1. Introduction

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1.2.1 Global Trend

1.2.2 Saving Trend in India
1. Introduction

1.1 Background

It is a well established fact that high investment activity is a key driver of economic growth. In a simple economy all saving is instantaneously and automatically get invested and investment activity is predominantly fuelled by domestic saving. Through financial intermediation process one’s saving converts into someone else’s borrowing that may further result in productive investment. Thus saving becomes one of the primary drivers of growth via the channel of investment activities. Importance of saving is well accepted in economic growth literature. Factors driving saving have generated considerable research interest among researchers (Deaton, 1989; Friedman, 1957; Loayza, Schmidt-Hebbel, & Serven, 2000; Modigliani, 1986).

Since the inception of the twenty first century, composition of aggregate saving has shown a marked change. While private saving continues to be dominated by household saving, worldwide, corporate saving has been observed to form an increasingly larger part of the total domestic saving (Brufman, Martinez, & Artica, 2013; Horioka & Terada-Hagiwara, 2013; IMF, 2006; Karabarbounis & Neiman, 2014; OECD, 2007). As Wessel (2005) observed, “Companies, which normally borrow other folks’ savings in order to invest, have turned thrifty. Even companies enjoying strong profits and cash flow are building cash hoards, reducing debt and buying back their own shares—instead of making investment bets.” This trend of rising corporate saving is in contradiction with standard macroeconomic models, in which firms (corporates) are modelled as borrowers while households are modelled as primary savers. It would be interesting to investigate the causes of such shift in corporate saving.
1.2 Motivation for the Study

1.2.1 Global Trend

Recent trends (see Appendix-1) give several insights about the phenomenon of rising corporate saving observed across globe. The surge is quite strong in case of Japan, Korea, the USA, Germany & China (Economist, 2012). The recent trend of rising corporate saving and declining investment in real terms could be attributed to the economic slowdown due to the global financial crisis (2007-8) (Horioka & Terada-Hagiwara, 2013). However, corporates started saving much before this crisis (Economist, 2013). Another contributing factor could be ‘global saving glut’, the term coined by Bernanke (2005), which reflects issues of low real interest rates and rising global imbalances in current accounts. Bernanke argued that emerging economies are the big savers and lenders to developed markets. However, the corporates in developed economies are the real savers (Economist, 2005), whose savings are so huge that they are willing to start own financial institutions (Economist, 2010). There are alarming concerns about rising corporate savings across the globe and particularly in developing countries, including China (Gang, 2009) and India (Business Standard, 2012; The Hindu, 2013; Business Line, 2014) because firms have better accessibility over market borrowings than individuals. Interestingly these articles suggest that both public and private firms are saving, perhaps waiting for the right opportunity.

1.2.2 Saving Trend in India

India is the third largest economy in the world in PPP\(^1\) terms, with 56.9% of its GDP coming from the service sector, 25.8% from manufacturing and 17.3% from agriculture\(^2\). According to a 2012 report,

\(^{1}\)PPP- Purchasing power parity
\(^{2}\) Year 2012-13; Source- Planning Commission

“Analysing the savings trends for the last 10 years, it is evident that household savings (as per cent of GDP) have been largely unchanged at 22-23 per cent since FY00. On the other hand, both public and corporate savings have hit their 10-year highs in FY08 and have fallen since then”, Srinivasan (2012).

Saving is defined as excess of current income over current expenditure (Central Statistical Organisation Report, 2012). In economic terms\(^3\), saving consists of deciding to defer today’s consumption and to store this deferred consumption as some form of asset, for future use. In India, saving and investment data is prepared by Central Statistical Organisation (CSO). Total saving at the broadest level is classified as domestic and foreign saving, followed by bifurcation of domestic saving into private and public saving. For data estimation, the domestic economy is classified into three broad institutional sectors, namely public sector, private corporate sector and house-hold sector (see Figure 1).

Public sector includes government administration, departmental enterprises, and non-departmental enterprises (government companies, statutory companies, and port trusts). Private corporate sector comprises all non-governmental financial/non-financial corporate enterprises, and co-operative institutions. Non-governmental non-financial enterprises are the public and private limited companies registered under the Indian Joint Stock Companies Act 1956. Non-governmental financial enterprises constitute all scheduled and non-scheduled commercial banks in the private sector and other financial and investment companies. Co-operative institutions include all co-operative banks and co-operative credit and non-credit societies. The house-hold sector comprises of individuals, all non-government non-corporate enterprises (sole proprietorships and partnerships owned and/or controlled by individuals, and non-profit institutions. The house-hold sector saving further constitutes of physical and

\(^3\)http://www.econlib.org/library/Enc/Saving.html, accessed on Jan.11.2015
financial saving. Total saving of these three sectors constitutes the Gross Domestic Saving (GDS). Foreign saving is calculated from balance of payment accounts and is added to GDS to obtain Gross National Saving (GNS). (Athukorala & Sen, 2002; CSO Sources and Method Report, 2012).

**Figure-1**

**Classification of Saving**

```
<table>
<thead>
<tr>
<th>Gross National Saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Saving</td>
</tr>
<tr>
<td>Pubic Saving</td>
</tr>
<tr>
<td>Foreign Saving</td>
</tr>
</tbody>
</table>
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Note: Conceptualised from Athukorala and Sen (2002)

In India, annual growth of corporate saving rate is the most volatile among the three components of aggregate saving (see Figure 2). Growth of corporate saving rate touched 43.57% in year 2004-5 and plummeted to (-) 21.15% in year 2008-9 in the aftermath of sub-prime crisis. Surprisingly, growth of household saving rate was at 1.78% and 5.41% in year 2004-5 and 2008-9 respectively. In 2007-8, India’s GDP growth rate was at 9.3%, gross domestic saving rate reached the highest at 36.82% of GDP and gross capital formation also reached the highest value at 38% of GDP (see Figure 3). India’s total domestic saving rate has steadily increased over the time and its composition has undergone considerable change. Saving rate of both the private corporate sector and the public sector has gone up, offsetting the decline/stagnation witnessed in the household sector saving (see Table 1). Private corporate sector saving showed a rising trend, reached its highest value ever at 9.4% in 2007-
and thereafter shows a declining trend. Its contribution to the overall saving rate has increased in recent times and reached close to 25% of total domestic saving\(^4\) in 2007-08.

**Figure -2**

**Growth Rate of Saving Rates in India**

Source: RBI, Database on Indian Economy

Note: Growth rate calculated on the absolute values of savings at current prices.

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\(^4\) See Table-1, contribution of corporate saving (9.4 % of GDP) to gross domestic saving (36.82% of GDP) is 25%. 
Figure- 3
Saving, Investment and Growth in India

Source: RBI, Database on Indian Economy

Note: Left axis represents gross saving rates and gross capital formation rates, while right axis represents annual growth rate of GDP at 2004-5 constant prices (factor cost).

Table -1
Sector wise Domestic Saving at Current Price as Percentage to GDP (Market Price)

<table>
<thead>
<tr>
<th>Year</th>
<th>Financial Saving</th>
<th>Physical Saving</th>
<th>Total</th>
<th>Private Corporate Sector</th>
<th>Public Sector</th>
<th>Gross Domestic Saving</th>
<th>Net Domestic Saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-00</td>
<td>10.21</td>
<td>11.48</td>
<td>21.69</td>
<td>4.31</td>
<td>-0.46</td>
<td>25.55</td>
<td>16.33</td>
</tr>
<tr>
<td>2000-01</td>
<td>9.88</td>
<td>11.41</td>
<td>21.30</td>
<td>3.72</td>
<td>-1.34</td>
<td>23.68</td>
<td>14.18</td>
</tr>
<tr>
<td>2001-02</td>
<td>10.50</td>
<td>12.64</td>
<td>23.15</td>
<td>3.26</td>
<td>-1.56</td>
<td>24.85</td>
<td>15.13</td>
</tr>
<tr>
<td>2002-03</td>
<td>9.99</td>
<td>12.26</td>
<td>22.24</td>
<td>3.91</td>
<td>-0.28</td>
<td>25.87</td>
<td>16.17</td>
</tr>
<tr>
<td>2004-05</td>
<td>10.12</td>
<td>13.44</td>
<td>23.55</td>
<td>6.55</td>
<td>2.30</td>
<td>32.41</td>
<td>22.54</td>
</tr>
<tr>
<td>2005-06</td>
<td>11.87</td>
<td>11.66</td>
<td>23.53</td>
<td>7.51</td>
<td>2.41</td>
<td>33.44</td>
<td>23.59</td>
</tr>
<tr>
<td>2006-07</td>
<td>11.28</td>
<td>11.88</td>
<td>23.15</td>
<td>7.88</td>
<td>3.56</td>
<td>34.60</td>
<td>24.85</td>
</tr>
<tr>
<td>2007-08</td>
<td>11.63</td>
<td>10.79</td>
<td>22.42</td>
<td>9.40</td>
<td>4.99</td>
<td>36.82</td>
<td>27.10</td>
</tr>
<tr>
<td>2008-09</td>
<td>10.14</td>
<td>13.50</td>
<td>23.64</td>
<td>7.41</td>
<td>0.96</td>
<td>32.02</td>
<td>21.98</td>
</tr>
<tr>
<td>2009-10</td>
<td>11.96</td>
<td>13.22</td>
<td>25.18</td>
<td>8.35</td>
<td>0.16</td>
<td>33.69</td>
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<td>2010-11</td>
<td>9.94</td>
<td>13.18</td>
<td>23.13</td>
<td>7.97</td>
<td>2.59</td>
<td>33.68</td>
<td>23.91</td>
</tr>
<tr>
<td>2011-12</td>
<td>7.02</td>
<td>15.79</td>
<td>22.81</td>
<td>7.31</td>
<td>1.24</td>
<td>31.35</td>
<td>21.58</td>
</tr>
<tr>
<td>2012-13</td>
<td>7.09</td>
<td>14.79</td>
<td>21.88</td>
<td>7.05</td>
<td>1.17</td>
<td>30.09</td>
<td>20.05</td>
</tr>
</tbody>
</table>

Source: RBI, Database on Indian Economy
In the Indian context, Figures-4, 5, and 6 suggest that household sector is the net saver among the three saving agents. Household sector’s saving rate reached its highest 25% (2009-10) in the study period of 2000 to 2013. Public sector’s saving reached its highest ever value of 4.99% in 2007-8. Saving to investment gap is the widest and quite volatile for public sector. The autonomous nature of government’s saving-investment decisions might explain this gap and volatility.

In year 2007-8, private corporate sector’s capital formation zoomed to 17.31%. It is quite surprising that in the same year (2007-8) private corporate sector saved the highest (9.4%) (see Figure-6). This implies that 2007-8 is the year when the corporate sector in India invested the highest value and was able to save the highest ever value. It is pertinent to note that the global financial crisis also occurred in 2007-8.

The facts and figures presented from India and around the world motivated us to pursue this study to understand the underlying phenomenon. This study aims to identify and explain the possible firm-level and macro-level determinants of corporate saving in India.
Figure-4

Household Sector's Saving & Investment

Source: RBI, Database on Indian Economy

Figure-5

Public Sector's Saving & Investment

Source: RBI, Database on Indian Economy
Our empirical analysis used a rich firm level dataset of publicly listed manufacturing and services firms in India. Both static and dynamic panel data models were used to examine the drivers of corporate saving in India. Overall, lagged corporate saving and profitability were found to be significant firm level determinants that positively affected firm level saving in manufacturing and services sector. GDP growth rate, inflation rate, and financial depth were found to be significant macroeconomic-level variables in both the sectors. Interesting differences in determinants of corporate saving were found in manufacturing sector and services sector. Corporate saving in services sector was not sensitive to firm level variables like effective corporate tax, interest burden, and Tobin’s Q while the manufacturing sector corporate saving was highly sensitive to these variables. Among macroeconomic factors, real effective exchange rate and public debt to GDP were non significant for services sector. We also found significant impact of 2007-8 global financial crisis on saving of manufacturing sector. Precautionary motive was found to be the prime driver of corporate saving in the post crisis period.
The following chapter of this study presents the theoretical framework. In the next chapter, we focus on empirical framework and data description. The chapter after that focuses on analysis and results. Lastly, the study concludes by highlighting the contribution of the study and directions for future research.