Market Reforms and Industrial Productivity
An Explanation

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Abstract:

The recent developments in the new growth theory shows the theoretical link between industrial productivity and market mechanism in terms of private agents' incentives for investing in research and development and human capital accumulation. Several developing economies, such as India, that had implemented policy reforms towards market mechanism have been experiencing high economic growth. This paper brings out the factors that determine micro level firm level productivity in the context of a developing economy that had undertaken the policy reforms towards a freer market. It econometrically tests a few hypotheses on the basis of firm level panel data for a set of Indian industries. One of the strong results of the paper is that firm level outward orientation of exports and imports contributes significantly and positively to firm level productivity. This finding supports one of the propositions of the new growth theory that developing economies benefit significantly with free trade with developed economies through free flow of new ideas and technologies and externalities.

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1. Introduction

The 1980s and 1990s have seen several developing economies make a radical shift towards a market economy after years of pursuing import substituting policy regimes. Several of them have experienced higher economic growth after implementing the market reforms. In the case of India, the reforms on the internal front were initiated in the mid-80s and larger scale reforms on the internal and external fronts were initiated in the early-90s (The Economist, 2001). India's annual average growth of GDP was at 6.2 per cent and GDP per capita at 4.4 percent for the decade of 1990-2000 and at 5.9 percent and 3.8 percent for the decade of 1980-1990 and 3.7 percent and 1.5 percent for the period of 1950 to 1980 respectively (IMF). The neo-classical growth theory postulates that GDP grows as a consequence of capital accumulation, population growth and technological change. The growth rate in GDP per capita can be attributed to higher growth in capital accumulation and technological progress than population growth. Capital accumulation and technological progress make workers more productive- which leads to increase in marginal productivity of labor and wage rate and a decline in product prices and consequent increase in real incomes. This implies that in the nineties there was higher level of capital accumulation and technological progress than the previous four decades in the Indian economy. As is well known, India's policy reforms towards freer markets were initiated in the mid-80s and the early-90s (Ahluwalia 1999). At a qualitative level, one could put together the policy reforms and higher growth of GDP per capita, and attribute the higher growth rates to the market reforms.

The key issue concerns why a free market mechanism should contribute to capital accumulation and technological progress at a higher degree than under state interventionist policy regime. The neo-classical growth theory of Solow (1956) does not make a theoretical link between economic growth and market mechanism. In a production function framework, output is a function of capital and labor and any residual in the output, that is not explained by the inputs, is attributed to technological change. Technological change is assumed to be exogenous. There is no theoretical basis to explain why capital accumulation should be higher in a free market than in a socialist economy unless one shows that there are higher incentives for saving and its mobilization in a free market than in a socialist economy. The recent theoretical developments in the new (endogenous) growth theory shed light on the link between economic growth and market mechanism (Romer 1986, Lucas, 1988). The link can be seen in terms of incentives to private agents for investing in research and development and human capital accumulation in a free market mechanism in which technological change is not purely a public good. Partial excludability of technological innovations gives them private good properties. At the same time, technological change is partially a public good causing spillover effects, which increase aggregate and cumulative stock of knowledge. The non-rivalrious nature (use of a blueprint of a technology or new idea by one agent does not preclude use by other agents) of technological change is a source of increasing returns to scale and sustained long run growth (Romer 1990).

The incentive mechanism that causes private agents' investment in improving economic efficiency and subsequent economic growth can also be seen from the theoretical developments in the new institutional economics (Coase, 1937; Williamson,1985; North,1990). Well-defined and secure private property rights provide incentives for efficient production and allocation of resources. Market institutions that reduce market transaction costs of economic exchange improve efficiency in mobilizing resources for more productive use. Coase (1960) in his paper on the problem of social cost has shown that only in the absence of transaction costs did the neo-classical paradigm yield the implied allocative results. With positive transaction costs resource allocation is altered by the property rights structure. Well-defined and enforced property rights provide a certain degree of predictability to economic activity and the rules constrain and mould behavior in ways that rule out actions that are economically inefficient. To illustrate this, private property rights require both ownership and also control rights (Hart and Moore,1990). For example, the investors in the stock market should have the rights to ownership and control of their investment in terms having information about how the managers use their capital. In the presence of high market transaction costs of information, the investors lose control rights, which in turn cause high moral hazard behavior on the part of the managers. This in turn causes misutilization of accumulated capital (savings) in an economy. The widespread transfer of public savings into the public sector and private monopoly before the reforms in India could be an example. Despite a high annual savings rate (about 20 per cent) in the past; India could not achieve rapid growth because of inappropriate utilization of the accumulated capital by both the public and private sector monopolies. This can be viewed as an institutional failure that causes low economic growth.

The market institutions that provided right incentives to private agents with appropriate government institutional role appear to have generated an institutional framework for the Western style capitalism to succeed better than socialist economies in achieving sustained long run economic growth. For example, Russia's achievement in space technology and also India's success in certain high-technology areas such as the satellite technology were made possible by the public sector investment. However poor incentives for the private agents to make use of the stock of technology and knowledge created by the public sector investment led to drag down on the growth. Government investment in the defense industry in the US led to generation of new technologies. Combining this investment with private incentives for using the stock of knowledge led to effective commercialization and use of the technology for the public good- the example is the Information Technology industry in the US. In India's case, government investment in higher education and public sector firms worked as basis for the birth of India's software industry and the subsequent entry of private firms and open trade policies provided incentives for its recent rapid growth (Patibandla, Kapur and Petersen, 2000).

The following issue is how did the market reforms in India change the institutional conditions and induce incentives for higher economic efficiency? At a qualitative level, the reforms have increased competition, which is expected to reduce X-inefficiency of protected markets. Removal of licensing policies implies lower transaction costs for investment and mobilization of resources to more productive use. Opening up the economy to TNCs would imply both change in ownership structures and also increased competition. Opening up to international trade would imply free flow of technologies and possible spillovers and externalities and lowering of transaction costs in securing inputs globally. Free trade increases market size and facilitates flow of technology of both rival and non-rival inputs. Allowing of foreign institutional investors would imply reduction in informational imperfections and greater discipline (control rights) of the managers of corporations, which enhances efficient use of capital.

This paper addresses the issue of explanation of industrial productivity by micro level factors. As mentioned before, the policy reforms that change institutional conditions alter the behavior of firms, which influences industrial productivity. For example, the reforms should change the technological and organizational practices of firms, which in turn influence productivity. This paper does not address the issue of whether the productivity has increased or decreased after the reforms. The studies that estimate aggregate production functions and attempt to show increase in productivity at the aggregate level are theoretically flawed. The reforms do not have to increase productivity across a broad spectrum of industries. The textbook case of the theory of comparative advantage shows that opening up to international trade leads those industries that have comparative advantage to grow and those high-cost industries that were highly protected to contract and be phased out. Similarly, in any given industry some firms could adjust more efficiently to the changed market conditions and others could not adjust remain inefficient and slowly die out. In the short run, the inefficient remain to exist in the industry. In such a case, the average productivity of the industries may not show any increase owing to coexistence of inefficient and efficient firms.

In Section 2 we provide the theoretical framework that brings out a few hypotheses. The hypotheses are econometrically verified on the basis of firm level panel data for a set of industries in Section 3. Concluding comments are made in Section 4.

2. The Theoretical Framework and Hypotheses

In terms of market structure, market reforms can be seen as a movement from the public and private sector monopolies to a competitive market. In the static framework of microeconomics, a shift to a competitive market structure can be seen simply as a movement on a given cost curve (a given technology) towards the lowest point on the average cost curve. If there were global economies of scale, the market structure would be a natural monopoly or a natural oligopoly depending on the size of the market. In such a case contestablity of the market (threat of new entry) forces a monopolist to price at average cost and operate with full capacity utilization. Market reforms also reduce X-inefficiency of large firms with market power induced by increased contestability of the market (Patibandla, 1998). In dynamic terms, the issue is impact of market reforms that drives firms to undertake technological and organizational efforts, which cause downward shifts in cost curves and increase in productivity.

The market reforms initiated since the mid-80s have led to the entry of quite a few multinational firms into several Indian industries. Intangible asset theory of TNCs shows that TNCs possess superior technological and organizational practices in comparison to local firms in developing economies. The entry of TNCs and implications for industrial productivity operate at several levels. At one level, the new entry increases competitive conditions, which should induce local firms to replace inefficient technologies and organizational practices through imports of capital goods and R&D efforts (Patibandla, 2001) and in turn increase overall industrial productivity. However if the market expands at a lower rate than increase in capacity due to new entry, new entrant TNCs can cut into the market shares of local firms. In such a case it could result in decline in average industrial productivity as local firms operate at suboptimal scales. On the other hand if the number of firms increase under the increasing demand conditions without any loss of scale, the increase in the number of firms could result in external economies at the industry level which shifts cost curves down for all the firms (Rotenberg and Saloner, 2000). This effect will be more dominant if firms belonging to an industry form into a dynamic industry cluster (Patibandla and Petersen 2001). [3]Larger number of firms would be able to support a larger production of differentiated intermediate goods and also increases demonstration effect of superior practices.

If the demand increases slowly or stays the same, competition through R&D and advertising races could increase degree of concentration as firms spread the fixed costs of R&D and advertising over larger sales (Sutton, 1991). In other words, given the market size an industry will become a natural oligopoly of a few large players if there are economies of scale in production, R&D and advertising. If there were continuous R&D races among the incumbents to protect their market share, it would increase productivity over time. The sunk costs of R&D and advertising could be a source of entry barriers and long run market power to incumbents especially if there is implicit collusion among the few large players. In such a case one of the ways to increase the contestability of the market and force the incumbent to make continuous technological efforts is to allow free imports of the final goods.

Another implication of the entry of TNCs on productivity is spillover effects. Property rights on intangible assets being underdeveloped, they are partially public goods and others can use the assets developed by one firm at a small cost (Caves, 1996). If local firms, through deliberate effort or spillover, obtain the superior practices of MNCs, it would improve overall industrial productivity (Grossman and Helpman,1991; Branstetter, 2000; Kokko (1994). Local firms would be able to internalize these spillovers

[3] One good example is the software industry cluster in Bangalore and newly forming cluster of automobile TNCs in the southern coast of Tamil Nadu State.

and absorb them effectively if they make technological efforts in terms of investing in R&D and adapting imported technologies efficiently.

A major part of the reforms is opening up of the economy to international trade: devaluation of the currency, reduction in import duties and gradual removal of quantitative restrictions on imports. The new growth theory shows trade openness is a significant source of long run growth for developing economies. On one side there are a static gains in resource allocation- resources will be allocated on the basis of comparative advantage. On the other side is the dynamic gain of learning by doing, technological and informational externalities associated with free international trade. International trade extends the market size and allows firms to realize static and dynamic economies. International trade also facilitates free flow of new ideas and technologies and reduces the idea-gap which is a major source of spillovers and growth (Romer, 1990). This argument is especially important for developing economies because most of the new ideas and technologies are developed in the developed economies and trade with them helps in realizing these dynamic gains. Imports of differentiated intermediate and capital goods and technologies with non-rivalrous properties improve productivity.

On the other hand, free international trade for a developing economy could lead to specialization in those sectors with limited learning economies on the basis of static comparative advantage which will result in the economy being get stuck at low level growth (Lucas, 1988, Patibandla and Petersen 2001). Lucas (1988) shows how a natural (comparative) advantage in specializing can backfire in the long run. He shows a world in which an initial comparative advantage in farming can cause a region to become a food producer. Growth potential may, however, lie not in farming but in industrial goods, goods that people living in regions that do not have good farmland will turn to. People in these countries will eventually become expert manufacturers, whereas farmers will in the long run lag far behind because they are specialized in a good with no growth potential. Following from this line of reasoning, a developing country needs to have a certain level of initial industrial and human capital endowments in order to realize the dynamic gains associated with free trade with developed economies.

One of the important determinants of firm-level productivity is firm-level organizational practice. Williamson’s (1985) theory of transaction costs shows that in the presence of high market transaction costs owing to incomplete contracts and opportunistic behavior of agents, firms pursue vertical integration. Inefficient market institutions cause high market transaction costs that make firms to adopt a high degree of vertical integration and diversification strategies. There are organizational costs associated with integrated operations- a large firm faces internal informational imperfections and loss of organizational control. The efficiency loss associated with integrated strategies gets magnified if firms adopt centralized organizational structure. This had been the case in India in the pre-reforms period large diversified and family-run firms with a highly centralized organizational structure (Patibandla, 1998).

The market reforms can be seen as a partial shift in the market institutions to a more efficient mode. The removal of industrial licensing policies would imply lower transaction costs for dealing with government and for entry of new firms into industries. Greater the entry of new firms, higher the scope for firms to adopt specialized operations. This provides opportunities for firms to do outsourcing and take advantage of economies of specialization, which should contribute, positively to productivity. However, on the technology side if there are strong economies of scope for firms in producing different related products, integrated operations will contribute to higher productivity. [4]

3. The Empirical Analysis

The empirical analysis is based on the firm level panel data for a set of Indian industries covering the time period of 1989-1999. Firm level productivity is measured on the basis of Farrel's production frontier approach (see Appendix). It is regressed against a set of explanatory variables that capture the hypotheses of the previous section. The data were collected from publications by the Center for Monitoring Indian Economy, which regularly publishes detailed company level data. This data are based on the annual balance sheets of public limited companies. The industries are Airconditioners (AC), Commercial Vehicles (CV), Communication Equipment (CM), Motorcycles (MC), Motor Generators (MG), Pumps and Compressors (PC), Refrigerators (RF), Tyres (TR) and Washing Machines (WM).

3.1. The variables

TFP = firm level measured productivity (see the appendix for the measurement issues)

OPEN = (firm level exports + imports of raw materials and capital goods)/ sales
This variable is expected to capture the productivity gains to firms through free international trade as discussed in the previous section.

FIM = (imports of final goods/industry sales). This variable captures the competition to firms through imports of final goods

HF = Herfindal index of degree of market concentration (the sum of squared market shares of firms). This variable captures the degree of competition in the domestic market.

VER= degree of firm level vertical integration, (value-added/value of output)

GFS = cumulative industry gross fixed assets to industry sales. This variable is expected to capture some of the omitted variables at the industry level. It also captures the possibility of industry level external economies. As originally put forward by Marshal these external economies takes place as industry expands through cumulative investment. A larger industry supports production of larger quantity of intermediate

[4] Large scale firms in India's textile industry adopted highly integrated operations in order to realize economies of scale and scope in response to the market reforms (Ghemawat and Patibandla, 1999).

products and capital goods, which could result in external economies at the industry level. This in turn shifts cost curves of firms downwards.[5] By definition, it is a variable that increases over time unless the industry is a rapidly declining industry.

MNC = share of multinational firms's sales in total industry sales. This variable captures the issues of spillovers and competition in the domestic market for their implications on productivity. With regard to the spillover issue, industries with higher presence of MNCs should benefit from the technological and informational externalities associated with the operation of MNCs in developing economies. Entry of MNCs into Indian industries in the post reforms period increase degree of competition. Higher degree of competition, among MNCs and local firms should increase overall productivity.

RD= Research and development expenditure to sales. Research and development is done for adapting imported technologies and for product development to suit the Indian conditions. As discussed in the previous section, benefits of open trade policies are realized more effectively only when local firms make their own technological efforts through investing in R&D.

D1 to Dn= firm specific dummy variables that capture the firm-level fixed effects of the panel data. [6] The number of these variables changes for each industry depending on the number of firms in each industry.

3.2. The Results

Table 1 presents the estimated results for each of the nine industries. In general, the results are statistically significant and provide support to some of the main hypotheses. One strong result is that for the seven out of the nine industries, the estimated coefficient of the variable OPEN is positive and statistically significant. This implies those firms with higher outward orientation through exports and imports of intermediate and capital goods realize higher productivity. This result provides strong support to the argument that developing countries benefit from trade openness that gives them access to new technologies and ideas developed in developed economies and is a source of technological and information externalities as shown by the new growth theory. In five of the nine industries, the estimated coefficient of MNC variable is positive and statistically significant. The implications for this result are two fold: one is the issue of spillovers associated with multinational operations in developing countries and the other is competition-induced productivity gains through the entry of MNCs into the Indian industries in the post-reforms period. These two results show the importance of outward-oriented policies in international trade and investment for realizing higher productivity in developing economies.

The estimated coefficient of vertical integration variable (*VER*) is positive and statistically significant in five of the nine industries. It has multiple implications. One is that despite the reforms, the Indian economy is still characterized by inefficient market institutions, which cause high market transaction costs. This in turn causes higher costs for realizing economies of specialization through outsourcing. Consequently, firms that pursue vertical integration realize higher productivity gains. Moreover, in some of

[5] In Arrow (1962) on learning by doing, the productivity of a given firm is assumed to be an increasing function of cumulative aggregate investment for the industry.

these industries, technology could be characterized by economies of scope, which make vertical integration positively associated with productivity.

In the case of the Herfindal index variable (HF), there could be simultaneity bias in the specification. Under oligopoly conditions, market shares of firms depend on relative costs of firms: lower cost firms will have a higher market share. The Herfindal index variable, which is taken to capture the degree of competition, is the sum market shares of firms of each industry. Since the explanatory variable is the sum of market shares representing the industry but not market shares of firms, this simultaneity bias should not be too dominant. In the case of three industries, the estimated coefficient of HF variable is positive and statistically significant. As discussed in the previous section, in those industries where there are significant economies of scale in production, advertising and distribution and research and development, market would support a few firms. In such a case, a higher degree of concentration results in X-inefficiency and lower firm level productivity if there are strong entry barriers. In industries such as Commercial vehicles, we should expect significant economies of scale in production and distribution. In industries such as Air conditioners, Pumps and compressors and Communication equipment, one would expect the economies of scale not be too significant. In the case of these industries, the estimated coefficient is of HF variable is of negative sign and statistically significant. This implies a lower degree of concentration means higher competition and consequent higher efficiency of firms.[7]

We are able to introduce the variable of imports of final goods (FIM) only in six cases because until very recently imports of final goods had been subject to quantitative restrictions and high tariffs in India. This variable is expected to capture the effect of competition from imports and its implications on firm level productivity. The estimated coefficient is statistically significant in only two cases of PC and RF and it is of negative and positive sign respectively. The negative sign would imply that imports of final goods in the short run would cut into the sales of local firms and thereby their capacity utilization. However in the long run, if local firms adapt efficiently to competition to imports, their productivity should increase.

The variable cumulative gross fixed assets to sales of industries (GFS), which is expected to capture industry level external economies and also possible industry level omitted variables (such as changes in demand and its' implications on capacity utilization), is statistically significant in five cases. And it is positive only in one case of industry PC. We do not have a plausible explanation for the negative sign in the other cases. One guess could be that, if there were a mismatch between expectations of firms and actual realization of aggregate demand, firms would end up with excess capacity. This in turn causes lower productivity.

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[6] See Cheng (1986) for a discussion of the advantages of panel data in econometric estimations.

[7] One should keep in mind,in the case of individual industries, the HF variable's effect is only through the time series element of the panel data.

4. The Conclusion

During the last two decades, several developing and socialist economies that followed highly interventionist and import substituting policy regimes implemented a radical policy shift in terms of reducing the government intervention and opening up of the economies to international trade and investment. Some of these economies, such as India, achieved higher economic growth rate compared to the previous decades. The major source of growth is in increase in productivity caused by technological change and capital accumulation. For the market mechanism to bring in higher efficiency in developing economies it is necessary that these economies have certain minimum market institutional conditions (Williamson, 1998). In addition, these countries should possess a certain level of industrial and human capital endowment for free international trade and investment to bring in technological gains. The ability to put new ideas and technology into productive activity requires resources and skills. The more complex the technology and ideas greater are the resources are needed (Lucas, 1988). India can be considered to be one of those developing economies, which fulfills these conditions. It has had experience with capitalism in the past (under the British rule and under the so-called mixed economy policy regime), which means that it has minimum market institutional conditions. In addition, the past policies generated a large and wide industrial base and a large pool of skilled workers.

One of the very strong econometric results of this paper is that there is significant and positive association between firm level productivity and a firm's outward orientation in terms of exports and imports to sales. This result provides support for the proposition of the new growth theory that developing economies benefit significantly from free international trade with developed economies which is a channel for free flow of new ideas and technologies and externalities. This does not mean that government policy has no role. For these gains to be realized a developing country needs to have human capital and certain level of industrial endowments. This requires government investment in higher education and research and development.

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Appendix: Measurement of Firm Level Productivity

Productivity is defined in terms of magnitude of output realized for any given level of inputs employed. The production function frontier approach of Farrel (1957) is quite effective in measuring micro firm level relative productivity within an industry. The production relation can be expressed as:

$Y = (X{:}a) + u$, where Y is a vector of input observations and X is a matrix of input observations, a represents the parameters and u represents one-sided error. Frontier estimations take u to have negative expectation, indicating the presence of (technical) efficiency. In the present case, u is taken to consist of two parts- a normally distributed error term that represents statistical noise and a truncated error term that represents technical inefficiency. Stochastic frontier functions isolate differences in efficiency and random differences among firms by dividing the error term into a deterministic component and a random one. Panel data estimations help in avoiding some strong assumptions. Under the fixed effects approach, there is no need to assume a probability distribution for the inefficiency index and it has the advantage of dispersing with the assumption that firm level inefficiencies are uncorrelated with input levels. The random approach, on the other hand, requires to assume that firm level inefficiencies and input levels are independent but unlike the fixed effects approach, it can accommodate time-invariate variables such as industry or firm dummies. The inefficiency component can be modeled as a function of a number of firm specific factors. Battese and Coelli, 1992 show the simultaneous estimation of both the production function and the inefficiency term. We have taken a two input production with value-added as a function of rental value of capital and salaries and wages as labor input. The values normalized by the appropriate price indices of producer and consumer prices. We have made use of both the Translog and the Cobb-Douglas production functional forms depending on their fit to the different industries

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Table: Explanation of Firm Level Productivity (TFP)

INDUSTRY	CONSTANT	FIM	GFS	HF	OPEN	MNC	RD	VER	D1	D2	D3	R2	F	N
AC	0.73	-3.9	-0.13	-0.34	0.5	3.6	-52	0.5	-0.13	0.12	-0.1	0.5	6.3	54
	(7.1)*	(0.8)*	(3.2)*	(2.12)*	(2.0)*	(2.0)*	(1.2)	(2.0)*	(2.9)*	(3.4)*	(2.7)*			
CV	-1.6	-9.0	-0.008	1.9	0.3	1.4	-12	1.0	-0.06	0.1	0.07	0.48	6.5	72
	(4.4)*	(0.3)	(0.3)	(2.5)*	(5.7)*	(2.8)*	(1.1)	(7.0)*	(1.7)*	(3.7)*	(1.6)			
CM	0.7	-0.4	-0.03	-0.4	0.15	-4.0	1.3	0.09	-0.6	0.1	0.13	0.2	4	227
	(7.0)*	(0.3)	(0.6)	(1.7)**	(2.8)*	(1.3)*	(0.9)	(1.3)	(2.4)*	(2.7)*	(3.6)*			
MC	0.6	-	-0.04	-0.3	0.3	0.19	-0.3	1.4	-0.2	-0.2	0.1	0.5	6.6	48
	(2.3)*		(1.7)**	(0.7)	(1.56)**	(0.4)	(0.06)	(4.1)*	(4.3)*	(6.0)*	(0.4)			
MB	0.5	-	-0.1	0.7	-0.2	2.2	10	-0.5	-0.2	-0.2	-0.2	0.3	3.8	66
	(1.1)		(0.7)	(0.8)	(1.4)	(1.6)**	(1.5)**	(0.3)	(3.5)*	(3.4)*	(3.0)			
PC	1.2	-0.7	0.4	-5.5	0.4	-0.9	-7.3	0.4	0.1	-0.1	-0.1	0.5	11	115
	(4.6)*	(3.8)*	(3.7)*	(3.2)*	(6.1)*	(0.06)	(2.0)	(4.5)*	(3.6)*	(5.9)*	(6.8)*			
RF	1.1	5.8	-0.2	-1.6	0.2	1.4	-	0.2	-0.7	-0.5	0.1	0.21	2.4	47
	(2.9)*	(2.0)*	(2.8)*	(2.6)*	(0.4)	(3.1)*		(1.1)	(0.9)	(1.1)				
TR	0.3	-8.0	-0.3	1.0	0.2	0.8	-6.0	-0.3	0.4	-0.16	0.6	0.2	8.7	231
	(2.4)*	(0.8)	(4.5)*	(2.1)*	(2.5)*	(2.0)*	(1.3)*	(2.5)*	(1.2)	(4.5)*	(1.4)			
WM	-0.8	-	-0.02	0.6	0.5	-0.2	-4.0	1.3	0.3	0.1	0.2	0.5	6	44
	(0.6)		(0.9)	(1.8)**	(1.9)**	(0.9)	(1.3)	(4.6)*	(4.3)*	(2.4)*	(4.2)*			

Figures in the brackets are t-values. *significant at 0.01 and ** significant at 0.05 levels.