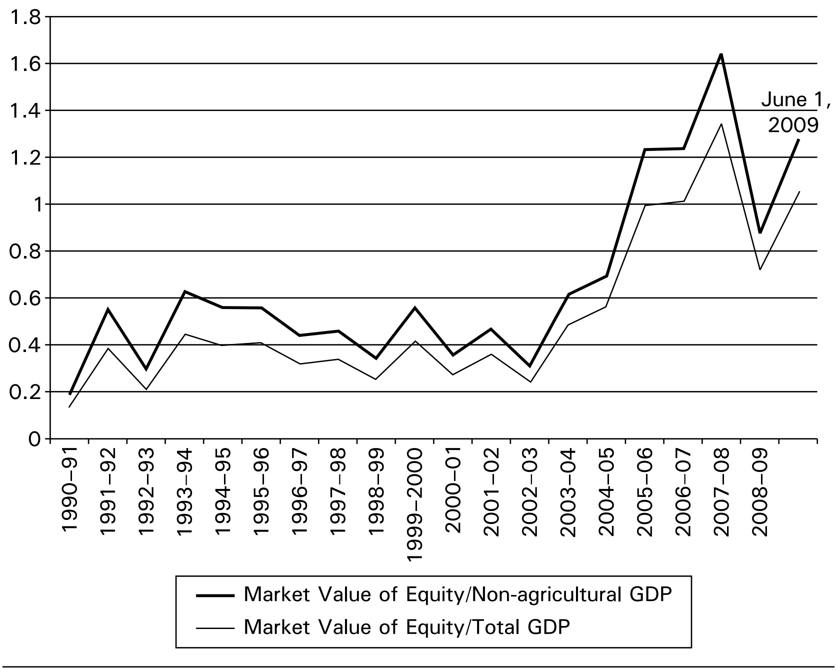
Comments and Discussion

Rajnish Mehra: I thank John Donaldson for his insightful comments. I am grateful to the participants of the India Policy Forum Conference for a stimulating discussion.

Introduction

I enjoyed reading this thought-provoking paper. The authors analyze the sources and distribution of corporate profits in India during the post liberalization period—a period characterized by a sharp increase in Indian Equity Valuations relative to GDP (Figure 1).

FIGURE 1. Market Value of Equity as a Share of GDP



Source: Mehra (2010).

In particular, they aim to distinguish between two competing hypotheses regarding to sources of economic rents:

1. Innovation due to increased competition resulting from the removal of entry barriers
2. Excessive market power resulting from economic entrenchment.

The authors provide evidence, while not conclusive, which suggests the success of the Indian corporate sector was largely as a result of increased competition rather than market power of the incumbents. My main concern with the paper is that it is a-theoretical, in that the authors do not provide a model to address the issues they raise in the paper.

I want to use this discussion to expand on some of the issues raised in the paper and provide a complementary perspective using stock market data that supports the conclusions reached in the paper.

The use of accounting profits as a proxy for economic rents may be misleading for a number of reasons including:

1. Differential tax treatment of tangible and intangible investments.
2. Part of the profits is just a return on capital. Hence, a plot of ROA (such as in Figure 1 in the paper), in the absence of data on the cost of capital, provides an incomplete picture of a firm's profitability.

I feel that a statistic such as the price earnings ratio is a better indicator of economic rents than the ROA since it incorporates three key variables:

1. ROA
2. The cost of capital
3. The amount of investment

Price Earnings Ratio as an Indicator of Economic Rents

To see that the price earnings ratio of a firm is a measure of economic rents, consider a stylized accounting statement for a firm.

Let

R_t be the firm's receipts from operations at time t;
W_t be the wages and other outlays at time t;
and I_t be the gross tangible investment at time t.

The market value of this stylized firm is:

$$V_0 = \sum_{t=1}^{\infty} \frac{E_t - I_t}{(1+r)^t} \tag{1}$$

where $E_t = R_t - W_t$ is the net operating cash flow.

Suppose that the investment I_t made at the beginning of any period t generates a uniform stream of earnings at the rate of r_t^* per period. We can view r_t^* as the average rate of return on the total investment budget I_t. (This corresponds to ROA in the paper.)

That is, we model the relation between current investment and future earnings as:

$$\mathrm{E}_2 = \mathrm{E}_1 + \mathrm{r}_1^* \mathrm{I}_1$$

or in general:

$$E_t = E_1 + \sum_{s=1}^{t-1} r_s^* I_s \quad t = 1, 2 \ldots$$

Substituting for E_t in the valuation equation of the firm (Equation 1) we get:

$$V_0 = \sum_{t=1}^{\infty} \frac{\left(E_1 + \sum_{s=1}^{t-1} r_s^* I_s \right) - I_t}{(1+r)^t}$$

This can be simplified to give:

$$V_0 = \frac{E_1}{r} + \sum_{t=1}^{\infty} I_t \left(\frac{r_t^* - r}{r} \right) \frac{1}{(1+r)^t} \tag{2}$$

or,

$$V_0 = \frac{E_1}{r} + \text{Present Value of Growth Opportunities}$$

Hence the price earnings ratio is:

$$P/E = \frac{1}{r} + C$$

It is clear from (2) that a high P/E is not simply a consequence of the fact that assets and earnings are expected to grow in the future. It is also necessary that the returns on the additional assets acquired by the firm (r^*) be greater than the cost of capital (r), i.e., the new investments must have a positive net present value (NPV). *A high P/E ratio is then an indicator of growth opportunities and economic rents.*

Distribution of Economic Rents Post 1990

Let us use the analysis above to examine how economic rents were distributed post 1990. To answer this question we split the firms listed on the BSE into two groups:

- Those that were incorporated before 1990
- Those that were incorporated after 1990

and examine the ROA and P/E ratios of the two groups.

TABLE 1. Mean ROA and Price-earning Ratios Conditional on Date of Incorporation

1990–2009	*Incorporated pre 1990*	*Incorporated post 1990*
Mean ROA	0.26	0.39
Mean P/E	17.99	45.77
Mean number of firms	2,307	1,104

Source: PROWESS database.

The mean price earnings ratio and ROA for the period 1990–2009 are reported in Table 1. Both means are substantially higher for firms incorporated post 1990 as compared to those incorporated before the reforms in 1990. This is consistent with the evidence in the paper, indeed provides orthogonal evidence that a large component of the rents *did not accrue* to the incumbents due to excessive market power. To the contrary, the evidence is consistent with growth due to innovation resulting in new patents and establishing new markets.

Quibbles:

- The threat of entry may be as potent a force in changing the incentives and behavior of existing firms as entry itself.
- Restricting the study to the BSE is likely to understate the number of new entrants as many new firms are unlikely to be listed on the BSE.

In summary, the authors make an important observation about the sources of corporate value in India. The orthogonal analysis presented in this discussion supports their conclusion.

Basanta Pradhan: This is an extremely interesting paper to me as it addresses an important issue in regard to the behavior of firms in India. Though the paper does not build any explicit theoretical model, the firm-level analysis has been made more interesting by incorporating macro variables. I also agree that the Kiviet estimation method is appropriate for this type of analysis.

However, the paper does not succeed in providing an answer in a definite/decisive manner to the very interesting and useful question it raises. This is understandable. Across sectors, it is difficult to draw conclusions for India. Profits in all the sectors in the Indian economy are not driven by the same set of variables. For some sectors it may be the market, in others it may be rent-seeking, and in some it could be both. So for India, for this period, a disaggregated analysis could have made a better approach. A conclusion covering firms in all sectors can at best lead to only speculative conclusions, as this paper does.

As appropriate, the paper does partition the firms into various categories. However, some further partitioning could have provided a better conclusion. Public sector firms and the rest is one. It is even more interesting to separate the firms which mostly depend upon the government contracts, and the ones that need a lot of government approvals from the rest. For example, many firms in sectors like mining, real estate, and telecom are under investigation for manipulating rules and procedures. Partitioning based on this principle could have helped to draw conclusions on involving corruption and rent-seeking. In the process, the answers to the principal question would have been sharper.

The key thing that this paper wants to address is that they are looking at two hypotheses which are orthogonal to each other. Whether Indian firms have come under increased competition after the liberalization, which started in mid-1980s, both internal and external, or are still their profits depend upon the economic entrenchment. They argue that the persistence of profits in Indian corporate sector was largely a result of innovations and improvements at the firm level under increased competition. However, their evidence is suggestive, not conclusive. For example, they argue the service sector is more dynamic when they find there is greater persistence for manufacturing firms.