere are expected to increase unemployment as firm structures and production processes are rationalized, the size of government is reduced, and the domestic economy becomes more exposed to international competition. Notwithstanding, adjustment efforts have been undertaken under the expectation that they will also lead to a change of growth regime, in which increasingly competitive market forces will generate jobs and raise labour earnings at a faster rate.

What is disquieting about the transition process is the possibility that faster growth widens rather than reduces inequalities in employment and income. Highly segmented labour markets, such as the Brazilian ones are particularly vulnerable to such adverse impacts to the extent that only a fraction of the labour force is able to take advantage of emerging economic opportunities.

Increasing labour market flexibility, therefore, is a crucial factor in the successful transition to a new growth regime. Two aspects are of key importance. First, it is necessary to enhance the labour force's ability to adapt their skills to changing economic circumstances. Education and training are the dominant concerns in this realm. Second, flexible labour contracts are also required. Such flexibility is needed to facilitate the adaptation of labour to emerging economic structures as well as to changes in the sectorial demand for labour.

This implies that institutional change is needed for the economy to move a new growth regime. But what should be the direction of change to achieve greater labour flexibility? Conventional wisdom prescribes that good jobs – i.e., jobs that enjoy legal protection, secure income, and chances of advancement – be gradually extended from a fraction of workers to the whole labour force. This is hardly a feasible alternative for Brazil given the share of the informal sector in total employment. Actually even in developed countries the once dominant standard employment situation now coexists with a measure of precarious jobs as a result of structural adjustment. However, the diametrically opposed notion that labour flexibility implies reducing the advantages of the organized and protected workers does not hold either. Even though institutional arrangements that generate quasi-rents should be abolished, high labour standards are required for the development of a multi-skilled labour force, committed to innovation and productivity.

The contract efficiency approach to labour economics offers a suggestive way to tackle the issue of institutional change (Wachter and Wright, 1990). Four factors are assumed to interact in order to endow labour contracts with efficiency. First, firms and workers make important and specific investments (e.g., specific training). Second, workers tend to be risk averse. These factors interact to create lasting labour relationships that allow the appropriation of returns to specific investments, thereby lowering the risks of losses both to firms and workers. In this sense, lasting labour contracts are efficient. On the other hand, where there is little specific investment, efficiency considerations tend to induce short-term contracts even in the face of workers' aversion to risk.

Third, there are cost asymmetries in information gathering. Some information is less costly to workers and some is less costly to firms. To avoid strategic unfair behaviour, detailed labour contracts are needed. But – and this is the fourth factor – there are transaction costs involved in the negotiation and making of detailed contracts. For this reason, either the parties agree to leave the matter to the law, or contracts are drafted with minimum detail and both sides agree on a rule of compliance. In Brazil, the law has been the preferred way to avoid transaction costs. And labour courts are nearly costless mechanisms for imposing compliance.

Civil servants as well as workers in the oligopolistic and monopolistic sectors of the market are covered by high specific investment contracts. But the rationale for contract efficiency in these sectors seems to be crucially dependent on the continuity of the closed model of import substitution industrial growth. As structural adjustment is carried out, however, this contract model is unlikely to remain efficient and new labour standards will be required. Collective bargaining, untrammelled by excessively detailed legislation and interventionist labour courts, seems to be the adequate way toward the achievement of greater labour flexibility.

Throughout the economy, however, the vast majority of labour contracts is of the low specific investment kind, as indicated by the magnitude of informal labour relations. These contracts are equally efficient, since they do not involve investments. In this sense, the informal sector, acting as a buffer in periods of adjustment, is a mechanism which increases labour flexibility. In fact, there is evidence that informal sector workers prefer this contractual situation precisely because it increases flexibility and reduces costs (Urani e Pero, 1993).

Informal sector contracts are efficient but they are also inequitable, since they leave workers unprotected. The crux of the matter is this. In order to reduce overall inequality while fostering labour flexibility, alternative institutional strategies are required. Stabilization should be the foremost macroeconomic objective to the extent that high chronic inflation is now the main culprit for poverty and widening inequality of labour earnings. Other policy initiatives are also required until a new growth regime is established. In lieu of remedial policy intervention or safety net job creation, it is necessary to provide the poorer segments of the labour force with a guaranteed minimum income through direct income transfer to informal sector workers, without the intermediary of costly public bureaucracies. As regards skill development, emphasis should be placed on the pursuit of equality of opportunity through investment in basic education and training.

Be as it may, structural adjustment in Brazil is unlikely to eliminate the duality of labour contracts. The challenge ahead is to devise institutional mechanisms that change labour standards in the formal sector without hampering innovation and productivity and that preserve the flexibility of informal sector contracts without perpetuating poverty and destitution.

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Round Table

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18-20 October 1993

Instituto de Estudos Avançados, Universidade de São Paulo
Jawaharlal Nehru University, India
International Institute for Labour Studies, Geneva

PROGRAMME

MONDAY 18 OCTOBER 1993

17h30 - 18h15 Opening of the Conference by
Ruy Laurenti, Vice-Chancellor, USP
Padmanabha Gopinath, Director, IILS
Yoginder Alagh, Vice-Chancellor, Jawaharlal Nehru University
Nikil Chandavarkar, PNUD
Jacques Marcovitch, Director, IEA/USP

Keynote address by
Paulo Nogueira Batista, representing the Ministry of Foreign Affairs
Gurdip S. Bedi, Ambassador of India to Brazil

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18h15 - 19h30 **Macro-economic Adjustment, Liberalization and Growth**
by: *Deepak Nayyar* (India) and *Roberto Macedo* (Brazil)
Discussant: *Irma Adelman*

TUESDAY 19 OCTOBER 1993

Session I (cont.) **Chairperson: Norman Gall**

8h30 - 10h00 Open discussion
Commentators: A. K. Bagchi, R. V. Gupta and Amaury Porto de Oliveira

Session II **Chairperson: Pedro de Camargo Neto**

10h30 - 12h00 **The Agricultural System, Industrialization and Development**

	by: *Yoginder Alagh* (India), *Décio Zylberstajn* (Brazil) Discussant: *Ignacy Sachs*
13h30 - 15h00	Open discussion Commentators: H. Rao and Mauricio Andrés Ribeiro
Session III	**Chairperson: S. Gopalan**
15h00 - 16h15	**Labour Institutions, Social Protection and Employment** Reports by: *T. S. Papola* (India), *Hélio Zylberstajn* and *Amaury de Souza* (Brazil) Discussant: *Gerry Rodgers*
16h45 - 18h15	Open discussion Commentators: S. Ali and Francisco Oliveira
21h00	Cultural Event with Maria Helena Andrés

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Session IV	**Chairperson: A. Badhuri** Discussants: *I. Adelman, J. Figueiredo, G. Rodgers* and *I. Sachs* Commentators: S. Shriram, A. Das and N. Chandavarkar, Décio Zylberstajn
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