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Policy issues in India's capital markets in 2000 AD

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In this article, we discuss the major issues on the public policy agenda in the area of the capital markets. In the area of the equity market, the most important issue concerns the *transition to rolling settlement* (Section 1). In the area of the debt market, the central question is that of *new institutional mechanisms which will obtain a liquid bond market* (Section 2). Finally, there are serious problems in the area of taxation and law (Section 3) which need to be addressed.

We need to obtain insights into the political economy of reforms in the financial sector in order to comprehend the sequence of events in policy and regulation of the recent years. Some preliminary ideas in this area are offered in Section 4, which also helps in thinking about the problems of enhancing the regulatory capacity at SEBI and RBI.

1 Transition to rolling settlement on the equity market

Within a short period in the 1990s, the equity market made tremendous progress in terms of institution building. In a period of three years, we had the elimination of unlimited leverage in stock trading; the onset of anonymous, electronic trading; the rise of a clearing corporation which eliminates counterparty risk from the exchanges for which it does clearing, and the onset of depository settlement. These are profound changes in market mechanisms. They have transformed the lives of investors and of market intermediaries. They have given us an unprecedented level of market liquidity and market efficiency. Indeed, the reforms episode of the equity market, from the banning of *badla* in December 1993 to the launch of the depository in November 1996 – is the only successful “big bang” in India’s reforms process.

From December 1996 onwards, the transition into rolling settlement has been the central issue in completing the reforms to institutional mechanisms on the equity market.

1.1 What is rolling settlement

Today, the stock markets in India trade on all working days but settle only once a week. The international standard is rolling settlement, where the trades of each day are settled a few days later. With the exception of Paris, every stock market outside India uses rolling settlement.

For example, on the National Stock Exchange (NSE) trades take place from Wednesday morning to Tuesday evening without settlement. The net open position of each broker as of Tuesday evening leads to settlement. Trading commences on the next day (Wednesday morning) on a clean slate. This is exactly like a futures market with expiration on Tuesday.

Suppose we use $T + 5$ rolling settlement, which means that settlement takes place on five working days after the date of the trade. In this case, the net open position of Monday evening would be settled the next Monday; the net open position of Tuesday evening would be settled the next Tuesday, etc. The netting of all trades that is today done over an entire week in India would be replaced by netting only of those trades that take place within the trading day. The contrasting actions that flow from a sequence of trades under “futures-style” settlement (which we have today) as opposed to rolling settlement, are summarised in Table 1.

1.2 The benefits of rolling settlement

There are a variety of arguments in favour rolling settlement:

Simplicity One of the criticisms of the Indian stock market in the pre-reforms period, was its inaccessibility to ordinary individuals. The stock market was shrouded in market practices of

Table 1 Futures Style Settlement vs. Rolling Settlement

Today, India's stock markets are dominated by "futures style settlement", where trading takes place for a week and the net positions are then settled a week later.

Suppose a person buys 200 shares on the first day of the settlement period and sells 100 shares one day later. We compare the sequence of actions that currently follow on NSE versus the functioning under rolling settlement, with a $T + 5$ settlement. This table serves to illustrate the functioning of rolling settlement, and highlight the reduction in settlement delays that it would bring about.

Date	Present Weekly Settlement	T+5 Rolling Settlement
1	Buy 200 shares	Buy 200 shares
2	Sell 100 shares	Sell 100 shares
6		Pay for 200 shares and get the shares
7		Deliver 100 shares and get paid for them
10	Pay the net price for 100 shares	
11	Get 100 shares	

an impenetrable complexity, and only a tiny fraction of households in India had the knowledge that was required to safely hold shares in their asset portfolio. For a newcomer, the complexities were extensive: not all stocks traded through the clearinghouse; tick sizes were different; individuals had to work hard to protect themselves from being defrauded given the non-transparency of markets; the clearing and settlement systems were so non-transparent that most individuals never knew when funds or shares were due to him; the strategies that an individual could use to protect himself in the periodic payments crisis were hard to imagine.

At first, the birth of NSE dramatically simplified matters. All stocks had the identical trading system on NSE – the individual did not have to keep track of various classes of stocks. All stocks were settled through the clearinghouse. All stocks had a tick size of five paisa. The transparent trading system reduced the need to monitor brokers. The clearing corporation eliminated payments crises. Funds and securities came to the individual on a well-defined clock.

In recent years, we appear to have regressed to a much more complicated market. If an individual wants to buy 100 shares of Reliance, he faces a bewildering list of alternative trading venues where Reliance is trading: NSE's EQ market, NSE's AE market, NSE's rolling settlement market, and BSE's various markets with the additional complication of *badla*.

There are reports that SEBI proposes to create around five to ten more trading venues for each stock as part of an incorrect notion of the "transition to rolling settlement". The collateral requirements in all these markets are different and bewilderingly complex. We are once again coming into a world where an external observer faces a knowledge barrier against market participation.

A genuine transition to rolling settlement is important for its simplicity. A transition to T+5 rolling settlement would mean that *every* trading screen in India would trade Reliance in exactly one format: for settlement on the same day, next week. The only thing that an individual would need to know is that if shares are purchased on Friday, then the shares would be transferred to

his name on the next Friday; shares sold on Monday would always reliably yield funds on the next Monday.

The arguments about simplicity may be summarised in one essential issue. Rolling settlement encourages a focus on the true function of financial markets – the valuation of securities – without getting obscured by complexity of ten different trading mechanisms for a given security. Rolling settlement makes it possible for economic agents to concern themselves less with market processes and focus on market outcomes.

International standards One argument that has often been made in favour of rolling settlement is based on international standards. In 1993, the “Group of Thirty” put out guidelines which suggested that all markets should move to $T + 3$ rolling settlement as the minimum international standard. This was an impetus for the NYSE to move from $T + 5$ to $T + 3$ rolling settlement. Futures style settlement, and *badla*, have been eliminated in UK, which now uses rolling settlement. France and India are now the last major stock markets of the world which have not yet migrated into rolling settlement. Elsewhere in the world, efforts in upgrading institutional infrastructure are oriented towards reaching for $T + 1$ (next day settlement) or $T + 0$ (same evening settlement). India’s equity market is backward in being at the starting point, which is the move from futures–style settlement to rolling settlement.

Information processing and dissemination From an economic perspective, one major role for the equity spot market is the determination and public revelation of the prices of shares of various firms. In this function, it is desirable to have a single, well–defined price that economic agents can use in their information processing.

As mentioned above, in an environment where there are 20–30 different prices, all claiming to be the spot price of Reliance, it adds to the complexity of information processing. Further, the use of futures–style settlement or the continued prevalence of *badla* serves to introduce other elements into the movements of spot prices. For example, every Wednesday, prices should rise by roughly 0.4% on NSE owing to the change in stocks being traded on a one–week forward basis (on Tuesday) as compared with a two–week forward basis (on Wednesday). Economic agents who use stock prices in their information processing need to factor these details of market institutions in order to correctly interpret price movements.

The ideal equity spot market is a simple market where the spot price of shares is revealed to the economy with the highest possible signal to noise ratio. A pure equity spot market based on rolling settlement is desirable in taking us closer towards this goal.

Systemic risk The futures style settlement process, which is presently in use on the equity spot market, comes with the systemic risk of futures markets. India’s experiences with fragility of the stock markets are closely related to poor institutional capabilities in coping with the systemic risk of futures markets.

In recent years, India has seen the creation of a complex system of margins which is aimed at obtaining a less vulnerable equity “spot” market, even with the highly leveraged futures–style trading. In addition to increasing the complexity of accessing the equity market, the margins in use are not based on a thorough understanding of risk. The knowledge available in India about operating the risk containment systems required with futures markets are highly limited.

Rolling settlement is important insofar as it does not make demands of conventional exchanges to operate futures markets; a problem which is generally out of reach of their knowledge and

institutional capacities. The risk containment that is required to obtain a spot market with rolling settlement is extremely simple. Exchanges in India would be able to easily obtain systemic stability if the spot market used rolling settlement.

1.3 Impact on different classes of market users

To understand the transition into rolling settlement, it is useful to analyse its heterogeneous impact on the lifestyles of different classes of market users.

- Institutional (A)
- Retail (B)
 - Non-speculative (B.1)
 - Speculative (B.2)
 - * Non-leveraged (B.2.1)
 - * Leveraged (B.2.2)

A: Institutional

Institutional investors are presently forbidden from doing netting trades (within a settlement) or from doing badla. Today, they cannot buy on Wednesday and sell on Thursday. With rolling settlement, it would become possible for them buy on Wednesday and sell on Thursday, for the first time. Hence, the transition to rolling settlement would only improve their flexibility in transacting.

B.1: Non-speculative retail, and B.2.1: Non-leveraged retail speculators

For these market users, $T + 5$ rolling settlement would shorten their delay between selling shares and getting money: it ranges from 5 to 10 working days today, and it would come down to a fixed 5 days. Hence they only benefit from rolling settlement.

There have been concerns about the ability of investors around India to move funds and depository instructions in time, to cope with rolling settlement. In order to put things in perspective, it is useful to point out that the actions required from investors under $T + 5$ rolling settlement are no different from those which take place today on the expiration date (Tuesdays on NSE). An investor who is able to cope with settlement activities that follow from buying or selling on Tuesday on NSE is already able to cope with the settlement activities that flow from $T + 5$ rolling settlement.

B.2.2: Leveraged retail speculators

This is the only class of market users which would be hurt by rolling settlement: their access to leverage would be lower when it comes to overnight positions. For intra-day speculative trading, rolling settlement is indistinguishable from existing market practice. But a leveraged purchase of shares on Wednesday to sell on Thursday would face lower leverage under rolling settlement.

The reduction of leveraged trading on the equity market, and the elimination of insecure forms of leverage, is one of the very goals of the transition to rolling settlement. However, to the extent that new institutional mechanisms offer modest levels of leverage (with very high levels of market integrity), they would ease the transition of retail leveraged speculators (with overnight positions) into rolling settlement.

1.4 The transition to rolling settlement

The two broad set of issues in discussing the migration to rolling settlement are: (a) institutional infrastructure, and (b) network externalities.

The first problem concerns the preparatory work which is required in terms of institution building to enable rolling settlement. The second problem concerns the role of State interventions in obtaining market liquidity under rolling settlement.

Institutional infrastructure: the demat process

Rolling settlement is highly inconvenient with physical share certificates. However, the 104 securities where demat settlement is now mandatory, account for 90% of the trading volume today. Thus if rolling settlement was initiated with these 104 stocks, it would solve the bulk of the problem.

Institutional infrastructure: margin trading

Margin trading is an elegant mechanism through which modest levels of leverage are provided for users of the equity market with very high levels of safety. Its working may be summarised as follows.

1. *Procedure for leveraged speculative long:* X buys through a broker B; he only puts up 40% of the funds (i.e. 2.5x leverage); B obtains a loan from a bank for 60%; B pays 100% of the funds to the clearing corporation (which sees a 100% delivery market); B obtains delivery of shares from the clearing corporation; B hands over these shares to the bank (The bank has collateral of Rs.100 backing the loan of Rs.60).
2. *Procedure for leveraged speculative short position:* X sells through a broker B; he pays 40% of the sell position to the broker (i.e. 2.5x leverage); B borrows shares from a stocklender; B delivers shares into the clearing corporation (which sees a 100% delivery market); B obtains funds from the clearing corporation; B hands over Rs.140 to the stocklender (who has collateral of Rs.140 backing a loan of Rs.100 of shares).

Margin trading is a highly attractive procedure, which (a) preserves the principle of a "no-fails" market at the level of the clearing corporation, (b) features high levels of collateral, and (c) offers modest (2.5 times) leverage to market users.

In order to make margin trading a success in India, we need to (a) eliminate or greatly enlarge the limits on bank loans against shares as collateral, (b) strengthen the existing stocklending mechanisms (e.g. the ALBM of NSE), and (c) enable the above institutional mechanisms into the functioning of exchanges.

Institutional infrastructure: CNS

Continuous Net Settlement is an elegant procedure that is used by the National Stock Clearing Corporation (NSCC) in the US. Margin trading impacts on a relationship between the customer and the broker; in contrast CNS impacts on the relationship between the broker and the clearing corporation. Under CNS, longs are obligated to bring in full funds: a single rupee of incomplete payment would be considered as a default. However, when shorts fail to bring in delivery of securities, the clearing corporation automatically resorts to a stocklending facility to obtain shares. This is compatible with the ALBM (stock-lending mechanism) which runs on NSCC (in India). CNS is in sharp contrast with the draconian auctioning of short deliveries which is presently used in India.

Both CNS and Margin Trading have one common feature: all long and short positions that are open at the end of the day turn into delivery on $T + 5$, possibly with the assistance of borrowed money or shares by the broker on behalf of the customer, or borrowed shares on behalf of the broker by the clearing corporation. The netting between longs and shorts, which is the essence of badla, is absent with both these.

Credibility of reforms, Network externalities

Rolling settlement involves a paradigm shift in how financial intermediaries view the market. It involves major changes in sales strategy, risk management, back office procedures, etc. The process which SEBI has adopted for a migration to rolling settlement so far – announcing a set of ten minor stocks where rolling settlement is mandatory without have either margin trading or CNS in place – is designed to ensure that these stocks will suffer a serious loss of liquidity.

The network externalities of liquidity play a major role in this understanding. The ten stocks chosen so far, which account for below 0.1% of the trading volume in the country, are insignificant from the perspective of market intermediaries. Hence, market intermediaries face a choice between : (a) cessation of trading in these ten stocks, versus (b) revamping their sales strategies, risk management, back office procedures etc., in the interest of exploiting rolling settlement for these ten stocks. It is rational for many intermediaries to prefer alternative #a. If even a few intermediaries chose to do this, it has a larger effect through the network externalities of order flow. Hence, it is not surprising that these ten stocks have seen reduced liquidity under rolling settlement.

To overcome the network externality problem, agents should be given a clear timetable for the conversion of major stocks into rolling settlement. The target should be the 104 major stocks which are already in “mandatory demat settlement”.¹ It is not hard to visualise all these 104 stocks being in purely rolling settlement by late 2000 since these are the most important major stocks in India, and it is very hard to do rolling settlement with physical share certificates.

2 Obtaining a liquid bond market

The creation of a liquid bond market is widely viewed as an important goal for the purposes of improving the conduct of monetary policy, and financing leveraged projects such as those in the area of infrastructure. Yet, we have a striking contrast between the equity market and the debt market in that at the end of the 1990s, we have strong market infrastructure in the area of the equity market whereas it is as yet lacking in the debt market.

In the early 1990s, three major reforms took place in the government debt market, in the aftermath of the scam:

Improvements to settlement The RBI moved to computerise the SGL and implement a form of a ‘delivery versus payment’ system. In 1999, the computer networking between RBI’s SGL and NSDL has fallen into place, thus enabling electronic settlement for the 2.1 million individuals who hold depository accounts with NSDL.

Enforcement of a “trade for trade” regime The RBI setup a strong regulatory system which required that every trade must settle with funds and bonds; IOUs and netting were prohibited.

¹On 28 January 2000, there were reports that SEBI may add 100 stocks into the list of stocks for mandatory rolling settlement. However, all these 100 stocks are chosen to be minor stocks.

Table 2 Elements of market design on India's government debt market: 1994 and 1999

Eight elements of market design

Feature	1994	1999
1. Product standardisation	Adequate standardisation	Unchanged
2. Aggregation and revelation of order flow	Fragmented market through geographical distance and through phone market. Order flow unobserved.	Unchanged
3. Intermediaries	Broker / dealers, fraught with agency problems. Oligopolistic pricing.	Unchanged
4. Anonymity	Absent	Unchanged
5. Counterparty risk	Present	Unchanged
6. Settlement	Purely paper	Purely through depository
7. Enforcement / prosecution	Poor	Improved
8. Futures trading	Absent	Unchanged

Trade reporting at NSE A limited degree of transparency came about through the Wholesale Debt Market (WDM) at NSE, where roughly half the trading volume of India's government debt market is reported. WDM is not a 'liquid market' where trades can be executed. Yet, it marks a step forward insofar as it produces reveals useful data about prices and traded quantities intra-day.

These reforms have served to close the windows through which the pervasive failures of clearing and settlement on the bond market generated the Scam of 1992. Today, SGL works much more effectively as compared with 1992. IOUs and uncontrolled leverage are completely absent. In this sense, the objective of preventing the recurrence of the Scam of 1992 has clearly been met. But these reforms have done little to obtain a liquid bond market.

2.1 Impact of reforms of 1990s

We can summarise the changes which took place in two ways. The first consists of asking how elements of market design have changed. This is shown in Table 2. Improved ideas in market design should generate lower transactions costs. This is shown qualitatively in Table 3.

As a consequence of the reforms, India's government debt market is much less vulnerable to systemic crises. However, the reforms have failed to obtain a liquid, efficient bond market. We can readily contrast the modest changes seen in Table 2 against the major changes which took place on the equity market. Similarly, the dramatic reductions in transactions costs seen on the equity market are in sharp contrast with the modest changes seen in Table 3.

Today, the central question faced in policy formulation connected with the bond market is about how the market design can be altered so as to obtain an efficient bond market. The reforms of the 1990s did not address the core problem of the reliance of the government debt market on distributed dealers interacting by telephone in Bombay. This, combined with the "trade for trade" regime, which

Table 3 Qualitative view of liquidity on India's government debt market: 1994 and 1999

An approximate depiction of India's debt market in terms of twelve components. The terms used in this table are approximate. They reflect both a comparison between the transactions costs seen on these markets, and a comparison of how different these transactions costs are as compared to what they could be given improved market mechanisms.

Component	1994	1999
Trading		
Denial of Access	High	High
Market Down-time	Low	Low
Fees to Intermediaries	High	High
Unreliable order processing	Moderate	Low
Market Inefficiencies	High	High
Market Impact Cost	High	High
Clearing		
Counterparty Risk	High	Reduced
Initial Margin	0	0
Settlement		
Back office costs	High	High
Bad certificates	High	0
Delays in payment	High	Low
Transaction Taxes	Moderate	Moderate

forbids all forms of netting, is a major hindrance to obtaining market liquidity. In addition, the lack of electronic settlement at the depository has been a crippling constraint on the corporate bond market.

Settlement procedures

Today, RBI requires that every trade on the government debt market should settle, and this settlement takes between one to five days. Existing procedures for moving funds and securities are highly cumbersome. The back office of the largest bank is unable to process more than a hundred trades a day, in sharp contrast with the equity market where the smallest of NSE brokers process in excess of a thousand trades a day. The essential feature which generates this difference in transactions costs is the use of netting at the clearing corporation on the equity market, as a way to dramatically simplify settlement. In comparison, the trade for trade regime which forbids netting, yields enhanced transactions costs.

In the context of the equity market, the discussion above focused on the migration to a spot market based on $T + 5$ rolling settlement, with depository settlement, as a short-run objective for reforms on the equity market. In debt markets internationally, this process has gone into its logical destination in the form of "real-time gross settlement" (RTGS) systems. RTGS is the ideal form of a spot market, where complete settlement is attempted a few seconds after the trade is struck. RTGS requires infrastructure for real-time movement of funds and securities.²

In recent years, RBI has begun work towards an RTGS system, and this is widely viewed as being a critical component of the problem of obtaining liquidity on the government bond market. While RTGS

²It is interesting to observe that rolling settlement involves intra-day netting while RTGS involves no netting. In this sense, RTGS can be viewed as an implementation of RBI's existing trade-for-trade regime where the time elapsed between trade and settlement is shrunk to a few seconds.

is entirely desirable, and should ideally be extended to as many securities as possible, it is neither necessary nor sufficient in obtaining a liquid bond market, because the basic problem of the bond market is the structure of *trading*.

Trading on the debt market involves a dozen dealers in south Bombay who interact over the telephone. A migration to RTGS would not necessarily involve replacing this trading mechanism. Conversely, we may point out numerous countries in which broad-based bond markets were quite liquid before advances in technology made RTGS possible.

It may be useful to note that the transformation of liquidity on the equity market took place under hostile conditions in terms of settlement infrastructure: when settlement was based on physical shares with netting over a week. This suggests that while high quality settlement infrastructure is valuable, it is not a precondition for obtaining market liquidity.

Trading procedures

The government debt market would obtain major gains in liquidity and market efficiency if four key principles governed trading: (a) anonymity, (b) price–time priority, (c) nation–wide market, and (d) free entry into intermediation.

Anonymity eliminates personal or political influences upon price formation; it focuses the information processing of market participants upon prices and quantities. Cartel enforcement would become essentially impossible under anonymity. Anonymity in trading is a highly desirable feature since it helps prevent many corrupt practices, given the weak post–hoc enforcement in the context of financial fraud in India.

Price–time priority consists of establishing market infrastructure which ensures that every order in the country is assured the best price. When an economic agent approaches an intermediary in order to execute a trade, the execution price would be the same regardless of which intermediary is chosen. The *market* would possess liquidity, and the intermediary would merely be a way of obtaining access to this liquidity. Intermediaries would unbundle their intermediation charges, and competitive pressures would start operating upon these charges.

A single nation–wide market – as opposed to a club market operating by telephone in Bombay – would harness orders from all over the country. The pooling of these orders would generate enhanced liquidity. Conversely, a nation–wide market would carry the benefits of a liquid government debt market to locations all over the country. The experience of the NSE has shown that India’s financial sector is not located in Bombay – prior to NSE, 85% of equity trading took place in Bombay, but today only 35% of NSE’s trading volume originates from Bombay.³

Finally, free entry into intermediation would shrink intermediation costs. Free entry into intermediation blends very well with a market that works with anonymity and price–time priority; incumbent intermediaries need not know or accept a new intermediary into their club in order to trade against him on an anonymous trading screen. However, free entry into intermediation does raise concerns about credit risk, which can be addressed using novation at the clearing corporation. Similarly, an RTGS system could implicitly throw up entry barriers into intermediation if the RBI limits access to the RTGS system.⁴

³Ever since the early 1970s, retail investors have owned shares but not government securities, and SGL does not interface with retail investors. However, now that SGL is linked to NSDL, the same procedures and distribution channels used nationwide by NSDL to account for half the settlement volume on the (highly retail) equity market have become accessible to the government debt market.

⁴NSDL is an interesting role model where the depository, the core settlement infrastructure of the equity market, is accessible to essentially every financial intermediary in India; there has been no attempt at throwing up entry barriers which

Reshaping the government debt market around these four principles would imply institutional change which would be comparable with the experience of the equity market from 1994 to 1996.

2.2 Summary

In summary, the strategy which would yield a liquid bond market is primarily based on three components:

1. Corporate bonds and government bonds should be visible in the depository accounts of individuals, using procedures and distribution mechanisms which are identical to those used by NSDL today.
2. Bond trading should take place under conditions of anonymous electronic trading, with nationwide access, with novation at the clearing corporation. The bond market should use rolling settlement, possibly with a shorter settlement cycle than the $T + 5$ that is presently envisioned with equities. Intra-day netting, which is innate in rolling settlement, is both desirable in terms of obtaining liquidity and safely implementable, using novation at the clearing corporation.
3. The entry barriers into bond market intermediation, and the unequal treatment of alternative bond market intermediaries, should cease. From a market design perspective, there should be no difference between banks, primary dealers, brokers, mutual funds, financial institutions, etc.

3 Law and taxation

Given the immediate context of the upcoming budget of February 2000, we need to think about the entire question of the *taxation of capital*, with a particular accent on the preferential tax treatment of certain mutual funds (Section 3.1). Finally, the most important hurdle in terms of institutional infrastructure for the financial sector is the *challenge of legal reforms* (Section 3.2).

3.1 Taxation of capital

Over the years, we have evolved a complex system of taxation of returns on capital. Interest income, dividend income, capital gains by locals versus foreigners, returns obtained by mutual funds, etc. have all been the subject of detailed tax regulations.

From an economic perspective, there is one clear principle: two different portfolios in the country which hold identical risk and return characteristics should not be taxed in an inconsistent way. If there are two products A and B with identical risk/return characteristics but B has a higher post-tax return, then economic agents will sell A and buy B , thus distorting the prices of both.

The recent initiative aimed at giving mutual funds a preferential status is an extreme case of a violation of such principles. There is no economic rationale for penalising individuals who manage their own portfolios in favour of individuals who choose to hire a mutual fund manager. This intervention, which was originally intended as a disguised subsidy for UTI's US-64 product, was broadened to include a much larger range of mutual fund products. With the stock market returns of the last one year, the short-term exigency of helping US-64 is now absent, and this bias against individuals should be immediately withdrawn.

prevent intermediaries from hooking up to NSDL.

Looking forward, there is a host of transactions that are coming about through the growing sophistication of financial markets that present a host of complex issues – these range over derivatives, securitisation, cross-border transactions, etc. In each of these areas, there is a need for clarification and simplification of tax codes.

More generally, there is an important need to take stock of the whole range of tax codes which govern taxation of returns on capital. At repeated occasions in recent decades, there have been initiatives in the form of specialised tax policies designed to solve specific problems; the accumulation of these gives us significant distortions. There is a strong need for a focused effort today to bring about greater coherence amongst all aspects of the taxation of capital in India today.

3.2 Legal reforms

The major laws which govern the financial sector are:

1. SEBI Act 1992
2. SCRA 1956 and the rules/regulations
3. FERA 1973
4. Depositories Act
5. Debt Recovery Act (Bank and Financial Institutions Recovery of Dues Act 1993)
6. Benami Prohibition Act
7. Arbitration and Conciliation Act 1996
8. Indian Penal Code
9. Banking Regulation Act
10. Indian Evidence Act, 1872
11. Indian Telegraph Act, 1885

Many of these acts and the associated rules, regulations and guidelines suffer from inconsistencies with respect to each other. They are often out of touch with contemporary institutions, technology, and the modern approach towards economic policy. Glaring examples of this are the Evidence Act of 1872 and the Indian Telegraph Act of 1885.

The present legal structure hampers and distorts the development of the capital markets in a pervasive manner. Some examples of these distortions may be cited here:

- The onset of cash-settled derivatives required an amendment to the SC(R)A.
- In a situation where economic policy reforms work towards obtaining markets with *reduced* transactions costs, stamp duty laws are directly distortionary since they work towards raising transactions costs. Stamp duty laws also inhibit asset securitisation.
- Electronic funds transfer and internet commerce require changes to the Indian Evidence Act.
- The takeover market is an important check upon poor management, and a vital part of obtaining an efficient resource allocation in the country. Many provisions of the Income Tax Act, Industrial Disputes Act, and Stamp Laws impede smooth takeovers.

Some efforts into overhauling company law and income tax law have begun. So far, the approach taken has generally been one of modifying laws to enable specific reforms; for example, cash-settled derivatives were enabled while leaving the main body of laws concerning wagering intact. Similarly, the depository legislation was put through, after many years of delays, yet electronic settlement for bonds is still infeasible in India. Each step in the reforms process has had to be preceded by legal efforts, which are extremely time-consuming. The financial community is constantly inventing complex legal contracts to enable efficient contracts in a legally binding fashion. These delays have worked to slow down progress in the financial sector, and the legal engineering that is made mandatory by the existing legal structures is a waste of human effort and ingenuity which could be better deployed into more productive uses.

As with the problems of taxation, it is important to comprehensively take stock of the legal framework governing the financial sector, and specify an altogether new blueprint for how this should be.

4 Political economy of financial sector reforms

There is a sharp distinction between financial market intermediaries, and the remaining economic agents of the economy (firms and households), in understanding the political economy of financial sector reforms.

When financial markets become more efficient in two senses: reduction of transactions costs and in improvements in the informational efficiency of prices, the distributed mass of economic agents in the economy are gainers. Households obtain higher returns on their portfolios (after accounting for intermediation costs and sub-optimal risk/return tradeoffs that are found in inefficient markets), and firms obtain capital at lower prices. Economic growth is enhanced since an efficient market directs resources into more productive avenues than an inefficient market.

4.1 Incentives for political action

However, these changes are generally inimical to the interests of financial market *intermediaries*. A large fraction of the transactions *costs* that are suffered by the users of markets are *revenues* for intermediaries. It is hence not surprising to see that the success of reforms in the equity market led to a halving of the price of a BSE membership. Buyers of a BSE card in 1994 have experienced an average real rate of return of -15% per annum in the following years.

As is common in many aspects of the political economy of public policy, a small number of intermediaries – roughly 100 banks, 1000 brokerage firms and 50 mutual funds – has a strong and focused interest in questions of public policy and in influencing policy choices. The large mass of the users of markets (i.e. the rest of the economy) lack incentives to engage in political actions to influence policy. Hence, intermediaries invest resources into political actions while the users in the economy do not.

In addition, market intermediaries have a near-complete monopoly on the *knowledge* and the specialised jargon about the financial sector. There is a tiny sprinkling of bureaucrats and economists who are able to comprehend policy debates and understand committee reports (and their subliminal content) at SEBI and RBI. For the rest, the dialogue on policy questions is exclusively conducted between government and financial market intermediaries. Market intermediaries have the incentives to visit SEBI, RBI and the finance ministry and press for their points of view; the users of the economy do not.

At RBI, there is a long tradition of employees who have moved between public-sector banks and

the RBI on deputation. An individual who has worked at a bank for many years is likely to share the goals and the world view of a bank. This practice is clearly inappropriate and should cease. More generally, there is a significant need for RBI to shift focus from “the banking system as an end” to “the banking system as a means for achieving goals of monetary policy and efficient financial markets”. This would be shifting from the intermediary perspective to the user perspective.

In the polar case, when intermediaries succeed in ensuring that the regulator shares their world view and works for the interests of intermediaries (and not of the economy), we have a situation with “regulatory capture”.

This situation is not unlike other areas of public policy; incumbent manufacturers earn profits from inefficiencies, and have incentives to visit government offices regularly, work towards entry barriers, seek to block foreign imports, and try to block FDI. The fertiliser industry is best equipped in terms of jargon, institutional knowledge and technical knowledge to engage in discussions about the fertiliser sector. Once we think of financial market intermediaries as “producers” of financial services, the analogy with the traditional understanding of rent-seeking behaviour is simple and direct.

4.2 Market design, market inefficiencies, trading profits

However, there is one additional dimension where the financial sector has uniquely perverse incentives: this is the link between market inefficiencies and trading profits.

Market intermediaries are closest to markets, are able to respond fastest to market inefficiencies, and hence are best able to obtain trading profits from inefficiencies. As John Phelan (who was then the head of the New York Stock Exchange) put it: “The efficient market is a nice thing. But money is made in an inefficient market”. Traditional markets have been designed by market intermediaries, and are replete with asymmetries in information revelation and market access, so that intermediaries effectively have a exclusive franchise on profiting from market inefficiencies.

The rents that flow from faulty market structures give intermediaries the sharpest incentives to engage in political actions which increase transactions costs, block reforms to market institutions, and maximise market inefficiencies. An inefficient Indian cement industry does not directly generate trading profits on financial markets. In contrast, BSE brokers earned enormous trading profits as a direct consequence of the inefficiencies of the BSE floor.

A handful of Indian and foreign banks are continually earning large trading profits off the inefficiencies of the currency and fixed income markets; they have unique incentives to block institutional change which eliminates their special status and ends these trading profits. Policy analysis at RBI in the area of market design should be highly conscious of the extent to which efficient currency and debt markets will yield reduced profit rates for existing intermediaries.

4.3 SEBI: A case study in political economy

In its early years, SEBI was remarkably distant from stock brokers and formulated policies based on an independent vision about where India’s capital markets should be headed. A reforms program which focuses on markets and not intermediaries is inevitably unkind to intermediaries. The early success of reforms in the stock market led to a halving of the price of a BSE card, a Rs.2 crore reduction of the net worth of each BSE broker.

From a political economy perspective, these early years of SEBI were not an equilibrium, since the reform program was under attack from a constituency (market intermediaries) that had clear self-interest to engage in political actions. In this case, we can accurately compute the impact of the

reforms: a drop in the BSE card price of Rs.2 crore, multiplied over 600 members, is a loss of wealth of Rs.1200 crore. This is a sharp incentive for intermediaries to mobilise politically.

The reforms program did not derive a counterbalancing political support from the constituency for market reforms: the diffused mass of market users in India who obtained a credible stock market for the first time in India's history. Policy makers in the finance ministry, who might have been a voice which supported the goals of the economy as opposed to the goals of intermediaries, did not clearly support the reforms program.

Hence, from this political economy perspective, it is not surprising to see that in recent years, SEBI has been substantially co-opted into the interests of the brokerage community. SEBI's policies on prudential regulation, *badla*, rolling settlement, derivatives, etc. have reflected the goals of special interest groups. Reforms in the equity market are widely extolled as an outstanding achievement of radical reforms. However, it is useful to note that after the components of the radical reforms were in place (electronic trading in 1994, clearing corporation in late 1995, depository in 1996), SEBI's policies have been largely conservative.

A simple litmus test that is very revealing is the fraction of members of SEBI committees who are market intermediaries in general, or stock brokers in particular. A committee that is dominated by stock brokers is likely to work in the interests of stock brokers, and not the economy. Most SEBI committees have over 75% of the members who are market intermediaries.

4.4 Agenda for the future

Policy analysis in the financial sector should be done in full cognisance of the innate disequilibrium between the political actions of market intermediaries, who favour faulty market design, and the absence of political actions from the distributed mass of gainers in the country.

Looking forward, the major focus of institutional design, and the future of SEBI and RBI, should be to curb the extent to which financial market intermediaries play a role in shaping public policy. In addition, greater efforts should be made in communicating the benefits of reforms to the distributed mass of gainers, and bringing the voices of actors other than market intermediaries into the policy formulation process.

5 Conclusion

In conclusion, we may summarise the three important areas where policy initiatives are now called for in the capital markets: (a) to convert equity market into genuine $T + 5$ rolling settlement, (b) to build a liquid debt market by emulating the market institutions of the equity market, and (c) to comprehensively address the inconsistencies and distortions that tax and law are now imposing on the financial sector.

In these issues, as with all policy debates in the financial sector, it is useful to have insights into the political economy of policy formulation, which reveals rent-seeking activities by market intermediaries and the risks of regulatory capture. In order to obtain sound governance and institutions for regulation and policy, we need to evolve "rules of the game" where SEBI and RBI work towards the goals of the economy and not those of market intermediaries.