

Corporate Finance

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Banks and Corporate Debt Risks in India

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At a time when bank share prices are falling globally, there is a tendency to put Indian banks in the same basket. Recent reported losses have stoked fears that India may join the club of battered emerging markets (EMs), where conditions are deteriorating.

But global bank shares fell because of an expected fall in bank earnings as interest rates entered negative territory. In India, however, interest rates are firmly positive. European banks that have not fully written off bad debts saw the largest fall in share prices. In India reported bank profits are soft because provisions are being made for weak assets. Tackling a problem at the root bodes well for the future. US banks whose balance sheets were cleaned up are doing better than European banks where only cosmetic liquidity was provided.

As Table 1 shows, the asset quality problem affects only a part of the banking system and only a particular type of loan. Non-performing assets (NPAs), that have stopped producing income, are concentrated in public sector banks' loans to large corporates. Therefore the problem is limited in size and funds required to restore health are not excessive.

Table 1: Indian Banks' Bad Loans in September 2015

Banks	Gross NPA plus	Gross NPA
Private	6.7	2.2
Foreign	5.8	3.3
Public	17.0	6.2
All banks large loans	23.7	—

Note: NPA: Gross Non-performing assets; NPA plus includes loan restructuring and write offs.

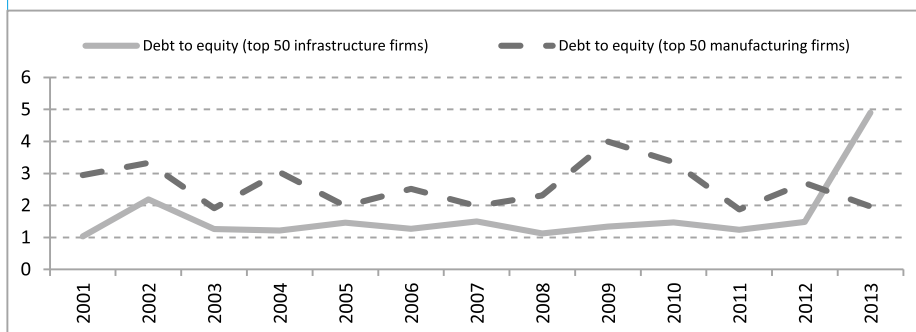
Source: Compiled from Mundra S.S. (2016) Presentation at CII Banking Summit, Mumbai

Sharp rise in EM corporate debt from 45 per cent of gross domestic product (GDP) in 2005 to 74 per cent in 2014 is a major source of global risk. China, Turkey and some Latin American countries saw the largest rise over 2007-14. In India the rise was large in absolute terms but still low as a ratio to GDP (14 per cent). Calibrated restrictions on foreign borrowing have also limited the relative size of large Indian corporate external debt. EM corporate dollar debt rose from \$1.7tn in 2008 to \$4.3tn in 2015. Indian private sector external debt only rose to \$105 bn in 2014 from \$59bn in 2008¹. Debt is concentrated in large infrastructure firms, but even so average debt-equity ratios remain at around unity since they are low for other firms. Ignoring local detail can lead to a blind echoing of global fears, so it is important to see how the relative perspective diminishes India's debt related risk.

¹ India's External Debt: A Status Report 2013-14, Ministry of Finance, Government of India

There was no exuberant growth in credit, which is one of the best predictors of a financial crisis. Indian credit GDP ratios grew from 35.5 per cent in 2000 to 51 per cent in 2013. Compared to this the Chinese ratio is 150 and the US is 190! Indian credit growth was below the trend growth of low middle income countries.

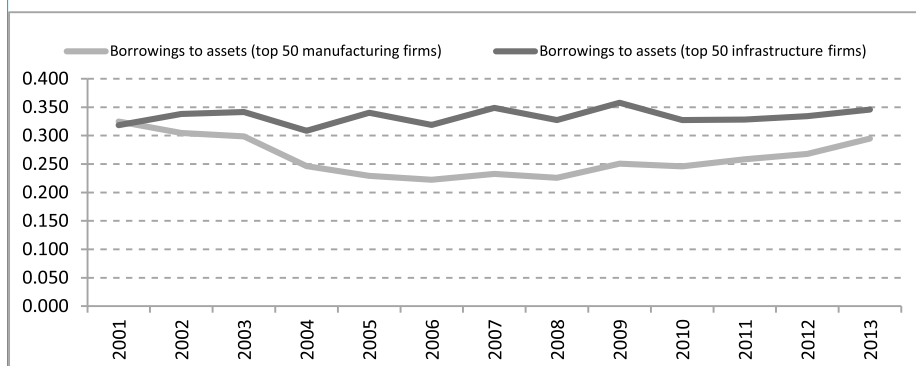
Figure 1: Debt to Equity Ratios in Infrastructure and in Manufacturing Firms



Source: CMIE Prowess data base

Figures 1 and 2, using data from the CMIE Prowess data base, show no rise in debt ratios for the biggest 50 (in terms of sales) manufacturing firms, compared to the mid-2000s when they were actively investing. There is also no rise in the ratios for the top 50 infrastructure firms except in 2013; but even for these, borrowing to assets ratios (Figure 2) show no rise, since this was a period when assets also grew substantially. These figures are especially instructive since debt is concentrated with the top 100 firms accounting for over 70 per cent of the debt in 2015.

Figure 2: Borrowing to Asset Ratios in Infrastructure and in Manufacturing Firms



Source: CMIE Prowess data base

There was, however, an abrupt drop in growth and in profitability. These were sources of stress that led to greater debt since little fresh equity was available. High interest rates in this period added to stress and debt. For over 3000 non-financial firms in the CMIE data base, debt grew at 12.8 per cent p.a. over 2011-2015.

Firms were less able to service their interest burden even though debt-equity ratios were stable. Interest coverage declined by over 25 per cent over 2011-2014 although it was a still healthy 3.5 times. Interest coverage deteriorated more for smaller firms. Capital formation slowed. Removing supply and demand side constraints are required to reverse this, raise growth, profitability and reverse debt ratios.

A key point is the large diversity in Indian firms. Many firms had accumulated large cash balances in the 2000s. For example, in the year 2012-13, the new series of national accounts estimated private corporate gross savings as a ratio to gross national disposable income to be 9.7.

Although Indian interest rates rose, fluctuations were less than those in more open and developed markets such as South Korea and less developed but open markets such as Indonesia during the outflows provoked by the threatened rise in US Fed rates in the summer of 2013. A mechanical sell off of EM assets occurs in periods of rising global risk, as liquid portfolios are sold irrespective of a country's own prospects. But the Indian experience in 2008, 2011 and 2013 is they tend to return, if the prospects are robust, and risk-sharing capital flows dominate. The Indian sequence of capital account liberalization that was more liberal for equity compared to debt flows has ensured this. In the current cycle there are signs that domestic investors are using foreign exit to come in at a good price — a sign of maturing markets with a wider base. Foreign investors themselves have begun to come back in March after exiting earlier in the year due to China related fears. With large short-term debt, however, an exit can trigger cumulative downward cycles as corporate bankruptcies create NPAs and stressed banks stop lending. Firms are forced to repay larger amounts as conditions deteriorate.

In addition, public sector banks (PSBs) have demonstrated the ability to compete effectively and earn profits in the past. They did unexpectedly well after the nineties reforms, and even overtook private banks on some parameters. They outperformed during and immediately after the global financial crisis (GFC). NPAs fell to 2.4 per cent in 2009-10 from 12.8 per cent in 1991. A similar recovery is possible now, together with a closing of gaps in reforms.

PSBs problems now are not only due to government pressure but also to errors of judgment and to external shocks. The first two led them to participate much more than private banks in infrastructure financing. This was being ramped up before the GFC, and PSBs were pushed to compensate for the winding up of development banks and for thin bond markets. They came from a history of hand-holding large corporates in order to encourage development. They did not foresee the governance and administrative problems that delayed projects that were expected to be viable under high growth. Interest rate hikes following the 2011 inflation peaks, also hit PSBs. A loan-based system is highly sensitive to a rise in interest rates.

Meanwhile private banks concentrated on more lucrative and less risky retail lending. They did well in this period, and their market capitalization overtook that of listed public sector banks in 2011. But their diverse strategies did reduce risk for the Indian banking sector as a whole.

NPAs were expected to come down as the economy revived. But external shocks and domestic political logjams continue to delay recovery. Capital adequacy regulation should ideally be counter cyclical with buffers built up in good times. But recovery is taking too long. Moreover, loan growth from PSBs is the

slowest, possibly because of a larger share of stressed assets. Therefore it is necessary to clean up bank balance sheets. The onus is on the government as the largest shareholder. The budget has made a contribution towards re-financing PSBs. There is little risk for depositors or of systemic spillovers.

The Indian tax payer has, however, for long subsidized government and large private investment. Earlier this was through loss making PSUs and development banks whose loans were rarely repaid. The 1990s reform closed some of these channels, and sought to bring in a larger role for market forces. But private infrastructure investment was inadequate. So PSBs were persuaded to step in again. Even if losses are due to external causes, however, promoters have poor incentives when they can escape liability for the losses. A readily refinanced bank has little incentive to choose projects carefully. Moreover, relationship lending easily degenerates into corruption or gives in to pressure from powerful connections.

Therefore straightforward re-financing will not do. It must be accompanied by reforms that build proper incentives. These should increase PSBs independence, and force promoters to share risk and potential losses, while making it easier to change management and allow equity infusion to keep viable businesses going. If loans are written off, a business can become viable as fresh equity and new promoters are more likely to come in. Banks with clean balance sheets are more willing to lend.

The problem is that because restructuring and bankruptcy functions poorly, banks tend to stop lending to companies whose assets are declared to be NPAs. Extending and pretending requires less immediate pain. It avoids scrutiny and possible witch-hunts by central agencies such as the CAG and the CBI, and protracted legal battles to recover dues from promoters through our over-burdened legal system.

If an asset is recognized as an NPA, provisions must be made for possible losses. Therefore, before imposing an asset quality review in end 2015 that forced such recognition, the Reserve Bank gave banks new tools to make restructuring easier. It remains to be seen if these are adequate to provoke the mindset change required to aggressively revitalize projects, and to lend more.

Longer-term change will take time, even so, it is necessary to push for arbitrage free systems with greater transparency. The government can subsidize industry if it is necessary, but this must be done upfront with the correct share of risk allocated to promoters and with minimum discretion. The political system has too often taken tax payers for a ride, with small benefits masking large hidden costs. They have the right to know what they are paying for. The Supreme Court has already asked for information on large defaulters. Stronger boards and improved governance mechanisms can ensure that PSBs make independent decisions on purely commercial grounds. These decisions, including possible losses, should be judged by those qualified to do so.

As long as structural change is in the right direction some monetary stimulus is feasible, both to reduce the pain and in response to the global slowdown. Many negatives need positive counters.

Issues on Choice of Capital Structure: An Informal Survey

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One of the most controversial and may be most discussed topics in corporate finance is the choice of capital structure. The theories in this area are well developed and widely discussed. The present article is a somewhat simplistic presentation of the basic theoretical issues involved. If we go for a basic classification of modes of financing, we will end up with three basic modes of financing: retained profit, debt & equity. Capital structure refers to the choice between debt financing and equity financing. The literature mainly revolves around the issue as to how the choice of financing can affect the valuation of a firm. The underlying assumption is that the management should aim at maximizing the value to the shareholders. The other possible motives are somewhat suppressed. The relationship between capital structure and the real sector is a less explored area. So what follows is a brief informal discussion of various theoretical issues involved in the choice of capital structure.

Irrelevance of Capital Structure

Traditionally, there was a kind of theory about capital structure which focused on the costs and benefits of debt and equity financing and considered some kind of tradeoff between the two. The theory of capital structure really came to the forefront with the seminal work by Franco Modigliani and Merton Miller (1958), which is popularly known as Modigliani – Miller hypothesis of irrelevance of capital structure. The basic idea behind the hypothesis is beautifully simple. The value of a company depends on its fundamentals, viz. stocks of factors of production and income generated therefrom. If the size of investment and the income generated is not affected by the way the investment is financed then the value of the firm will be unaffected by the method of financing the projects. Hence we have the irrelevance of capital structure. Capital structure only determined the distribution of income among the different stakeholders, not the size of it.

Paradoxically, the Modigliani-Miller theorem became more of a benchmark case like perfect competition than a description of reality because of the stringent assumptions under which the results were to hold. The assumptions were no taxes, no transaction costs of any kind, complete and perfect markets, where all investors have identical access to financial markets at identical costs.

However, if taxes are introduced, the picture becomes somewhat different. Interest payments being a part of cost become tax exempted from corporate tax. So debt financing creates a tax shield for the corporate. But calculating this tax shield becomes more complicated if we take into account the tax implications of interest payment vis-à-vis dividend payment & stock buybacks on the investors' income. Then the tax savings will

also depend on how interest, dividend and capital gains are treated under personal income tax.

Transaction Costs

Transaction costs arise mainly due to two reasons, viz. costs of financial distress arising out of over borrowing, which in extreme situation can turn into bankruptcy costs. Also there are agency costs arising out of agency problems. Agency problems arise because the company management is using funds which essentially belong to the lenders and equity holders. This problem has two aspects. When there is separation of ownership and control, the management may work with motives which does not necessarily maximize the value of the firm. For instance in a situation of financial distress, it may be optimal for the shareholders to liquidate the company, but the owner-managers may want to continue operation. Kingfisher airlines is a case in point. Or the management may be interested in perquisites or investments-expenditures which increase their sphere of influence but does not contribute to the improvement in company value to the same extent. Similarly, there can be a conflict of interest between the lenders and equity holders. Since the equity holders own the residual income, it may be in their interest, to maximize this residual income. Under limited liability, their liabilities are limited to their investment in the company. So they may be interested in projects, which are far riskier than the projects the lenders will tolerate. A highly risky project may generate high returns if it succeeds but very low or negative return if it fails. Such projects will attract the equity holders but repulse the debt holders. Here we find a very clear tradeoff between the costs and benefits of debt and equity if investors are aware of the agency problems. Choice of debt and equity not only affects the value of the firm, there exists a right choice of the debt equity ratio theoretically speaking, which will minimize the agency costs.

Pecking Order Hypothesis

A very similar story unfolds in the presence of asymmetric information. All information are not equally shared by the owner-managers and the outside investors or potential outside investors. Also the favourable private information cannot be causelessly shared with the market and the existing shareholders are not ready to re-adjust their portfolios. The insider information may be either good or bad. If this information is not shared by the market, the market will value the firm on the basis of publicly available information, which is at best probabilistic and the market valuation of the firm will reflect an expected valuation. Such expected valuation can result in either undervaluation or overvaluation. Stewart Myers and Nicholas Majluf (1984), in their pecking order hypothesis have shown that if extent of overvaluation or undervaluation is more in case of equity than in case of debt, a clear choice of financing emerges. As the market knows this possibility, the investors will be more wary in investing in equity than in debt. In the extreme situation market for equity may not exist if debt can be issued. In such a situation the managers will clearly prefer the mode of financing, the value of which is least subject to market distortions. So the most preferred choice of fund for the management will be internal fund and risk free debt, neither of which are subject to market distortion and maximize the value of the firm. Next choice would be debt, which is less subject to market vagaries. Equity will be the last choice of financing. Thus a clear pecking order emerges.

Under asymmetric information the choice of capital structure can also be used to signal the quality of the firm, where the choice of debt or equity or a combination costlessly conveys to the market the quality of the earning of the firm and hence helps the market to correctly value the firm. Again the value of the firm depends on the choice of capital structure.

Impact of Product Market

The other factor that can possibly affect the choice of capital structure is the product market. Two possible channels are theoretically explored. The competition strategy adopted in the product market may lead to a particular choice of capital structure. For example more aggressive competition in product market may lead to including more debt in capital structure to shift some risk to the debt holders. The second strand of literature focuses on the characteristics of the product market to explain the choice between debt and equity. For instance, where the input suppliers have to make firm specific investments¹ or the product is not easily substitutable for the customers, commitment from the suppliers or the customers can only be ensured if there is a promise of continuity. For such products, less debt is preferred as it reduces the chances of bankruptcy.

The present article is a brief snapshot view of the various issues involved in the choice of capital structure. However, the question remains, why it is important for a practitioner to know these theoretical issues. I believe a finance practitioner should be aware of these issues so that (s)he understands the ramifications of his (her) choice and is able to make an informed choice.

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¹ Like acquiring some firm specific skills or developing some firm specific machinery

ERP: A Primer for Practitioners

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Equity risk premium (ERP) is the difference between the returns expected on the market (proxied by stock market index) and the risk free rate prevalent in the country at that point of time. Intuitively, ERP is the compensation to investors for bearing the risk of investing in equity rather than investing in risk free assets. In this article we look at the significance of ERP, the enigma or “ERP puzzle”, different methods of estimation of ERP and its application in ERP estimation for India along with comparison of ERP between developed and emerging countries.

Significance and Importance of ERP

Estimation of ERP is a critical issue in corporate finance, wealth management, investment management, valuation and performance evaluation. The hurdle rates used by companies – costs of equity and capital – are affected by the equity risk premiums that they use and have significant consequences for investment, financing and dividend decisions. Overestimation of equity risk premium leading to higher hurdle rate may result in rejection of otherwise positive NPV project. Similarly, underestimation of ERP, hence hurdle rate, may lead managers to accept projects which are value eroding. ERP also plays a significant role in asset allocation of investors. A higher ERP, resulting in higher expected return on equity, tilts the asset allocation in favour of equities.

Even in equity valuation and firm valuation, ERP is an important input. The discount rate used in equity valuation and firm valuation is cost of equity and cost of capital (respectively) and ERP is an input to calculate both. So a firm with the same projected future cash flows may be overvalued or undervalued, depending on the discount rate used, which is affected by the estimation of ERP.

Economic value added (EVA) has become a very popular tool for measuring corporate performance and linking senior executives' compensation to EVA. However, calculation of EVA also requires calculation of cost of capital, which in turn is affected by estimation of ERP. It is the spread between the return on capital and cost of capital, which matters and not the return on capital alone.

ERP Puzzle

While equities are expected to offer higher returns than government bonds as compensation for bearing higher risk, it is the magnitude of the return differential between equities and risk free asset, which has surprised academicians and practitioners alike. Mehra and Prescott (1985) in their seminal paper argued that the historical risk premium in US during the period of 1889-1978, was too high to be explained by any asset pricing models. They argued that either the models used to describe investors' behaviour was flawed or historical returns earned were very high compared to what asset pricing models would predict. This anomaly was termed as “Equity Risk Premium Puzzle”.

Later, several researchers observed that the ERP puzzle was not restricted to US markets alone, but was evident in other developed and emerging markets also. It was also found that the ERP puzzle was independent of the sample period chosen. Several researchers have tried to explain the ERP puzzle using different models, but researchers are yet to agree on any explanation.

Estimation of ERP

Notwithstanding the ERP puzzle, it is still imperative to estimate the ERP. There are four methods for estimating the ERP.

Historical method: This method of estimation of ERP relies on historical differential between return on stock market and return of risk free security and assumes that the average historical risk premium can be used as an estimate for forecasting future ERP. Though commonly used by practitioners, this method has several assumptions and limitations. The biggest drawback of this method is availability of sufficiently long and stable data to calculate historical risk premiums. We have reliable data for more than 100 years for developed countries like USA, but for emerging countries like India, we have reliable data only from 1980 onwards. Another drawback of this method is the choice of the stock market index for calculating market returns and the choice of risk free security for calculating risk free returns. The estimation of ERP is highly sensitive to the choice of stock market index and risk free security. For instance, in the Indian context the question is whether we should take BSE Sensex returns as the proxy for the market returns or a broad based index like COSPI (CMIE all share price index). Similarly, there is debate on the choice of yield of T-bills or T-Bonds as a proxy for risk free return. Even after making a decision on the choice of market index and risk free instrument, we still have to decide, whether we should use arithmetic mean or geometric mean of the historical risk premiums as an estimate for forecasting future ERP.

Mehra (2006) estimated that the ERP for India using data from 1991-2004 was 9.7 per cent (using BSE Sensex as the market index and bank deposit rate as the risk free rate). Verma and Barua (2006) estimate the ERP for India as 8.75 per cent on geometric mean basis and 12.5 per cent on an arithmetic mean basis. The risk premium estimates vary because of differences in time periods used, the choice of treasury bills or bonds as the risk-free rate and the use of arithmetic mean or geometric mean.

Implied Equity Risk Premium Model: This model assumes that if market is correctly priced and based on the current market price and a valuation model, the implied equity risk premium can be extracted. In this model, we need to specify the market index and its current value, the valuation model [Dividend Discount Model or Free Cash Flow to Equity (FCFE) Model, stable stage or multi stage model]. We solve for the required return on equity and then subtract the risk free rate to arrive at the implied equity risk premium.

Damodaran (2015) calculates and updates the implied equity risk premiums for different countries on his website. PwC in its report titled "Dissecting India's Equity Risk Premium"¹, calculated the implied ERP for India as on December 31, 2012 as 7.2 per cent (using 3 stage FCFE model). This method has the advantage that it is not reliant on historical data but it has its own limitations. We still need to decide on the market

¹ PwC report (2013): Dissecting India's Equity Risk Premium: How Much to Expect Your Equity Investments.

index, assume that the index is correctly priced, and that the forecasts of growth rate of dividends or FCFEs (depending on the model) are correct.

Demand side model: This class of models uses the macroeconomic equilibrium models to calculate the ERP. Mehra (2006) used standard macroeconomic models to estimate the ERP for India using data from 1991-2004 and found that the theoretical equity premium should be in the range of 0.02 per cent to 0.16 per cent if the coefficient of risk aversion is varied from 2 to 10. This model underestimates the ERP compared to the ERP calculated by the historical method or implied ERP method.

Survey method: In this method, a survey is conducted amongst practitioners, academicians for their view on ERP. Fernandez et al. (2013) in a survey of 12 Finance and Economic professors, analysts and managers of companies in India found the average ERP to be around 8.5 per cent (up from 8 per cent in 2012).

Comparison of ERP between Developed and Emerging Countries

Another characteristic of ERP, which is of importance to global investors and managers, is whether ERP is different between developed and emerging countries. Salomons and Grootveld (2003) studied the comparison of ERP between developed and emerging countries. They observed that the distribution of ERP in emerging countries had higher volatility and fatter tails compared to developed markets which implies investors and managers should focus on downside risk of ERP distributions rather than standard deviation of ERP distributions. They also confirm the expectation that ERP in emerging markets is higher than developed markets. They studied the time varying behaviour of ERP and argued that the time variation of ERP in emerging countries is mainly because of global economic cycles.

Conclusion

Equity risk premium is arguably one of the most important concepts in finance and its estimation is critical. Hence it becomes important for practitioners and academicians to understand the different methods for estimating ERP, the limitations of each approach and the assumptions implicit in each approach. It would be a good idea for practitioners to estimate a band for ERP rather than a point estimate and then conduct a sensitivity analysis with different estimates of ERP within the band.

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Budget 2016-17: An Effort to Transform India through Agriculture and Infrastructure

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The 'budget' is a summary of the government's financial transactions during a single budget period usually a year and reflects the social, political and economic priorities of a nation. Together with monetary and trade policy, the budget serves as an important tool for stabilizing the economy.

Budget 2016-17 has been presented against a backdrop of poor global economic growth, accompanied by falling commodity prices and growing economic uncertainty. India's growth rate of 7.6 per cent is among the highest in the world considering that world economy has grown by 3.1 per cent in 2015 and even among the BRICS countries in 2015, India's growth rate is higher than China's (6.9 per cent). The theme of this budget is '*Transform India*' based on nine focus areas, now famous as the '*Nine Pillars*'. Of these, rural and infrastructure spends and fiscal discipline will tend to have far reaching impacts.

Revitalizing Agriculture and Infrastructure

With a priority to boost domestic demand which will have multiplier effects as a pathway to high growth, Budget 2016-17 has a distinct rural focus with allocations to the agriculture and the rural sector being to the tune of ₹1,23,749 crore including ₹38,500 crore for MGNREGS in 2016-17, an increase of about 7.6 per cent to ₹2747 crore over 2015-16(RE)¹. Much of the emphasis in this sector is on irrigation, water conservation and management of ground water resources as also ₹5,500 crore allocation for the pioneering crop insurance scheme launched by the government. Efforts to revitalize the farm sector and the rural economy is aimed at doubling of farmers' income in five years by 2022 – a big idea of Budget 2016. This objective, if achieved, will help revitalize the agricultural sector. Further, allowing for 100 per cent FDI in food processing will benefit the farmers as this requires 100 per cent sourcing of raw materials from India. It will help to create capacity and jobs in the food processing sector and also indirectly increase farmer income and aid industries in the FMCG sector. This move could act as a back door entry for multi brand retail in the country too. However, the revival of the agriculture sector apart from increased allocations needs the creation of a sustainable agriculture policy at the national level at least for the medium term especially when much of the expenditure in agriculture occurs at the state level along with a need to increase public investment in agriculture. Another concern being that rural development should not be defined by the wage employment created by MGNREGA alone.

Infrastructure has been the next major focus of budget and the total outlay on roads and railways amounts to

¹ Revised Estimate

₹2,21,246 crore. Infrastructure is a *public good* and when viewed in the neo-classical growth framework will have the impact of an upward shift of the production function thus raising output. In other words, there exists a positive relationship between increase in infrastructure spending and output, although the empirical evidence is mixed (Sanchez-Robles, 1998). This initiative will not only help revive the stagnant infrastructure sector but also create job opportunities, increase connectivity, ease transport services and thus positively impact investment.

Implications for the Industrial Sector

The emphasis of the budget, although, on the agriculture & the rural sector along with improved infrastructure, will have a positive albeit indirect impact on the industry. The revival of the rural economy envisaged through the budget proposals and if accompanied by a good monsoon this year will help improve rural incomes which in turn will boost rural demand and consequently aid industrial recovery and thus help industry utilise the excess capacity created as noted in the Economic Survey.

While the budget does not have an overt focus on industry, the impact of the budget proposals on this sector will be mixed. The budget has encouraged entrepreneurial activity and innovation by providing 100 per cent deduction of profits for 3 out of 5 years for start-ups set up during April 2016 to March 2019. An additional benefit to start-ups will be from the tax exemption obtained from capital gains which will not be taxed if individuals invest funds in notified start-ups in which they hold majority shares. Besides, a conducive environment which will aid the establishment of start-ups is in the promised one day registration process. This move apart from generating employment potential can also promote and incentivize innovation. The MSME sector and small retailers and professionals will be benefited substantially from the changes brought in presumptive taxation scheme where the turnover limit has been increased to ₹2 crore and ₹50 lakh respectively.

The budget proposals as regards the corporate tax rate, however, are a mixed bag. There has been a minor tinkering to the corporate tax rate and it has been lowered to 29 per cent for small enterprises with a turnover not exceeding ₹5 crore but is still distance away from the target rate of 25 per cent. Likewise, new manufacturing companies incorporated after March 1, 2016 can choose between a lower rate of 25 per cent plus surcharge and cess which works to a tax rate of 27.55 per cent for companies with an income between ₹1-10 crore and 28.84 per cent for income above ₹10 crore, provided they do not avail of exemptions and deductions and accelerated depreciation. This choice provided to companies to bolster the manufacturing sector will be exercised dependent on the benefits they could derive from lower tax weighed against the benefits from exemptions and deductions. The doubling of the cess on coal can impact energy intensive industries such as cement.

The infrastructure cess imposed on all cars (including those using green fuel) ranging from 1 -4 per cent will raise car prices and can adversely impact the automobile sector. The benefits provided to the housing sector

especially affordable housing will increase the supply of houses in this segment which is a much needed requirement and will boost the housing industry which is facing a crisis with unsold inventory. However, experts point out that the proposal if not correctly implemented may not necessarily lead to the creation of affordable housing. Another budget proposal which will be a great boon to the real estate sector is exemption of dividend distribution tax for the Real Estate Investment Trusts (REITs). The government is moving to a regime which envisages the phasing out of deductions and exemptions in an effort to improve transparency. Consequently, the reduction in deductions towards depreciation and research can have a dampening effect on industry. The increase in the Securities Transactions Tax (STT) on the sale of options from 0.017 per cent to 0.05 per cent of the option premium can widen bid-ask spread and make options trading costlier till markets adjust to this increase.

The Fisc

Adhering to fiscal rules, is an indicator of credibility and a signalling mechanism used by governments to convey their fiscally responsible behaviour. By ensuring that the fiscal deficit is at 3.9 per cent of GDP this year as promised in last year's budget and by committing it would be reduced to 3.5 per cent of GDP in 2016-17, the government has conveyed its intentions to maintain fiscal discipline. This has been largely possible because of the substantial decline witnessed in oil prices. Such fiscal discipline coupled with low inflation rate (CPI inflation is 5.4 per cent) will provide the necessary headroom to the RBI in lowering the policy rate which will further the accommodative monetary policy adopted by the RBI since 2015 when the Repo rate was reduced (through four cuts) by 125 basis points (Economic Survey 2015-16). The revenue deficit which has to be eliminated by March 2018, however, continues to at 2.5 per cent of GDP while the effective revenue deficit stands at 1.5 per cent of GDP and to be reduced marginally to 1.2 per cent of GDP next year. A look at the total internal debt-GDP ratio, however, reveals no significant change since 2012-13 and continues to hover around 48 per cent of GDP.

An important aspect of efforts to improve revenues is the excessive dependence on cess – the Swachh Bharat cess (0.5 per cent) on all services, the Krishi Kalyan cess (0.5 per cent), the Infrastructure cess on cars (1-4 per cent) and the Clean Environment cess of ₹400 on every ton of coal burnt. Imposition of a cess goes against the principle of co-operative federalism as the revenues raised do not enter the divisible pool of resources between the Centre and the states.

The challenge to the fisc in the coming year is the burden of the 7th Pay Commission and OROP. Further, whether the government will be able to achieve the fiscal deficit target for the next year would depend largely on behaviour of global oil prices given that personal income tax and corporate tax revenues have shown a decline. While the Finance Minister has been commended for sticking to the fiscal deficit target, conventional indicators of the fiscal stance like the fiscal deficit are flow concepts and do not completely reveal the fiscal vulnerabilities. Kharas and Mishra (2001) provide an alternative measures of deficit such as

the actuarial deficit and hidden deficit. The actuarial deficit is computed from stock variables such as the public debt and the money which reflect the total stock of government liabilities. The hidden deficit of the government is the difference between the actuarial deficit and the conventional fiscal deficit. Hidden government deficit emerges from various public sector operations that are not reflected (partially or entirely) in the regular government budget. The actuarial budget could overstate the actual budget deficit as it does not take into consideration the assets generated and hence the true deficit would lie between the conventional indicators like the fiscal deficit and the hidden deficit. The hidden deficit of the government when computed was as high as 10.2 and 9.2 per cent of GDP in 2013-14 and 2014-15 respectively. Subsidies constituted 2.1 per cent of GDP in 2014-15 and the pilot proposed to transfer fertiliser subsidies through DBT can prove to be a game changer in subsidy reforms.

The Robin hood proposals in the budget include 10 per cent Dividend Distribution Tax on individuals who receive dividends in excess of ₹10 lakhs per year, the increase in the surcharge on incomes above ₹1 crore, the 1 per cent surcharge on the purchase of luxury cars and the relief provided to small tax payers with incomes below ₹5 lakhs.

To conclude, Budget 2016 aims at revitalizing the agriculture sector and the rural economy with the twin goals of expanding irrigation and doubling of rural incomes. The common string that binds several of the proposals is employment generation either indirectly through the impact on infrastructure, agriculture, and housing or directly through skill development.

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Water Supply in Kolkata

The article titled “Dangers of Decentralisation in Urban Slums: A Comparative Study of Water Supply and Drainage Service Delivery in Kolkata, India” by Tirthankar Nag (with Indranil De) is published in *Development Policy Review*, Vol. 34(2), pp. 253–276

Clientelism may lead to the underprovision of services which are deemed suitable for decentralisation. Water distribution and drainage services, managed from a lower level of municipal authority, are liable to be affected by clientelism and consequent underprovision. Water quality, maintained from a higher municipal layer, is not likely to be affected by clientelism. Capture by politically influential and dominant social and religious groups is likely to take place for important services like water supply. The article suggests that awareness, measurability, importance and resource intensiveness of service are additional factors to be considered for assessing the suitability of a sector for decentralisation.

Factors Driving Indian Stock Markets

The article titled “What Drives the Stock Market Return in India? An Exploration with Dynamic Factor Model” by Paramita Mukherjee (with Malabika Roy) is published in the *Journal of Emerging Market Finance*, Vol. 15(1), pp. 1–27

The article examines the role of the institutional investors, both domestic and foreign, in driving the return on the Indian equity market in the last decade. An attempt is made to identify the influence of other possible determinants, more specifically domestic and international financial variables, on the market returns as well. The results uncover some interesting facts. First, there is evidence of institutional investors driving the market return after 2008, though it did not have any impact before 2008. Second, the return is significantly led by the movement of interest rates within and outside the country for the entire decade. Third, most of the major and emerging stock markets and the US market also have significant influence on Indian equity market return. Fourth, gold return used to affect the equity market return in pre-2008 years, but it ceased to do so after 2008. The results show that the determinants of the Indian equity market return have changed after the recent economic crisis of 2008.

Out-Patient Flow at An Indian Ophthalmic Hospital

The paper titled “Improving Out-Patient Flow at An Indian Ophthalmic Hospital” by Yash Daultani (with Sushil Kumar and Omkarprasad S. Vaidya) is published in *Operations and Supply Chain Management*, Vol. 9(1), pp. 15–21

In the recent past, hospitals are increasingly focusing on improving the operations to meet the requirements of patients. To meet this requirement, hospitals need to improve and redesign their existing processes. Simulation modelers can help hospitals in delivering high quality healthcare by proposing strategic scenarios that work in synchronization with operations management philosophies. In this study, the authors extend an effort in this direction by showcasing the use of simulation as a modeling and analysis tool at an Indian ophthalmic hospital. In particular, they model the outpatient department with a goal of achieving a streamlined patient flow and analyze various scenarios to compute the adequate resources, while maximizing their utilization. This study results in significant reduction in service lead time, especially in the circumstances where every extra minute spent add to the vows of patients and their aids.

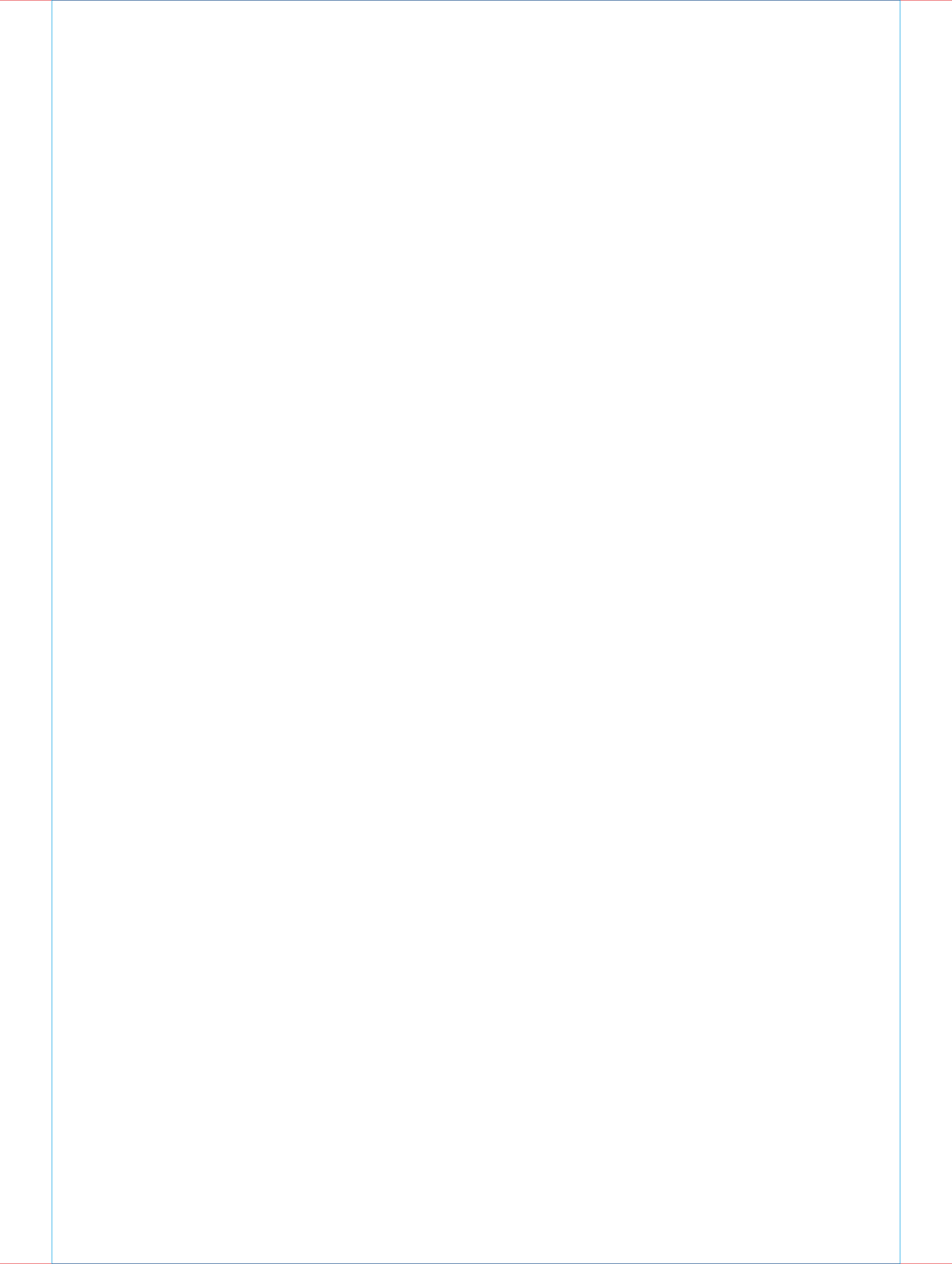
IMI Kolkata to Host APEA Annual Conference

The Twelfth Annual Conference of the Asia-Pacific Economic Association (APEA) will be hosted by International Management Institute Kolkata at its campus in Kolkata, India during July 13-15, 2016. Empirical or theoretical papers covering all topics in economics are welcome. Kar-yiu Wong, Professor of Economics, University of Washington, Seattle and President, APEA and Chung Mo Koo, Professor, Kangwon National University, Korea and Vice President, APEA will be joining the conference.

Economists from all across the globe are expected to attend the conference. A few sessions for graduate students in doctoral programs are also planned. Economists are also welcome to organize sessions in the conference. All submissions and proposals have to be sent to submit@apeaweb.org. The deadline for submission of papers or proposals for organizing a session is April 15, 2016.

Previous APEA conferences were held at universities like Hitotsubashi University, Tokyo, University of Washington, Seattle, Hong Kong University of Science and Technology, Hong Kong, Central University of Finance and Economics, Beijing, University of California, Santa Cruz, California, Pusan National University, Korea, Nanyang Technological University, Singapore, Thammasat University, Thailand and National Taiwan University, Taiwan.

For further details follow: <http://apeaweb.org/confer/kkt16/index.htm>. For any queries please contact us at apea2016@imi-k.edu.in.





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