Working Paper No. 121

ECONOMIC REFORMS: POLICY AND INSTITUTIONS
SOME LESSONS FROM INDIAN REFORMS

ARVIND VIRMANI

JANUARY 2004

INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS
Core-6A, 4th Floor, India Habitat Centre, Lodi Road, New Delhi-110 003
website1: www.icrier.org, website2: www.icrier.res.in

CONTENTS

Foreword

This paper is the outcome of a confluence of two factors. The first is the experience and expertise that the professionals at ICRIER have in policy formulation in government and advice on Indian economic policy reforms. The second was ICRIER's co-sponsorship of the GDN conference in Delhi.

The Global Development Network (GDN), is a global network of research and policy institutes working together to address the problems of national and regional development. GDN held its Fifth Annual Conference on "Understanding Reforms" in New Delhi during January 28-30, 2004. The conference provided a forum for researchers, policymakers and representatives of international organisations from around the world to meet and exchange ideas on pressing challenges of development. This was the first time that the Annual Conference was held in Delhi. ICRIER was a co-organiser for the Conference, and Director and CE of ICRIER, was a member of the Conference Steering Committee.

ICRIER also had special responsibility for organising two sessions. One was a session to review Indian Reforms from a multidisciplinary perspective. This working paper was presented at the first parallel session on Economic Reforms: Policy and Institutions. The session was chaired by Prof. Wahiduddin Mahmud, Professor of Economics, Dhaka University. The discussants were Prof. Ira Gang (Rutgers University) and Prof. Alvero Forteza (Universidad de la Republica Montivideo, Uruguay).

As co-ordinator of SANEI (South Asia Network of Economic research Institutes), the regional network partner of GDN in South Asia, ICRIER also organised a session on Economic Reforms in South and East Asia: A Comparative Perspective, also co-chaired by the Director ICRIER, where Prof. T. N. Srinivasan presented a paper on Economic Reforms in South Asia.

Dr. Arvind Virmani
Director & CE
ICRIER

ECONOMIC REFORMS: POLICY AND INSTITUTIONS

Some Lessons from Indian Reforms[#]

Arvind Virmani[*]

Abstract

Economic policy and policy reform over the last few decades has been motivated by the need to accelerate growth or equivalently to reverse a decline in growth rate. The economic literature on the determinants of growth has burgeoned and disagreement has followed consensus on the policy prescriptions that need to be followed to achieve this purpose. Sometimes the disagreement is exaggerated by the titans of the profession, so as to distinguish themselves from those constituting the conventional wisdom. The present paper moves the focus from this "macro" debate to concrete issues of policy formulation and policy change and explores the links between policy and institutions in the context of economic reforms. Thus successful introduction of new policies may require new institutions and the degree of success in changing policies may depend on the degree to which existing institutions are modified.

The literature on Institutions and Development has dealt with questions of grand design such as the Constitution, the rule of law (personal safety), property rights and informal rules embodied in culture. These are matters that happen on a time scale of a quarter/half century or more and can be thought of as the "superstructure" of institutions. The quantitative work on institutions and growth has explored the linkage between these institutional issues and economic growth. In the current paper we focus on what may be called the "microstructure" of institutions, a smaller scale at which change can occur over a time frame of decades (or half decades). Among the issues that arise in this context are how changing institutions require changes in policies.

Keywords: Economic Reforms, India, Policy, Institutions

JEL Classification: O1, P41

[#] Paper presented at the Global Development Network conference in New Delhi, January 28-30, 2004.

[*] Director and CE, Indian Council for Research on International Economic Relations (ICRIER), Core 6A, India Habitat Centre, New Delhi 110003, India. I would like to thank Rajiv Ahuja, Alvaro Forteza, Ira Gang, Anwar Hoda, Vijay Kelkar, K. L. Krishna, Ajit Mathur, Sudhir Mulji and T. N. Srinivasan for thier comments on earlier versions of the paper, Gurnain Pasricha for research assistance and Manmeet Ahuja for his assistance.

1 Introduction

Economic development literature has over the past decade re-discovered the importance of institutions and progressively applied it to explaining the diversity of economic growth experiences across countries. Most economists working on a specific country or a group of countries take the institutions existing in that country as a given. During the last quarter of the 20th century and the 1st quarter of the 21st nearly all countries have created, at least in name, the same set of basic government institutions, give or take a few.[1] The nature and quality of these institutions may however be quite different. This was revealed most dramatically during the Asian crises. At a superficial level all the fast growing countries of East and South East Asia had the entire set of market institutions (financial, corporate and governance) to be found in the developed/OECD countries. Most foreign investors (overwhelming majority of whom were from developed countries) assumed that these institutions were identical to those in their home countries and that economic players as well as economic institutions would therefore respond in the same way to shocks as they do in the highly developed economies. They were proved wrong, particularly in countries where the nature of these institutions was quite different (colloquially referred to as under developed). For instance the Nature of Credit markets in Developing Countries is quite different from that in Developed countries, because of the availability and cost of information and the consequent importance of collateral in lending decisions in the former.[2] From the critical role of collateral followed the importance of asset markets and asset prices in the financial system. This linkage creates a feedback loop that can lead to a collapse of asset markets, lending/borrowing and company activity as a result of large adverse shocks.

Differences in the nature and quality of institutions across countries gives rise to the possibility that the same policy may have different effect in different countries. For instance differences in Liquidity preference, in the context of Keyenesian discussion of the liquidity trap, could be attributed to institutional differences in the sense of

[1] Even communist dictatorships called themselves "Democratic Republics" and had national legislatures/ parliaments.
[2] As pointed out in, Arvind Virmani(1982), "The Nature of Credit Markets in Developing Countries,"

individual/group/community preferences being shaped by informal institutions.[3] Even if on average the effect of given policies is similar there could be circumstance under which the effect is significantly different. The differential impact is generally more visible when there are major policy changes or large shocks. Thus the degree of success/failure of any specific policy reform or set of policy reform measures may differ across countries because of institutional differences. Further the success or failure of these policy reforms within a given country may itself depend on institutional developments and complementary institutional reforms. The purpose of the current paper is to review the economic reform experience keeping in mind this institutional perspective and to explore the linkages between policy and institutional reform.[4]

A subsidiary purpose of the paper is to open the door to multidisciplinary dialogue by bridging the gap between economic and other social sciences by eschewing economic "jargon." This exploration draws heavily on the economic reform experience of India and the author's practical experience of these reforms and can be viewed as an effort to conceptualise and generalise the lessons from Indian economic reforms. The next section 2 defines a conceptual framework for analysing policies and institutions in the context of economic reforms. Section 3 gives a selective review of the Indian reforms and attempts to relate the process of reform during the nineties to the concepts outlined in section 2. Those interested primarily in the Indian reforms may find it more interesting to read section 3 before section 2. Section 4 concludes the paper.

[3] I understand from Sudhir Mulji that Keynes does so in his writings.
[4] Rodrik (2003) gives a series of examples of the links between economic policy reforms and institutional innovation while exploring, 'the broad design principles of successful growth strategies.'

2 CONCEPTUAL FRAMEWORK

In this paper we pre-suppose that the economy under consideration is basically a market economy (however underdeveloped or imperfect). In other words we exclude Socialist/communist command economies of the kind that existed in the former USSR and much of Eastern Europe till the end of the eighties and in China till the end of the seventies. Such economies are now found only in a few countries such as N. Korea and Cuba.

2.1 Framework Overview

Section 2.2 looks at policies. We start by dividing policies into three categories and then analysing how the category to which any particular/specific policy belongs can change over time. In the context of economic reform different policies may also be inter-linked (section 2.2.3). Section 2.3 deals with institutions and starts by giving North's (1994) technical definition of 'institutions' and posits this against the common usage of the term 'institution' to define what it will mean in this paper. Following this we narrow the focus by dividing institutions into two parts, the "superstructure" and the "microstructure" and focussing on the latter. Institutions are then divided into three exhaustive categories. There is also some sub-categorisation within the categories to aid understanding and analysis, but these are not exhaustive or mutually exclusive. The institutional categories mentioned by Rodrik (2003) are all sub-categories of one of three categories in our list. The subsequent section explores some inter linkages between different institutions that are important for the evolution of institutions and their quality. This is followed by a discussion of what we call, Privatised (public) institutions and institutional externalities that arise when institutions deteriorate below some threshold.

Section 2.4 explores the issues of information and knowledge that are so vital to the reform of economic policies and the change of institutions, what North calls 'internal models' and in different context have been referred to as 'paradigm change'. Knowledge is essential for adapting and modifying policies in the face of unique political and institutional constraints (section 2.4.1). Similarly new channels of information have arisen and sources of knowledge and skills are now available that can aid reform efforts (section 2.4.2). Section 2.4 then goes on to define and explore the potential inter linkages between policy and institutions and between policy reform and institutional reform. These include policy-institution complements (positive and negative) and substitutes, Institutional innovations in the process of reform and institutional (policy) externalities.

2.2 Policy

2.2.1 Categories

Economic policies can be broadly partitioned into three categories: Market distorting, market correcting and market creating. These categories correspond broadly to economists' notion of policy interventions in perfect/competitive markets, markets with externalities and production/supply of public goods and services. As a practical matter we also have a category of ambiguous policies falling in between the market distorting and market creating policies. If we treat market creation as a form of market correction then we have three categories:

(a) Market Distorting Policies

Restrictions on investment (size, industry, products, ownership-public, private, foreign), imports and exports (bans, restrictions, canalisation, tariffs/duties), production and distribution (licensing or control) and price controls are examples of market distorting policies.

(b) Ambiguous Policies

This has several sub-categories depending on the source/nature of ambiguity:

(i) Uncertain Effects: Their impact is genuinely uncertain (positive or negative). Theory and empirical evidence is either not convincing or the latter is found to be different in different countries. These should however be distinguished from special exceptions that are blown up into grand intellectual principles that confuse non-specialists and decision-makers.

(ii) Trade-offs: There are both positive and negative effects of the policy and these have to be weighed against each other. The most interesting trade-offs are between the short term distorting effect of a policy and the uncertain long-term benefits. These trade-offs give room for sincere, honest, flexible and knowledge seeking decision-makers to accelerate growth as well as to those with opposite characteristics to enrich themselves at the expense of the general public. Infant industry policies, justified by the new industrial economics, fall into this category.

(iii) Neutralising policies: These are policies that by themselves (i.e. in isolation) would be considered distorting policies, but counteract or partially neutralise the negative effect of another market distorting policies. Thus for instance the refund of import tariffs and supply of domestic inputs at international prices to exporters is a commonly used policy for correcting the distorting effect of import bans and high tariffs on exports.

(c) Market Correcting Policies

Examples are subsidies (implicit or explicit) for the production/supply of infrastructure services (e.g. water, roads, highways, electricity, telecom connectivity) in rural, remote and hilly areas, expenditures on communicable & environment related diseases (e.g. malaria), supply of clean water and sanitation & sewerage services to all (particularly the poor). Other examples of market correcting policies include taxes on polluting substances.

(i) *Market creating policies* are an important sub-category of market correcting policies. An example of this would be a subsidy on issue of and/or holding of debt of higher tenure that leads to the creation of a long-term debt market.

(ii) *Market complementing*: Another sub-category of market correcting policies is policies that correct inherent weakness in a market system. These market complementing policies such as those providing a social safety net for the poorest most vulnerable citizens (food subsidy, health insurance).

2.2.2 Dynamic Categorisation

A given policy may traverse the spectrum from market creating to market distorting over a period of time depending on the economic environment and the evolution of market institutions and the quality of governance. Thus for instance an interest or collateral subsidy to banks for a specific category of borrowers may be market creating for a certain period of time after its introduction (as it helps corrects information asymmetries), but market distorting after the information problem is corrected through the new loan relationships.[5] Another example is an infant industry protection policy based on the 'new industrial economics' and the practical experience of the USA and other developed countries in the initial stages of development. Moderate tariff protection to an 'infant industry' for 5 years or so may arguably be a market creating policy, but will with the passage of time become ambiguous and eventually a market distorting policy. In other words, the same or increasing levels of tariff protection cannot be justified on 'infant' industry grounds for the same industry through adolescence (6 to 12 years), teen age (13 to 19 years) and adulthood (20 to 55 years).[6]

A change in classification from market correcting to market distorting is frequently the case with policies (e.g. subsidies and taxes) designed to correct market distortions (externalities) and to support social objectives. Just as frequently the original objectives and justification becomes a 'Mantra" to be chanted for decades even though the circumstances have changed and the environment is quite different from the original. Flexibility, adaptability and responsiveness of policy to changing circumstances and environment are therefore necessary elements of efficient, economic policy formulating and macro-management institutions.

Market distorting policies can over time also lead to the deterioration of market institutions because of non-use of certain market skills and the distortion of incentives to acquisition and use of non-market skills. For instance, controlled markets are often less risky at a micro level i.e. for the economic agents (in contrast to macro risk which may increase because of lack of micro flexibility). This there is a tendency for previously acquired skills for measuring, evaluating and dealing with market risk and uncertainty to deteriorate progressively (section 3.4).[7] At the same time non-market skills such as judging and influencing the views of the 'controller(s)' are likely to grow and displace the former. These non-market skills can include various forms of 'corruption,' apart

[5] See for instance, Virmani (1982) or Virmani(1989).
[6] As has been done in India by respected economists and intellectuals.
[7] This is what happened in the Nationalised Banking system and to a lesser extent in other parts of the financial system that saw the heavy hand of the State and its subsidiary control institutions (which included the RBI till the end of the eighties).

from direct financial payments/ bribes.[8] Though this legacy of skill deterioration can be reversed, it may take different amounts of time depending on the overall opportunity for using these or related skills. It is therefore necessary to be aware of the history of market distortions and their consequences, as these are an important input into the process of determining the timing and phasing of particular reforms.[9]

Table 1: Policy and Institution Categories

	POLICY TYPE					
Institution	Market	Ambiguous			Market Creating	
Type	Distorting	Uncertain	Tradeoff	Neutralising	Correcting	Cmplmt
Substituting						
Sd	+ve corr					
Mixed					-ve corr	
Complement						
Creating					+ve corr	
Legitimise						
Regulating						
Policy						

2.2.3 Policy Inter linkage

As Rodriguez and Rodrik (1999) have pointed out, it is extremely difficult to rigorously identify the effect of trade liberalisation on economic growth as such liberalisation is frequently part of a set of policy reforms including better macro management. For instance it is often suggested that macro-stabilisation should precede structural reform. In this paper we will also explore the degree to which the success attained by a particular policy depends on other policies, for instance polices relating to different aspects of the external account such as trade, other current account, FDI, equity, debt, exchange rate. This is necessary for separating out the contribution of institutional change and that of these 'other' policy changes.

[8] This characterized virtually the entire public sector and its supervisory institutions.
[9] Access to Non-residents (migrants, expatriats), or skills through JVs can help fill small gaps fairly quickly.

2.3 Institutions

2.3.1 Rules and Players

North (1994) defines Institutions as the rules of the game- Both the formal (constitution, laws, rules) and informal (norms, conventions, codes of conduct) and Organisations and their entrepreneurs as 'Players'. In the Indian context, Virmani (2002b) has emphasised that, "Laws particularly economic laws, do not merely define what a citizen/resident can or cannot do. They create a system of incentives and dis-incentives for economic agents and those charged with implementing the laws. Most economic laws have had consequences that their originators had no inkling of. The common result of the myriad such law is to create incentives for rent-seeking, rent-creation, bribery and corruption."

There are four types of organisations: (a) Government organisations that implement/enforce the formal laws and rules of the State (constitution, criminal procedure code, civil code). (b) State owned commercial organisation (Public sector). (c) Private non-profit organisations that implement or enforce informal laws and rules of society, or carry out social functions. (d) Commercial organisations like private joint stock companies. All organisations are subject to a framework of laws/rules that constitute their incentive structure. In addition the Organs of State (government non-commercial organisations) are also charged with implementing/ enforcing some specific set of laws and rules. The dictionary definition of "institution" includes both "laws, customs and practice," and an "organisation or establishment constituted for specific purpose." This paper therefore uses 'institution (s)' to indicate not just the laws & rules but also the organisation (s) charged with or responsible for implementing/enforcing them on others, as is done for instance in Davies and Treblicock (2001). Other organisations and entrepreneurs with no such function continue to be referred to as players a-la North (1994).

2.3.2 Superstructure and Microstructure

From the current perspective we can think of institutions at two levels. These could be termed the "Superstructure" and the "Micro-structure." The superstructure consists of the overarching[10] institutions such as the constitution, the general laws (property rights, contract law) and informal rules of society and the organisations responsible for implementing these rules. The 'super-structure' is largely excluded from the ambit of the current paper. The 'microstructure' consists of specific economic laws (e.g. electricity act), rules, ministries/departments (e.g. finance, commerce), subsidiary institutions (e.g. regulatory authorities), agencies of governance (DGFT, CBDT, CBEC) charged with implementing these laws and rules. In this paper we focus on the microstructure of institutions and on the implementing organisations as these have a more direct bearing on the outcome of specific economic policies and economic policy changes.

The political economy literature has dealt extensively with the issue of political parties, voting behaviour, interest groups and the principal-agent problem between the voters and the ruling party/government and the role of the media. We do not focus on political economy questions (e.g. which policies are adopted and which not, will tariffs be high or low under what conditions of political economy) in the current paper. In addition to these higher level political issue (the equivalent of the Super-structure) there are internal political issues within the government (the micro-structure of political economy). These can be termed "Bureaucratic Politics" or "Bureaucratics" for short. [11] Besides determining the pace and micro direction of reforms 'Bureaucratics' also affects the quality of the institutions. These fall within the ambit of the paper.

2.3.3 Contract or Transaction Cost Approach

Demsetz (1969) in discussing institutional efficiency proposes that an extant mode of organisation for which no superior feasible alternative can be described and implemented with expected net gains, is presumed to be efficient. Hennipman(1995) draws attention to the costs of overcoming resistance whether economic or political. He points out that total reform costs must take account of such costs and that (once this is done) implementation with net gains may not be possible. Williamson (2002) points out that this implies that policy reform must be, (a) Feasible (including meeting informational requirements), (b) Implementable (e.g. in describing compensatory or pay-out

[10] Core, higher, deeper?

[11] See Virmani(2001). Williamson(2002) talks of 'Bureaucratic failure.' This is ofcourse an essential component of the governance failure that we are analysing. It is not however clear whether the two are 'seperable.'

mechanisms) in economic terms and (c) Recognise the legitimacy of political resistance and factor it into the evaluation. From our experience these are the basics (foundations) on which good policy advise and sustainable/sustained policy reform are based.

The analysis following from this perspective, however, sometimes assumes that institutional conditions are similar to those prevailing in developed countries (DCs) rather than those actually prevailing in developing countries (LDCs). For instance the presumption of 'set-up cost advantage' though it may be valid in DCs may have to be replaced by a presumption of set-up cost disadvantage for many government institutions in LDCs. What are these conditions? Transparency International and other organisations have constructed indices of the quality of governance and of corruption of governments. Perhaps 90% (70%) of low & lower-middle income countries have an index of governance quality in the bottom half (third) of the distribution, with the inverse holding for upper-middle and high income countries. In the former case there cannot be a presumption that these institutions are 'efficient' a-la Demsetz (1969).[12] It follows that the further presumption that political and economic interests arising from these must be treated as legitimate also needs refinement.

Those who have a vested interest in mal-governance and corruption must be viewed as illegitimate, but their arguments may be legitimate and these must be understood and addressed. Further those who actually loose under prevailing conditions of governance may be quite different from the losers as per idealised or theorised (DC like) conditions. Either careful, detailed empirical research or a profound understanding of local conditions (or both) are needed to identify the right distributional impact under these conditions. The conclusion of Hennipman(1995) about feasibility of reform may also be reversed once the benefits of reducing corruption/mal-governance counter balance the costs of overcoming resistance. The former may well improve the net gains from replacing old, existing institutions by newly created ones (de-novo), particularly if the gainers from governance reform are identified and provided information to counter the resistance of vested interests.[13]

[12] Williamson (1996) treats the efficiency of the extant mode that passes the first two tests of remidiableness as a rebuttable proposition.
[13] The case of the Delhi Electricity Supply Organisation (DESU) in which T&D losses were 50% illustrates this possibility, though it was never effectively exploited.

Arrow (2000) raises the critical role of expectations in current (investment) decisions and the importance of early actions infusing later confidence.

2.3.4 Institutional Categories

Most of the recent work on the link between institutions and economic growth/ development has focused on the rule of law and enforcement of property rights. Rodrik, Subramanian and Trebbi (2003) call the institutions relevant to this outcome as Market creating institutions: They also introduce three other categories of institutions relevant for sustained growth: Market regulating, market stabilising (macro management) and market legitimising (social safety nets). In considering the linkage between economic policies and market institutions we find it useful to divide institutions into three categories, Market Substituting, Market Complementing and Mixed. All four categories suggested by Rodrik and Subramanian would in this schema, be sub-categories of what we call Market Complementing institutions.

(a) *Market Subtracting/Substituting* (S type institution)

Such institutions displace/ drive out market agents/organisations or bar/keep out potential market agents & organisations from entering existing markets or creating new ones.

(i) One important sub-set is government institutions in charge of Public Sector Units producing a private good or service (e.g. cloth, bread, steel, hotel, restaurant) in a country that has private firms producing the same good or service. With rare exceptions they would be classified as a market substituting institution. By strict definition the PSUs are 'players,' but they can act as extensions of the S-type institution.

(ii) Another sub-category consists of institutions (agencies) charged with or set up (specifically) to implement market-distorting policies, which together have a negative effect on markets (Sd sub-type).

(b) *Market Complementing* (C type institution)

These could also be called market supporting. There are four sub-categories.[14]

[14] We have adopted three of the names used by Rodrick et al(2002) though our definitions are somewhat different for two.

(i) Market Creating (Cc): Such institutions complement the market economy by supporting the creation of new markets. Traditionally examples are those supplying pure public goods like justice department/ministry, judiciary & courts, police.[15] A non-traditional example is the National Dairy development board (NDDB) that some decades ago helped create a national milk market in India.

(ii) Market Policy (Cp): This sub-category includes government departments that make policy (macro and micro) and institutions engaged in macro-management (e.g. Central Bank).

(iii) Market Regulating (Cr): Examples are financial regulators (fiduciary intermediaries) and regulators for infrastructure services ('natural' monopolies). The market regulating and market creation role may be combined in a single institutions (it often is when markets are under-developed).

(iv) Market Legitimising (Cl): Institutions supplying public goods' & services and social safety nets can be classed under this sub-category. Examples are urban municipalities that produce and supply civic infrastructure service (roads, drinking water, sewerage, and sanitation) and Public Delivery System for Food (PDS).

A government institution that has been set up to distribute private goods in remote areas with no retailers, may appear prima facie to be purely market creating. It could in reality be primarily market substituting if it survives on subsidies that are not available to private agents (and thus keeps out potential private retailers who would be willing to provide the same services at some fraction of the subsidy).

(c) *Mixed Institutions* (CS type)

Mixed institutions are those that have elements of complementarily and substitutability. They are complementary to the extent they fill a gap that private markets organisations would not supply. They are substituting to the extent that private organisations would be willing to provide the same service with a lower subsidy. In most developing economies a large number of M/CS type institutions are government production and supply organisations (set up), to undertake activities such as:

(i) Electricity transmission and distribution,

[15] Institutions that create laws can also be classed as market creating, though these have been included in the superstructure and are not discussed in this paper.

(ii) Telegraph/telephone communication,
(iii) Canal networks (from water surplus to water deficit areas),
(iv) National and Provincial highway construction
(v) Education
(vi) Curative medicine

To the extent that these provide a non-tradable service in a geographical area with no private suppliers they would come under the C type category.

2.3.5 Institutional Dynamics

Many of these CS-type institutions (above) were primarily C types when they were set up. They have progressively become more S-type over time. Some of them are now indistinguishable from S-type organisations (even if they retain a small element of complementarily). Part of the explanation for this progression is that as the economy grows and develops, the scale of externalities is reduced and the number of potential suppliers of services increase.

Thus, as in the case of policies, institutions can move from one category to another as the environment changes. There is an additional factor however, in that institutions can change internally so that their nature changes even though the name is unchanged. Thus the category change could come about because the nature of the institution has changed.

2.3.5.1 Institutional Interaction

There is another dimension that is very important for the evolution of Market Complementing institutions and their effectiveness. This is in the number of roles that they combine in one institution or disperse across separate institutions. From this perspective we can divide institutions into three categories, Monolithic, Countervailing and Fragmented.[16]

(a) *Monolithic institution* (Monoliths) are those that combine the roles identified in the sub-categories of Creation, Policy, Regulation and Legitimisation (supply). Institutions connected with infrastructure have often had this

[16] Corresponding to Monopoly (single player), Oligopoly (several players) and Competitive.

characteristic (section 3.3.1). The potential problem, is that, 'Power corrupts and absolute power can corrupt absolutely.'[17]

(b) *Multiple institutions:* Functions are dispersed among a set of institutions charged with the same overall objective. Each institution has authority over specified aspects, so that they can in principle provide checks and balances between/across them (section 3.3.2).

(c) *Fragmented institutions:* Functions are widely dispersed across a large set of institution. Co-ordination (transaction costs) in meeting the overall objective becomes a more important goal for them than the basic objective.

In general, there is need for balancing the concerns of 'Corrupting Power' against that of 'Co-ordination and transaction costs' to come to an intermediate solution with a limited number of countervailing institution. This however assumes some basic level of institutional quality. Below some threshold of quality (above some level of corruption) the inter-relationships can be completely transformed. When the institutions are no longer driven primarily by the institutional objectives but by the personal objectives of their members they can be transformed from 'countervailing' to 'competing' institutions. The competition is in terms of appropriating rents for themselves. In such conditions the monolith (monopolist) institution may meet the institutional objective better than multiple (oligopoly/competing) institutions.

2.3.6 Privatised Public Institutions

We know from the Public choice and rent seeking literature that institutions of government are driven as much by the self interest of their members as by the professed public purpose [Buchanan & Tullock(1962), Downs (1967) and Niskanen (1973)]. In the economic theory of markets the norm is the private good or service that can be bought, sold and consumed by individuals. A public good is one, which does not meet the norm of excludability and rivalry in use i.e. a pure public good is non-excludable and non-rival in use. The opposite can be said of institutions. The normal institution is a public institution with a public purpose/objective.

[17] A phrase commonly attributed to Lord Acton.

It is convenient to define a *Privatised (Public) Institution* (by analogy with private-public goods) as an institution that is driven solely by the personal interests of its members/employees devoid of any public purpose that is the ostensible objective of the institution (section 3.3.5).[18] This does not however mean that no public purpose is achieved by such a privatised institution. Some amount of public purpose may still be achieved as the joint product of the private objectives of its members. One reason is that the public purpose still acts as a constraint on and a justification for the role of the members of the institution. It provides the rationale for them to remain members of the institution (non-dismissal) and legitimises the continuance of the institution (non-dissolution).

Given agency problems the actual objectives of the organisation are a mix of professed (ideal) objectives of the organisation and the personal objectives of the members. The gap between actual and ideal objectives is a measure of the quality of the institution. We define the ***quality*** of an institution as the gap between its professed public objective and the actual objectives as determined by the degree to which it is driven by the personal objectives of its members.[19] This is dependent on the incentive structures and enforcement systems within and outside the organisation, for the members of the institution to achieve the public objectives. An organisation driven solely by the personal interests of members would form the low-quality end. Low quality is also correlated with corruption.

The efficiency of the organisation is determined by its effectiveness in achieving its objectives. Flexibility, adaptability and responsiveness of policy to changing economic and institutional conditions are therefore necessary elements of efficient, high quality institutions. This is particularly so for complementing institutions dealing with policies for economic development and growth. In such institutions, good governance is closely associated with speed of response to external and internal shocks. This was (in our view) a notable characteristic of governments in most Asian Miracle economies till

[18] The closest example of such a privatised State institution that the author has seen personally was the State Electricity Board (SEB) of Delhi prior to its conversion into a company and subsequent privatisation.
[19] Several authors have referred to the 'integrity' of institutions without defining it precisely (see eg. Williamson (2002)). The popular meaning of this word is close to the definition of 'quality' given above.

the early nineties. In the case of institutions for implementing laws efficiency has the narrower ambit of 'enforcement'.

We can define two measures of **efficiency** ***I****-efficiency* and ***P****-efficiency*. The former is a measure of the cost effectiveness in meeting the *ideal* goals of the organisation, while the latter is a measure of the effectiveness in meeting the actual (*personalised*) goals of the organisation given its quality. In an ideal organisation with no agency problems the quality of the organisation is 100% and these two measures of efficiency are identical. The obverse need not however be true. Even a poor quality, P-efficient organisation need not be highly I-inefficient.

In general I and P efficiency will be imperfectly co-related. This can be illustrated by comparing two hypothetical low quality organisations. One run by a well organised despot who collects all the rents and distributes a share to each member and another which is anarchic with each member trying to collect whatever rent he can for himself.[20] The former is more likely to be characterised by a monopolistic solution that maximises long run rent collection for its members and thus accomplishes enough organisational objective to preserve its legitimacy. In contrast the latter is likely to be characterised by short-run personal maximisation and consequent collapse of the organisation and low long run rent collection for members. Thus the former organisation is likely to be both more I and P efficient than the latter organisation. Therefore I and P efficiency are likely to be positively co-related.

2.3.7 Institutional Externalities

Low quality institutions can have negative institutional externalities (and vice versa). This may be by, (a) Contagion (the rotten apple spoiling the entire basket) or example, that is by demonstrating the individual benefits and/or low probability of detection/punishment, or (b) By actively undermining other institutions in the pursuit of personal/selfish goals. These externalities could be horizontal (i.e. to other institutions) or vertical (to institutions hierarchically above or below it). For instance corruption inevitably progresses from the rent creating organisation (clients paying employees) to the vigilance organisation designated to check such corruption (detected members paying off investigators). It would also spread to the broader policing system (either or both paying the police) and eventually the judiciary. This is clearly a dynamic process that unfolds over time and is subject to hysteresis i.e. it cannot be reversed completely by simply eliminating the original distortion or cause.

2.4 Information and Knowledge

Information and knowledge play a critical role in economic development. It is even more important in undertaking policy and institutional change and in the success or failure of these reforms. Any change requires the introduction of new information or knowledge as there would be no change otherwise. The institutional literature has emphasised the role of learning processes and the change in perceptual/mental models over time (North (1994)).

We can think of six stages to a successful process of transformation from an old to a new mental model (or paradigm). First is a general diffuse dissatisfaction with the existing mental models, policies and/or institutions.[21] Over time (second stage) some people begin to recognise the possibility of alternatives.[22] These are alternatives from the historical knowledge base of the country/society or increasingly in this globalised world, alternatives proposed by the global development community or prevalent in other countries. The third stage is an attempt by these pioneers to increase their personal knowledge about the new model (i.e. in the new direction) and to connect with those who have this different model.[23] The fourth stage is the import and/or creation of people having the new model perspective.[24]

The fifth stage is the incorporation of higher level visionaries as well as those with deeper knowledge into the decision-making hierarchy so that the operational model held by the concerned decision making institution also begins to change. The final stage is the overcoming the "fears" of neutral opinion leaders (i.e. those with no personal vested interest in the old policy or institution) through incorporation of new information into their mental framework and gradual understanding. There is enormous inertia in old

---

[20] See Shliefer and Vishney (1993) and Macintyre (2003)
[21] India in the mid to late seventies.
[22] India in the eighties.
[23] Whenever I called on Dr. Manmohan Singh during home visits (while working in the research department of the World Bank) he always asked me what India should do to increase growth/development. He must have done the same with every external visitor.

ideas represented by the belief that old policies must be correct (otherwise why were they instituted and existed for so long?).[25] This is manifested as a strong bias against any change in policy (inertia). Successful transition from one policy paradigm (model) to another requires innovative policy design and/or institutional innovation to overcome this inertia.

2.4.1 Policy Transition: Design & Innovation

The economic theory of the market economy is focused on equilibrium states or paths, and gives little guidance on the transition from one equilibrium state/path to another. Once the new goal is clear the most critical role of the policy advisor is to design the transition from the old policy frame to the new. A successful transition requires the adjustment and adaptation of policies to the institutional and political constraints. Knowledge and understanding of economic theory and the empirical evidence as well as a "feel" for the institutional and political constraints is an asset in designing economic policies. Institutional and political opportunities also provide the backdrop for appropriate timing and phasing of multiple policies.

We distinguish innovative policy design from institutional innovation. In our view these are two separate though sometimes inter-linked innovations. In contrast, Rodrik (2003) appears to use the term 'institutional innovation' to denote both types, though most of his examples are what we would classify as policy innovations. For instance, the "dual pricing" system is a policy hybrid that was first used in India in 1966 (for the cement industry), but abandoned in 1968 and has since been repeatedly used as a method of price and distribution de-control. It is an intermediate or transitional step in moving from price control to a free-market pricing of an individual commodity.

The dual pricing system involves retaining a certain proportion (x) of the total production under price and distribution control and allowing the rest 1-x to be sold on the

---

[24] Montek S. Ahluwalia was hired from the World Bank in 1979 to become Economic Advisor in the Finance Ministry.

[25] In the authors experience those who are ideologically opposed to the new ideas at the start remain opposed to any further change from the new (current position). That is even when they grudgingly accept the reforms that have been successfully introduced over the past, they always oppose any further reforms as

free market. Transition is generally made by reducing x over time and making it zero at some point (free market). Variants of this system have included one which sets a different ratio y for new investment, where $0 \leq y < x$. In this case the set of existing beneficiaries and the degree of benefits is unchanged at the time of introduction of the new system. In either case, the socio-political resistance is neutralised and bureaucratic (rentier) sabotage minimised through a gradual transition that generates information to dispel irrational fears. The dual pricing system was re-introduced in the cement industry in 1982 leading to successful decontrol in the eighties.[26] The sugar industry in contrast is an example of unsuccessful transition as it still operates under a 'dual pricing' regime, with the transition regime becoming semi permanent because of strong vested interests. What Lau, Qian and Roland (2000) call the "Dual Track System" in China appears to be quite similar to India's "Dual Pricing" system. [27] Rodrik (2003) cites this as an important *institutional* innovation by China.

The most dramatic and successful use of the dual pricing approach in India was that of exchange rate reform in the early 1990s (section 3.7.7).

2.4.2 Information Channels: Non Resident Professionals

One of the important new global information channels that has opened up over the last few decades is the result of migration of college students and professionals from the developing to the developed countries. These first generation skilled migrants who have attained success in the host country and have their foot in both countries are an important knowledge bank for the source country.[28] This channel is much more important than the traditional linkages with multilateral development institutions such as the World Bank, IMF and ADB. The country' nationals and former nationals (with equal qualification &

---

too risky/dangerous/unnecessary. After these have taken place and they have again been grudgingly accepted, the attitude to further/new reforms is again one of opposition/questioning.

[26] At its introduction in 1982 the ratios were x=66.6 % and y=50 %. The cement industry was under price and distribution controls since 1966 (except 1967 & 1968).

[27] Around 1989 as Advisor (International Economics) in the Planning Commission we hosted a team from China led by the chairman of their State Commission (equivalent of our PC). Among the issues that they wanted to learn about from us were, (1) The monetary system and the role of the central bank, (2) Our experience of de-controlling markets (we explained the "dual pricing" system), including the agriculture markets (e.g. for rice & wheat). (3) How to set up a market for a product (e.g. steel, coal) where no such market exists. "What is a market?" (very difficult to explain!)

[28] Even some second generation migrants who have kept their links with the mother country may be in the same position.

experience) have greater credibility and public/political acceptability than the staff of these institutions with respect to economic reform issues.

They also provide a pool of potential recruits into the system who can act as change agents. For instance some far-sighted policy makers in the government of India recruited a number of economists from the World Bank during the eighties.[29] These economists later acted as change agents within the government of India and were particularly valuable in transforming policy after the BOP crisis of 1990-91. The crises provided a window of opportunity for introducing the reforms that they had been individually thinking of and/or working towards in the previous decade.

2.5 Inter linkage of Policies and Institutions

With these definitions we can turn to the analysis of the inter-linkages between policy reform and institutional reform.

2.5.1 Policy-Institution Complements

Market creating policies and market creating institution are often intimately linked in that they compliment each other. One is seldom effective without the other. The time dimension is very important especially for specialised institutions; it is a rare market creating institution that is able to re-orient itself after the market has been created and its job is over. There is a tendency to deteriorate progressively into a market substituting institution complemented (in a negative direction) by market distorting policies.

2.5.2 Institutional Innovations

In the case of Market complementing institutions the main problem is the deterioration in quality and efficiency of such institutions, particularly government related ones. It is obviously necessary to try to halt and if possible reverse the deterioration by changing the institutional superstructure, the laws and rules under which the institution operates. But below some quality threshold it is necessary to explore *institutional innovations* and look for alternative institutional mechanisms for accomplishing the market complementing roles that the deteriorated institution is unable

[29] Dr. Manmohan Singh in various capacities as a senior bureaucrat and later Minister level professional. Mr Montek Singh Ahluwalia after he became economic advisor in the Prime Minister's office.

to fulfil.[30] In the case of government institutions the alternative institutions could be public-private partnerships, or non-government organisation such a non-profit organisation, co-operative societies or commercial organisations. Sections 3.3.4 and 3.5.3 present examples of successful institutional innovation. One implication of this analysis is that we may be forced by deteriorating quality of governance to outsource the production and supply of (pure) public goods if the quality of government institutions producing them, deteriorate below some level.[31]

2.5.3 Policy-Institution Substitution

In the case of Mixed (M or CS type) institutions a deterioration is generally accompanied by a reduction in the market complementing role of the institution and a relative increase in its market-substituting role. As its quality & efficiency deteriorates the benefit-cost[32] ratio of supporting such an institution falls relative to the use of market correcting policy interventions. Thus it becomes socially beneficial to substitute policy intervention for institutional intervention below some quality threshold.

The following example illustrates this point. In most countries of the world there exists a public education system to provide primary and secondary education to the poor. If the governance of these institutions deteriorates to the point that school teachers do not show up on most days to teach, then it may be socially more beneficial to try the following innovations:

(a) Provide a one-time subsidy to any non-government organisation to set up a school instead of opening more government schools in under served areas. This strategy has been successfully used in one Indian state (province) to provide a secondary school for girls in every district where there was no such school.

[30] This is suspected to have happened to most governing institutions in Bihar state and to many institutions in the Eastern part of Uttar Pradesh (UP), so that development funds disappear down a black hole. An alternative would be to channel these funds to NGOs engaged in distric development programs such as water harvesting.

[31] For instance the Extension systems set up in India to provide information on new crops and practices t farmers has deteriorated to the point of uselessness. Private companies such as ITC have set up limited alternatives (E-Chupal) that integrate information provisions with their procurement and marketing systems in some parts of the country.

[32] Transaction cost

(b) Hand over the government school to a non-government organisation to run and cut down the expenditure on government schools.[33] This strategy was proposed in another Indian State, but was thwarted by vested interest (who send their own children to private schools).

2.5.4 Negative Complements

The efficiency and quality of an institution also determines its interaction with policy reform. For instance efficiency and quality can have quite different implications for S-type institutions than for C-type and CS type institutions. Deterioration in the quality of S type institutions may not be a 'bad' in the conventional sense, but a 'good.' A more efficient, high quality S-type institution may be more damaging (produces higher distortion) than its opposite, so that dissolution of higher quality S type institution has higher priority than lower quality ones (lower distortion but some deadweight loss).

Consider the market substituting (Sd type) institutions that implement distorting policy. Ideally a reversal of the distorting policy and the dissolution of the institution should be done simultaneously.[34] Alternatively the policy correction can precede the dissolution, as dispersal of staff may take time. In cases in which dissolution is not feasible or may take a long time it is helpful to change the name and objectives of the organisation. A positive objective no matter how trivial can be helpful in re-orienting the staff and their supporters, giving them something to think about and work on and not undermine reform.[35] This is helpful in ensuring that they do not work against the policy reform or obstruct subsequent reform.

More generally in an institution with multiple functions (only a few of which may be S-type), implementation of market distorting policies can undermine the quality of the entire institution. This also gives us an indicator of market distortion policy-those institutions whose quality deterioration is greater than average are likely to be engaged in distorting policies.

---

[33] Some NPOs/NGOs have demonstrated that they can provide better quality primary-secondary education at 1/4th to 1/10th the current expenditure on government schools.
[34] This happened in India for one institution, the DGTD which was abolished almost simultaneously with the policy decision not to ban the import of any item in future. The DGTD had to certify that the firm seeking the ban had the technological capability to produce the item under consideration.
[35] The old adage, "An idle mind is the devils workshop," encapsulates the reasoning.

2.5.5 Institutional Externalities

Next consider institutions running Public sector units (PSUs) producing 'private' goods and services with other private producers present in the market. The objective of such an organisations is seldom the maximisation of profits as this produces cognitive dissonance (Public sector has a higher social purpose than the profit obsessed private sector!). Though in earlier years PSUs were confused with multiple objectives (employment, low prices, development of backward region), it has increasingly become a single objective of "survival as a PSU." Survival strategies can lead to policy capture and/or regulatory capture resulting in distorting policies (like high tariffs and distorting subsidies) and corruption of other institutions (e.g. those who have the power to obstruct privatisation). The personal objective of those departments/ministries which 'own' and manage it in the name of the 'Public' is patronage. Quality of such organisation is therefore inherently imperfect, though their efficiency falls across the range from high to low. Though in general privatisation or dissolution of less efficient, lower quality PSUs will have higher priority,[36] the privatisation of a relatively efficient, higher quality PSU may sometimes acquire greater urgency because of negative institutional externalities. These externalities can involve the undermining of related institutions such as the supervisory department/ministry or the creation of policy distortions to benefit the PSU.[37]

2.6 Institutions and Growth

Hall and Jones (1999), Acemoglu et al. (2001), Rodrik et al.(2002) and Easterly and Levine(2002) have shown that high-quality institutions are essential for high per capita income. On the other hand Davis and Trebilcock (2001) after reviewing the evidence on property rights, contract law and political & civil rights found, "there is little conclusive evidence that reforms in these areas have been effective in furthering development," yet the empirical evidence suggests that, "reforms that enhance the quality of institutions charged with the responsibility for enacting laws and regulations

[36] Assuming a higher financial improvement from privatisation of loss making PSUs than from profitable ones. This assumption may also be questionable given the controls and restrictions on land & labour markets.

[37] For instance, in India the quality and efficiency of nationalised oil companies is relatively high (though precise quantification is very difficult because they absorb different amounts of oil resource rents). Similarly, except for historical, politically motivated over-manning, the quality and efficiency of the government steel company is also relatively high. Ipso facto this creates negative externalities that argue for early privatisation of these companies.

and institutions charged with the subsequent administration and/or enforcement of these laws or regulations" is beneficial.

The literature has implicitly assumed a particular type of institution in coming to conclusions and has not defined the quality or I-efficiency of these institutions carefully enough to come to clear conclusions. Based on our analysis, we conclude that the effect of institutions on growth depends on the type of institutions under consideration and the quality and I-efficiency of each type of institution. We have the following generalisations/hypothesis about the relationship between institutional quality & I-efficiency and growth:

(a) Market Complementing Institutions: There will be a positive relationship between the quality and I-efficiency of market complementing institutions and economic growth.

(b) Market Substituting Institution: There will be a negative relationship between the quality and I-efficiency of market substituting institutions and economic growth, particularly those implementing market distorting policies. The relationship between the quality of S-type institutions running PSUs producing private goods could be asymmetric (and ambiguous in case of deterioaration) because of negative institutional and policy externalities associated with deteriorating quality.

(c) Mixed Institutions: The relationship between the quality and I-efficiency of mixed institutions and growth would tend to be non-negative. The impact would however vary with the nature of associated policy- namely whether and to what extent the policy supports or discourages competitive private supply and its history (i.e. how long it has been in operation). For instance if the policy is very good and has been in operation for a long time there may be almost no impact of changes in institutional quality. If the policy is and has been very bad the impact of institutional change could be significant.

(d) Macro effect: The effect of quality & I-efficiency of the macro institutions (e.g. property rights, contract law, political and civil rights) on economic growth will be ambiguous (positive or negative) and possibly varying over time with policy changes. The ambiguity arises because the quality of market substituting institutions is also improving (co-relation between institutions) and this has a negative effect on growth.

2.6.1 Democratic Hierarchies: Implementation

An ambiguous result could be observed in (a), (c) or (d) if another part of the institutional chain (running from laws to rules to procedures) continues on a worsening trend (i.e. the quality or i-efficiency of another part of the system has deteriorated). Complex systems are hierarchical and composed of sub-systems which in turn have sub-systems (Simon(1962)). Reforming one sub-system (the property law for instance), does not automatically result in a change in the subsidiary sub-systems (the rules, regulations and procedures that are required to operationalise and implement the new/modified law). There may be no effect of reform of the top sub-system on growth if the ones below are not reformed. If at the same time they continue on a previous (but unaccounted) declining trend, a spurious negative effect could even be observed.

2.6.2 Governance Paradox

In many developing countries there are numerous market substituting institutions charged with implementing market distorting policies (Sd type) such as import control investment licensing/reservation, production/distribution control organisation. These inherently have more serious incentive and monitoring problems than mixed institutions and market complementing ones. Sd type institutions are therefore likely to be the earliest to deteriorate in quality. The immediate effect of worsening governance standards and quality of economic institutions may therefore be an improvement in the growth environment in the short/medium term. Thus small de-control steps that are clear and credible signals of liberalisation of the control regime may set of a deterioration in I-efficiency that results in a much larger effective (de facto) reduction in controls.[38] The positive (but perhaps short term), growth impact of such a deterioration in governance can be referred to as the "governance paradox."

[38] This is what seems to have happened in India in the eighties.

If the market distorting policies and the Sd type institutions remain in place, however, the quality of other S type institutions and mixed (S-C type) institutions will eventually deteriorate aided by negative institutional and policy externalities. The market complementing institutions may be the last to deteriorate, particularly in countries that had strong and high quality government institutions at the start (e.g. India). Therefore the negative effects of deterioration of governance institutions on growth may appear slowly and in the long term in such countries.

If, on the other hand, the market distorting policies are subsequently eliminated the "Inverse governance paradox" appears. As existing economic agents have been violating the controls and licensing conditions (at some cost) the effective or de-facto reduction in controls is less than the de-jure or formal change. Thus the immediate positive impact of the formal removal of such market distorting policies may therefore be less than expected.[39] The positive effect would however, tend to accumulate over time.

3 Indian Reforms: Policies and Institutions

3.1 Overview

Section 3 applies the framework developed in section 2 to the Indian reforms since 1991. We start by giving a background to the reforms of the nineties. Sub-section 3.2.1 provides a very brief introduction to the Indian economy. Section 3.2.2 discusses the political economy of reforms (superstructure). Many outsiders have wondered why significant reforms did not take place after the 1965-66, 1966-67 droughts and the 1979-80 drought and 2nd oil shock. This section identifies evolving political factors that started changing during the eighties and came to fruition in the nineties, that underlie the extensive and sustained reforms. Section 3.2.3 outlines the deteriorating institutional environment, section 3.2.4 gives a snapshot of the Indian Central governments bureaucratic and section 3.2.5 indicates the policy distortions existing at the time.

The rest of Section 3 applies the conceptual framework outlined in section 2 to the Indian reforms in five different sectors of the Indian economy: Infrastructure, Finance (mainly Banking), Equity markets, Taxation and the External sector. The first four

[39] This is what seems to have happened in India during the 1990s.

sectors illustrate the institutional aspects of reform and present and analyse examples of successful, partially successful and failed reform. The last sub-section on external sector presents a comprehensive view of policy reform and its interaction with institutional factors. The reforms considered here come under the purview of the Central government, with the exception of the electricity sector. The latter is primarily the responsibility of the States, but the Centre has some joint responsibility.[40]

3.2 Background

3.2.1 Economic Backdrop

The Indian economy is characterised by a wide range of reasonably well developed market institutions and a diversity of non-market, non-governmental ones. Many of these market institutions and informal socio-cultural systems have existed for centuries, while many have developed over the last fifty years.[41] At the same time the role of the government in the economy is pervasive. The extent and range of market distorting polices and market substituting institutions introduced between 1960 and 1980 was phenomenal for an economy that was in essence a market economy. The conventional wisdom (CW) in India is that the economy (GDP) grew at the 'Hindu Rate of growth' of 3.5% per annum during the three decades till 1979. Virmani (2004b) has shown that in reality, the outcome of the Indian version of 'State Socialism,' was a disastrous fall in the growth rate to 2.9% per annum during the fifteen years from 1965-6 to 1979-80. This abysmal performance, put India in the bottom quarter of developing economies. It however, prepared the grounds for a questioning of the Fabian socialist model of growth and stimulated the initial questioning of socialist policies in the late seventies. These resulted in the 1980s in the first stirrings of reform and a growth recovery that ended with the BOP crisis of 1990-1991. The pre-1980 and post-1980 periods could therefore be characterised as the lower and upper portions of an Indian growth cycle.

3.2.2 Political Economy

The political economy of reform in India is driven, in our view, by a generational divide between those brought up before independence and those born and brought up

[40] Under the constitution agriculture and most of the social sector (health, primary & secondary education, water, sanitation & sewerage, urban development) is the responsibility of the States.

after independence. The most important cultural memory of the former was about being ruled by the British government for a century and (most galling) by the British East India Company for a century before that. This translated to varying degrees into what we term the "East India company syndrome," an archetypal fear of foreign capitalists and a disdain for the domestic variety.[42] In acute form it also encompassed a lack of confidence in ones abilities relative to white foreigners. The post-independence generation, which was largely free of such hang-ups, reached adulthood in 1965-66 and middle level positions by 1980-1 (age < 35 years). In the 1984 elections, this generation gave the Congress party led by 40 year old Rajiv Gandhi the largest majority ever attained in Parliament.[43] There was a hope among the people (the young?) that this former airline pilot could modernise the economy and take the nation to greater heights.

Though political, governmental and bureaucratic power remains in the hands of the pre-independence generation till today, the proportion of post-independence voters has increased rapidly. Even though the latter were brought up on a diet of anti-colonial rhetoric and socialist economics, the political ground has shifted gradually in line with the increase in young voters. The freeing of TV for private entry in the late eighties/early nineties unleashed a media boom that opened an information window for Indian voters into the wider world. In addition by 1991 most senior bureaucrats and prominent politicians had younger extended family members (children, nephews or nieces) who had studied abroad and perhaps lived abroad.

The collapse of the USSR in 1990 undermined the intellectual monopoly of the old, socialist, academic elite. The 1991 BOP crisis provided an opportunity to the small minority of market economists to introduce policy reforms. With rare exceptions academic economists and intellectual elite criticised the open economy policies by condemning them as being driven by IMF-World bank dictates.[44] Parts of the media were among the early supporters of market reform, because of the larger proportion of younger people in influential positions in the fast growing, intensely competitive media.

---

[41] Particularly Non-government non-profit institutions and the Media.
[42] The Brahmin-ical tradition also contributed to the latter.
[43] Sympathy for his assasinated mother, former Prime Minister Indira Gandhi and fear of other lurking enemies who might de-stabilise also contributed to this victory.
[44] Paradoxically, the IMF conditionality argument (i.e. presented as a fiat-acompli) for reform was sometimes more persuasive within the government than any analysis or empirical evidence.

Even among the older generation, the foreign policy and national security establishment has been less close-minded and more willing to learn from and compete with the world. Though Mr. Narsimha Rao and Mr Atal Bihari Vajpayee belonged to the old generation, both transcended these limitations, perhaps because both had been external affairs ministers.[45] Both their parties, however, had many leaders suffering from the East India Company syndrome, who managed to force their own party's prime minister to slow down or stall some reforms (Congress from 1993, SJM/RSS from 2002).

The superior performance of the NICs and the ASEAN economies provided practical examples of the success of freer private investment, FDI, imports and lower tariffs. Because of the India's 1962 border conflict with India, China's example was used very gingerly at first. China's open, 'socialist market economy' started being referred to after the formation of the United front government in 1996-7 and eventually helped die-hard leftists to grudgingly concede that pro-market reforms could be beneficial to India. Global growth comparisons (e.g. Virmani (1999c)) and the threat of consumer goods imports from China in 2001-02, helped elevate it into a benchmark. The fruits of reform have by now become clearly visible to the middle class. As the post-independence generation starts taking over the intellectual leadership and levers of political power, a fundamental transformation of the political and intellectual framework may be in the offing.

3.2.3 Institutional Quality: Level vs. Trend

India in 1950 probably had the best formal and informal institutions among the low and lower income countries in the world. The diversity and quality of its non-governmental institutions (e.g. the media) and non-profit institutions (civil society groups) has grown over the last few decades. Recent studies confirm that India's per capita income is well below the level predicted by the quality of its institutions. At the same time the quality of most formal government institutions has gradually deteriorated over the past four decades (i.e. the trend is negative).

[45] Just as Manmohan Singh (with his experience in the South-South commission) and Mr A N Verma (who had worked at ESCAP and other foreign assignments) were key advisors to Mr Rao, Mr Brijesh Mishra a foreign policy and national security expert has been a friend and advisor of Mr Vajpayee. Many of their personal assistants were also drawn from the Ministry of External affairs.

The reform objectives since the BOP crises of 1991 were to varying degree shaped by these facts. In this paper we explore how complementary policies and institutional evolution (or its absence) contributed to the relative success (or failure) of the economic policy reforms undertaken since 1991. The broader issues (superstructure) of desirable legal and administrative reform, democratic accountability, issues of centralisation and decentralisation and the role of non-government/ non-profit organisations are addressed in Virmani (1999a) and Virmani (2002b, c).[46]

With the gradual deterioration in the quality of government institutions over the past four decades, the quality and motivation of the various levels of government is no longer assured. At the same time, the process of transformation of the model or paradigm requires much higher quality and efficiency at all three levels than is needed for 'business as usual." Thus the required level of quality can only be attained as a matter of deliberate actions and choice or by luck (random selection). The former was indeed the case in the Indian Finance Ministry (and a few other ministries) during most of the nineties, but randomness gradually re-asserted itself from the end of the nineties.

3.2.4 Bureaucratics

To understand the process of reform it is also useful to have a picture of the micro-structure of decision making in India. The incentive structure for bureaucrats and to a lesser extent for ministers is determined by, (a) The Allocation of Business Rules. (b) the Conduct Rules. (c) The Central Vigilance Commission and Vigilance Commissioners in every government institution. (d) The systems and procedures for promotion [AS (establishment), Appointments Committee of Cabinet] and those for recruitment (Union Public Service Commission). There are four levels within the government that are relevant to the width, depth and pace of reforms in India. The political input is represented by the Prime minister and is affected through the cabinet minister in charge of the concerned department. Though ostensibly the minister makes all the decisions regarding his/her portfolio, major reforms cannot be initiated or sustained without the clear backing of the Prime minister. In our cabinet form of government, most policy changes have to be approved by the Cabinet and the Prime minister's role is critical. The

[46] Alternatively see Virmani (2004a).

Prime minister's broad support to the pace and direction of reforms is essential. In a coalition government the role of the PM becomes critical in persuading leaders of other parties in the coalition with differing economic policy views.

Till the defeat of the Congress party in the State elections in late 1993, its Prime Minister clearly conveyed the message that he fully backed reforms (by the finance and commerce minister). The message was diluted and support waned after the congress losses in these elections. The United front government that followed the Congress was more of a 'free for all' with some cabinet ministers undertaking reforms (Finance) and others not (Civil aviation) and the former being randomly sabotaged (pay commission implementation over ruled). During the BJP governments rule the Prime Minister has been seen as reform oriented, but his support to individual ministers to undertake reform has fluctuated with the extent of criticism from the BJP support base (Sangh Parivar: SJM, RSS).

The next link in the chain is the minister in charge of the department that is authorised under the 'Allocation of Business rules' to make policy, programs etc for the specific sectors/topic of the reforms. The minister has to genuinely believe in the necessity and political feasibility of reforms, for reforms to take place with any kind of coherence or speed.[47] In the Rao government the finance and commerce ministers clearly understood and appreciated the necessity of reforms for India's development.[48] However, if the minister is neutral or mildly positive the secretary assumes added importance in the reform process.

The third level that of the secretary is however critical to the reforms in that the speed and extent of reforms is related with his (her) depth of understanding and degree of motivation. This is even more important for institutional reform than for policy reform.

[47] The role of the PM increases if there are critical subjects of reform in which the perceived political interest of the minister mean that he is fundamentally opposed to the reforms pertaining to his/her area of responsibility. In most such cases the active intervention of the PM is usually necessary to move the reforms forward.

[48] Dr. Manmohan Singh provided inspiring leadership in the Finance Ministry. His character and personality embodied the highest moral values, integrity, modesty and openness to and respect for others views. He set a standard that others were enthused to follow. Even those who disagreed with the new economic policy direction that he unfolded could not question his motives and personal integrity.

The Secretary of the subject ministry (e.g. Ministry of Commerce for Import controls, Secretary Economic affairs for all fiscal, financial, external issues) is the administrative head of the ministry and nothing can be done without his consent / interest.[49] He is also the critical person in choosing his technical/professional staff and in filtering communications between the ministerial level and the technical/professional level. Unless the secretary of the department, under whose purview the topic of reform falls, actively pursues reforms the reforms will inevitably be incomplete, contradictory or slow. If some elements of the topic also fall under the purview of another department or ministry, his persuasive skills also become very important, as it is very easy for an anti-reform secretary in the other department to put obstacles in the way of reforms. He is therefore the key person to allay the concerns and fears of secretaries in other ministries, without which their ministers will be dis-inclined to give cabinet approval.

The fourth layer of the professional is important in three ways. In the case of technically complicated issues like exchange rate, financial sector reform or regulatory systems, sound professional understanding and advise from within the government is important to the quality of reform. Secondly, leaving aside the rare cases in which the secretary is himself a professional or expert in the subject, a sound professional advisor can accelerate the reforms by bringing to the attention of the secretary areas that are urgently in need of reform or are ripe for reform. Thus the professional can influence the pace of reform and even fill gaps in the knowledge of the secretary, as long as the secretary is motivated and has good human resource management capability. Thirdly even in the case of less technically demanding subjects the quality of research support and sound economic and professional knowledge can make a difference on the margin between acceptance and rejection and in the former case enhance the quality of the reforms. Conversely an advisor who is not knowledgeable about the market economy or the need for reforms, will be ignored by a pro-reform secretary and become a partner of an anti-reform one.

---

[49] Mr. Montek Singh Ahluwalia, an economist and the Secretary, Economic Affairs, Ministry of Finance from 1991 to 1997/1998 (and also finance secretary for the later part of this period) played a critical role in implementing policy and institutional reform. One of the key reasons for his success was his intelectual versatility, natural HRD talents and people & knowledge management skills.

Reform actions can be initiated at any level but they move up and down these levels and the final outcome depends on these interactions. Among the possible outcomes is for the proposed changes to go into an administrative loop from which they do not emerge (effectively buried). There is no incentive within the system to either reward a reformist secretary or professional or to punish one who obstructs reforms by putting bureaucratic obstacles. Successful reforms are therefore heavily dependent on the personal knowledge and initiative of the individuals who happen to be in the right place at the right time (under a positive or at least neutral minister).

In a democratic system such as India there are committees, working groups and expert groups at various levels starting from the Cabinet Ministers (sub-committees, GOM) through the cabinet secretary (Committee of Secretaries) to the division heads and working levels of the bureaucracy. These committees have traditionally been a means of resolving disagreements and disputes between different departments, where each representative represents the departmental interest. Thus all possible objections to any change coming from any direction are thoroughly aired and dealt with. This pre-existing institutional mechanism was used by reformers to transmit new information (e.g. about what happened in other countries) and knowledge about the new model (theory or empirical evidence). It was also used for discussion and debate to try to convince the traditionalists and no-changers within the governmental system to see things in a different perspective. The innovation involved bringing a national perspective into an inter-departmental (quasi-adversarial) process and injecting members with requisite knowledge and a high degree of personal motivation into these committees.[50] At higher levels new types of committees were experimented with - these brought in outside experts (sometimes Non-resident Indians) as well as professionals & experts from within the system who would normally be ruled out on bureaucratic grounds.

3.2.5 New Economic Policy (NEP)

Given the width and depth of market distorting policies (external sector, financial sector, Taxation, industry, infrastructure) the primary focus of the 1990s reforms was on

[50] In his 13 years in government the author was a member of about 55 committees.

reversing (correcting) these distorting policies.[51] Knowledgeable professionals within the government played a critical role in adapting and adjusting known policy prescriptions.[52] This was so even when specialist knowledge (e.g. on regulatory rules and systems) had to be obtained from outside the government. Institutional changes related to the policy, or needed for the success of the policy, went on in parallel. This included changes in laws, rules and procedures and new institutional mechanism for involving/ associating professionals who could substitute for missing institutional knowledge or skills. The secretary of the ministry and the administrative division heads & members of regulatory commissions selected by him (her) played a critical role in institutional reform.

Perfect co-ordination between policy change and institutional reform was not possible because the latter is generally a more difficult and slower process. In some cases this parallel process worked (external & financial sectors), in others where institutional reform was more essential it did not (electricity). Institutional change was generally delegated to the concerned agency or institution. For the few new institutions (e.g. SEBI) created during the reform there was greater involvement of policy advisors with institutional development so as to ensure consistency with market policies and modern regulation. The efficiency of institutional evolution depended on the professional skills that existed in or were acquired by the existing institution(s) or could be injected into new ones. It also depended on the knowledge and skills of the policy makers who interacted with them and/or monitored them. All were encouraged to draw on and learn from the available global knowledge and skill base.

Progress in reforms has been slow, in (a) Dissolving market substituting institutions (PSU privatisation) because of strong external institutional externalities, and (b) Institutional and policy reform where a combination of Ambiguous policies and Mixed or CS type institutions co-exist.

---

[51] See for instance Virmani (1999a) or Virmani (2004a) for an overview.

[52] The policy makers often found it easier to sell policies to colleagues and bosses if they were recommended by global/domestic stars (professionals) than to sell them on the basis of analysis and evidence of their advisor(s).

3.3 Infrastructure

3.3.1 Monolith & Monopoly

The infrastructure sector in India, as in many countries across the Globe, constituted what we have defined as a "Monolith." Most infrastructure services in India were till the end of the eighties "monopolies" owned by the State. [53] "Monolith" denotes the fusing of the three functions of policy making, regulation and production & supply into one unified whole. The three aspects and their objectives were consequently fused into the single objectives based on the interests of the "public monopoly." The use of the word "Public" in this context gives the misleading impression that the objective of the monopoly and the monolith is the long term interests of the public and that the public has some say in defining and overseeing these objectives. At the time of independence, when the quality of governance was relatively high the "public" interest did play a substantial role. Over time as governance deteriorated (though at different rates in different monoliths) the "public" interest was gradually replaced by the interests of the "monolith" and its members. The worst deterioration in quality took place in the electricity sector, the least in airports and ports.

3.3.2 Ingredients of Success

The key elements of successful infrastructure reform in India were therefore,

(a) The breaking up of the 'monolith' by separating out and segregating 'policy' from 'regulation' and both from government production & supply.

(b) Allowing entry of the private sector and ensuring a sustained increase in the degree of competition.[54]

(c) Setting up of a regulatory framework and the development & evolution of regulatory institutions. One critical element was abandonment of the communist / socialist concepts of 'control' and adoption of the market concept of 'natural' monopoly 'regulation'.

(d) The use of available expertise and knowledge within or outside the government and a willingness to access information from across the world wherever there were knowledge gaps. These knowledge gaps were particularly glaring in the

---

[53] In some sectors there was a small private ownership continuing from pre-independence times.

[54]

area of modern regulatory rules, systems and practices. NRIs were sometimes accessed to compensate for the lack of domestically available skills.

(e) A clear idea of the ultimate goal and a firm commitment of the key decision maker(s) or his trusted advisor(s) to achieve it, accompanied by great flexibility and adaptability in the timing and phasing of specific elements of the reform.

These were necessary but not sufficient conditions for success. The quality of the monolith affected the degree to which these changes could be carried out, as well the outcome of the policy changes that were made. The ingredients of failure were the converse of these i.e. the failure to carry out these changes. The following sections illustrate the mix of policy and institutional factors that led to successes or failure in three infrastructure sectors.

It is useful to note that a conscious decision was made to emphasise Greenfield private entry to introduce competition into markets previously monopolised by the government. The privatisation of existing government assets as a method of introducing competition was downplayed so as to minimise the political, bureaucratic, labour union opposition and reduce the risks of reform failure. Levy and Spiller (1994) have given an analytical justification for what was for us a more intuitive decision.

3.3.3 Mixed Institutions, Ambiguous Policy: Telecom

Telecom reforms in India during the nineties illustrate clearly the issues emphasised by Arrow (2000). To quote, 'the readjustment of institutions is an extended process…The entrepreneurs have to learn their meaning: the institutions themselves have to learn how to operate" and 'history matters a great deal in forming expectations."

Tele communications (Telecom) reforms was perhaps the second most successful reform in India. In contrast to the external sector reforms (section 3.7) the process of reform in this sector was very messy and unsatisfactory. Mid-way through the reforms there were many complaints from New Delhi to New York about Telecom policy (along with dark hints of corruption).[55] In particular actual and potential FDI investors were

[55] One Telecom minister was later charged with corruption as sacks of money were found at his house. The case for which he was charged, however related to corruption purchases by the DOT.

highly dis-satisfied with the regulatory framework and its functioning and the ad hoc intervention of government. Despite all this, Telecom reforms have been highly successful. The rate of growth of GDP from Telecom accelerated from an average of 6.3% per annum during 1980-1 to 1991-2 to 18% per annum during 1992-3 to 2002-3. This was the fastest rate of growth among all sectors.[56] The growth rate seems to be accelerating. In this section we explore the reason for this success.

3.3.3.1 Historical Problems & Strengths

The situation at the start of the reforms was one of a near 'monolith.' The Telecom monopoly was a Departmental Public undertaking (a Statutory Corporation not subject to the normal oversight procedures that govern 'Public Limited Companies'). The "Telecom commission," nominally separate from the government, with secretaries from various ministries (e.g. telecom, finance) as members. This commission was a substitute Board of Directors for the Telephone monopoly, except that the undertakings were accountable to the Department of Telecom (DOT) secretary. The Bombay and Delhi metropolitan circles had some years before been separated into a Public limited company (PSU) named MTNL. There was continuous interchange of staff between the Department of Telecom, the Telecom Commission, The Departmental public undertaking and MTNL. The profits of MTNL subsidised the rest of the operation.[57]

On the positive side of the ledger was the technical skill base inside the Indian Telecom establishment, and the untapped entrepreneurial skills in the non-resident Indian community abroad. Only a few years previously an institutional innovation, the Technology Mission for Telecom, under a Non-resident Indian techno-entrepreneur (US green card holder named Sam Pitroda) had galvanised the research establishment (CDOT) to invent a cost-effective rural telephone exchange. This mission had also spread connectivity across the country by a simple innovation called the Village Public Telephone (VPT). There was also no dearth of domestic entrepreneurs, even though no

[56] The next highest growth rate was for the 'Hotels and Restaurants' sector at 10%.
[57] Though dilution of equity in MTNL continued, the question of privatisation was of the rest of the government owned Telecom setup was never considered a serious option, because the enormous resistance (from employees and politicians) this would have raised, jeopardising other elements of reform. See however, Levy and Spiller (1994) for a different perspective on telecom reform.

one had experience in the Telecom sector given that it had been reserved for the government by (a 1930s) law.

3.3.3.2 Conceptual Boldness, Implementation Confusion

Telecom reforms got of to a relatively slow start.[58] However, the New Telecom Policy (1994) initiated the process of policy reform with a bang. It allowed the entry of private sector into both the "Basic" (or last mile wire line) and the 'new' cellular mobile sector that had been left completely un-exploited by the public monopoly.[59] Foreign direct investment up to 49% of total equity was also permitted in these two areas. It was decided to issue one "basic" (duopoly) and three cellular-mobile service licenses per circle (based on GSM spectrum). It was also decided to ration the licenses through a transparent auction procedure. By 1996 a bill for the setting up of a Telecom regulatory authority of India (TRAI) was enacted and by early 1997 the authority had started functioning.

Given the lack of entrepreneurial experience in Telecom there were excessively high bids in many circles. As a result many private projects were judged by potential lenders as financially un-viable, were unable to start operation or meet their legally committed auction payments to the government. Because of the active interest of the PM and his key advisors in the area of Information technology and Telecom, the policy was not allowed to fail. After a comprehensive review involving inputs from a wide circle of experts (economists, finance & telecom) a revised Telecom Policy was introduced in 1999. This policy,

(a) Outlined a comprehensive new policy framework, parts of which were incorporated in the Communication Convergence Bill (2001), but the rest are

[58] I still remember waiting hours in the ante-room of the finance minister for the Telecom Minister, Mr Rajesh Pilot to arrive for a scheduled appointment for which he did not eventually show up (early nineties). One of the issues that, as Advisor to the Finance Minister, we had wanted to raise was the modernisation of the ancient Telecom Act that conferred a monopoly for Telecom on the government. Our suggestion at that time was to replace this clause by another, enjoining the government to "promote competition" in the Telecom sector. This clause was never changed.

[59] It also opened radio paging and Value added services (e.g. Internet access) to private and foreign investment. The 51% FDI was allowed in the last.

only now being taken up by the TRAI under the umbrella of 'unified (de-) licensing'.[60]

(b) A transition mechanism to deal with the legal problems arising from non-payment of auction dues by the winning bidders. One element of this was the conversion of (unpaid) auction dues into a revenue share for the government.

3.3.3.3 Goal Focus & Pragmatism

In 1999 a disagreement between the TRAI and the government led to the reconstitution of TRAI. The regulatory functions were defined and assigned to the TRAI. The policy and judicial functions were removed from its purview. The TRAI retained the right to make policy recommendations. Another organisation called the TDSAT was set up as an appellate authority to which firms could appeal against the regulatory actions of TRAI. Despite this rationale there was suspicion about the government and some loss of credibility. Telecom reforms however continued with private entry into domestic long distance freed in 2000-1 and into international long distance freed in 2002-3. Another false step took place in 2001-2 when WLL/CDMA spectrum was allocated to basic services operators, presumably to supply last mile services. Given the nature of the technology it was not too long before the spectrum was being used to supply mobile services. This led to a spate of litigation from the GSM cellular operators, that has now reached the Supreme Court of India.

3.3.3.4 Technology & Domestic Competition

The reforms succeeded despite regulatory uncertainty and policy changes, because they were not dependent on large FDI entry into this sector. Foreign direct investors (from Developed countries) have a greater intolerance for such uncertainty than domestic entrepreneurs. The latter have faced such uncertainty before and learnt how to deal with it.[61] Lack of knowledge of the Telecom sector (among the large pool of entrepreneurs) could have proved fatal if the government had stuck to a purely legal stand. The government's flexible response to the setback and determination to make

[60] The economic basis for the new approach was outlined in a 1998 paper from the finance ministry to the Group of Ministers on Telecom (which developed the new policy) that was published as Virmani (1999).
[61] The large pool of domestic entrepreneurs with experience in a variety of non-infrastructure also meant that there were enough to take the risk in this unfamiliar sector. They could of course draw on the technical and managerial skills of the large number of people working in or retired from the public monopoly.

telecom reforms a success, allowed domestic entrepreneurs time to accumulate knowledge and skills. The regulatory system also evolved by learning from its past mistakes and seeking out information from across the globe. One final and critical factor was the new (for India) low cost technology (currently 1/4th the cost of copper networks) that allowed quick entry and provided rising competition for the monopoly incumbent as well as among the (rising number of) new entrants. As the available spectrum can support up to 8 suppliers in each area this has converted what was once a "natural monopoly" into an oligopoly.

3.3.4 Institutional Innovation: Highways

Highway reform was perhaps the most successful case of institutional reform. In this case policy changes played merely a supporting role in the success. Traditionally there are two sets of agencies responsible for the construction and maintenance of highways: The Central Public Works Department (CPWD) and the State Public Works Departments (PWDs). The low quality and efficiency of these organisation was reflected in the abysmal quality of the National and State highways. When the decision was taken to increase the focus on road building it was rightly decided that channelling more funds into these organisations was not a solution to the problem. Such money was very likely to be wasted or siphoned off.

A new organisation, The National Highway authority of India (NHAI) was therefore set up in 1995 with a specific mandate to upgrade the main national highways and construct the missing. A related institutional budgetary change was to fund the program through an earmarked Cess on petroleum.[62] The national highway act was amended in 1996-7 to allow private participation in Highways (through Build Operate Transfer and related mechanisms). This was followed in 1997-8 by the introduction of a policy on toll structures so that, highway users could pay for at least a part of the cost of construction (generally excluding the cost of land which was treated as the government's contribution). The National Highway Development Project was launched after all this preparation in 2001-2. The result has been a significant and visible improvement in the quality of major national highways in the short span of two years.

[62] On the pattern of the very successful National Highway fund of the USA.

3.3.5 Institutional Failure: Electricity

In contrast to Telecom, the electricity sector reforms have been the most unsuccessful so far. The Electricity Act and the Electricity Supply Act were amended in 1991-92 to allow private investment in electricity generation. 100% FDI was also allowed. It was thus the first infrastructure sector to be opened up to competition. The result of this opening was to create a monopsony situation with the monolith on one side and the competitive electricity generators on the other. Without a credible unbundling of the monolith or a politically credible regulator, private generators were un-willing to enter without guarantees at the State level and counter guarantees at the Central level backed by global arbitration clauses. This eventually resulted in the debacle of the Enron Power plant, which has just gone for arbitration. The Orissa experiment which unbundled the three elements and privatised production also failed because the monopsony was not dismantled nor a credible regulator created.

The electricity reforms have remained partial and uncoordinated till recently. Private investment in transmission was, not allowed till 1998-9 and in distribution was allowed only 2003. Part of the reason for this was institutional. Under the constitution electricity is a State subject (i.e. not under the central government). Nevertheless the Central government had certain legislative powers which it failed to use earlier. The first paper suggesting the setting up of an electricity market was submitted to then Minister of State for Electricity in 1996.[63] A comprehensive new electricity law to provide for the unbundling of electricity generation, transmission and distribution, the creation of a market for power and the introduction of competition in production and supply took seven years. The failure was however, not merely one of policy but also the neglect of institutional reform. Independent, competent and credible regulatory authorities will however be critical to the creation of a more competitive electricity market. There are two other problems that will have to be addressed.

The State Electricity Boards, the State level electricity monopolies were not merely monoliths but they were the worst governed institutions in the country. The quality of some of these institutions was so abysmal that 'corrupt' was too mild a word to describe them. One publicly available indicator of their quality was the incredible level

[63] Virmani (1996). The minister at that time was Dr. Yogendra Alag.

of Transmission & Distribution losses. The T&D losses in the capital city of Delhi, where the State electricity board was directly under the control of the central government, were 50%. With few or no agricultural/rural consumers, T&D more aptly stood for Theft and Dacoity. One observer with personal experience of the behaviour of members of the SEBs, characterised them as a mafia operation, the 'T&D mafia'. [64] This factor was however not given due attention. Even the relative success of the recent privatisation of Delhi's electricity distribution will not be sustained unless this problem is progressively tackled through institutional reform (as the employees of the Delhi SEB were transferred in situ to the private distribution companies).

Most analysts have identified the low prices SEBs' are forced by the government to charge certain user segments such as agriculture and households as a disincentive to private investment (and equivalently cause of the hollowing out of the SEBs). A solution to this problem requires the calculation of the gap between the average price and real supply price and the cross tax-subsidy relative to the latter. The implicit tax that some users (e.g. HT industrial, some commercial) have to pay needs to be calculated with respect to the efficient supply price. The efficient supply price of electricity must be calculated by making explicit adjustment for organised theft. The calculated tax can then be explicitly imposed on private supply to this set of users, removing the dis-advantage that the SEBs face in trying to raise some of the forced subsidy through an implicit tax on other users. A competitive electricity market can then emerge for this pool of customers. Even some of the subsidised consumers may choose to forego the subsidy on poor quality SEB power and pay a higher price for better quality power. The political problem of price control and implicit subsidy can then be tackled by gradually raising prices and/or making explicit budgetary allocations.

3.4 Financial Sector

3.4.1 Monolith or Oligolith

The financial system was a vital element of the government's investment control apparatus. Over three-fourths of the banking system was directly owned by the

[64] Virmani (2002). The mafia not only preferred dis-honest to honest consumers so that they could share the gains of electricity theft, but actually encouraged the latter to become like the former and join the fraternity.

government so all senior appointments were under its control. There was also comprehensive control on private entry, interest rates, credit allocation and expansion/contraction of the banking network. This control was implemented through the Reserve Bank of India with the Banking Department of the Ministry of Finance exercising overlapping and over riding control. With the exception of government ownership and a general credit allocation condition, much of this policy framework was dismantled during the nineties. At the same time a modern regulatory system had to be built to replace the control apparatus. This required the formulation of new regulatory rules and procedures and the transformation of the RBI. After a bevy of decontrol measures and regulatory reforms in 1992-3 and 1993-4 both the removal of policy distortions and the re-orientation and rebuilding of institutions proceeded in parallel at a measured pace. As a consequence there has been a slow and steady improvement in the efficiency and non-performing assets of the banking system, including the Public Sector Banks. Excess spreads and non-performing loans ratios have been reduced and profitability indicators have improved.

3.4.2 Skills and Knowledge

Institutionally, there was a great reservoir of general banking knowledge and skilled & experienced bankers. Because of Bank nationalisation and pervasive controls, expertise in dealing with market risk and uncertainty had deteriorated sharply while other skills were suppressed but not completely ossified. There was a need for modernisation, acquisition of certain special skills and some new/modern skills. Some of these skills are variants of old skills. Acquisition of skills was facilitated by freeing entry of foreign consultants, migration of NRI skills, the entry of private banks and joint ventures with foreign investors (diffusion of skills).

3.4.3 Institutional Inertia

Because of the considerable autonomy that RBI enjoyed with respect to financial management, there was some sensitivity to safeguarding it. Though the RBI was open to professional advise from global financial institutions and later to domestic experts (through advisory committees), it was less open to reformers from the finance ministry in pursuing its own internal reforms.[65] Thus a certain degree of co-ordination and cross-fertilisation was sacrificed.

The systems and procedures for appointment of senior public sector managers, overlap with the standard procedures for appointment of senior government officials. They are therefore subject to the preferences and political inclination of the party in power, the minister in charge and the office of prime minister. After some initial success in developing a business like approach between the government as shareholder/owner of PSBs and the bank management, there has been a gradual reversion to earlier practice.[66] In terms of our institutional classification the entire public sector banking system is a CS type institution whose efficiency and quality deteriorated during the eighties, but not as noticeably as that of many other institutions. Alternative institutional arrangements have however now become possible and these alternatives provide greater scope for a sustained improvement of banking systems than the traditional ones. A dramatic improvement in the banking system requires more comprehensive reform to stimulate competition and improvement in regulatory systems and regulatory skills to ensure that competition does not lead to excessive risk taking and fiduciary irresponsibility. The former includes breaking up of the near monopoly of the government banks and abandoning directed credit for fiscal incentives. The latter requires a disassembling of the multiple and sometimes conflicting roles of the RBI (Exchange rate & monetary management, banking supervision, owner/surrogate owner of banks, government debt manager).[67]

3.4.4 Partial Success

As a result of these measures there has been slow but steady progress in the profitability, Non-performing assets and other indicators of bank performance (table below). Success in reaching under served groups like medium-small industry has however been limited.

[65] This was particularly so till 1995-96. From 1996 an effort was made to open up the system to outside input and consultation.
[66] See Virmani (2002a or b) for analysis and policy implications.
[67] See Virmani (1999) or Virmani (2004).

Table 2: Financial Ratios for Scheduled Commercial Banks in India

Year	Per cent of Total Assets						% of Loans		CRAR
	Net Profit	Interest Income	Spread	Intermed-iation cost	Gross NPA	Net NPA	Gross NPL	Net NPL	
1991-92	0.4	10.3	3.3	2.6					
1992-93	-1.1	9.7	2.5	2.6					
1993-94	-0.9	8.7	2.5	2.6					
1994-95	0.4	8.6	3.0	2.8					
1995-96	0.2	9.4	3.1	2.9					
1996-97	0.7	9.9	3.2	2.9			15.7	8.1	10.40
1997-98	0.8	9.3	3.0	2.6			14.4	7.3	11.51
1998-99	0.5	9.2	2.8	2.7			14.7	7.6	11.27
1999-00	0.7	9.0	2.7	2.5			12.7	6.8	11.10
2000-01	0.5	8.9	2.9				11.4	6.2	11.39
2001-02	0.8	8.3	2.6		4.8	2.4	10.4	5.5	11.90
2002-03	1.0	8.3	2.8		4.2	1.9	9.5	4.5	
Sources: Annual Report, Trends in Currency & Banking, Monthly Review.							N.A.	N.A.	N.A.

Report on Currency & Finance, Report on trends and progress on banking in India

3.5 Capital Markets

3.5.1 Institutions: Traditional vs. Modern

Traditional commodity exchanges have existed in India for centuries. The Bombay Stock Exchange set up in 1875 is the oldest stock exchange in Asia (predating the Japanese one). These exchanges therefore had their own rules and regulations and enforcement mechanisms. They had fairly sophisticated instruments such as the "Badla" system, which combined forward/futures markets with credit (to deal with missing loan markets). Thus India was well endowed with stock market institutions and skills at the time of independence. The modern Primary Market, however, got a start in the late seventies after the FERA act forced MNCs to dilute their equity to the Indian public. This forced dis-investment was overseen by the Controller of Capital Issues (CCI) in the Ministry of Finance. The CCI approved the issue price (based on accounting norms) as well as the method of allocation to the public, the primary objective being dispersion of ownership.

3.5.2 Institutional Evolution

Capital market reforms are an example of economic reforms where institutional development and innovation played more important role than policy reform. The key policy reform was the de-control of pricing of Primary issues and the mutual fund monopoly of the public sector unit trust of India. It was understood that for markets to develop and grow a modern regulatory system was needed to protect the interests of investors and thus develop the capital market. There was also an openness to learning from others and benchmarking ourselves against the best in the world.

The Securities and Exchange Board of India (SEBI) was made a statutory body by a Presidential Ordinance on January 1992.[68] This was followed later in the year by making SEBI the regulatory agency for Capital Markets in India and in 1993-4 by repeal of the Capital Issues (Control) Act 1947 and abolishing of the Office of the Controller of Capital Issues. In 1995-96 SEBI was empowered to regulate all market intermediaries. Over the decade, guidelines were drawn up for primary issues and secondary market trading and for the different classes of intermediaries (e.g. merchant/investment bankers, registrars, stock exchanges, brokers, investment advisors) that operate in them. Prudential rules and regulations were introduced gradually on every aspect of the capital markets functioning. Then Ministry of finance and SEBI co-operated in introducing these regulations and both drew on global norms and expertise. To the extent that economic policy issues were inherent in these regulations, it was our endeavor to increase competition within prudential limits. Separate (specific) policy reforms included freedom for private and joint sector Mutual funds to enter the market. Private money market mutual funds were also allowed at a later date.

3.5.3 Institutional Innovation

One of the noteworthy institutional innovations was the setting up of the National stock exchange. The problem arose because the Bombay stock exchange was stuck in the traditional ways of doing things and was an obstacle in the modernisation of the capital market. There were two options. One was to force the BSE to change through fiat (thus

[68] Soon after this the Harshad Mehta securities scam broke into the headlines. Given the absence of modern regulations and a functioning regulatory system, Mr Mehta was able to exploit the loopholes in the system to generate dangerously large amount of credit to play the market by violating the extant law/rules on forward transactions.

going back to the control approach) and the other was to set up modern efficient stock exchange that would compete with the BSE and thus force the BSE to improve. It was argued that few countries in the world had multiple stock exchanges and this would fragment the market and slow the development of capital markets. A deliberate choice was made to use the market approach and encourage the formation of a modern stock exchange called the National Stock Exchange (NSE). This decision has proved highly beneficial and achieved it objectives (see Shah & Thomas (2002)). The government also encouraged financial institutions to set up a National depository for de-materialised scrips and a Clearing Corporation to increase the safety of trading. As a result Electronic trading was in place in 1994.

A Depositories Act was formulated and passed in 1996. This allowed for dematerialization (and re-materialisation) of securities in depositories & transfer of securities through electronic book entry. SEBI was vested with powers of registration of depositories & participants, approval or amendment of the bye-laws of the depository. De-materialisation of scrips was progressively introduced to increase the safety, security and efficiency of equity trading. This was followed by introduction of modern delivery versus payment systems such as rolling settlement (T+5) in 1997. The results have been good (Shah (1999)). Objective observers believe that the quality of the Indian stock market in one of the best among the emerging markets and within range of global norms. The major remaining weakness is in terms of monitoring and surveillance systems for detecting insider trading and stock market manipulation.

3.6 Tax Reform

In the area of tax reform, both policy reform and institutional reform has been sporadic and patchy. Though there has been a lot of talk of institutional reform of the revenue collection machinery, has been modest. The results are therefore inconclusive. An important driver of tax reform in India was the problem of tax evasion and corruption [Virmani (1988)].[69] Based on this a number of policy papers were written in the Finance ministry outlining practical approaches to reform. The reform objective was to reduce the maximum marginal rate while simultaneously reducing exemptions and deductions in a revenue neutral manner. The expectation was that as a consequence of this simplification voluntary compliance would increase and reduced tax evasion would result in higher revenues. These were partially and incompletely implemented through out the first decade of the new reforms.

3.6.1 Institutional Background

At the Central government level the Collection of Tax revenue is the responsibility of the Revenue department [headed by the Secretary (revenue)] in the ministry of finance. Under his overall charge are two boards, the Central Board of Direct Taxes (CBDT) responsible for income taxes (personal and corporate) and the Central Board of Excise and Customs and Excise (CBEC) responsible for central indirect taxes. Below each of these is the operational hierarchy. The members of the board are chosen on the basis of seniority and the Chairman selected from among the members. The chairman of each board and a member responsible for budget matters play an important role in policy formation through a formalised and secret budget making process. Each board is responsible for the functioning/ operational performance of its own revenue bureaucracy spread out over the entire country.

3.6.2 Income Tax

The most important achievement of tax reform was to reduce the maximum marginal rate of tax on corporate income to 35% and on personal income to 30%. This was a gradual process starting (in the late eighties) at levels 56% for personal income and 52% for corporate income. The boldest reduction occurred in 1997-98 with an across the board reduction in personal rates to three slabs of 10%, 20% and 30% and a reduction of corporate rate to 35% [Virmani (1997)].[70] Though various committees had recommended income tax reform at different times and a tax reform paper was prepared and submitted before every budget by internal (tax) economists, there was modest progress on elimination of deductions and exemptions. Capital gains tax was rationalised (inflation adjustment) and depreciation rates simplified. Though there has been some institutional reform to bring more taxpayers into the tax net, progress here is also modest. The Tax Deducted at source (TDS) system has been gradually extended and a system of Personal

---

[69] See also Virmani(1986) and Virmani (1996).

account numbers (PAN) and compulsory filing of personal income tax returns introduced (based on certain indicators of ownership). There has been little progress in modernising the tax collection bureaucracy and the systems and procedures followed by them.

As a consequence of the reduction in maximum marginal rates, the number of income tax filers has increased manifold, and the ratio of income tax collections to GDP increased slowly but steadily from 1.9% of GDP in 1990-1 to 3% of GDP in 2001-2. The corporate income tax collection has increased somewhat more (from 0.9% to 2% of GDP) than the personal income tax collections (from 0.9% to 1.7% of GDP).

3.6.3 Indirect Taxes: Excise

Indian domestic indirect taxes on goods have two major components the Central Excise tax and State excise and sales taxes. Reform of the excise system was initiated in 1986 with the introduction off deduction (set-off) provisions for tax paid on inputs. The tax was therefore re-christened MODVAT. The number of sectors and the inputs for which set-off was allowed was however limited. The struggle to convert this system into a proper VAT at the Central level has been a hard and slow one. For instance the author chaired two internal working groups in 1993-94,[71] a few of whose recommendations have still not been fully implemented (e.g. to reduce the excise tax on polyester to the general/basic rate of 15-16% and to apply a single rate on textiles). In 1997 the number of rates was reduced from 11 to 3. A major step towards universal application was taken in 1999 and 2000 when the basic recommendation to universalise the Excise tax into a Central VAT (CENVAT) was accepted by the Finance Minister.[72] [Virmani (1999d)]. Though a central service tax has been introduced (1994-95) and gradually extended it has neither been made universal or integrated into the CENVAT as proposed [Virmani (2001a)].

Over this period, the small-scale industry exemption (no excise tax for producers with sale volume below some value) has been rising, thus accentuating the distortions in

---

[70] Based on internal papers such as the following papers by the author: "Agenda for Tax Reform: 1996-97" 1996; Tax Reform Choices: Budget 1997-98, December 1996; 'Tax reform for 1997-98," 1997; Future Tax Reform: From Outstanding Budget to Outstanding Tax System, April 1997.

[71] Report of "Working Group on Review of Customs and Central Excise Duty Structure of (& extension of Modvat to) the Petroleum Sector," 1993-94 and Report of "Working Group on Extension of MODVAT to the Textile Sector," 1993-94.

the textile industry. The position with respect to institutional reform was even worse, with expansion of the tax bureaucracy being labelled as organisational reform. The stretching out of the introduction of a Central Vat over two decades has diluted the message of simplification and reduction of evasion/corruption. As a consequence, though input tax distortions have been largely eliminated, excise revenues have declined from 42.6% of GDP in 1990-91 to 38.8% of GDP in 2001-2. There has also been little progress in reforming the State sales-excise system or in replacing the Central and State indirect taxes by a National VAT [Virmani (2002a)].

3.7 External Sector

Virmani (2003) has shown that External reforms were the most successful reforms during the nineties. Though the primary focus was on reversing market-distorting policies, some attention was also paid to market supporting institutional evolution. The existence of well developed markets for tradable goods and the existence of one of the best regulatory institutions in India, the Reserve Bank of India, meant that the degree of institutional reform required for success was not very large. Most of the policy decisions required came within the purview of the Department of Economic Affairs (DEA), Ministry of Finance (MOF), so an integrated view could be taken of the entire external sector.[73] New institutions (committees) were created to ensure information exchange and co-ordination between DEA and RBI, DEA & other departments and between MOF and Department of Commerce.

The co-ordination was however far from perfect in the case of import duties/tariffs which also came under the purview of the Department of Revenue (revenue secretary) and its subsidiary organisation, the Central Board of Customs and Excise (CBEC). Similarly the extent of co-ordination with the Ministry of Commerce, which was in charge of export duties and import-export controls/restrictions was more varied and less complete, despite existing mechanisms for institutional co-ordination between them. Occasionally the phasing co-ordination broke down when the Minister and/or the

[72] Internal notes by author included, (i) Tax Reform for 1998-99, March 1998, (ii) Tax Reform for 1999-2000, December 1998, (iii) Tax Reform for 2000-1, October 1999, (iv) MODVAT Reform, January 2000.
[73] The RBI Governor also reports directly to the Finance Minister but works closely with the Finance secretary / Secretary DEA (though the latter interaction varies with the personalities).

Secretary of this ministry were on a different wave-length and the PM implicitly / explicitly backed their stand on items within their purview.

Two aspects of the reform process played an important role. The first was the clear understanding at the professional level of the intermediate (over a 5 year horizon) and final goals of the external reform. The fact that the finance minister and the finance secretary/secretary DEA were professionals was invaluable – not only did they appreciate the value of inducting professionals into the ministry but also understood/ appreciated new reform ideas.[74] Political exigencies and bureaucratic resistance (e.g. on import de-control) did lead to a variation in the pace and nature of specific policy reforms. As the final goal post was clear and occasional resistance was expected it did not cause any reversal in the broad direction of reform. The motivation and confidence (grounded in knowledge) of the professionals also played a role in the steadfastness (particularly in the early years when fewer intellectuals had modified their internal models). The unusually high degree of continuity in key personnel also contributed.[75]

The second aspect was the parallel and co-ordinated movement on different aspects of external reform. Policy reforms went on in parallel on the current account (import control, tariffs, and other current acct), the capital account (FDI, FII, ECB) and the exchange rate system. As a consequence not only was the BOP crises dealt with expeditiously but the current account and balance of payments was put on a much sounder footing than it had been before the crises originated in the mid-eighties.[76]

3.7.1 International Trade: Mental Models

Export pessimism was widely prevalent in India for decades. The two prominent exceptions to this belief in academic circles, Professors Jagdish Bhagwati and T. N. Srinivasan were both NRIs. Among the domestic exceptions was the new finance minister himself, who as an academic had done work on exports (Singh (1964)), and the economist who was to later become his finance secretary. The conventional wisdom

[74] For instance, for the first time ever an economist was inducted as Advisor to FM to advise on reform issues instead of a JS to FM who could deal with political issues. Further the quality of Joint Secretaries (division heads) inducted into the DEA and other departments improved tremendusly till about 1997.

[75] The same person was Secretary(DEA) from 1992 to 1998. Thereafter there was a new FS / Secretary DEA every year.

[76] Expenditure contraction through a reduction in the fiscal deficit also paid an important role in meeting the immediate crisis.

among the domestic Indian experts as encapsulated in Nayyar (1976) & Ghosh (1990) was that Indian exports were supply-constrained and not very responsive to relative price changes. The alleged failure of the 1966 devaluation was cited as one of the proofs of this proposition. The other side of this coin was the assumption that 'essential' imports were inelastic while 'inessential' or 'luxury' imports were not, and that rationing through a market exchange rate would act as an inequitable perhaps inefficient tax on the former. The attitude was reflected in the negative reaction that a 1989 planning commission research paper, which showed high relative price elasticity of demand for manufactured exports and imports elicited in the upper reaches of the Planning Commission.[77] It did, however, help subsequently in persuading some sceptics and dispelling some fears.

For the general participants in the decision-making process the main argument used to persuade opponents was that import bans by providing infinite protection to manufactured goods biased the economy against agriculture and labour intensive manufactures. The QRs also favoured large, capital-intensive manufacturing and mining thus contradicting and undermining the policy of encouraging small-scale industry. Removal of QRs and the reduction of the high tariffs on manufactured goods would therefore favour agriculture and labour-intensive manufactured exports.

3.7.2 Distorting Policy: Import Bans

3.7.2.1 De-control: Timing & Phasing

A comprehensive system of import controls was built up over the seventies. Its dismantling started in 1980 and took over 20 years to complete. There were three stages. The first stage during the eighties involved neutralisation of the distorting import control regime for exporters and culminated in the introduction of EXIM scrips in mid-1991. It was clear to all reformers that import control on capital goods and intermediates had reduced the productivity and competitiveness of the whole economy. The second stage

[77] Research paper No. 5, Development Policy Division, Planning Commission, Virmani (June 1990). The research paper was circulated to members of the Planning commission and economic advisors in key economic ministries. Unlike earlier research that focussed either on total exports or individual commodities this paper constructed three sub-aggregates to show that supply constraints were important only for primary exports and that the both the supply and demand for manufactured exports was highly elastic. Imports were also shown to be very responsive to devaluation. Fuel imports and exports were not amenable to any rational analysis and could therefore have biased earlier aggregate estimates. The paper also showed that that the effect of the 1966 devaluation was spread over two years.

therefore involved removal of controls on intermediate and capital goods for all importers so that producers would have access to the full variety of inputs needed to meet competition. This trade policy of April 1992 freed imports of almost all intermediate & capital goods. Import of 3 items remained banned, 7 remained canalised and 71 remained licensed (restricted). The latter consisted mainly of dual use items that are used in offices as well as at home (e.g. stationary, air conditioners, and cars).[78] The trade policy of April 1993 de-canalised Kerosene, LPG, LSHS, waxes and Phosphoric/ potash fertiliser.

Consumer good import de-control was left to the third stage. Some reformers, including the author, argued that de-control of consumer goods import could be phased in a little more slowly (i.e. over 2-3 years) than capital goods & intermediates, as there was no harm done to the competitiveness of the rest of the economy. Political-bureaucratic resistance rather than economics, however, determined the pace of further reform.[79] The import policy of April 1995 put 78 consumer goods in the freely importable category. At this point, out of a total of 5021 6-digit items on the Harmonised Tariff System's List, 3000 were freely importable while 1487 were importable using the freely tradable Special Import License (SIL).[80] Some progress was made in 1996-97 by lifting of QRs on over 100 items and movement of about 70 items to SIL.

3.7.2.2 Bureaucratics

After the initial major step of removing QRs on a host of intermediate and capital goods in April 1992 further liberalisation was a painful and slow process requiring infinite patience. Two main problems had to be overcome by those who believed that import liberalisation would benefit the economy and the people as a whole. The commerce ministry, institutionally charged with promoting exports was conditioned to thinking in terms of export incentives. Thus they had a strong incentive to preserve the list of items importable under SIL so that premiums would remain as high as possible in the belief that this was the best way to benefit exporters and exports. They had to be slowly and gradually convinced that exchange rate adjustments would provide the same incentives in a much more efficient manner.

[78] The Commerce Minister Mr P. Chidambram played a vital role in the import de-control.

[79] The political developments at the end of 1993 probably played a role in slowing de-control of consumer goods imports, though the author has no direct personal knowledge on this point.

[80] SILs constituted a tradable import entitlement given to exporters in some proportion to export value.

Table 3: Bureaucratics-Division of Responsibility

		Institution: Ministry/Department				
Policy	DEA	DOR	RBI	MOC	DOI	Other
Trade: QR	+			++	++	+
Trade: Tariff	++	++				+
Trade: Gold	++	++	+			
Current act	++		++			
FDI	++				++	
Equity: FII	++					
Debt	++		+			
Exchange rate	++		++			

Notes: DEA=Department of Economic Affairs, DOR=Department of Revenue, RBI = Reserve Bank of India, MOC= Ministry of Commerce, DOI/DIPP = Department of Industry, Other = other relevant subject departments.

The other set of objections came from producer ministries who were convinced (without being able to produce any data or hard facts), that producers of consumer goods would suffer if QRs on consumer goods imports were lifted. Unlike in the case of intermediate & capital goods where user groups or ministries could provide support, consumers were not represented in the discussions and arguments about the benefits to consumers were seldom heeded. The evidence of (no negative effect) provided by earlier removal of QRs on intermediate goods spread extremely slowly. Other arguments relating to the visible availability of certain smuggled consumer goods, which had little impact on domestic producers, were sometimes effective. The fact that tariff rates were still quite high did sometimes help to calm the fears of neutral participants. It was only the loss of the WTO case against India, however, that finally led to the complete elimination of QRs, originally justified on BOP grounds, on April 1st 2000. Otherwise the process of removal of QRs on consumer durable goods could have dragged on much longer.

3.7.2.3 Negative Complement

On the institutional side two changes played a helpful role in the reforms. There was an organisation called the Directorate General of Technical Development (DGTD) that processed all requests for import bans to determine whether the producer had the technical capability to produce the item. Once the policy of banning new items of import was instituted this organisation become redundant. Nevertheless the dissolution of this organisation added to the credibility of the policy. The organisation responsible for operating the trade control regime was called the Chief Controller of Imports and Exports (CCI&E). At that time it was as notorious as the customs, for red tape and rent seeking. After the introduction of the new policy, the name of this organisation was changed to Directorate General of Foreign Trade (DGFT) with the new mandate of promoting trade. However, its personnel and old job of running the existing trade control regime continued through the nineties. Efforts were made to streamline the rules and procedures of the DGFT for obtaining duty free imports for exporters and considerable progress was made over a decade. Nevertheless it appears that a more radical re-structuring of the organisation could have accelerated de-control of imports and export.

3.7.3 Distorting Policy: Import Tariffs

3.7.3.1 Phasing and Timing

The complex structure of custom tariffs built up since the mid-sixties was not underpinned by any micro or macro-economic analysis of its economic/social benefits. The reform objective was therefore to reduce protection by reducing the average rate of tariffs and to reduce the arbitrary distribution of protection among industries by reducing the dispersion of tariffs. With the "peak" customs tariff rate at around 300% in 1990-91 it was apparent from the start that there was a lot of "water in the tariff." Tariff reductions could consequently proceed at the same time as the lifting of quantitative restrictions (QRs) on imports. The peak rate was therefore cut to half (150%) in 1991-92 and to 110% in the 1992-93 budget.

The import duty on capital goods was lowered even further. The duty on general machinery was reduced to 55% in 1992-3, while that on some categories of capital goods (such as for electronic industry) were set at 50%. The primary reason was to ensure that investment recovered quickly from the BOP crises and the expenditure reduction that its solution required. The role of imported capital goods in the potential modernisation and international competitiveness was the second factor. The third was the apprehension that entrepreneurs may keep postponing investment in the expectation that tariffs were on a downward path and capital goods would become cheaper next year. At some stage of the tariff reduction it become important to weigh these gains against the negative protection that lower tariffs on capital goods import created for the substantial domestic capital goods industry.

3.7.3.2 Information Gaps & Institutional Constraints

An incredible array of general, specific and end-use exemptions had also been built up over the decades in response to the demands of vested interests, backed by little or no economic analysis of the costs or benefits. Though economists working on India's customs tariffs had a general idea of its complexity in terms of multiplicity of rates and end-use exemptions, none initially had a detailed knowledge of the system and its incredible array of exemptions. Without this detailed knowledge there was initially no alternative to focussing on reduction of the "peak" rate to meet the two objectives.

In addition to the array of industrial interests & producer ministries opposed to the lifting of QRs, customs tariff reform faced two additional difficulties. The revenue department, charged with collecting revenues understandably had an inbuilt resistance to reduction of any tariff. Secondly the secrecy of the Budget process meant that it was difficult to bring in expertise from outside the revenue department. Secrecy could also be used as a handle to keep information asymmetric and at critical points dismiss arguments as based on imperfect practical knowledge. The Committee on tax reform, which outlined a broad structure of peak tariff rates for different categories of goods, proved important in overcoming bureaucratic inertia.[81] Its report helped reformers to keep the focus on peak tariff reductions despite pressures on customs revenue.

At the same time an exercise was initiated within the ministry of finance to collect and analyse all available information on customs duties and customs revenue collection. It was only after this detailed knowledge had been acquired that economists could begin to effectively cut through the jungle of exemptions and reduce the multiplicity of rates and start removing the negative protection & other anomalies. Because of the budget secrecy issue mentioned above, the only route available was to prepare detailed tariff reform papers that applied economic principles to the detailed structure of tariffs and exemptions.[82] This detailed knowledge could not however be brought fully to bear at the critical decision-making budget formulation stage and tariff rationalisation was often incomplete or internally inconsistent. This was also partly due to the pressures from public sector units and opposition from their ministries, which expressed themselves through their ministers at the budget formulation stage.

3.7.3.3 Directional Firmness, Implementation Flexibility

The momentum of peak-rate reductions (to 85% in 1993-4, 65% in 1994-5, and 50% in 1995-6) was maintained, often by taking recourse to the recommendations of the Tax reform committee. Tariff rates on capital goods (general & project linked) were simultaneously reduced to 35% in 1993-4 and 25% in 1994-95 where they came to rest. The fiscal problem did however constrain the pace of tariff reduction, as there was always a pressure on those recommending faster peak rate reductions to produce offsetting gains in revenue. As the peak rate recommended by this committee was 50% this recourse was no longer available once the peak rate had been reduced to 50%. The next peak rate reduction (to 40% in 1997-98) was based on internal recommendations and was part of a bold tax reform plan announced by the finance minister.[83]

There was however a reversal in the trend linked to exogenous factors such as the Asian crisis and the post-Pokharan sanctions. In 1998-99 a surcharge was imposed on a number of taxes, raising the peak rate to 45%. A special additional duty of 8% was also imposed at the same time and halved to 4% subsequently. This would have been the analytical counterpart of the State sales taxes on domestically produced goods (provided

[81] Popularly known as the Chelliah committee.
[82] The tenure of Mr Sivaraman, as Revenue Secretary was exceptional in that he set aside bureaucratic hesitation to draw on the expertise available in the DEA by appointing the author to Chair two expert committees on customs and excise reform (of petroleum and textile sectors).
[83] Based on internal papers such as the following papers by the author: 'Reform of Protective Tariffs: Exemptions and Structure of Tariffs," December 1991; 'Replacement of Export QRs by Duties," September 1992.; 'Evolution of the Protective Duty Structure: Directions for Reform," November1992; Report of 'Working Group on 'Review of Customs and Central Excise Duty Structure of (& extension of Modvat to) the Petroleum Sector," 1993-94.

a sales tax was imposed on domestically produced equivalents and none on imports).[84] The nominal peak rate was reduced to 40% in 1999-2000, but the surcharge was increased to 10% on items having a duty of less than 40%. More disturbing was the rise in duties on a number of agriculture products above the "peak" rate, a practice that has continued since then. The peak rate was reduced to 35% in 2000-1, reducing the effective peak to about 38%. Credibility has, however, been restored with the removal of the surcharge in 2001-2, bringing the effective peak rate down to 35%, followed by a reduction of 5% per year to ***20% in 2004-5***.[85]

A gradual rationalisation of the tariff structure became possible from 1993-4. Peak rate reductions, along with a gradual elimination of exemptions also helped reduce the variance of rates. The argument of negative protection for the capital goods industry, which surfaced occasionally in public debate, was addressed in the detailed customs reform papers prepared from 1992 onwards.[86] Following from these, an attempt was made to rationalise the metal-capital good chain. A similar exercise was done for the chemicals chain. The 1993-94 budget set the rate for ferrous metals at 75% to 85% and non-ferrous metals at 55%. The widely dispersed rates on machine tools were also reduced to three (40%, 60% and 80%). Chemicals feed stock rates were integrated at 15% and on major intermediates at 40%. Rates on personal (baggage) imports were reduced from 225% to 100%. The 1994-5 budget rationalised machine tool rates to 35% and 45% and rates on medical equipment to 0% 15% and 40% depending on social value. It reduced rates on steel & non-ferrous metals to 50%. There was also an attempt to prune end use notifications. In the 1995-96 budget 80% of capital goods rates were unified at 25% and metals at 35% & 40%.

As a result of these customs tariff rate reductions, the customs duty collection rate, which includes "additional duty," the counterpart of domestic excise taxes (CVD) went from 47% in 1990-91 to 44% in 1991-92, 37% in 1992-93, 30% in 1993-94, 29% in 1994-95. The movement in the collection rate since then has fluctuated, rising to 31% in

[84] From the legislation and the remarks of the Finance Ministers it appeared to many observers that no attempt was made to fix the rate of SAD on the basis of state sales taxes, which vary from state to state to state and there are several rates in each state.

[85] As announced in the 2002-3 budget.

[86] Arvind Virmani, 'Reform of Protective Customs Duties: Metals Chain, Capital Goods & its Inputs, Petrochemicals-Fibre chain,' 1993-94, and 'Import Duty on Metals and Basic Plastic,' 1994-5.

1996-97 before falling to 27% 1997-98 and 23% in 1998-99. It rose again to 24% in 1999-2000, but was down to 21% in 2000-1.

3.7.3.4 Institutional Inertia

Institutional reforms, to stream-line the customs organisation's systems and procedures were initiated through the mechanism of cross-departmental and intra departmental committees. Though this has resulted in some improvement, the contribution of these improvements to the success of trade reforms is not noteworthy. There was one institutional success however. The knowledge base of the Tax Research Unit in the Central Board of Customs and Excise improved over the years because of interaction with tax economists in other parts of the Ministry as well as outside experts. As this unit plays a critical role in the revenue department during budget formation (where all tax changes have to be presented) some of this was gradually reflected in the reforms introduced in the budget.

3.7.3.5 Successful Trade Reform

The opening of the economy to international trade has successfully raised the share of trade in GDP. Goods and services trade has increased from an average of 15.1% of GDP during the eighties to an average of 24.8% of GDP in the nine years (1992-3 to 2000-1) after the crisis. Similarly merchandise trade, which had averaged 12.6% of GDP in the decade of the eighties, has increased significantly to an average of 20.1% of GDP in the post crises period. Contrary to the expectations of reform critics, the change on the import side has been less than on the export side. Exports (imports) increased from 4.7% (7.9%) of GDP in the decade before the crisis to 8.5% (11.6) in the nine years succeeding it (i.e. post crisis period). As a consequence the proportion of imports financed by exports has increased from 0.59 in the pre-crisis period to 0.74 in the post-crisis period.

Manufactured exports responded well to the trade reform increasing from an average of 60.7% of total exports in the eighties to an average of 76.1% of total exports after the crisis. As a result the ratio of manufactured exports to GDP more than doubled from a pre-crisis average of 2.8% to a post-crisis average of 6.3%. Its share of total exports also increased from 60.7% to 76.1% between the two periods. The importance of manufactured exports to domestic manufacturers increased with the ratio of manufactured exports to GDP from registered manufacturing doubling from a pre-crisis average of 6.4% to a post-crisis one of 13.2%. Thus even with the several domestic controls (SSI reservation and firm closure) and policy distortions (excise taxes, labour rigidity) still hampering manufacturing in India this sector has demonstrated its comparative advantage vis-à-vis other tradable sectors.

On the import side oil and non-oil imports have followed a significantly different path. Oil imports have increased marginally by 0.2% of GDP after the crisis. Non-oil imports have in contrast jumped from a pre-crisis average of 5.2% of GDP to a post-crisis average of 7.6% of GDP. Given the relatively low price elasticity of demand for oil, the changes in value ($) of oil imports have been largely driven by OPEC determined prices and to a small extent by domestic disruptions in supply.

Elasticity pessimists in India have generally been very concerned about the effect of opening of the economy on the manufacturing sector ("de-industrialisation"). That these fears have proved unjustified can be seen from the value of net imports of manufactured products (Import-export). This has fallen dramatically from a pre-crisis average of 8.9% of GDP to a post-crisis average of 2.5% of GDP. In fact exports of manufactures exceeded imports of manufactures (i.e. a net surplus) during each of the four years from 1991-2 to 1994-5. This shows that manufacturing trade was highly responsive to the exchange rate devaluation of July 1991 as predicted in Virmani (1991).

3.7.4 Other Current Account

3.7.4.1 Institutional Knowledge

In October 1991 the Remittance in Foreign Exchange Immunity scheme (1991), was introduced for repatriation of funds. This was followed by longer term structural attempts to decriminalise transaction that are considered legitimate in a free and open society and to move them from the "Hawala" (black) to the open market. Lifting of the ban on gold imports was an important element of the co-ordinated reform of external policy as it was intimately connected with remittances, wealth holding and the unofficial exchange market. This was in a sense a peculiarly Indian problem to which an innovative Indian solution was found and implemented early in the reforms (1991-2).

Though there were no official statistics, knowledgeable people were agreed that most gold smuggling was financed by labour and other remittances through the "Hawala" (unofficial/ underground) market.[87] The "hawala" operators had a network of agents in the mid-east and other countries, who bought the remittance earnings of Indian migrants and sold it to the smugglers. The rupee leg of the transaction was completed in India by collecting the payments from the smugglers agents in India and paying the beneficiaries of the worker remittances. Thus it was essential to liberalise gold imports to eliminate smuggling and ensure that labour remittances to India were sent through official rather than Hawala markets. This would reduce the size of the "Hawala" market and strengthen the newly liberalised market exchange rate channel.

3.7.4.2 Trade-offs

The only contentious issue among the experts was what duty rate to set. One side argued for a very low duty rate close to 0, with the hope that this could eliminate gold smuggling in one fell sweep. The other side argued that the duty rate should be set competitively to the smuggling margin. Based on available information about normal smuggling costs and risks through the sea route, a duty rate of about 15% was judged to be optimal for maximising revenues.[88] As there is little domestic production of gold the customs duty can be viewed as the notional counterpart (CVD) of a domestic indirect tax on gold.[89] It was further argued that this could be lowered subsequently if smuggling remained high. The former argument however prevailed.

As silver or gold is one of the first quasi-financial assets to be acquired by all households including the poor, gold import liberalisation was expected to benefit the common man by making it cheaper and easier to buy gold.[90] There was some fear that the government would be accused of wasting scarce foreign exchange on inessential consumption. All the experts on the subject were however convinced that opening of gold imports would merely shift the whole market above the line with no adverse effect

[87] One of these (from outside the government) was Mr. Sudhir Mulji.
[88] Arvind Virmani, "Reform of Gold Import Scheme," January-February 1992.
[89] Formally a sales tax of 15% would have to be imposed on gold produced in India.
[90] India was well recognised in the nineteenth century as a sink for world precious metal production and remained so to some extent till independence. Though the spread of modern Banking has increased the ratio of financial instruments in India's stock of saving, virtually every household in India, even the poorest, own some gold or silver jewellery. These are often purchased for weddings.

on BOP. There would also be a benefit in terms of additional customs revenue. The compromise solution was to allow gold imports only by returning Indians. They were allowed to import Gold up to 5 Kg at a duty of Rs. 220 per 10 gm. (3%). Subsequently silver import was also freed at a duty of Rs. 500 per Kg. These duty rates were made applicable in 1994-95 to gold and silver imported as personal baggage.

Further liberalisation of gold imports took place through a transfer of gold to list of commodities importable under the Special Import License (SIL). The SIL was an entitlement given to exporters to import specified items such as gold whose import was otherwise restricted or banned list. Subsequently selected banks were allowed to import and sell gold freely in the domestic market. The case for complete freedom for gold imports rested on the argument that this would allow specialist gold import and sale companies to come in and thus reduce margins through competition. This would also allow customs tariffs on gold to be closer to those on other commodities. The counter argument, that import of gold has monetary implications and thus must be handled differently from other commodities has, however prevailed so far. Prima facie with all vestiges of the gold standard removed this argument is not very convincing.

3.7.4.3 Smuggling

By comparing the estimates of the World Gold Council on import of gold into India, with the official Indian data on imports one can get an idea of the trends in smuggling of gold into India. If it is assumes that the difference represents the amount of gold that is smuggled into India, then the supply of gold through the smuggled gold declined from virtually almost 100% before liberalisation to 48% by 1995-6 and 39% by 1996-97. Up to 1996-97 most (87% of) imports were through the NRI baggage route, which had been opened up in 1992. 13% were through the special import license given to exporters, a route that was opened subsequently. After the opening of the normal (OGL) route to selected importers the proportion of imports through the normal route increased rapidly to reach 42% in 1997-8, 93% the next year and 99% in 1999-2000. However, even in this year about 36% of gold imports were through the smuggling route. A rise in import duties during 1998-99 (to Rs. 400/ 10gm in January 1999) increased the incentive for smuggling, which increased rapidly to 54% of total import the next year (59% in 2000-1). To eliminate smuggling, gold import needs to be treated like any other import, so that anyone can import it. The duty rate can be set (keeping in mind that gold is a relatively easily smuggled high value good) so as to maximise customs revenue collection.

3.7.4.4 Parallel Reform: Policy & Institutions

Restrictions relating to the non-trade elements of the current account were also addressed. The foreign exchange rules for business travels were the first to be eased to ensure that greater competitive pressure from imports was balanced by greater access to global knowledge and markets. Among several measures for liberalisation of current account transactions announced in 1994, were indicative limits for travel etc. on the basis of which foreign exchange could be bought by citizens directly from authorised FE dealers (ADs). In August 1994 India accepted the IMF article VIII and thus the rupee officially became convertible on the current account. Further liberalisation of exchange purchase rules for current act transactions took place in 1995-6 with Authorised Dealers allowed to sanction funds above indicative limits themselves and 1997-98 with higher indicative ceilings for travel, studies medical and other service purchases from abroad. A new Foreign exchange Act was introduced in 1999-2000, so as to codify current account convertibility and to minimise capital controls minimised based on a regulatory (rather than control) approach. The framing of a concept paper was followed by detailed and exhaustive consultation with RBI and legal experts in the Ministry of Finance (DEA) before the new law was formally drafted and christened as Foreign Exchange Management Act (FEMA).[91]

3.7.4.5 Another Success

The invisibles account improved significantly in the post crisis period with inflows rising from the average of 1.4% of GDP in the eighties to 2.0% of GDP in the pre-crisis period. Thus these invisible flows are back to the high levels seen in the first half of the eighties. That some of this improvement is due to the reform of gold policy can be seen from the big jump in remittances through official channels. Private transfers, which had averaged 1.1% of GDP in the pre-crisis period, have more than doubled to 2.5% of GDP in the post-crisis period. The investment & other income outflows after

[91] See Arvind Virmani, "A New Foreign Exchange Act (FEA)," Chintan Policy Paper No. 3, June 1997.

rising to a peak of 1.4% of GDP in 1991-2 and 1992-3 declined progressively to 0.8% of GDP by 2000-1. As a result of the strengthening of the invisibles account, the current account deficit averaged 1.1% of GDP in the post-crisis period.

3.7.5 Foreign Direct Investment

3.7.5.1 Policy Change

In India's traditional policy framework, Foreign Direct Investment (FDI) was treated as just another form of foreign saving to plug the "domestic saving gap." In the new reform approach its many other advantages, such as the bundling with knowledge (technology), trade (export) and investment were fully recognised. Given the need for creating confidence among foreign investors FDI policy reform formed part of the first package of industrial reforms in July 1991. The attempt at de-control of FDI took the form of an Automatic route through the RBI that basically constituted a registration procedure. FDI with up to 51% (from 40%) foreign equity was thus freed for a historically defined list of 34 "priority" (intermediate & capital good) industries and international trading companies (dividend balancing condition remained).[92] The 51% level was chosen as this allowed foreign companies to amalgamate profits and losses from such a company into those of the parent company for tax purposes. Technology import was also put under the automatic route subject to conditions on royalty (< 5% domestic, < 8% export) and lump sum payment (< Rs. 1 crore).

3.7.5.2 Institutional Change

Any FDI (not on automatic route) or technology import had to be approved by a newly created Foreign Investment Promotion Board (FIPB). This was an institutional innovation introduced to change the mind set of the regular bureaucracy from control to promotion. The FIPB was chaired by the Principal secretary to the Prime Minister to ensure speedy approval of FDI proposals outside the ambit of the automatic route. A study done by private international consultancy organisation in 1992 showed that both the FDI policy and its implementation through RBI automatic route and FIPB were comparable to those in S.E. Asia and China. By FDI policy is meant any element of policy that discriminates against (or provides preferential treatment to) foreign nationals

[92] Cumulative dividends remitted out of the country could not exceed total foreign FDI in that company.

and companies wanting to invest in a country relative to the country's nationals and companies. Though domestic policies and procedures that are formally neutral between foreign and domestic investors may have a differential impact on foreigners, these are conceptually distinct from FDI policy. In practice they be as, if not more, important than FDI policy per se.

3.7.5.3 Gradualism

Within the next nine months, the dividend balancing condition was removed for all except consumer industries. The dividend balancing condition on consumer goods was finally removed in 2000-1. 51% foreign equity was also allowed for FDI in oil exploration, production, refining and marketing and captive coalmine. Non-resident Indians (NRI) and overseas corporate bodies (OCB) were allowed 100% equity in priority industries. This was made automatic in 1997-98. Disinvestments by foreign investors no longer required RBI permission. Use of own trademarks was allowed and India signed MIGA. In 1996-97 the automatic approval list was expanded to 48 industries, with three mining related activities allowed 50% and 9 infrastructure activities allowed 74% foreign equity. The latter was raised to 100% two years later. A significant step was taken in 1999-2000 with the introduction of a negative list approach with all other sectors open to automatic approval. Foreign equity limit in manufacturing was eliminated at this time, while some sector specific limits on specified services such Telecom and Civil aviation remained.

3.7.5.4 FDI Growth

FDI responded extremely quickly to the new policy announcement in July 1991, recovering to $129 mi in 1991-2 itself and then more than doubling to $315 million the next year. It continued to grow fairly rapidly to reach $3.56 billion by 1997-98. Between 1990-91 and 1997-98 FDI grew at a compound annual rate of 67% (simple average of 73% for 1991-92 to 1997-98). This rapid growth was followed by the Asian crisis and economic sanctions, resulting in a decline of about 30% in 1998-99 and 13% in 1999-2000. Though much of the decline in 1998-99 was part of the over all decline in FDI flows to emerging markets because of changed risk perceptions, India did not share in the recovery of flows in 1999-2000. It has recovered since then.

Model Inertia.

3.7.5.5 Political Constraints

The gradual liberalisation of FDI rules is an example of phasing being dictated by various pulls and pressures arising from public attitudes (East India company syndrome), organised pressure groups and political resistance (model inertia). Unlike trade policy where the Commerce ministry is formally responsible and tariff policy for which Finance is responsible, the responsibility for FDI policy for any sector or sub-sector falls within the purview of the ministry that deals with that particular sector. To the extent that the Industry ministry deals with general industrial policy it is also responsible for FDI policy for general industry. Finance also comes into the picture, as it is responsible for the BOP aspects of FDI. For this reason FDI policy for *industry* made much faster progress within the government and significant resistance to speedier liberalisation came only from outside the government (industry and their civic/public supporters). Because of the universal agreement on the need for FDI in *infrastructure sectors*, liberalisation for these sectors was also reasonably fast, though in some of these sectors the limit has got stuck below 50%. The resistance to change came mainly from public monopolies or public-private bilateral monopolies that could convince the concerned ministers. Reform of domestic investment policy as well as of FDI policy in sectors such as *real estate* has been relatively slow because responsibility is widely dispersed. In sectors such as *retail trade* FDI policy is hostage to political interest groups.

3.7.6 Other Capital Account

3.7.6.1 Equity

As shown in a recent review (2001) of financial sector issues by the World Bank (figure 4.5, page 172) among the emerging economies, India was among the early openers of the equity market to foreign portfolio investment. According to this study only Mexico started a Country Fund for foreign equity investment about 6 years prior to India, while the S. Korean fund was set up only one year before India's. In 1992-93 direct portfolio investment by Foreign Institutional Investors in Indian equity market was allowed. At this time the degree of opening was greater than in almost all East & S.E.

Asian emerging economies, but perhaps less than that in the large Latin American emerging economies.

3.7.6.2 Boldness & Caution

In addition to the general objective of raising equity flows there were two other considerations that weighed positively in this decision. Though the domestic saving rate was relatively high the availability of risk capital in the equity market was relatively low. It was thought that the flow of foreign equity would help in developing the domestic equity market, by bringing in world best practice & stimulating competition. Secondly, because equity markets respond much faster than FDI, it was hoped that the foreign equity investors would come in quickly, learn about and disseminate the opportunities available in India (window to the world) and thus help draw in more FDI. Given residual suspicions and fears, as safety precaution all such foreign equity had to be channelled through Foreign Institutional Investors registered with SEBI and RBI (for FERA). The FII category was however quite wide and included pension funds, mutual funds, Asset Management Companies, investment trusts, institutional portfolio managers etc. Both primary & secondary market investments up to 24% of the total equity of any company were allowed. A 70:30 equity: debt ratio was allowed to equity funds. The dividend tax was limited to 20% and the long-term capital gains tax to 10%. Raising of foreign equity funds through Global Depository Receipts was also allowed & encouraged.

The process of reform thereafter was incremental and dependent on the exigencies of the situation including the perception of the BOP situation by the RBI and the fears of equity flow reversals in Delhi. Investment in equity of unlisted companies was allowed in 1996-97 subject to corporate governance type safeguards. 100% debt funds were also allowed to invest in Gilts and listed company securities the same year, with entry into primary treasury options and access to unlisted company debt securities allowed in 1998-99. The company-specific aggregate foreign equity limits were subsequently raised in steps to (30% in 1997-98, 40% and then to) 49% in 2001-2, subject to the company boards' discretion. At present foreign nationals can directly invest in the Indian equity market through any SEBI registered investment intermediary.

3.7.6.3 NRI Expertise

A special regime for Venture capital funds has also been put in place. The special expertise of NRI entrepreneurs from Silicon Valley was utilised in a SEBI committee, as well in direct interactions with them, to designing the policy for venture capital funds. Despite this, internal expertise was vital in making the revenue bureaucracy understand and introduce some critical, tax related elements (genuine pass-through).[93]

3.7.6.4 Stock Adjustment

Equity flows responded quickly to the policy change, rising from almost nil in 1991-92 to $244 million in 1992-93 and then to an incredible $3.57 billion in 1993-94 followed by another $ 3.8 billion in 1994-95. The four quarters of calendar year 1994 saw a portfolio inflow of $ 5.5 billion with an unprecedented $ 6 billion flowing in over a 12 month starting in mid October 1993.During 1990-1 to 2000-1 about half of the foreign investment inflow was FDI and the other half portfolio (FII & GDR). This suggests that the opening of the equity market has been relatively more successful than the opening of FDI.

3.7.6.5 Risk Aversion: External Debt

As a part of the conventional Plan process a Working Group on Balance of Payments was set up in 1989 for the next (eighth) Plan.[94] The report of the Eighth Plan Working Group on BOP cautioned that *total external debt as well as the short-term debt was becoming excessive*. It therefore recommended that the proportion of short-term debt in total debt should be reduced over the eighth plan period. It also noted the negligible contribution of FDI in financing the current account deficit and consequent imbalance in the nation's external debt-equity ratio. Its second major recommendation was to raise the level of FDI during the eighth plan while keeping a careful watch on total external debt. As a result of the election of a new government in 1989 the Eighth Plan formation process had to be restarted subsequently.

The cautious policy towards debt flows was outlined in 1992-93. This included tight control on short-term borrowing and a cap on total External Commercial Borrowing

[93] The key is a mixture of personal respect and/or trust combined with an ability to understand and answer their concerns in a language/idiom that they are used to and understand.

(ECB). At this point, ECB was to have a minimum maturity of 5 years, and could only be used for purchasing capital goods abroad. Priority within the cap was given to Infrastructure, exports, small & medium Enterprises. This policy was gradually liberalised. The strict short-term debt policy resulted in the closing of the FC (B&O) deposit scheme in July 1992, withdrawal of FCNR of less than 1 year in May 1993, and FCNR of less than 2 years in October 1993. As a result of this policy short-term debt was 3.5% of total debt and less than 9% of foreign currency reserves at end-March 2001. Even if we include medium and long-term debt with residual maturity of less than a year, it would be less than 30% of foreign currency reserves (i.e. excluding gold & SDRs).

Another element of this policy was to eliminate external commercial borrowing by the government, increase scrutiny of borrowing by public sector companies and to increase the share of private sector in ECB. As a consequence government's share in external debt fell by about 20% points between March 1989 and March 2001, while external private debt had risen to 14.8% of total debt by March 1999.

3.7.6.6 Institutional Evolution

New institutional structures were created to ensure that control and monitoring of External Commercial Borrowing was economically rational and consistent with the liberalised approach. A High Level Committee on debt management and a Task force on external debt statistics to provide regular reports were set up. A unit was also set up for aggregate debt monitoring & management support. The first status report on External Debt was produced in October 1993. This unit evolved into the External Debt Management Unit (EDMU), which helped improve debt monitoring & management.

The External Commercial Borrowing policy was gradually liberalised, though the Asian crisis revived diffuse fears about liberalisation. It was clear to those who studied the Asian crises that the problem was one of short-term debt, which remained under strict control. In fact it was argued that the missed lesson of the Asian crisis was that medium-long term debt above 1 year (and certainly above 3 years) was not a problem and could freed completely. Greater attention would have to be paid to monitoring and modelling the residual maturity of this MLT debt.

---

[94] This working group was as usual chaired by the CEA in MOF with Advisor international economics, Planning Commission as member secretary of the working group, with the report drafted by the latter..

India's debt statistics reflect the reduction in the dependence on debt. The total external debt to GDP ratio has declined from a peak of 33.8 % at end March 1992 to 19.8% of GDP at end March 2000 (table 1). The share of short term in total debt has been reduced from a peak of 10.2% on March 31st 1991 to 4.1% on March 31 2000. The ratio of short-term debt was only one-tenth of foreign currency reserves (excluding SDRs & gold) at the latter date. On end March 1999 medium & long-term debt of residual maturity less that one year was less than 1.5 times the short term debt, which was about 4.5% of total debt and 1/10th of reserves. Thus even if the residual short term debt element of the medium & long term repayments coming due within the year 1999-2000 is added to the short term debt, this constituted only a quarter of foreign exchange reserves at the beginning of the year.

3.7.7 Policy Innovation: Dual Exchange Rate

The Exchange market reform in February 1992 was an example of the most surprising (to the public & outside observers) yet most thoroughly prepared and carefully executed reform (see appendix for details). There were several reasons for using a dual pricing system to transit to a free foreign exchange market. The most important of these was fiscal. Given the BOP crisis in 1991 had been dealt with through classic expenditure squeezing (reduction of the fiscal deficit by about 2%) cum expenditure switching policy (25% devaluation), it was essential not to disturb the fiscal situation.[95] Thus it was decided to ensure that defence and other government administration imports and government debt service payments could be met by foreign exchange surrendered at the official exchange rate. All public commercial organisations would have to use the free market for their transactions. The second important reason was to reduce the risk arising from exchange rate volatility on the government, in case it needed to intervene to stabilise the exchange rate. Though the professionals in the finance ministry were confident that exports and imports would respond appropriately to market pricing of foreign exchange, 99% of the intelligentsia and the business community thought the opposite (Virmani (1991)). It was therefore useful to give a signal that we were moving

[95] An internal note, Arvind Virmani, "Macroeconomic Adjustment and Fiscal Deficit," Department of Economic Affairs, Ministry of Finance, 1993, contained an evaluation of the fiscal impact of exchange rate changes.

cautiously and carefully to our goal without taking undue risks, so that there would be no panic in the trading community.[96]

The dual exchange rate regime required exporters & remittances to surrender 40% of exchange at the official rate (which was left unchanged at 25.89), while the rest would be converted at the free market rate. This effectively meant that export proceeds were taxed at 0.4 times the difference between the market and official exchange rate. 100% Export oriented units and Export Processing Zones could sell the entire amount at the market rate and were thus not taxed in this way. All capital act transactions (except IMF, multilateral flow against rupee expenditure) would also be at the market rate. Exporters could retain up to 15% of earning in a foreign currency act with an authorised bank. The exchange surrendered at the official rate was to be used by the government for official transactions, thus effectively subsidising these uses by the difference between the market and official rate. Compared to a market exchange rate the system represented a cross tax subsidy scheme in which exporters subsidised certain type of government related imports. This was explicitly designed to minimise the immediate impact on the fiscal situation as well as to reduce any risk on this account at a time when a reduction of the fiscal deficit was thought to be essential for reducing the macro-economic balance.

The announcement of this system in the budget for 1993-94 (18 months after the crisis) took everyone by surprise. In contrast to the public, who welcomed the freedom that it implied and the confidence that it denoted on the part of the government, many intellectuals and economists predicted that there would be huge capital outflows and the rupee would sink to Rs. 40 per USD on the market channel. Some sceptics even predicted a free fall to Rs. 50 per USD. The market exchange rate opened around Rs. 31.27 per US$ in March 1992 and rose to Rs. 30.87 per US$ in January 1993.

3.7.7.1 With All Deliberate Speed

Further institutional measures followed; The Finance Ministry (DEA) set up a committee with representatives from RBI and commerce ministry to monitor and manage the system after it was announced and to iron out any kinks that emerged. Several difficult issues such as how to deal with rupee trade arrangements, the alleged adverse

---

[96] Dewatripont and Roland (1995) and Wei (1997) present models in which gradual reforms reveal information and affect subsequent political constraints.

effect on exporters and other were hammered out during the year. By the end of 1992 it was clear that the scheme was even more successful than was hoped for by its initiator the ministry of finance. It had been thought earlier that a second year of transition could perhaps be necessary, in which the surrender ratio would be reduced along with a reduction of the number of items on the official exchange channel. The performance of the exchange market, however, gave decision makers the confidence to move directly to an integrated, market based exchange rate system in 1993-4 by eliminating the official channel. Thus the cross tax-subsidy (exporters to govt.) was in operation for only one year. On integration the exchange rate depreciated to Rs. 32.43 per US$ in February 1993, but appreciated thereafter. Till August 1995 it remained below the peak reached in February 1993. Only in September 1995 did it depreciate to Rs. 33.58 per US$.

As the RBI intervenes to even out excessive volatility in the exchange rate, in international terminology this system is classified as a "managed float." During the nineties the exchange management system has evolved partly by design and partly in response to external shocks. There is an asymmetric system in which medium/long term slow downs in capital inflows are allowed to result in depreciation while increase in capital inflows are met by increased RBI purchases and appreciation pressures resisted. Short-term reductions in inflows are however often dealt with by short term monetary tightening and a rise in overnight rates, so that the former aspect may sometimes be obscured. Purchase of foreign exchange by RBI is accompanied by varying degrees of sterilisation, depending on the fiscal deficit of the central government. As the RBI is also the government's debt manager it has to ensure that the financing needs of the Central government are met without an excessive rise in interest rates on govt T bills and securities. When the fiscal deficit is relatively high as it was in 1993 sterilisation (sale of govt securities) is constrained and may well be lower than would be dictated by the need for complete sterilisation of short term capital inflow component. When the fiscal deficit is relatively low, the RBI may even sterilise medium-long term flows so as to keep interest rates from falling below what it thinks is the long term rate.[97]

[97] Wrongly in our view.

3.7.8 Modest Reform, Greatest Success

The effectiveness of the external sector reforms was demonstrated by the ease with which the balance of payments weathered the double whammy of the Asian crisis in late 1997-8 and the nuclear related economic sanctions imposed in early 1998-9. The current account deficit declined as a percent of GDP in the subsequent years. As anticipated, the most clear and significant effect of this shock was on equity inflows, which declined from 1.3% of GDP in 1997-98 to 0.6% of GDP in 1998-99. It had been anticipated that FDI may slow down temporarily and equity inflows stop for a while. FDI flows did in fact decline by 31% in 1998-9 and by 12.6% in 1999-2000 before recovering the next year. Our forecast of portfolio flows turned out to be marginally over-optimistic. There was an outflow in each of the 1st three quarters of 1998-99, of $423 mi, $117 mi and $149 mi respectively. Almost the entire outflow was, however made up in the last quarter of 1998-9 with an inflow of $ 621 mi, leaving a net outflow of $68 mi for the year as a whole. As a result total foreign investment declined from 1.3% of GDP in 1997-98 to 0.6% of GDP in 1998-99. They recovered quickly to 1.1% of GDP the next year.

The strengthening of the Balance of Payments as a result of the external sector reforms was (also) reflected in the overall balance and the real exchange rate. There was an annual average reserve accumulation of 1.1% of GDP in the post crisis period compared to the annual draw down of 0.2% of GDP during the pre-crisis decade. The real effective exchange rate showed no depreciation on average during the post crisis period after depreciating by an average of 2% per annum during the eighties.

4 Conclusion

Successful economic reform requires knowledge (by those driving the reforms) of where the country is located in the policy distortion-Institution quality space (point A) and a clear idea of the medium term goal (point B). The medium term goal does not have to be a theoretical ideal as long as the direction in which the reformer(s) wants to go during this period is correct and clear. It is neither necessary nor possible to jump instantaneously from the source (point A) to the destination (point B) in one step (big bang). Institutions can not be changed dramatically in a short period of time (microstructure) and very often they cannot be changed over much longer periods (superstructure). Nor is there a unique path from point A to point B. The timing, phasing and speed of policy reforms is constrained and determined by the existing institutional structure and its state (efficiency and quality) and the applicable social-political constraints. The last are expressed in a democratic system such as India through the parliament, the media and the court of public opinion. Very often institutional reform has to accompany policy reform though there is no specific institutional reform that is either necessary or sufficient for reform. Success depends on policy adaptation and institutional innovations that take account of the existing reality as well as keep firmly in view the goals and direction of policy reform, while showing tactical flexibility in achieving these goals.

5 Appendix

5.1 Dual Exchange Rate

A number of development policy research papers done at the Planning commission between 1989 and 1991 had suggested the possibility of introducing a "dual exchange rate" system to ease the transition from a heavily controlled trade regime to a free market system encompassing both trade and payments. After the introduction of "Exim Scrips" by the commerce ministry in August 1991, the last paper in this series spelt this out more explicitly in September 1991. This paper envisaged a complete de-licensing of intermediate & capital goods imports and inclusion of these along with, "all currently permitted service trade, technology and labour payments (including remittances)" in the "full fledged Market determined Dual exchange rate" Virmani (1991b).[98] It was noted that the most important reason for switching over to this system was its self-equilibrating property, which would automatically ensure BOP balancing. This system was however administratively tied to what was called a Foreign exchange certificate (FEC), a more comprehensive cousin of the "Exim Scrip" applicable to services and with proportions of 85% to 90% (instead of 30%). It was suggested that the system could be operated through FEC accounts with authorised banks.

Based on these initial thoughts a comprehensive concept paper on liberalising the foreign exchange market using a dual exchange rate was prepared by Advisor to FM in

[98] Arvind Virmani, "Trade Policy Reform: De-Licensing, Tariff Reform & Exchange Rates," Development Policy Research, Planning Commission, New Delhi, September 1991.

November 1991.[99] This was termed, 'Toward Rupee Convertibility: The Convertible Rupee Account." After receiving comments on this paper from experts in the Ministry of Finance the paper was revised in December. The Sec (DEA) and JS (ECB) gave detailed suggestions. Comments were also received from the Chief Economic Consultant. Copies of this paper were sent to Governor (RBI), Member (R) Planning Commission and Commerce Secretary for comments.[100] In January the RBI governor took a meeting in Delhi at which officials from the RBI and ministry of finance along with the author of the paper. The RBI as an experienced regulator and manager of the exchange system examined the institutional requirements and changes that would be needed and gave a number of very useful comments and suggestions. One important point was that the special Rupee accounts would introduce avoidable complexity. The paper was revised in the light of these comments and renamed, 'Towards Rupee Convertibility; A Free Market Exchange Rate Channel." In mid-February a draft paper titled 'Liberalised Exchange Rate Arrangement (LERA) was prepared by RBI that spelled out the details of how the market channel of the exchange rate could be operated through the banking system. The January paper was further revised by Advisor to FM to take account of the additional suggestions, and formed the *economic* basis of the decision to move to partial convertibility of the rupee. The understanding and belief of the Secretary DEA and Finance Minister, as well as the political judgement and authority of the latter was critical to the actual decision. Without these, the paper would undoubtedly have met the same fate as so many other papers & suggestions did before June 1991.

Detailed institutional follow up was then initiated. Subsequently the Advisor to FM and JS (ECB), were sent to Bombay for a full days meeting at the residence of the RBI governor to finalise, what was christened by RBI as, the 'Liberalised Exchange Rate Management System (LERMS). The Deputy Governor and other officials concerned with exchange control were also present. A whole day was spent sequestered at the residence of the Governor (RBI) resolving certain remaining operational issues such as the precise surrender ratio and specific items of capital & current account that should remain on the

[99] This was the first policy paper written by the author on moving from the Planning commission to the Finance Ministry as Advisor to FM.
[100] Mr Venkitaramanan, Dr. C Rangarajan and A. V. Ganesan respectively.

official channel. The LERMS system was announced in the budget and spelled out by RBI the next day.

6 References

1) Acemoglu, Daron, Simon Johnson and James A Robinson, "The Collonial Origins of Comparative Development: An Emperical Investigation," The American Economic Review 91, 5, December 2001, 139-1401.
2) Acemoglu, Daron (2003): "Root Causes: A Historical Approach to Assessing the Role of Institutions in Economic Development." Finance and Development, June.
3) Acemoglu, Daron and Simon Johnson (2003): "Unbundling Institutions." NBER Working Paper No. 9934, Sep. 2003.
4) Aron, Janine (2000): "Growth and Institutions: A Review of the Evidence." The World Bank Research Observer, Vol. 15, No. 1, (Feb 2001), 99-135.
5) Arrow, Kenneth (2000) "Economic Transition, Speed and Scope," Journal of Institutional and Theoretical Economics, 156 (March): 9-18.
6) Besley, Timothy and Robin Burgess (2002): "Can Labour Regulation Hinder Economic Performance? Evidence from India" London School of Economics DEDPS 33, February 2002.
7) Bonaglia, Federico, Jorge Braga de Macedo and Maurizio Bussolo (2001): "How Globalisation Improves Governance" OECD Development Centre Technical Papers No. 181, November 2001
8) Buchanan, James M, and Gordon Tullock (1962). The Calculus of Consent: Logical Foundations of Constitutional Democracy. Ann Arbor, University of Michigan Press.
9) Caballero, R.J. and Hammour, M.L. (2000): "Creative Destruction and Development: Institutions, Crises and Restructuring" NBER Working Paper No. 7849.
10) Davies, K. E., Treblicock, M.J. (2001), "Legal Reforms and Development" Third World Quarterly 22 (1): 21-36.
11) Demsetz, Harold (1969) "Information and Efficiency: Another Viewpoint," Journal of Law and Economics, 12 (April): 1-22.
12) Dewatripont, Mathais and Gerard Roland, "The Design of Reform Packages Under Uncertainty," American Economic Review, 85(5), 1995, 1207-23.
13) Dixit, Avinash (1996) The Making of Economic Policy: A Transaction Cost Politics Perspective. Cambridge, MA; MIT Press.
14) Downs, Anthony(1967), Inside the Bureaucracy, Boston: Little Brown and Company.
15) Easterly, William, and Ross Levine, "Tropics, Germs and Crops: How Endowments Influence Economic Development," mimeo, Center for Global Development and Institute for International Economics, 2002.
16) Engerman, Stanley L. & Sokoloff, Kenneth L. (1994): NBER Historical Working Paper No. 066
17) Epstein, Gerald, Ilene Grabel and K.S. Jomo (2003): "Capital Management Techniques In Developing Countries: An Assessment of Experiences from the 1990's and Lessons For the Future" Working Paper No. 56, Political Economy Research Institute, University of Massachusetts, Amherst.

18) Feige, Edgar L. (1997): 'Underground Activity And Institutional Change: Productive, Protective And Predatory Behavior In Transition Economies" in Transforming Post-Communist Political Economies Nelson, Tilly and Walker (eds), National Academy Press, Washington, DC 1997
19) Fogel, Robert W. (1999): 'Economic Growth, Population Theory and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy." The American Economic Review, Vol. 84, No. 3 (June 1994), 369-95
20) Frankel, Jeffrey and David Romer (1999): Does Trade Cause Growth?" American Economic Review, June 1999 Vol. 89, No. 3, pp. 379-99
21) Gylfason, Thorvaldur and Gylfi Zoega (2001): 'Natural Resources and Economic Growth: The Role of Investment" EPRU Working Paper No. 2001-02, Institute of Economics University of Copenhagen.
22) Hall, Robert and Chad I Jones, "Why Do some countries Produce so much More Output per Worker than others?" Quarterly Journal of Economics, 114, 1, February 1999, 83-116
23) Hennipman, Pieter (1995) Welfare Economics and the Theory of Economic Policy. Brookfield, VT: Edward Elgar.
24) Hinds, Manuel, 'Issues in the Introduction of Market Forces in Eastern European Socialist Economies," The World Bank, Report No. IDP-0057.
25) Kaufmann, D., A. Kraay and P. Zoido-Lobaton (2002): Governance Matters II – Updated Indicators for 2000/01." World Bank Policy Research Department Working Paper No. 2772, Washington D.C.
26) Keefer, Philip and Mary Shirley (2000) 'Formal versus Informal Institutions in Economic Development," in Claude Menard (ed) Institutions, Contracts, Organisations: Perspectives from The New Institutional Economics, Williston VT: Edward Elgar.
27) Lau, Lawrence, J., Yingyi Qian and Gerard Roland (2000), 'Reform Without Losers: An Interpretation of China's Dual-Track Approach To Transition," The Journal Of Political Economy, Vol 108, No. 1, February 2000, pp.120-143.
28) Levy, Brian and Pablo Spiller (1994), 'The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Telecom Regulation," Journal of Law, Economics and Organisation, 10, No. 1 (October) 201-246.
29) Macintyre, Andrew, 'Institutions and Political Economy of Corruption in Developing Countries," Working Paper, Workshop on Corruption, Stanford University, Jan-Feb 2003 (andrew.macintyre@anu.edu.au).
30) Martin, Dufwenberg and Guth Werner (1999): 'Indirect Evolution Versus Strategic Delegation: A Comparison of Two Approaches to Explaining Economic Institutions" European Journal of Political Economy, 1999, pp. 281-95.
31) Niskanen, W. A. (1973), Bureaucracy: Servant or Master? London: Institute of Economic Affairs.
32) North, Douglass C. (1990): 'Institutions, Institutional Change and Economic Performance." New York, Cambridge University Press, 1990
33) North, Douglass C. (1994): 'Economic Performance through Time." The American Economic Review, Vol. 84, No. 3 (June 1994), 359-68

34) Patibandla, Murali (1999): 'Internal Policy Reforms and Market Structure in an Emerging Economy: The Case of India" Working Paper NO. 7-1999, Department of Economics and Management, Copenhagen Business School.
35) Rodriguez, Francisco and Dani Rodrik (1999), 'Trade Policy and Economic Growth: A Sceptics Guide to Cross-National Evidence, NBER Working paper No. w 7081, April 1999.
36) Rodrik, Dani (2000): 'Institutions for High Quality Growth: What they are and how to acquire them," Studies in Comparative International Development, vol 35, no 3, Fall 2000.
37) Rodrik, Dani (2003): 'Institution, Integration and Geography: In Search of The Deep Determinants of Economic Growth" in Rodrik, ed., In Search of Prosperity: Analytic Country Studies on Growth, Princeton University Press, Princeton, NJ, 2003
38) Rodrik, Dani, Arvind Subramanian and Francesco Trebbi (2002): 'Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development."
39) Rodrik, Dani (2003): 'Growth Strategies," NBER Working Paper No. 10050, October 2003.
40) Sebastian, Morris (2001): 'The Challenge of Governance of India Today" IIMA Working Paper No. 2001-10-01, Research and Publication Department, Indian Institute of Management, Ahmedabad.
41) Sebastian, Morris (2001): 'Societal Change, States and Governance: Insights from History and other Societies" IIMA Working Paper No. 2001-10-02, Research and Publication Department, Indian Institute of Management, Ahmedabad.
42) Shah, Ajay (1999), "Institutional Change in India's Capital Market," Economic and Political Weekly, January 16-23, 1999.
43) Shah, Ajay, and Susan Thomas (2002), "Evolution of the Securities Markets in India in the 1990s, Working Paper No. 91, Indian Council of Research on International Economic Relations (ICRIER), New Delhi, December 2002 (www.icrier.org).
44) Shleifer, A., and M Vishny (1993), 'Corruption," Quarterly Journal of Economics, Vol 108, No. 3 (pp 599-617).
45) Simon, Herbert A (1962) 'The Architecture of Complexity," Proceedings of the American Philosophical Society, 10 (December), 467-482.
46) Virmani, Arvind (1982): The Nature of Credit Markets in Developing Countries, World Bank Staff Working Paper No. 525, World Bank, 1982.
47) Virmani, Arvind (1986a): "Implications for a VAT in India: The Deductibility System," DRD Discussion Paper no. 165, World Bank, 1986
48) Virmani, Arvind (1986b): "Measuring Income Tax Incentives Under Evasion: Effective Average and Marginal Rate Schedules," DRD Discussion Paper No. 187, World Bank, September 1986.
49) Virmani, Arvind (1988): "Tax Reform in Developing Countries: Issues, Policies and Information Gaps", Public Finance Vol. 43, No. 1 (1988), pp. 19-37.
50) Virmani, Arvind (1989): "Credit Markets in Developing Countries: Myth and Reality", Greek Economic Review, Vol. 11, No. 1 (June 1989).
51) Virmani, Arvind (1991), "Demand and Supply Factors in India's Trade," Economic & Political Weekly, Vol. XXVI, No.6, Feb 9, 1991.

52) Virmani, Arvind (1996): "Policy Framework for Power," August 1996, Chintan Policy Paper No 20 [http://finance.nic.in/avirmani or Virmani (2004)].
53) Virmani, Arvind (1996): "Tax Evasion, Corruption and Administration: Monitoring Tax Auditors Under Symmetric Dishonesty," paper presented at the Conference on Political Economy: Theory and Policy Implications, Washington, June 1997.
54) Virmani, Arvind (1997): "An Agenda for Tax Reform," Chintan Policy Paper No. 2, May 1997 [also in Virmani (2004)].
55) Virmani, Arvind (1999a): "From Poverty to Middle Income: Reforms for Accelerating Growth in the 21st Century", Chintan Policy Paper No. 7, April 1999 [Virmani (2004)].
56) Virmani, Arvind (1999b): "Star Performers of the 20th (21st) Century: Asian Tigers, Dragons or Elephants," Occasional Paper, Chintan, September 1999 (www.icrier.org/avpapers).
57) Virmani, Arvind (1999c): "Agenda for Reforms: Fiscal, Chintan Policy Paper No. 12, October 1999 [also in Virmani(2004)].
58) Virmani, Arvind (2000): "A Communication Policy for the 21st Century," Economic and Political Weekly, Volume XXXV, No. 23, June 3-9, 2000, pp. 1907-1910.
59) Virmani, Arvind (2001a): "Central Value Added Tax: CENVAT," Economic and Political Weekly, Vol. XXXVI No. 8, February 24-March 2, 2001, pp. 630-632
60) Virmani, Arvind (2001b): "India's 1990-91 Crisis: Reforms, Myths and Paradoxes." Planning Commission Working Paper No. 4/2001-PC, December 2001.
61) Virmani, Arvind and P V Rajeev(2001c): "Excess Food Stocks, PDS and Procurement Policy." Planning Commission Working Paper No. 5/2002PC, December 2001.
62) Virmani, Arvind (2002a): "Towards a Competitive Economy: VAT and Customs Duty Reform," Planning Commission Working Paper No. 4/2002-PC, April 2002.
63) Virmani, Arvind (2002b): "A New Development Paradigm: Employment, Entitlement and Empowerment," Economic and Political Weekly, Vol. XXXVII No. 22, June 1-7, 2002, pp. 2145-2154 and *Global Business Review*, International Management Institute, Vol. 3, no. 2, July-December, 2002, pp. 222-45.
64) Virmani, A. (2002c): "India's BOP Crisis and External Reforms: Myths and Paradoxes." ICRIER Public Policy Workshop Paper, December 2002 (http://www.icrier.org/avpapers).
65) Virmani, A. (2003): "India's External Reforms: Modest Globalization, Significant Gains." Economic and Political Weekly, Vol. XXXVII No. 32, August 9-15, 2003, pp. 3373-3390.
66) Virmani, A. (2004a): "Accelerating Growth and Poverty Reduction: A Policy Framework for Indian Development." January 2004, Academic Foundation, New Delhi.
67) Virmani, A. (2004b): India's Economic Performance Since Independence: Socialist Rate of Growth to Bharatiya Rate of Reform! ICRIER Working Paper No. 122, February 2004 (forthcoming).
68) Wei, Shang-Jin, "Gradualism versus Big Bang: Speed and Sustainability of reforms," Canadian Journal of Economics, 30 (4B), 1997, 1234-47.
69) Williamson, Oliver E (2000) "The New Institutional Economics: Taking Stock, Looking Ahead," Journal of Economic Literature, 38, 595-613.

70) Williamson, Oliver E (2002) 'The Lens of Contract: Applications To Economic Development and Reform," April 2002, USAID-IRIS Forum series on the Role of Institutions in Promoting Growth.