Dividend Policies of Exporting Firms in India

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Abstract

There are good reasons for expecting dividend policies of exporting firms to be different from those of non-exporting firms. Exporting firms in traditionally inward-looking countries like India have expended resources and taken the necessary steps to access investment opportunities abroad, compared to non-exporting firms. The Investment Opportunities Hypothesis suggests that firms with greater investment opportunities would retain more of their earnings. On the other hand, if product demand from abroad has a low correlation with domestic demand, we would expect export-intensive firms to have greater cashflow stability than firms that only sell domestically. This implies that they would also be able to tolerate higher dividend payout without fear of bankruptcy. Furthermore, by virtue of their exposure to foreign markets, foreign investors are more familiar with them. As such, their ability to raise capital abroad through ECBs is greater; this, again, would allow them to reduce their reliance on internal equity. We explore which of these factors is more important in determining the dividend policies of exporting firms in India.

Our results suggest that the Diversification Hypothesis and the Capital Access hypothesis are more important than the Investment Opportunities Hypothesis in determining Exporting Firms' dividend policies. One implication of these results might be that developing countries should think about encouraging firms to enter export markets..

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I. Introduction

After many years of trying import substitution, India has turned her focus to export promotion. This has acquired a particular impetus after economic liberalization in the early 1990s and is in keeping with tendencies in other emerging economies as well. In the half century or so that developing countries have been trying out this policy, a lot of data has accumulated. Economists have investigated the relative success of this policy in many countries across the globe. Most of this research is at a macro-level, but some researchers have also looked at this question at a micro-level. There is increasing evidence that exporting and profitability are positively correlated. Thus, Navaretti et al. (2002) find a positive relationship between export shares of Indian firms and productivity gains.[1] Some research suggests that the act of exporting causes greater profitability. Aulakh, Kotabe and Teegen (2000) look at exporting firms in Brazil, Chile and Mexico and find that "cost-based strategies enhance export performance in developed country markets and differentiation strategies enhance performance in other developing countries." On the other hand, Demirbas, Patnaik and Shah (2009), suggest that the more productive Indian firms gravitate to export markets.

Much of this research looks at operational characteristics of exporting firms; however, little research has been done regarding the financial policies of exporting

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[1] Similarly, Chibber and Majumdar (1998, p. 121) look at whether Indian firms that export tend to be more profitable than other firms. They find a positive relationship between exporting and profitability, and they use this as support for the proposition that "for firms from developing and transition economies like India it does pay to venture abroad, and the ability to sell goods overseas has a significant impact on firms' economic performance."

firms.[2] In this paper, we look at one aspect of their financial policies, specifically their

dividend policies. This research is interesting and useful from many points of view –

one, it can be used to examine the connection between financial policies and export

performance; two, it can be used to test theories of exporting firms;[3] and, finally, it can

be used to throw light on theories of dividend policy.

There are good reasons for expecting dividend policies of exporting firms to be

different from those of non-exporting firms. Exporting firms in traditionally inward-

looking countries like India have expended resources and taken the necessary steps to

access investment opportunities abroad, compared to non-exporting firms.[4] Once firms

have made the necessary investments needed to access export markets, they have the

ability to exploit market opportunities that are closed to non-exporting firms. The

Investment Opportunities Hypothesis suggests that firms with greater investment

opportunities would retain more of their earnings. This line of reasoning would,

therefore, suggest that exporting firms would have lower dividend payouts.

Furthermore, export status might very well be correlated negatively with dividend

policy, for another reason. There is some evidence that exporting firms are better and

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[2] Demirbas, Patnaik and Shah (2009) document the financial leverage of
different kinds of exporting and non-exporting firms. However, this is not their primary
interest. Goldman and Viswanath (2011) look at financial leverage of exporting Indian
firms.

[3] See, for example, Cavusgil (1982) Czinkota (1982), Moon and Lee (1990), Rao
and Naidu (1992), Wortzel and Wortzel (1981) and Bernard and Jensen (2004).

[4] There is a lot of research on why some firms export, while others don't. One
strand of research suggests that there are sunk costs that are necessary in order for a firm
to export. Theoretically, one would expect the Sunk Cost hypothesis to be particularly
true for emerging economies. Sinani and Hobdari (2008) present evidence using
Estonian data that suggest that sunk costs are important determinants of export market
participation. Ganesh-Kumar, Sen and Vaidya (2003) present similar evidence for Indian
firms.

more efficient than other firms.[5] If so, these firms probably have a lot of human capital incorporated in their value. This would make it more difficult for exporting firms to raise external funds and would lead to a tendency to retain more funds. According to this theory, exporting firms would have lower payout ratios.

On the other hand, since product demand from abroad has a low correlation with domestic demand,[6] we would expect export-intensive firms to have greater cashflow stability than firms that only sell domestically. If this is the case, then firms that have diversified their operations to export markets, in addition to domestic sales, would have greater stability of cashflows. This should lead to a greater willingness to pay out dividends without fear of bankruptcy. In other words, even after adjusting for industry differences, we would expect to find that exporting firms pay out more in dividends than other firms. We should also be able to relate dividend payouts to the lower volatility of cashflows, as well as to the choice of export markets – firms exporting to markets that are more detached from their own home economies would pay more in dividends as a percentage of earnings. Of course, greater cashflow stability would imply higher financial leverage as well. Goldman and Viswanath (2011) present supporting evidence for the latter proposition.

Furthermore, by virtue of exporters' exposure to foreign markets, foreign investors are more familiar with them. As such, their ability to raise capital abroad through external corporate borrowings (ECBs) is greater; this, again, would allow them to reduce their reliance on internal equity. In line with many other developing countries, India, too, has erected barriers against the free inflow and outflow of foreign capital. To

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[5] See, for example, Ganesh-Kumar, Sen and Vaidya (2003) and Bernard, Jensen, Redding and Schott (2007). On the other hand, Navaretta et al (2002) find that large Indian exporters are not necessarily more human capital intensive.

[6] See, for example, Fadhlaoui, Bellalah, Dherry and Zouaouil (2008).

the extent that exporting firms are able to raise foreign funds more cheaply, they are more likely to use them, compared to non-exporting funds. This is even more likely to be the case if the Indian government moves forward with plans to auction entitlements for Indian corporations to borrow abroad.[7]

In summary, there are good reasons to expect exporters to pay lower dividends and equally good reasons to expect them to pay higher dividends than non-exporters. The Investment Opportunities hypothesis and the Human Capital hypothesis indicate lower exporter dividends, while the Diversification hypothesis and the Capital Access hypothesis suggest higher exporter dividends. We discuss our results in the next section.

II. Data and Methodology

A: Data

Data was obtained from the Prowess database marketed by CMIE (Centre for the Monitoring of the Indian Economy). While CMIE data is available from the 1990s, there are a lot of policy changes in the earlier years; furthermore, firms are still responding to the new economic environment in these years.[8] Hence we used data from a more recent time period. We chose firms on the A and B lists of the Bombay Stock Exchange with available data from the years 2000 to 2009. Table 1 shows the number of firms, by year, for which we have data. Table 2 provides summary statistics on some of the important variables that we use in our study. Table 3 provides information on the behavior of the

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[7] See recent article in the Economic Times (Nov. 19, 2009; http://economictimes.indiatimes.com/news/economy/finance/Govt-set-to-auction-ECB-entitlements/articleshow/5245563.cms). On the other hand, Kumar et al. (2008) present evidence that Indian firms that have listed on foreign exchanges have not seen any reduction in the sensitivity of their investments to internal cashflows.

[8] There is some evidence even in the earlier years that exporting firms are already different from other firms (see Ganesh-Kumar, Sen and Vaidya, 2003).

payout ratio over time for exporters versus non-exporters. Figure 1 shows this behavior graphically.

Table 1: Number of firms in sample, by year

Year	Number of firms
2000	2005
2001	2027
2002	2025
2003	2020
2004	2006
2005	2006
2006	2026
2007	2094
2008	2153
2009	2202

Table 2: Summary Statistics for Selected Firm Specific Variables

ExpIntensity is the ratio of exports to sales; ExpIntenRel is 1-2|expintensity-0.5|; DummyExports = 1 for firms which export and = 0 for firms which do not export; PR is the payout ratio or dividends paid/profit after taxes; PRS is the ratio of dividends paid to adjusted sales, where adjusted sales = Sales + Income from financial services - Indirect taxes.   Profit Margin is the ratio of operating cashflow before working capital to sales. CapInt is the ratio of Net Fixed Assets to Total Assets. Intangibles is the ratio of Net Intangible Assets to Total Assets; MarketCap is defined as the market price of the stock at the end of March (which is the end of the financial year for most firms in India) times the number of shares outstanding; BookValue is the same as Net Worth; BktoMkt is the ratio of BookValue to MarketCap; R&D is the ratio of R&D expenses on Capital Account to Sales; Log(Assets) is the natural logarithm of Total Assets; Assetbeta is the equity beta times (MarketCap/MktValAssets), where MktValAssets is computed as Total Assets – Net Worth + MarketCap; Age is 2010 minus the year of incorporation; LtDebt is (Total Borrowings - Short-term Borrowings)/(MktValAssets); VarCashFlow is the Variance of OpCashFlow, computed using observations for the previous five years.

Variable	No. of obs.	Mean	Std.Dev.
Exp Intensity	14859	0 .147782	0.257723
DummyExports	17202	0.503779	0.5
ExpIntRel	14859	0.167114	0.261156
PRS	16880	0.017617	0.098246
PR	16847	0.156803	0.42602
CapInt	17201	0.334394	0.24721
Profit Margin	14859	2.692645	219.445
Intangibles	17201	0.014846	0.105048
MarketCap	17202	1105.242	7656.736
MktToBk	16535	1.072483	2.846564
Log(Assets)	17201	4.359919	2.304263
Age	20564	32.96868	94.55071
R&D	14859	0.000957	0.011251
Assetbeta	15242	0.257207	4.699126
LtDebt	17202	0.192167	0.204465
VarCashFlow	7937	60764.96	882926
Corr(Sales,Exports)	4972	0.536615	0.546143

Table 2a: Differences between Exporters and Non-exporters

Variable	Non-exporters			Exporters			
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	t-stat
LtDebt							
MarketCap							
BookValue							
BktoMkt	8532	5.632	18.643	8666	4.013	10.403	**7.1**
R&D	6193	0.000	0.004	8666	0.001	0.014	**-6.8**
Log(Assets)	8535	3.484	2.324	8666	5.223	1.929	**-53.4**
CashflowAssets	8535	0.040	1.055	8666	0.108	0.133	**-6.0**
Profit Margin	6193	6.092	339.835	8666	0.263	4.555	1.6
CapInt	8535	0.288	0.274	8666	0.380	0.208	**-24.6**
Intangibles	8535	0.015	0.130	8666	0.015	0.072	-0.5
Assetbeta	6945	0.060	6.944	8297	0.422	0.383	**-4.8**
VarCashFlow	3533	19963.3	219223.3	4109	100043.9	1208891.0	**-3.9**

Note: Values in bold indicate t-test is significant at 5%

Table 3: The Behavior of PR (the payout ratio) over time for exporters and non-exporters

Year		Non-exporters	Exporters	Total	T-stat*
2000	Mean	0.117341	0.208947	0.163536	-5.56127
	Std. Dev.	0.287992	0.351379	0.324666	
	No. of obs.	753	766	1519	
2001	Mean	0.104058	0.193634	0.149483	-4.85961
	Std. Dev.	0.405307	0.312585	0.363924	
	No. of obs.	763	785	1548	
2002	Mean	0.080002	0.213043	0.145752	-4.7623
	Std. Dev.	0.340859	0.720702	0.565417	
	No. of obs.	830	811	1641	
2003	Mean	0.077001	0.199755	0.138341	-5.85738
	Std. Dev.	0.249329	0.547549	0.429622	
	No. of obs.	825	824	1649	
2004	Mean	0.082107	0.183066	0.133819	-7.42461
	Std. Dev.	0.297545	0.249338	0.278444	
	No. of obs.	799	839	1638	
2005	Mean	0.087267	0.212013	0.150086	-9.27453
	Std. Dev.	0.260076	0.290269	0.282585	
	No. of obs.	833	845	1678	
2006	Mean	0.118364	0.244759	0.182716	-3.96908
	Std. Dev.	0.712279	0.615115	0.667396	
	No. of obs.	860	892	1752	
2007	Mean	0.113129	0.212233	0.164125	-5.83248
	Std. Dev.	0.428948	0.274228	0.361104	
	No. of obs.	883	936	1819	
2008	Mean	0.099077	0.22147	0.164119	-7.02627
	Std. Dev.	0.237689	0.483315	0.392767	
	No. of obs.	865	981	1846	
2009	Mean	0.107113	0.224678	0.171817	-6.40338
	Std. Dev.	0.241199	0.504726	0.41195	
	No. of obs.	790	967	1757	

Notes: T-stat is the t-statistic for the difference between the payout ratios for non-exporters and exporters, under the assumption that the observations for the exporting and non-exporting subsets are independent.

It is clear from Figure 1 and from Table 3 that exporters have significantly higher payout ratios than non-exporters. However, this might very well be an industry effect. Hence, we need to control for variables that standard dividend theories suggest are important in determining payout ratios.

Figure 1: The Behavior of the Payout Ratio over Time
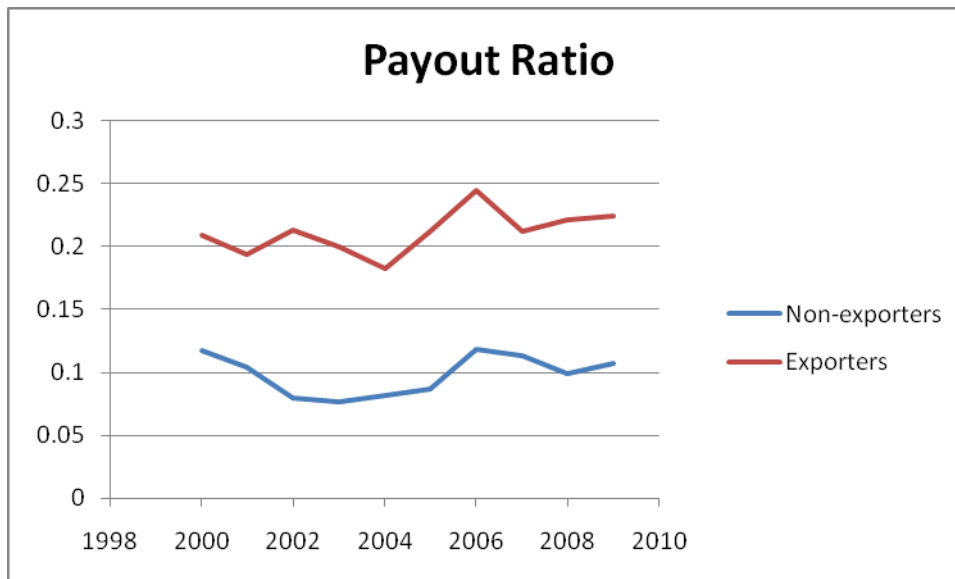
B: Regression Evidence – the effects of the other explanatory variables:

We regressed the payout ratio, the ratio of dividends to profit after taxes on a measure of export intensity, as well as on several explanatory variables. For our measure of export intensity, we decided not to use an export dummy, since we would be ignoring a lot of information. Furthermore, the hypothesis to be tested suggest a relationship between the extent of involvement in exports and the firm's dividend policy. We therefore defined our measure of export intensity as the ratio of exports to sales. However, since one of our hypotheses suggests that exporting firms might benefit from having a mix of exports and domestic sales leading to lower cashflow volatility, we

defined the following measure of relative export intensity, ExpIntenRel = 1-
2|expintensity-0.5|. If a firm's sales are equally divided between exports and domestic

sales, such a firm would score the maximum of 1 on this measure. Firms that rely

entirely on the domestic market or entirely on the foreign market for their sales would

score the minimum of zero; other firms would score between zero and one.[9]

For our independent variables, we used some variables that have been commonly

used in tests of dividend theory in investigating US firms. It has been hypothesized that

firms with investment opportunities would have lower payout ratios, since information

asymmetry implies that external funds would be more expensive than internal funds.

This follows from Myers' (1984) Pecking Order Hypothesis. Empirically, Woolridge

and Ghosh (1985) found that the market penalized firms that cut dividends; however,

when the firms simultaneously announced investment opportunities, the negative market

reaction was much lower, and it was more than overturned in the next quarter. Soter,

Brigham and Evanson (1996) reported similar results with the Florida Power and Light's

dividend cut in 1994. Although the negative market reaction at the time of the dividend

cut announcement is troubling, the overall market response is positive.[10] Abbott (2001)

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[9] We also considered the standard export intensity variable defined as the ratio of
exports to total sales.

While the relative intensity variable is somewhat ad hoc in that we do not know
the optimal ratio of exports to domestic sales, here's how it could be conceptualized and
justified. Suppose var_x is the variance of cashflows derived from foreign sales and var_d is
the variance of domestic sales. Then, the optimal proportion of sales to be derived from
exports in order to minimize the variance of total cashflows would be $var_d/(var_x + var_d)$.
If $var_d = var_x$, then the optimal proportion would be 0.5. In principle, we could estimate
var_d and var_x for each firm, but the estimation error would be large. Hence we use the
simple assumption that $var_d = var_x$ as a reasonable prior and as a convenient
approximation to the true variance numbers.

[10] One possible explanation for the immediate negative market reaction is that
the market did not have enough information to confirmation the firms' announcement of
better investment opportunities.

looks at firms whose investment opportunity sets have changed and tries to correlate this with their financing policies – he finds that firms with improved investment opportunities decrease their dividend payouts. This evidence implies that firms with higher investment and growth opportunities would have lower payout ratios.

We use several measures of growth; the ratio of Intangibles to Total Assets is usually positively correlated with growth opportunities; the Book-to-Market ratio and the ratio of fixed assets to total assets (capital intensity) are usually negatively correlated with growth opportunities; hence high book-to-market firms, having low investment and growth opportunities should pay high dividends. R&D was also used as a measure of investment opportunity, since its purpose is to generate investment ideas.

There is also a fair amount of evidence that firms do not like to cut dividends. This may be because dividend changes are interpreted by the market as a signal of firm value. Whatever the reason, if such a tendency exists, higher volatility of cashflows should be correlated with lower dividend payouts. We also used Log(Assets) to measure firm size as an explanatory variable. Larger firms tend to be more stable and hence should have higher payout ratios. Age is also used as a measure of cashflow stability.

We used VarCashFlow and AssetBeta as two additional measures of cashflow volatility. We included the firm's asset beta as an explanatory variable, on the assumption that beta and return volatility would be positively correlated. And since return volatility and cashflow volatility are probably correlated (since a primary mover of prices is news regarding the firms future cashflow prospects), higher beta would imply lower payout ratios. AssetBeta is a measure of the beta of the assets of the firm. Since this is difficult to compute directly, we computed it indirectly as follows. We took the measure of equity beta provided by Prowess and adjusted for the weight of equity in the capital structure of the firm by multiplying the equity beta by the ratio of the market

value of equity to total assets, implicitly assuming a debt beta of zero. As a proxy for the market value of assets, we used Total Assets – Net Worth + Market Capitalization. We do not compute the firm's equity beta, ourselves. Rather, we use the value provided by CMIE.[11] In order to measure cashflow variability more precisely, we computed another variable, VarCashFlow, which is computed as the variance of Operating Cashflow before Working Capital Changes for each company over the past five years. Once again, this variable would be expected to correlate negatively with payout ratio.

We used CashflowAssets (the ratio of cashflow to assets) as a measure of internal fund availability.[12] The higher the level of internal funds available, the higher the payout ratio the firm can tolerate and stiff fund internally generated projects. Hence we would expect a positive relationship between payout ratio and measures of cashflow. The following table summarizes the expected signs of the explanatory variables.

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[11] This value is computed by regressing weekly firm returns on the CMIE Overall Share Price Index, using data for the last five years.

[12] See Myers (1984) for a static version and Viswanath (1993) for a dynamic version of the Pecking Order Hypothesis that suggests the importance of this category of variable. Byoun (2008) presents a recent test of this hypothesis.

Table 4: Expected signs of variables in Payout-Ratio Regression

Variable	Expected sign in payout-ratio regression
Firm Size: Log(Assets)	+
Age	+
R&D	-
VarCashFlow	-
Asset Beta	-
Intangibles-to-TotAssets	-
Book-to-Market	+
Capital Intensity	+
Cashflow-to-Assets	+
Profit Margin	
LtDebt	+

Table 5: Payout Ratio as a function of firm characteristics and export intensity variables

Variables are as defined above in Table 2. In addition, Profit Margin is defined as the ratio of OpCashFlow to sales, where OpCashFlow is Operating Cash Flow before Working Capital Changes. CashflowAssets is the ratio of OpCashFlow to Total Assets.

Variable	Coef.	Robust Std. Error	T-value	P>|t|
Expintrel	0.050834	0.01898	2.68	0.007
Intangibles	-0.05091	0.030519	-1.67	0.095
BktoMkt	-0.00144	0.000266	-5.44	0
Log(Assets)	0.033165	0.001588	20.88	0
Profit_Margin	-1.03E-06	3.58E-06	-0.29	0.773
CashflowAssets	0.00768	0.005812	1.32	0.186
Age	0.001315	0.000183	7.18	0
CapInt	0.022959	0.018309	1.25	0.21
R&D	-0.0312	0.142196	-0.22	0.826
Assetbeta	-0.0012	0.000312	-3.84	0
LtDebt	-0.22677	0.026165	-8.67	0
Constant	0.016797	0.011154	1.51	0.132
Number obs	13279			
Sample	2000-2009			
R-squared	0.0414			
Root MSE	0.44806			

Table 5 presents the regression evidence. We see that BktoMkt, CapInt, Log(Assets), Age and are significant – the signs of the last two variables are as predicted, while BktoMkt and CapInt are unexpectedly negatively related to payout ratio. ExpIntRel shows up with a positive coefficient, indicating that exporting firms pay higher dividends than non-exporting firms. We note, however that the payout ratio cannot take values less than zero, and should properly be treated as a censored variable. Hence we redo the regression using Tobit analysis.

Table 6: Payout Ratio as a function of firm characteristics and two different export intensity variables: Tobit Regressions with Robust Standard Errors

	Model 1 (Export Intensity)		Model 2 (Expintrel)	
Variable	Coef.	P>|t|	Coef.	P>|t|
Export Variable	0.1858	0	0.185679	0
Intangibles	-0.64468	0	-0.61577	0
BktoMkt	-0.00742	0	-0.00748	0
Log(Assets)	0.153159	0	0.151965	0
Profit_Margin	-1.3E-05	0.537	-1.3E-05	0.548
CashflowAssets	0.046792	0.102	0.046891	0.103
Age	0.00328	0	0.003028	0
CapInt	0.01394	0.715	-0.00175	0.963
R&D	0.622828	0.198	0.537706	0.236
Assetbeta	-0.00432	0.009	-0.0041	0.011
LtDebt	-0.87943	0	-0.89448	0
Constant	-0.88588	0	-0.86741	0
Sigma	0.72478		0.724345	
Left-censored obs	6990		6990	
Uncensored obs	6289		6289	
Pseudo R-squared	0.1190		0.1190	

The Tobit analysis results are presented in Table 6. Note that the same variables continue to be significant, with the addition of Cashflow-to-Assets, which has a positive coefficient, as expected. The export measure continues to be positive and significant, indicating that exporting firms have higher payout ratios.

Up to this point, we have treated all firms as a group. While this aggregate treatment provides some support for the general thesis that export intensity is positively related to financial leverage, we must recognize that there are likely to be differences across industries that are not sufficiently captured by the firm-specific variables that we have already taken into account. Furthermore, industry affiliation often turns out to be a significant explanatory variable in studies of financial policies, for example in capital structure models (Frank and Goyal, 2009).

In order to check this, we started out by recognizing that mean debt-equity ratios vary by industry and hence we should allow for industry fixed effects in our regression of financial leverage on firm-specific characteristics. Industry membership for the companies was obtained from the PROWESS database, using the NIC classification variable. We used the industry classification shown below.

Industry	NIC numbers	Variable indicator
Agriculture and Mining	10000-14999	
Manufacturing	15000-36999	manuf
Electricity	40000-44999	electr
Construction	45000-45301	constr
Trade and Hotel	50000-55000	trade
Transport and Telecom	60000-64202	transpt
Business Services	65000-75000	busserv
Community Services	80000-92200	comserv
Miscellaneous	93000-97000	

We also added year dummies to allow for the possibility that payout ratios might vary over time, maybe over the business cycle; the export variable may be capturing this effect. Since the agriculture industry includes very few observations, it has been commingled with the miscellaneous category. This commingled category is left out from the regression to prevent multi-collinearity. Hence all industry effects are relative to the agriculture industry. We also include an additional direct measure of cashflow volatility,

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which is the variance of OpCashFlow, computed using observations for the previous five

years.   Consequently, we only have observations from years 2005 to 2009.

Table 7: Payout Ratio as a function of firm characteristics, industry dummies, year dummies and export intensity: Tobit Regressions with Robust Standard Errors

	w/ Var(Cashflows) & Corr (Sales,Exports)		w/o Var(Cashflows) & Corr (Sales,Exports)	
Variable	Coefficient	P>|t|	Coefficient	P>|t|
Export Intensity	0.142007	0.002	0.165102	0
Intangibles	-0.92719	0	-0.71442	0
BktoMkt	-0.00352	0.051	-0.00625	0.002
Log(assets)	0.093569	0	0.127671	0
Profit Margin	0.000299	0.002	0.000307	0.06
CashflowAssets	0.018702	0.363	0.022796	0.137
Age	0.002618	0	0.002462	0
CapInt	0.154538	0.001	0.113551	0.043
R&D	1.526619	0.066	0.152675	0.824
Assetbeta	-0.02503	0.464	-0.00459	0.028
LtDebt	-1.03971	0	-0.91322	0
ind_manuf	0.238308	0	0.307391	0
ind_electr	0.170872	0.001	0.226575	0
ind_constr	0.139842	0.008	0.243867	0
ind_trade	0.282792	0	0.307394	0
ind_transport	0.096617	0.2	0.125417	0.034
ind_busserv	0.177743	0	0.282546	0
ind_comserv	0.323491	0	0.237404	0
y2006	0.038388	0.247	0.059118	0.102
y2007	0.006151	0.792	0.035321	0.181
y2008	0.001209	0.966	-0.00013	0.996
y2009	0.026885	0.36	0.011144	0.681
Var(Cashflows)	-2.37E-08	0		
Corr(Sales,Exports)	0.015655	0.335		
Constant	-0.70291	0	-1.02199	0
Sigma	0.589146		0.689241	
Left-censored obs	1683		3314	
Uncensored obs	2922		3869	
Pseudo R-squared	0.1020		0.1086	

Table 8: Payout Ratio as a function of firm characteristics, industry dummies, year dummies and Rel Export Intensity: Tobit Regressions with Robust Standard Errors

	w/ Var(Cashflows) & Corr (Sales,Exports)		w/o Var(Cashflows) & Corr (Sales,Exports)	
	Coefficient	P>|t|	Coefficient	P>|t|
ExpintRel	0.076168	0.034023	0.129038	0
Intangibles	-0.95809	0.193044	-0.72057	0
BktoMkt	-0.0033	0.001794	-0.00626	0.002
Log(assets)	0.093176	0.009092	0.12782	0
Profit Margin	0.000257	9.35E-05	0.000277	0.072
CashflowAssets	0.018411	0.020544	0.022736	0.14
Age	0.00238	0.000427	0.002295	0
CapInt	0.153309	0.048286	0.113967	0.042
R&D	1.488002	0.812103	0.171831	0.791
Assetbeta	-0.02426	0.034141	-0.0043	0.036
LtDebt	-1.05995	0.122347	-0.93914	0
ind_manuf	0.226876	0.043748	0.297515	0
ind_electr	0.177196	0.052492	0.22784	0
ind_constr	0.123464	0.05142	0.233799	0
ind_trade	0.270937	0.050124	0.29635	0
ind_transport	0.083071	0.074459	0.116071	0.048
ind_busserv	0.211495	0.042753	0.30724	0
ind_comserv	0.306581	0.071322	0.224833	0
y2006	0.036661	0.033044	0.057529	0.11
y2007	0.004143	0.023302	0.03373	0.201
y2008	-0.00192	0.027874	-0.00248	0.923
y2009	0.024656	0.029365	0.010021	0.711
Var(Cashflows)	-2.41E-08	5.91E-09		
Corr(Sales,Exports)	0.027998	0.01709		
Constant	-0.67542	0.110186	-1.0048	0
Sigma	0.589480		0.689342	
Left-censored obs	1683		3314	
Uncensored obs	2922		3869	
Pseudo R-squared	0.1009		0.1080	

The results, presented in Table 7, are similar whether we use the export intensity variable or the Relative Export Intensity variable. Since the export variable continues to be significant, we conclude tentatively that exporting firms tend to have higher payout

ratios than non-exporting firms. This could be either due to the Diversification Hypothesis or because exporting firms have better access to capital in external capital markets. The industry dummies are all significant, indicating that non-agricultural firms tend to pay higher dividends.

Table 9: Log (Variance of Cashflows) as a function of Corr(Sales,Exports) and other explanatory Variables

Variable	Coef.	Robust Std. Error	T-value	P>|t|
Corr(Sales,Exports)	0.244431	0.050511	4.84	0
Expintrel	-0.57946	0.089844	-6.45	0
Intangibles	1.510186	0.343346	4.4	0
BktoMkt	-0.0426	0.009767	-4.36	0
Log(Assets)	1.767263	0.015037	117.53	0
Profit_Margin	0.000443	0.000695	0.64	0.524
CashflowAssets	0.009905	0.099744	0.1	0.921
Age	0.000725	0.001238	0.59	0.558
CapInt	0.627797	0.155097	4.05	0
R&D	0.815138	1.310825	0.62	0.534
Assetbeta	0.282856	0.09756	2.9	0.004
LtDebt	-0.63016	0.217082	-2.9	0.004
Constant	-5.96471	0.120643	-49.44	0
Number obs	4614			
Sample	2005-2009			
R-squared	0.8274			
Root MSE	1.6581			

III. Conclusion

In this paper, we investigate the dividend payment choices of exporting firms in India. We find that, after controlling for other variables, exporting firms pay higher dividends than non-exporting firms. This could be due to the fact that exporting firms' cashflows are less variable because of the low correlation between local sales and foreign sales. Alternatively, it could be because exporting firms are better known abroad and

hence have better access to capital, thus reducing their capital constraints and allowing them to pay higher dividends.

If we accept this second hypothesis, it raises the possibility that developing economies should encourage firms to export, since this improves their ability to access capital. Indeed, if the exporting firms in our sample find it possible to pay higher dividends simply because of their access to capital abroad, it implies that they consider information asymmetry to be an insufficient reason to conserve internal resources. Exporting thus becomes even more valuable if it acts as a means of reducing this source of transactions costs for firms in developing economies. Continuing work will try to distinguish between the Diversification Hypothesis and the Capital Access Hypothesis.

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