

Recent Reforms in India's Corporate Income Tax Regime: Rationale, Impacts and Improvements

No. 393

01-April-2023

Supriyo De



National Institute of Public Finance and Policy
New Delhi

Recent Reforms in India's Corporate Income Tax Regime: Rationale, Impacts and Improvements

Supriyo De^{*}

April 1, 2023

Abstract

In a recent innovative policy reform, India's corporate income tax system was overhauled with optional lower rates in lieu of giving up complex deductions. However, official data reveals a puzzle wherein larger companies have opted more for the lower optional rates while smaller ones appear reticent in switching to the optional regime. This paper explores this issue using empirical methods. The evolution of tax rates is tracked through reforms simplifying the tax system in the 1990s, the subsequent conundrum of zero tax companies leading to introduction of minimum alternate tax, and the persistence of lower effective tax rates for larger companies. This provides the rationale for a simpler tax regime with lower rates but fewer deductions. The user cost of capital approach is used to examine the economically relevant tax impact across various sectors and ownership types. The results indicate that in terms of user cost, the various lower tax options are not attractive, and under certain situations may be worse for younger and smaller companies. In light of the analysis, policy options are suggested to improve the scheme so as to achieve the laudable objective of implementing a simple tax regime with lower rates and minimal deductions.

Keywords: Corporate income tax, User cost of capital, Minimum alternate tax

JEL Codes: D21, E22, H25

^{*}RBI Chair Professor, National Institute of Public Finance and Policy, New Delhi. Email: supriyo.de@nipfp.org.in

[†]Thanks are due to Adam Hussain, Prachi Jain, Neeti Gupta and Usha Mathur for research assis-

1 Introduction

The prosperity of the country depends on the amount and type of investment that businesses and investors make for earning returns. Taxes are one of the factors that impact investment decisions. Low rate of taxes and high tax incentives can encourage entrepreneurs to set up or expand business. Alterations in the tax rate can impact the scale and composition of investment and business asset creation. Complex tax provisions and different tax treatment across different forms of investment can distort investment decisions. In a recent innovative policy reform, India's corporate income tax system was overhauled with the introduction of optional lower rates in lieu of giving up complex deductions. With effect from assessment year (AY) 2017-18 (corresponding to income arising in the previous year or fiscal year (FY) 2016-17), per section 115BA, domestic manufacturing companies were given the option of switching to a lower basic tax rate of 25% instead of the prevailing basic rate of 30%. For this they had to forego certain deductions and incentives. For AY 2020-21 two further lower rate options were introduced. Section 115BAA applicable to all domestic companies offered a lower rate of 22% for foregoing specified deductions. Section 115BAB offered domestic manufacturing start-up companies an even lower rate of 15% for foregoing a wider set of specified deductions.

With these major tax reforms, it is a propitious time to examine how the different tax rates impact different industries and companies. At first glance, the simplified regime with lower rate options seems very attractive and should have seen many companies opting for them. However, data from the government reveals a puzzle wherein larger companies have opted more for the lower optional rates while smaller ones appear reticent in switching to the optional lower tax regime. According to the receipt budget document for 2022-23, in FY2019-20, only 15.85% of companies opted for 22% tax without exemptions/incentives (s. 115BAA) and only 0.14% of companies for 15% tax meant for new manufacturing units

Views expressed are academic and research outputs and do not represent the author's opinions or those of the institutions he is affiliated with.

(s.115BAB). Of the companies with total income of Rs. 0-1 crore, 748 opted for s. 115BAA, 256 for s.115BAB while the vast majority, 2,48,934 remained with the 30% rate. On the other hand, for companies with total income over Rs. 500 crore, 246 opted for s.115BAA and only 130 remained with the 30% tax rate. This conundrum motivates our research questions:

1. Why did such few companies opt for the simpler tax regime with lower tax rates and fewer deductions?
2. Why were larger companies more willing to take up the simpler tax regime with lower tax rates and fewer deductions than smaller ones?
3. Why was the take-up of the scheme for manufacturing start-ups low?

Official corporate tax data in India is reported at a very high level of aggregation which makes detailed analysis difficult. Corporate account datasets (such as CMIE Prowess) report the accounts according to company law accounting standards which differ from income tax norms. Moreover, they report data for mostly publicly traded companies and therefore miss out some of the smaller entities. In this paper, we circumvent this issue by relying on the user cost of capital methodology to examine why different types of corporate entities may not have been very enthusiastic to adopt the concessional tax rates. In particular, we delve into detailed aspects of the deductions to be foregone and model them in an empirical manner under certain assumptions. Targeted tax deductions lower the cost of capital for firms. For small firms and start-ups, losing them may be increasing the user cost of capital inordinately. Moreover, in initial phases, start-ups are usually unable to earn positive returns and need to set-off losses and carry them forward. Yet if companies desire to avail lower tax rate benefits under section 115BA, 115BAA or 115BAB, they must forgo the opportunity of setting off losses. They have to face a difficult trade-off between the concessional tax rates and the opportunity of claiming deductions and setting off losses. On the above argument, we postulate that:

Hypothesis 1: In term of user cost of capital, the new tax regime does not provide significant advantages over the old regime.

Hypothesis2: Hypothesis 1 is particularly pronounced for small and younger firms.

CMIE Prowess data is utilized for the calculation of user cost of capital, based on industry asset composition and ownership classification.

The research finds that in terms of user cost of capital, the various lower tax options are not attractive, and under certain situations may be even worse for younger and smaller companies. Moreover, due to its irreversible nature and inability to carry forward losses, start-ups and small companies may be hesitant in committing to the new scheme. To make matters worse, the complexity of the provisions may also be deterring adoption. In light of the analysis, certain policy options are suggested to improve the scheme so as to achieve the laudable objective of implementing a simple tax regime with lower rates and minimal deductions. This paper expands the research frontier in several ways:

1. To the best of the author's knowledge, this is a pioneering appraisal of the new optional tax regime.
2. It is also one of the few applications of the user cost of capital approach to the analysis of tax policy in substantial depth thereby demonstrating its utility in prospective tax policy formulation.

The remainder of this paper is organized as follows: Section 2 summarizes past literature on Indian tax reforms and the user cost of capital theory, Section 3 assesses tax rate evolution in India, discusses certain tax reforms, provides stylized facts and analyses of effective tax rates; Section 4 describes recent optional tax rates for companies and number of companies who availed it; Section 5 provides the analysis using the user cost of capital approach; and Section 6 concludes the paper enumerating certain recommendations, providing caveats and suggesting future research on the theme.

2 Literature Review

This section highlights literature on various tax reform measures undertaken by the Indian government over a period of time as well as the neo-classical underpinnings of the user cost of capital approach. The papers related to Indian tax reforms are limited in number due to the complex nature of the topic. Acharya (2005)[2] opines that the wave of tax reforms that started in 1970s (1974-1984) was inadequate and emphasized increasing tax rates to finance government-led companies. Even the tax slab rate was more bizarre. In 1973-74, there were 11 different tax slab rates ranging from 10% and climbing as high as 85%. With a surcharge of 15 per cent, the top bracket taxpayers had to pay 97.75 per cent! The consequence of higher tax rates was widespread tax evasion and avoidance of such taxes. Even corporate income taxes were at around 60 per cent with complicated tax systems of tax administration. The second phase of tax reform started under then Finance Minister VP Singh (1985-87) was a modern tax reform. Then in 1990s, the Chelliah Committee Report constituted the finest treatment of tax policy and reform in India. The report was comprehensive, empirically supported and provided clear recommendations. Post-2000 reforms simplified personal taxes substantially by reducing the number of rates, raising the exemption limit and widening the tax brackets. Rao and Rao (2006)[15] showed progress in tax reforms which raised tax to GDP ratio over the years. However, they mention that tax reforms are a continuing exercise for improving equity, productivity and reducing distortions. Ahluwalia (2022) mentioned that tax reforms involving lowering of tax rates, broadening the tax base and reducing loopholes were expected to raise tax to GDP ratio. Samantara (2021)[17] examined the tax reforms undertaken from 1991 onwards and concluded that still more tax reforms are needed to ameliorate tax revenue while enhancing equity. He also mentions that while revenue from direct taxes increased over the years, there is still space for increasing revenues by removing complex tax structures and rationalization of taxes to reduce tax avoidance and evasion. The study also states that tax reforms in most transitional and developing economies are often necessitated by the need to be in sync with international compliance

practices. Alagappan (2019)[3] studied India's recent tax reforms and stated that the direct tax rate is inflated. Sankarganesh and Shanmugam (2021)[18] analyse the effect of corporate income tax on investment of Indian manufacturing firms during 2005–2019. It is found that the effective corporate tax rate has a negative and significant impact on the corporate investment. Moreover, the estimated effective tax elasticity is relatively low as compared to the magnitude found in other countries.

The effect of corporate taxes on investment and entrepreneurship is one of the central questions in economic theory. The neoclassical theory of investment relies largely on two approaches: user cost of capital theory and Q-theory. User cost of capital was initially developed by Jorgenson (1963)[13] and Hall and Jorgenson (1967)[11] to study the impact of tax policies on investment. The theory of user cost of capital was later extended by several economists especially Abel (1982)[1], who incorporated adjustment costs in the user cost of capital model. Past studies using user cost of capital have shown that generous deductions and allowances for capital expenditure increase the present value of depreciation allowances and consequently brings down the user cost of capital, which in turn increases investment incentives (Hall and Jorgenson, 1967[11]; Hayashi, 1982[12], Chirinko, Fazzari, and Meyer, 1999[5]; Dwenger, 2014)[8]. Similarly, Q-theory of investment emerged out of Tobin's (1969)[20] revolutionary conjecture that the rate of investment should be related to the market value of invested capital with respect to the replacement cost of invested capital. Q-theory was later extended substantially by Lucas and Prescott (1971)[14] by using a dynamic investment model with convex adjustment costs to capture the dynamics of investment. Subsequently, Hayashi (1982)[12] equated the marginal value of investment to its average value by imposing the assumption that an investor is a price taker, and production and cost of installation of capital are both homogeneous so that a simple regression of investment on q should have a strong fit. Studies that used Q-theory (see, e.g., Summers, 1981[19]; Feldstein, Dicks-Mireaux, and Poterba, 1983[10]; Cummins, Hassett, and Hubbard, 1996[6]; Auerbach, 2002[4]; Devereux, Griffith, and Klemm, 2002[7]) to analyze the impact

of tax policies on investment have found a negative association of effective corporate tax rates with aggregate investment. In the context of our research, user cost of capital is more appropriate since Q-theory relies on stock market value of companies which is not available for closely-held companies.

3 Tax Rate Evolution in India: Stylized facts and Analysis of Effective Tax Rates

3.1 Basic Tax Rates

Tax policy revolves around deciding on the taxable entity, the tax rate, the tax base and the inclusions or exceptions to these. It needs to strike a delicate balance between competing goals: equity, efficiency and simplicity. The Indian corporate tax rate structure is also caught in this balancing act. In FY 1989-90, there were five rates of corporate tax for: 1) closely held domestic companies engaged in trading or investment, 2) other closely held domestic companies, 3) widely held domestic companies, 4) foreign companies' income from certain fees and royalties, 5) other incomes of foreign companies. A process of rationalization and simplification followed (Figure 1). In 1991-92, the distinction between closely held trading and investment companies and other closely held companies was removed leaving only 4 rates. In 1995-96, the distinction between widely held and closely held companies was also removed leaving one rate for all domestic companies. This simplified structure continued till FY 2016-17 when a lower tax rate was brought for smaller domestic companies (with taxable income below Rs. 5 crore) bringing the number of rates up to 4 (2 for domestic companies and 2 for foreign companies). From FY 2019-20 this norm was modified to make the small size category being domestic companies with turnover less than Rs. 400 crore in the preceding year. For FY 2020-21, a new set of special rates were instituted for an alternative simplified regime for companies willing to opt for giving up complex tax incentives, deductions and

MAT credits for lower upfront rates of tax. This brings the number of rates to 6 (7 if the rate of 25% for small companies is considered different from the 25% special rate for s. 115BA). For a deeper dive into corporate income tax data, we use the 'CMIE Prowess Database'. This database gives details drawn from annual financial statements (profit and loss accounts, balance sheets) of publicly listed corporations, foreign entities and even some large private corporations.

The provisions and reporting of direct taxes in the corporate accounting system (including the database) when compared with direct tax law need some clarifications. Most tax systems account for incomes in a manner that result in taxable profit being different from profit before tax (PBT) per corporate accounts. These differences arise from differences in depreciation calculations for various assets, additional allowance and incentives given by the tax system and allowances or disallowances of certain expenses. Tax laws also allow for amortization of preliminary expenses (s. 35D of Income Tax Act) and carry forward and set-off of losses that may make corporate accounts and tax accounts dissimilar. Besides divergences in the computation of profits, this could also lead to a rather peculiar situation where a company with positive profits as per corporate accounts would have no or very low taxable income per tax law. Creative accounting and tax planning allowed some companies to deliberately pay low or no tax. To address this, many tax systems put in place alternative minimum tax or minimum alternate tax rules. With minimum alternate tax (MAT) provisions in place, there is an additional layer of complication. Per Indian tax laws, if the corporate income tax calculated is less than a certain threshold, an additional liability arises that requires payment up to that threshold (MAT is discussed in detail below). This additional liability can be accumulated for a specified period of time for adjusting against future tax liabilities.

3.2 Minimum Alternate Tax

MAT stands for Minimum Alternate Tax and AMT stands for Alternate Minimum Tax¹. Initially the concept of MAT was introduced for companies and progressively it has been made applicable to all other taxpayers in the form of AMT. MAT was introduced by the Finance Act, 1987 with effect from the assessment year 1988-89. Later on, it was withdrawn by the Finance Act, 1990 and then reintroduced by Finance (No. 2) Act, 1996, with effect from 1-4-1997. The objective of introduction of MAT was to bring into the tax net "zero tax companies" which despite having earned substantial book profits and having paid handsome dividends, do not pay any tax due to various tax concessions and incentives provided under the Income-tax Law. As per the concept of MAT, the tax liability of a company will be higher of the following:

1. Tax liability of the company computed as per the normal provisions of the Income-tax Law, i.e., tax computed on the taxable income of the company by applying the tax rate applicable to the company. Tax computed in the above manner can be termed as normal tax liability.
2. Tax computed @ x% (plus surcharge and cess as applicable) on book profit (manner of computation of book profit is discussed in later part). The tax computed by applying x% (plus surcharge and cess as applicable) on book profit is called MAT. This rate x is usually less than the normal corporate tax rate in cardinal terms².

As per section 115JB, every taxpayer being a company is liable to pay MAT, if the income tax (including surcharge and cess) payable on the total income, computed as per the provisions of the Income-tax Act in respect of any year is less than x% of its book-profit +

¹<https://www.incometaxindia.gov.in/tutorials/10.mat-and-amt.pdf>

²Book profit' for this purpose is net profit as per profit and loss accounts prepared as per corporate law PLUS: income tax paid/payable; amounts carried to reserves; provisions for unascertained liabilities and losses of subsidiaries; dividends paid/proposed; expenditures related to certain exempt incomes; expenditures related to tax free AOP or BOI; for foreign company expenditures related to capital gains on securities or interest; royalties, etc.; notional loss on transfer of specified capital assets; expenditure related to specified patent royalties; depreciation debited to PL a/c; deferred tax and provision thereof etc. LESS (if the amounts are credited to PL accounts): Amounts withdrawn from reserves or provisions; specified exempt incomes; depreciation credited to P and L a/c; incomes related to tax free AOP or BOI; for foreign company

surcharge (SC) + health and education cess. The MAT rate was 30% for AY 1996-97 to AY 2000-2001, 7.5% for AY 2001-02 to AY 2006-07, 10% for AY 2007-08 to AY 2009-10, 15% for AY 2010-11 and AY 2020-21 to AY 2022-23, 18% for AY 2011-12 and 18.5% for AY 2012-13 to AY 2019-20.

However, the provisions of MAT are not applicable on³:

- a) The domestic companies which have opted for tax regimes under Section 115BAA or Section 115BAB;
- b) Any income accruing or arising to a company from the life insurance business referred to in Section 115B;
- c) Shipping company, the income of which is subject to tonnage taxation. A company has to pay the higher of 'normal tax liability' or 'liability as per MAT provisions'. If in any year the company pays liability as per MAT, then it is entitled to claim credit of MAT paid over and above the normal tax liability in the subsequent year(s). The provisions relating to carry forward and adjustment of MAT credit are given in section 115JAA. Provided that where the amount of Foreign Tax Credit (FTC) allowed against the MAT exceeds the amount of such FTC admissible against the tax payable by the assessee under normal provisions of the Income-Tax Act, then, while computing the amount of FTC under this sub-section, such excess amount shall be ignored.

incomes related to capital gains on securities or interest; royalties, etc.; notional gain on transfer of specified capital assets; income related to specified patent royalties; profits of sick industrial company till its net worth becomes zero/positive; deferred tax if credited etc

³Further, as per Explanation 4 to section 115JB as amended by Finance Act, 2016 with retrospective effect from 1/4/2001, it is clarified that the MAT provisions shall not be applicable and shall be deemed never to have been applicable to an assessee, being a foreign company, if—

1. (i) the assessee is a resident of a country or a specified territory with which India has an agreement referred to in subsection (1) of section 90 or the Central Government has adopted any agreement under subsection (1) of section 90A and the assessee does not have a permanent establishment in India in accordance with the provisions of such agreement; or
2. (ii) the assessee is a resident of a country with which India does not have an agreement of the nature referred to in clause (i) and the assessee is not required to seek registration under any law for the time being in force relating to companies.

Further, as per Explanation 4A to section 115JB as inserted by Finance Act, 2018, MAT provisions shall not be applicable to a foreign company, whose total income comprises of profits and gains arising from business referred to in section 44AB, 44BB, 44BBA, or 44BBB and such income has been offered to tax at the rates specified in those sections.

As discussed earlier, a company is entitled to claim MAT credit i.e. excess of MAT paid over the normal tax liability. The credit of MAT can be utilised by the company in the subsequent year(s). The credit can be adjusted in the year in which the liability of the company as per the normal provisions is more than the MAT liability. The brought forward MAT credit shall be allowed to be set-off in the subsequent year(s) to the extent of the difference between the tax on its total income as per the normal provisions and as per the MAT provisions. The company can carry forward the MAT credit for adjustment in subsequent year(s), however, the MAT credit can be carried forward only for 15 years (10 years for AY 2010-11 to AY 2017-18, 7 years for AY 2005-06 to AY 2009-10) after which it will lapse. In other words, if MAT credit cannot be utilised by the company within 15 years (immediately succeeding the assessment year in which such credit was generated), then such credit will lapse. No interest is paid to the taxpayer in respect of such credit.

The provisions of MAT are applicable to corporate taxpayers only. The provisions relating to AMT are applicable to non-corporate taxpayers in a modified pattern in the form of Alternate Minimum Tax (AMT). Thus, it can be said that MAT applies to companies and AMT applies to a person other than a company. Intentionally no attempt is made to over-simplify the legal complexities of MAT/AMT as per the tax law as reflected above. MAT/AMT adds another layer of complexity to an already complex tax system. Moreover, it seeks to take away from the right hand (through additional taxes) what was earlier given by the left hand (in form of deductions, allowances and incentives). The original sin, in this case, is excessive deductions, allowances and incentives. In the long run, this issue needed to be addressed.

Typically, company balance sheets report provisions for the taxes including amounts set aside for past liabilities (or drawing upon past reserves) and those set aside for future tax liabilities (or expected refunds from past payments). Also due to differences in accounting methods of corporate law and income tax law, deferred tax assets or liabilities are reflected in the accounts. For a more precise estimate of the effective corporate tax for a company,

we use the ‘corporate tax’ variable which includes MAT paid (but not the utilisation of earlier MAT credits). Both metrics, ‘direct tax provisions’ and ‘corporate tax’ track each other closely, but in a post-MAT scenario with additional direct taxes (such as dividend distribution tax and securities transaction tax), the latter reflects the immediate corporate tax liability of a company in an economic sense. If the company’s computed tax is less than the MAT rate this metric will reflect the corporate tax plus MAT paid to be credited for future claims. If the company’s computed tax is more than the MAT rate this metric will reflect just the corporate tax (and not MAT credited or utilised since that would amount to double-counting MAT paid earlier).

3.3 Effective corporate tax rates

The average corporate tax as % of PBT is a fair approximation of the effective corporate tax rate. In 1988-89 this stood at around 25% for the full sample. By 1991-92 this had climbed rapidly to nearly 36%. The rate then dropped back to slightly below 25% in 1994-95 (Figure 2). The decline continued till 2001-02 (to just below 20%) before slowly climbing back to around 31% in 2014-15. Subsequently, the rate declined driven partly by corporate rate cuts.

Average corporate tax rates can also be analysed using deciles based on turnover and assets as provided by the Prowess database (Figure 3). Until 2016-17, average corporate tax rates for the highest turnover and asset group, Deciles 1 was lower than that of the lowest turnover and asset group, Deciles 10. This shows that the more endowed companies are better able to plan their tax affairs. Only after the tax rates for smaller companies (with turnover less than Rs. 5 crore in the preceding fiscal year) was lowered (to 29%) from FY 2016-17 and then again (to 25%) in FY 2017-18 did the effective rate for the largest companies become more than that of the smallest companies in the sample. To that extent, though the differential tax rates complicated the tax code, the change has enhanced vertical equity in the corporate tax system.

The corporate tax rate distribution across deciles and across time is also interesting. By

1999-2000, with the lowering of domestic statutory corporate tax rates to 35%, most firms in the larger categories (Deciles 1 to Deciles 8) had effective tax rates of 10% to 15% (Figure 4). Moreover, the prevalence of low or zero-tax companies (0-5% effective rates) was relatively high at over 1% each for Deciles 1 to Deciles 7. This was despite the (re-)introduction of MAT in FY 1997-98. This prevalence was less among smaller companies (Deciles 7 to Deciles 10) indicating partly that larger companies were able to plan their accounts and tax matters better. Further, the larger companies with more investable retained profits, and the ability to raise new equity or borrowing may have been more adept at purchasing new capital to use the generous tax depreciation and other tax incentives. It may also indicate major deviations between 'book profits' per tax law for MAT computations and profit before tax (PBT) per corporate accounts. By 2019-20, the domestic corporate tax rates were split to 25% for smaller companies and 30% for larger ones (Figure 5). The equitability impact of this is clearly visible. The smaller companies (Deciles 8 to Deciles 10) have a prevalence of average rates of 20-25% close to the relevant statutory tax rate. The larger companies (Deciles 1 to 7) have a prevalence of effective rates of 25-30% close to the relevant statutory tax rate. Nevertheless, there remains a large share of companies at lower tax slots of 15-20% and 0-5%.

4 Recent optional lower tax rate regime

Recent reforms in the corporate tax rates and structures can be analysed in light of the above discussion. The effective tax rates reveal that many companies still manage to pay much lower taxes than the statutory rate through creative use of a combination of deductions and incentives. Attempts to address this using MAT or lower tax rates for smaller companies further complicates the tax code. The policy objective then should be to slowly wean the corporate sector away from complex deductions and high statutory tax rates to fewer deductions and lower tax rates. The new optional tax rates specified in section 115BA, 115BAA

and 115BAB are a laudable step in this direction. These sections are discussed below in simplified terms (Table 1) while complex provisions of these sections are given in Annexure1.

1. Section 115BA

Section 115BA specifies tax rates only for manufacturing businesses in India under specific circumstances. The tax rate is 25% (plus surcharge and cess) for manufacturing enterprises that adhere to all Chapter XII requirements (apart from Sections 115BAA and 115BAB). There is no time limit granted to domestic manufacturing enterprises for selecting a reduced income tax. Once they have adjusted the brought forward losses, they can utilise the Section 115BAB benefits whenever they want. There are multi-requirements that must be met to guarantee that the tax rate stays at 25%. Moreover, lot of conditions need to be fulfilled by the manufacturing companies.

2. Section 115BAA

Section 115BAA provides lower corporate tax rate for all domestic businesses (that is it covers non-manufacturing sectors also). Domestic enterprises have an alternative tax rate of 22% plus surcharge of 10% and a cess of 4% with effective tax rate 25.17%. This section is effective from FY 2019–20 (AY 2020–21) after fulfilling the requirements described under it. Moreover, if the corporation chooses Section 115BAA, it is not required to pay tax under MAT. The following requirements must be met for all domestic businesses and manufacturing firms to elect to pay income tax at the rate of 22% (plus any surcharge and cess):

1. Such businesses should not take advantage of specified incentives provided by various income tax regulations.
2. As a result, the company's total income is calculated by not allowing various deductions. Moreover, if the company chooses to be taxed under section 115BAA, the opportunity to claim set off is permanently lost. Such companies will have to exercise this option to be taxed under the section 115BAA on or before the due date of filing income tax returns mentioned under section 139, which is typically 30th September of the assessment year. The aforementioned losses shall be deemed to have been allowed and shall not be eligible for carry forward

and set off in subsequent years.

3. Section 115BAB

A domestic corporation can opt for section 115BAB if it satisfies the requirements listed in section 115BAB(2) mentioned in the Annexure 1. A company established and registered in India is considered to be a domestic corporation. The benefit is accessible beginning with the fiscal year 2019–20 (AY 2020-21). A new manufacturing business might choose to be taxed in accordance with section 115BAB at the rate of 15%. Once the corporation selects section 115BAB for a certain fiscal year, it cannot change it subsequently. Provisions of taxation should be straightforward to comprehend and apply. Unfortunately, most of the incentive deductions and exemptions in the Income Tax Act of 1961 are extremely complicated due to strict restrictions. These factors have resulted in legal disputes about various incentives. Other additional provisions related to the section 32 and 32AD are exceedingly complex and subject to a variety of conditions. There are a host of conditions that new manufacturing firms must meet in order to qualify for the benefit under section 115BAB. For example, a manufacturing firm should not use any plant and machinery that was previously used in any of their businesses; such machinery or plant was not, at any time prior to the date of the installation, used in India; such machinery or plant is not imported into India if these assets have already availed the benefit of depreciation before. The above conditions deter new firms from availing the benefit of depreciation, which is the major component for a firm to reduce its net taxable income.

As noted, sections 115BA, 115BAA and 115BAB have associated opportunity costs. The main opportunity cost is not claiming set off of losses and unabsorbed depreciation carried forward from any earlier years. Start-ups are usually unable to earn profits in the initial stage. Since they are unable to carry forward losses into the future, start-ups and newly incorporated entities are reluctant to avail these sections. Data from Budget 2022-2023 also shows that only 8.35% loss making companies availed section 115BAA benefits, 0.19% of such companies availed section 115BAB losses while 91.47% exercised normal tax rate provisions

due to the high costs of availing the benefits. This trend reduces almost monotonically as firms grow larger. In effect the optional tax provisions intended to simplify the tax regime for small firms and startups inadvertently became a tax cut for larger and more established firms. Probably for the larger more profitable companies, the lack of various deductions was more than compensated by the non-imposition of MAT. Moreover, since companies with turnover below Rs. 400 crore have a basic tax rate of 25%, section 115BA is essentially superfluous for them. That only leaves sections 115BAA (22%) and 115BAB relevant for smaller firms (15%). Even they have very limited adoption among smaller entities. This phenomenon is examined empirically in the ensuing sections.

5 User cost of capital method and analysis

5.1 Methodology

The impact of the tax burden on investment decisions, has been explored by various neoclassical approaches. According to these theories the investment must generate sufficient returns to offset depreciation and the real rental rate of capital. In other words, the returns from the investment should be greater than the user cost of capital. User cost of capital (UCC) is specified as (Hall and Jorgenson, 1967[11]; Fabling et al, 2013[9]; Rosenberg and Marron, 2015[16]):

$$UCC = \frac{(1 - \tau(Z + K))(r + \delta)}{(1 - \tau)}$$

Where r is the real rental rate, δ is the economic depreciation rate, Z is the present value of depreciation allowance, τ is the effective tax rate, and K is the investment tax credit rate. The intuition behind this formula is straightforward. Consider an investment of Rs. 100. The cost of deploying this investment will be the rate of interest rate and economic depreciation. But when taxes are considered, the before tax returns have to rise by $\frac{(r+\delta)}{(1-\tau)}$. But along with giving taxes, the company will also get some allowances like depreciation allowance which

will bring the user cost of capital down. For each class of asset (plant and machinery, land and building, intangible assets, software and computer and information technology) the user cost will vary depending on rates of economic depreciation and tax depreciation allowances. These are calculated for each asset class. Prowess data is used to calculate the weightage of various asset classes industry wise and then compute the empirical industry wise UCC. The calculations and basic data sources are provided in Annexure 2⁴. Our choice of the user cost of capital method is driven by several factors. Official corporate tax data in India is reported at a very high level of aggregation which makes detailed analysis difficult. Corporate accounts datasets (such as CMIE Prowess) report the accounts according to company law accounting standards which differ from income tax norms. Moreover, they report data for mostly publicly traded companies and therefore miss out some of the smaller entities. The UCC method allows us to impute broad industry and ownership group characteristics using Prowess data. This is then used to evaluate possible responses to the tax regime based on the values of the UCC. Thus, the method does not need the use of detailed firm-level tax data which is difficult to come by in the Indian context.

We examine the distribution of UCCs among Indian firms to address the following questions:

1. To what extent do UCCs differ across sectors such as manufacturing, service, mining, construction and real estate, and electricity for domestic and foreign companies?
2. How have tax reforms such as changes in rate of corporate tax rate and depreciation allowances affected these measures?
3. Do foreign firms and domestic firms have different user cost of capital?
4. What are the implications of the new optional tax rates on the user cost of capital?

We also lay out the empirical framework, documenting how tax provisions affect the industry wise user cost of capital. Estimation of the user cost of capital required assumptions regarding which variables are treated as common across all industries and which are industry-specific. For example, different sectors face different cost of borrowing on different creditworthiness.

⁴The economic and tax depreciation rates, and asset-wise UCCs can be made available on request.

This, in turn, may be correlated with firm or industry specific factors. But due to data constraints we restrict ourselves to a common cost of borrowing rate based on RBI policy and SBI prime lending rates. The key assumptions are:

1. Inflation rate (CPI), economic depreciation rate and real rental rate are same across all firms.
2. For real cost of funds, data from two sources are used since one source does not provide data for all financial years (2000-2022). Firstly, we use data from SBI (prime lending rate) from year 2000 to 2004. Thereafter, data are collected from RBI (lending rate) which provides a range. The mid-point of the range is assumed to be the real rental rate.
3. Investment tax allowance under section 32AC at the rate of 35% is assumed to be equivalent of Investment tax credit after calculation of the implied tax effect.
4. For analytical tractability and data consistency, we consider only five broad asset categories. Depreciation allowances provided on them under section 32 are mapped as closely as possible. The asset categories are plant and machinery, land and building, intangible assets, software and computer and information technology.
5. In the Indian tax structure, there are different implied rates due to varying surcharge slabs, in other words multiple τ exist. We assumed that all companies, whether domestic or foreign, are taxed at highest slab and surcharge rate.
6. There are multiple provisions under section 115BA, 115BAA and 115BAB regarding depreciation allowances. To make the UCC calculations tractable, we assumed depreciation allowances are provided at 100%, 50% and 25% respectively, of the specified rate. This reflects the scaling back of some deductions and limitations on the use of old capital goods.

All the variables are then used to compute the UCC based on asset composition of the industry and ownership. Firm level data is sourced from CMIE Prowess database, resulting in a sample of 19,105 firms in the year 2000, rising to 31,718 in 2020. For analytical ease, we

aggregated companies into five broad industries: mines, manufacturing, service, electricity, and construction and real estate. Manufacturing industry dominates and number of foreign ownership companies of mining and electricity are in single digits. We restrict ourselves to firms given in Prowess data which only included widely held firms since the closely held companies (private companies) data are not reliably available. As mentioned earlier, the marginal tax rate is depends on the company's taxable total income which is not readily available. A common treatment is to use top marginal tax rate of companies since this rate is thought to be the relevant rate for the majority of companies. The top effective tax rate was around 38.5% in FY 1999-2000 and reduced to 34.94% in 2019-2020. In addition, under section 115BA, 115BAA and 115BAB effective tax rates are 29.12%, 25.168% and 17.16%, respectively. Hence, we explore three more alternative tax rates applicable to different sectors as per the provisions of the sections.

5.2 Industry Level User Costs of Capital for Basic Tax Rates

Using Prowess data, the industry-specific user cost of capital is calculated for the basic (non-optional) rates. This varies across different assets due to the different tax depreciation allowances and across industries due to differences in asset composition. Based on this, Figure 6-9 show the user cost of capital of different industries comparing domestic and foreign ownership across time. This reveals that user cost of capital declined due to the lowering of corporate tax rates⁵.

5.3 Impact of Optional Tax Rates

Several changes to the tax provisions under optional tax rates for companies affect UCC calculations. These are shown in figures 10-13 comparing UCCs immediately before and after implementation of the new regime. The major change occurs due to the reduction in

⁵Due to the small sample size we do not report mining industry figures. However, the UCCs are available in Annexure 2

depreciation allowances, removal of set-off of loss, unabsorbed depreciation carried forward and irreversibility. Due to complex provisions and data constraints only the first aspect can be modelled explicitly. For this we assume 100%, 50% and 25% of depreciation allowance availability under the respective sections 115BA, 115BAA and 115BAB.

The results show that the new tax regime does not provide significant advantage over the old regime. UCCs for concessional rates are paradoxically higher than the normal tax rate even without taking into consideration non-availability of unabsorbed depreciation, loss carried forward, and irreversibility. This is especially true for section 115BAB designed particularly for the small and younger startups. Given our assumptions, section 115BAB providing 15% tax rate to manufacturing start-ups has nearly the same the UCC as the non-concessional 30% basic rate (Figure 10). For manufacturing entities, Section 115BAA with a 22% concessional rate for all types of companies has an UCC which is the highest. Section 115BA yields the lowest UCC, but this rate is identical to the lower rate of 25% for sub-Rs.400 crore turnover companies. Therefore, there is no great incentive for smaller firms to give up tax incentives and switch to the simplified system. Non-manufacturing entities only have a choice between the basic rates and section 115BAA. For Construction (Figure 11) and Electrical (Figure 13) industries, s.115BAA UCCs are higher than the basic rates. Only for Service industries (Figure 12) are the two UCCs nearly identical.

5.4 Loss making companies

It is empirically complex to take losses into account in the UCC calculations. Nevertheless, figures 14 and 15 show that companies earning negative profits over a period of ten years continuously are overwhelmingly young and small. The number shrinks monotonically from 218 for 10–20-year-old companies to 20 for 40–50-year-old companies. In a similar manner, classifying by turnover, 233 small companies with turnover from Rs. 0-5 crores are loss making while only 13 larger companies with turnover from Rs. 15-20 crores incurred sustained losses. This implies that the lack of ability to carry forward losses would be a major

disincentive for small and young firms to switch to the optional simplified tax regimes. For such entities, the non-imposition of MAT would not be an incentive either since due to their zero or negative book profits they would not be liable to pay MAT.

6 Conclusions, caveats and policy recommendations

Tax policies have significant effect on business growth. In a recent innovative policy reform, India's corporate income tax system was revamped with the option of availing lower rates in lieu of giving up complex deductions. India's tax rate reforms are placed in context of the move to simplify the tax system in the 1990s, the subsequent dilemma of dealing with zero tax companies leading to instituting the minimum alternate tax (MAT), and the continuance of lower effective tax rates for larger companies. This provided the rationale for moving towards a simpler tax regime with lower tax rates but fewer deductions. In theory such a move should lower the cost of investment and bring gains from procedural simplicity. However, data from the government revealed a conundrum wherein larger companies have opted more for the simplified lower optional rates while smaller ones appear reticent in switching to the optional lower tax regime. Also, the overall adoption of the simpler scheme was low. This paper explored this issue using empirical methods.

The user cost of capital approach is used to examine the economically relevant tax impact across various sectors and ownership types. The UCC method allows us to impute broad industry and ownership group characteristics using Prowess data. This is then used to evaluate possible responses to the tax regime based on the values of the UCC. Thus, the method does not need the use of detailed firm-level tax data which is difficult to come by in the Indian context. The results indicate that in terms of user cost, the various lower tax options are not attractive, and under certain situations may be even worse for younger and smaller companies. Moreover, due to its irreversible nature and inability to carry forward

losses, start-ups and small companies may be hesitant in committing to the scheme. To make matters worse, the complexity of the provisions may also be deterring adoption. In light of the analysis, certain policy options are suggested to improve the scheme so as to achieve the laudable objective of implementing a simple tax regime with lower rates and minimal deductions:

1. To make the scheme simple, there should be just one optional lower tax rate say 20% applicable to both manufacturing and non-manufacturing entities. The diverse lower rates of 25%, 22% and 15% could be merged into this.
2. Inability to claim depreciation allowances and loss carry forward is a major disincentive especially for younger and smaller companies like start-ups. These should be re-instituted in the simplified scheme.
3. The tax system should be made simple and not overburdened with multiple policy objectives. Policymakers should take steps to provide comprehensive incentives to innovative start-ups outside the tax system. Such measure could include productivity linked incentive (PLI) schemes, provision of seed-finance and appropriate incubation facilities.

Certain caveats are in order. Due to the complexity of tax laws, certain simplifying assumptions were relied upon. These include clubbing of assets classes and industry groups, assumptions regarding depreciation rates for the new regime and use of common real rates of return. However, individual companies may have unique circumstances leading to deviations from these assumptions. Also, more data is needed to precisely identify start-ups. Despite these limitations, our analysis provides new insights. It highlights that due to inherent complexities of the legislation, the new optional tax regime may not be favorably impacting the intended taxpayers. In effect, the optional tax provisions intended to simplify the tax regime for small firms and startups inadvertently became a tax cut for larger and more established firms. Future research could concentrate on using additional data as it emerges. This also highlights the need for availability of corporate and tax data to cover not only publicly held companies (as in Prowess) but also privately held ones.

References

- [1] Andrew B Abel. Dynamic effects of permanent and temporary tax policies in aq model of investment. *Journal of Monetary Economics*, 9(3):353–373, 1982.
- [2] Shankar Acharya. Thirty years of tax reform in india. *Economic and Political Weekly*, pages 2061–2070, 2005.
- [3] SM Alagappan. Indian tax structure—an analytical perspective. *International Journal of Management*, 10(3), 2019.
- [4] Alan J Auerbach. Taxation and corporate financial policy. *Handbook of public economics*, 3:1251–1292, 2002.
- [5] Robert S Chirinko, Steven M Fazzari, and Andrew P Meyer. How responsive is business capital formation to its user cost?: An exploration with micro data. *Journal of public economics*, 74(1):53–80, 1999.
- [6] Jason G Cummins, Kevin A Hassett, and R Glenn Hubbard. Tax reforms and investment: A cross-country comparison. *Journal of public Economics*, 62(1-2):237–273, 1996.
- [7] Michael P Devereux, Rachel Griffith, and Alexander Klemm. Corporate income tax reforms and international tax competition. *Economic policy*, 17(35):449–495, 2002.
- [8] Nadja Dwenger and Viktor Steiner. Financial leverage and corporate taxation: Evidence from german corporate tax return data. *International tax and public finance*, 21(1):1–28, 2014.
- [9] Richard Fabling, Norman Gemmell, Richard Kneller, and Lynda Sanderson. Estimating firm-level effective marginal tax rates and the user cost of capital in new zealand. 2014.
- [10] Martin Feldstein, Louis Dicks-Mireaux, and James Poterba. The effective tax rate and the pretax rate of return. *Journal of Public Economics*, 21(2):129–158, 1983.

- [11] Robert E Hall and Dale W Jorgenson. Tax policy and investment behavior. *The American Economic Review*, 57(3):391–414, 1967.
- [12] Fumio Hayashi. Tobin’s marginal q and average q: A neoclassical interpretation. *Econometrica: Journal of the Econometric Society*, pages 213–224, 1982.
- [13] Dale W Jorgenson. Capital theory and investment behaviour. 1963.
- [14] Robert E Lucas Jr and Edward C Prescott. Investment under uncertainty. *Econometrica: Journal of the Econometric Society*, pages 659–681, 1971.
- [15] M Govinda Rao, R Kavita Rao, et al. Trends and issues in tax policy and reform in india. In *India Policy Forum*, volume 2, pages 55–122. National Council of Applied Economic Research, 2006.
- [16] Joseph W Rosenberg and Donald B Marron. Tax policy and investment by startups and innovative firms. *Available at SSRN 2573259*, 2015.
- [17] Rabinarayan Samantara. Personal income taxes in india: Some reflections. *Journal Homepage: <http://ijmr.net.in>*, 9(05), 2021.
- [18] Karuppiah Sankarganesh and K Rangasamy Shanmugam. Effect of corporate income tax on investment decisions of indian manufacturing firms. *Journal of the Asia Pacific Economy*, pages 1–20, 2021.
- [19] Lawrence H Summers, Barry P Bosworth, James Tobin, and Philip M White. Taxation and corporate investment: A q-theory approach. *Brookings Papers on Economic Activity*, 1981(1):67–140, 1981.
- [20] James Tobin. A general equilibrium approach to monetary theory. *Journal of money, credit and banking*, 1(1):15–29, 1969.

ANNEXURE 1

Income-tax rates applicable in case of domestic companies for assessment year 2021-22 and 2022-23 are as follows:

	Assessment Year 2021-22	Assessment Year 2022-23
Where its total turnover or gross receipt during the previous year 2018-19 does not exceed Rs. 400cr	25%	NA
Where its total turnover or gross receipt during the previous year 2019-20 does not exceed Rs. 400cr	NA	25%
Any other domestic company	30%	30%

Add:

(a) Surcharge: The amount of income-tax shall be increased by a surcharge - at the rate of 7% of such tax, where the total income exceeds one crore rupees but not exceeding ten crore rupees and at the rate of 12% of such tax, where total income exceeds ten crore rupees.

(b) Health and Education Cess: The amount of income-tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of four percent of such income-tax and surcharge.

As mentioned earlier, the separate tax rates for small and large companies bring about vertical equity and remedies the persistently lower effective tax rates that larger companies managed to maintain when uniform domestic corporate tax rates prevailed.

1. Special Tax rates applicable to a domestic company The special Income-tax rates applicable in case of domestic companies for assessment year 2021-22 and 2022-23 are as follows:

	Assessment Year 2021-22	Assessment Year 2022-23
Where it opted for section 115BA	25%	NA
Where it opted for Section 115BAA	NA	25%
Where it opted for Section 115BAB	30%	30%

Surcharge: The rate of surcharge in case of a company opting for taxability under Section 115BAA or Section 115BAB shall be flat 10% irrespective of the amount of total income.

Health and Education Cess (HEC): The amount of income-tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of four percent of such income-tax and surcharge. MAT: The domestic company that has opted for the ‘special taxation regime’ under Section 115BAA and 115BAB is exempted from the provision of MAT. However, no exemption is available in the case where section 115BA has been opted. In that case, the provisions of Minimum Alternate Tax (MAT) applies, tax payable cannot be less than 15% (+HEC) of ”Book profit” computed as per section 115JB. However, MAT is levied at the rate of 9% (plus surcharge and cess as applicable) in the case of a company, being a unit of an International Financial Services Centre and deriving its income solely in convertible foreign exchange.

The special tax rates were first instituted from AY 2017-18 with the introduction of section 115BA. It provides for a tax rate of 25%. Subsequently, it was extended to domestic companies set up and registered on or after the 1st March 2016 that are engaged in the business of manufacture or production of any article or thing and research in relation to, or distribution of, such article or thing manufactured or produced by it. No deductions are available under section 10AA (special provisions in respect of newly established Units in Special Economic Zones) or clause (iia) of sub-section (1) of section 32 (additional depreciation) or section 32AC (investment in new plant or machinery) or section 32AD (investment in new plant or machinery in notified backward areas in certain States) or section 33AB (tea development account, coffee development account and rubber development account) or section 33ABA (Site Restoration Fund for petroleum or natural gas) or sub-clause (ii) or sub-

clause (iia) or sub-clause (iii) of sub-section (1) or sub-section (2AA) or sub-section (2AB) of section 35 (expenditure on scientific research) or section 35AC (expenditure on eligible projects or schemes) or section 35AD (deduction in respect of expenditure on specified business) or section 35CCC (expenditure on agricultural extension project) or section 35CCD (Expenditure on skill development project) or under any provisions of Chapter VI-A under the heading: "C.—Deductions in respect of certain incomes" other than the provisions of section 80JJAA (deduction in respect of employment of new employees). Carry forward of loss related to above non-permissible deductions is not allowed. Depreciation under section 32 is available for additional depreciation under clause (iia).

Section 115BAA came into effect from AY 2020-21. It provides for a tax rate of 22%. This applies to any domestic company. No deduction is permissible under section 10AA (special provisions in respect of newly established Units in Special Economic Zones) or clause (iia) of sub-section (1) of section 32 (additional depreciation) or section 32AD (deduction in respect of expenditure on specified business) or section 33AB (tea development account, coffee development account and rubber development account) or section 33ABA (Site Restoration Fund for petroleum or natural gas) or sub-clause (ii) or sub-clause (iia) or sub-clause (iii) of sub-section (1) or sub-section (2AA) or sub-section (2AB) of section 35 (expenditure on scientific research) or section 35AD (deduction in respect of expenditure on specified business) or section 35CCC (expenditure on agricultural extension project) or section 35CCD (Expenditure on skill development project) or under any provisions of Chapter VI-A other than the provisions of section 80JJAA (Deduction in respect of employment of new employees) or section 80M (Deduction in respect of certain inter-corporate dividends). Carry forward of loss or depreciation related to above non-permissible deductions is not allowed.

Section 115BAB is also in effect from AY 2020-21. This applies to any domestic company that has been set up and registered on or after the 1st October 2019, and has commenced manufacturing or production on or before the 31st March 2023 and,

(i) the business is not formed by splitting up, or the reconstruction, of a business already in

existence:

(ii) does not use any machinery or plant previously used for any purpose.

The company should be engaged in the business of manufacture or production of any article or thing and research in relation to, or distribution of, such article or thing. The provision cannot be availed by companies engaged in:

- (i) development of computer software in any form or in any media; (ii) mining;
- (iii) conversion of marble blocks or similar items into slabs;
- (iv) bottling of gas into cylinder;
- (v) printing of books or production of cinematograph film; or
- (vi) any other business as may be notified by the Central Government

It provides for a tax rate of 15%. But where total income includes any income, which has neither been derived from nor is incidental to manufacturing or production of an article or thing and in respect of which no specific rate of tax has been provided separately, such income shall be taxed at 22% and no deduction in respect of any expenditure or allowance shall be allowed in computing such income.

No deduction is permissible under section 10AA (special provisions in respect of newly established Units in Special Economic Zones) or clause (iia) of sub-section (1) of section 32 (additional depreciation) or section 32AD (deduction in respect of expenditure on specified business) or section 33AB (tea development account, coffee development account and rubber development account) or section 33ABA (Site Restoration Fund for petroleum or natural gas) or sub-clause (ii) or sub-clause (iia) or sub-clause (iii) of sub-section (1) or sub-section (2AA) or sub-section (2AB) of section 35 (expenditure on scientific research) or section 35AD (deduction in respect of expenditure on specified business) or section 35CCC (expenditure on agricultural extension project) or section 35CCD (Expenditure on skill development project) or under any provisions of Chapter VI-A other than the provisions of section 80JJAA (De-

duction in respect of employment of new employees) or section 80M(Deduction in respect of certain inter-corporate dividends). Carry forward of loss or depreciation related to above non-permissible deductions is not allowed.

To clarify, section 115BA which came into effect from AY 2017-18 for domestic manufacturing companies set up and registered on or after the 1st March 2016. It offers a lower tax rate of 25% in lieu of giving up certain deductions and the ability to carry forward and set off losses. Section 115BAA came into effect from AY 2017-18 for any domestic company. It offers lower tax rates of 22% in lieu of giving up certain deductions and the ability to carry forward and set off losses and claim depreciation in relation to the non-permissible deductions. Section 115BAA which came into effect from AY 2017-18 for domestic manufacturing companies (not formed by splitting up, or the reconstruction, of existing business and not using any previously used machinery or plant) set-up and registered on or after the 1st October 2019 commencing manufacturing or production on or before the 31st March, 2023. It offers a lower tax rate of 15% in lieu of giving up certain deductions and the ability to carry forward and set off losses and claim depreciation in relation to the non-permissible deductions. Income from non-manufacturing activities of such companies are to be taxed at 22% and no deduction in respect of any expenditure or allowance shall be allowed in computing such income.

Annexure 2

Variable	Source
Real rental rate (r)	Prime lending rate of (2005-22) SBI (2000-04) and RBI
Economic depreciation rate (δ)	Hulten and Wykoff, US Bureau of Economic Analysis
Present value of depreciation allowance Z	From Section 32 of Income Tax act, 1961 depreciation rate (present value based on CPI inflation rate)
Effective tax rate (τ)	Tax rates are highest marginal slab rate as per Income tax act, 1961
Investment tax credit rate (K)	As per section 32AC investment tax allowance made equivalent to the tax credit

Table A2: UCC of Foreign Sectors

Year	Construction and Real Estate	Electricity	Manufacturing	Mining	SERVICE
2000	0.308	0.333	0.318	0.335	0.293
2001	0.288	0.322	0.311	0.327	0.291
2002	0.262	0.302	0.282	0.285	0.258
2003	0.259	0.296	0.274	0.290	0.257
2004	0.251	0.292	0.270	0.286	0.248
2005	0.255	0.288	0.278	0.285	0.272
2006	0.288	0.324	0.312	0.310	0.302
2007	0.307	0.362	0.347	0.254	0.340
2008	0.312	0.368	0.351	0.257	0.339
2009	0.320	0.299	0.354	0.371	0.344
2010	0.312	0.348	0.342	0.369	0.337
2011	0.243	0.272	0.258	0.291	0.226
2012	0.256	0.295	0.283	0.181	0.231
2013	0.281	0.293	0.278	0.175	0.233
2014	0.247	0.283	0.259	0.170	0.232
2015	0.245	0.283	0.262	0.170	0.219
2016	0.254	0.290	0.262	0.170	0.197
2017	0.208	0.260	0.238	0.146	0.187
2018	0.199	0.260	0.236	0.145	0.188
2019	0.203	0.266	0.244	0.152	0.224
2020	0.200	0.255	0.233	0.142	0.210
2021	0.181	0.240	0.218	0.128	0.201

Table A1: UCC of Domestic Sectors

Year	Construction and Real Estate	Electricity	Manufacturing	Mining	SERVICE
2000	0.276	0.304	0.294	0.306	0.281
2001	0.277	0.300	0.291	0.301	0.282
2002	0.259	0.283	0.274	0.281	0.261
2003	0.254	0.277	0.270	0.276	0.257
2004	0.252	0.271	0.264	0.271	0.252
2005	0.261	0.277	0.271	0.278	0.261
2006	0.263	0.297	0.291	0.297	0.277
2007	0.296	0.329	0.320	0.327	0.308
2008	0.305	0.336	0.326	0.332	0.311
2009	0.307	0.337	0.327	0.331	0.310
2010	0.289	0.323	0.306	0.277	0.291
2011	0.222	0.255	0.241	0.211	0.223
2012	0.242	0.276	0.261	0.231	0.241
2013	0.228	0.270	0.256	0.223	0.234
2014	0.222	0.264	0.249	0.215	0.227
2015	0.218	0.265	0.248	0.212	0.221
2016	0.211	0.266	0.246	0.188	0.209
2017	0.188	0.244	0.222	0.162	0.185
2018	0.183	0.245	0.221	0.158	0.184
2019	0.187	0.252	0.228	0.165	0.191
2020	0.183	0.243	0.219	0.155	0.184
2021	0.172	0.229	0.205	0.142	0.175

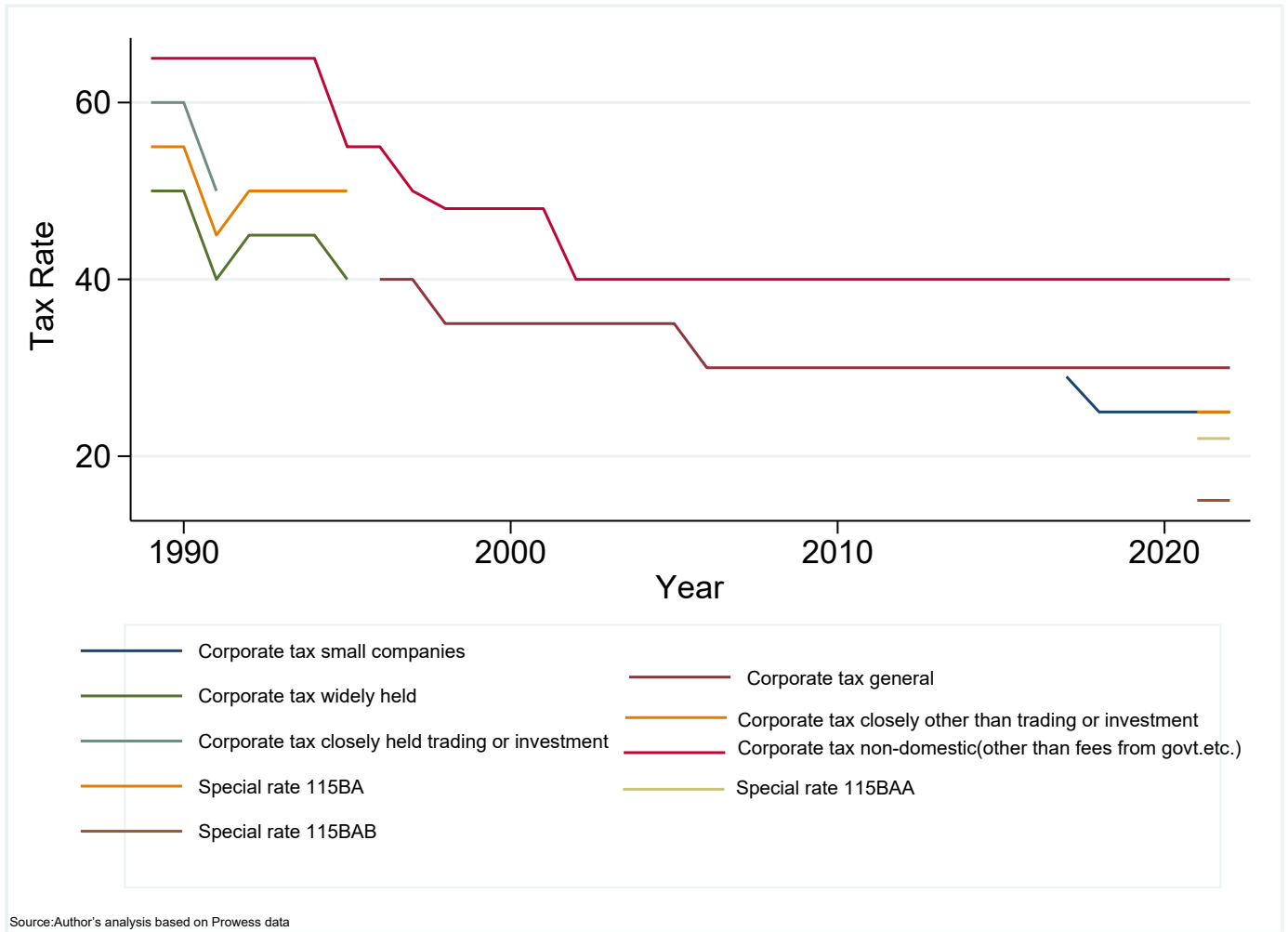


Figure 1: Evolution of statutory corporate tax rates

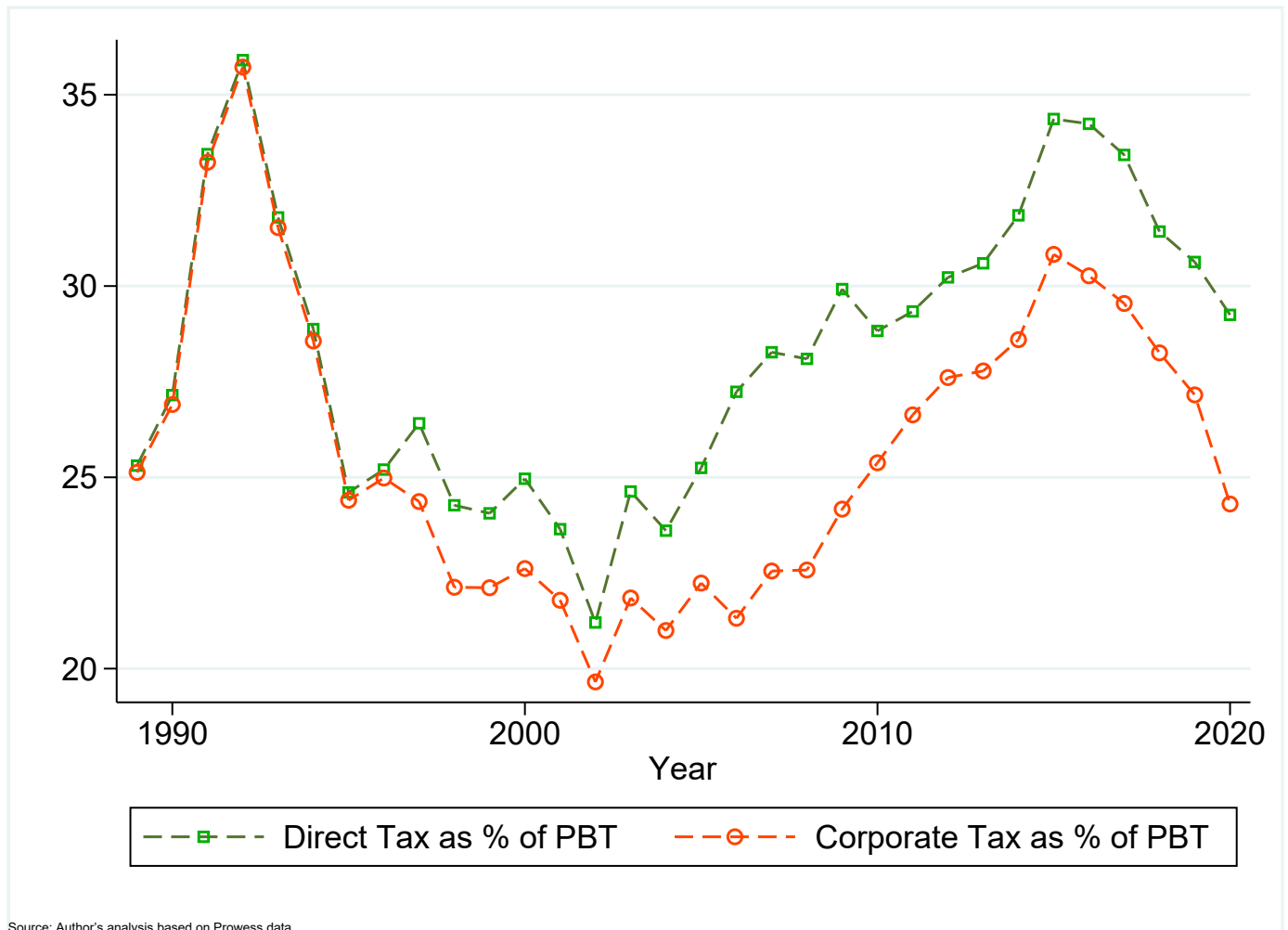


Figure 2: Average effective corporate tax rates

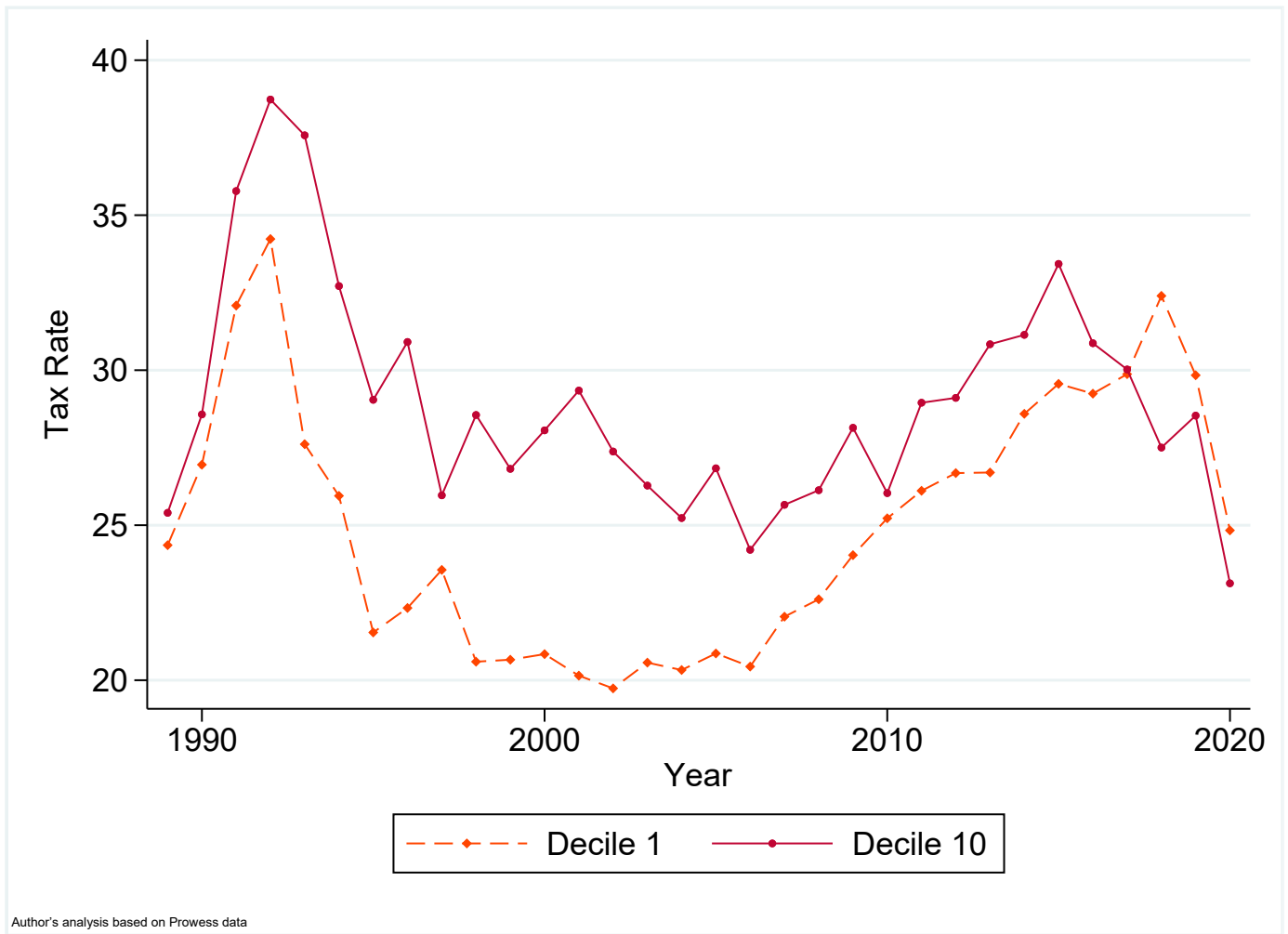
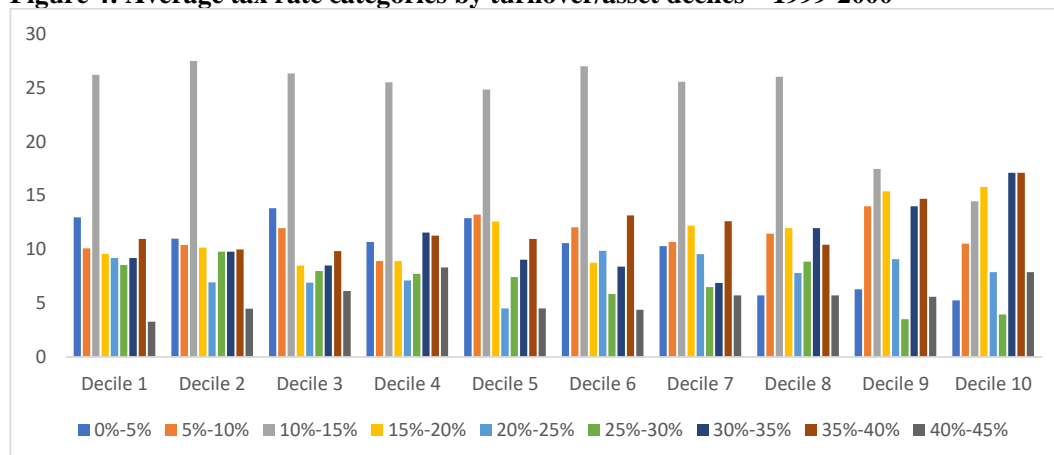


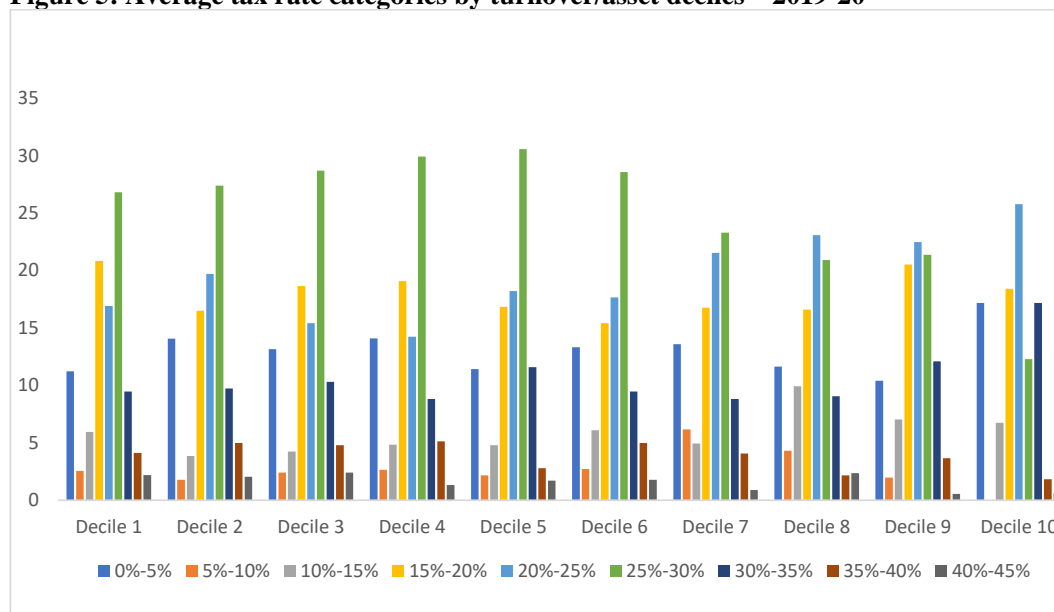
Figure 3: Average effective corporate tax for highest and lowest deciles

Figure 4: Average tax rate categories by turnover/asset deciles – 1999-2000



Source: Author’s analysis based on Prowess data

Figure 5: Average tax rate categories by turnover/asset deciles – 2019-20



Source: Author’s analysis based on Prowess data

Figure6: UCC Manufacturing Industry

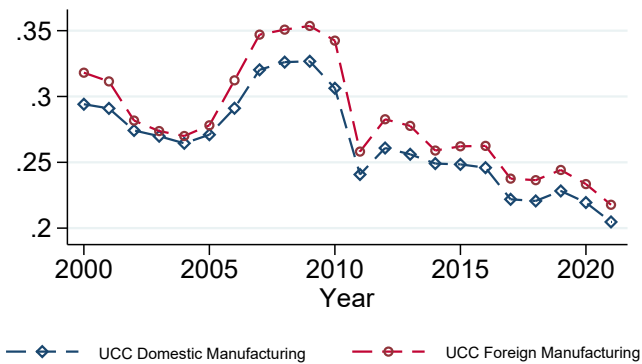


Figure9: UCC Service Industry

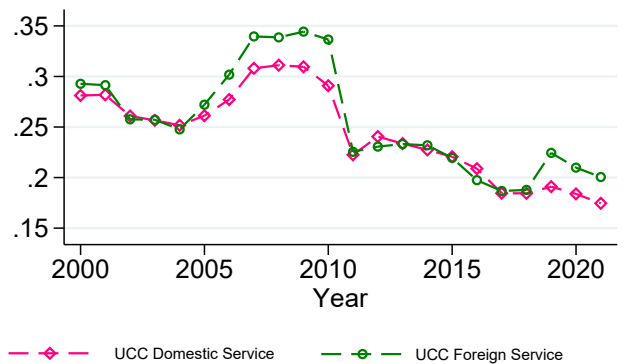


Figure7: UCC Electricity Industry

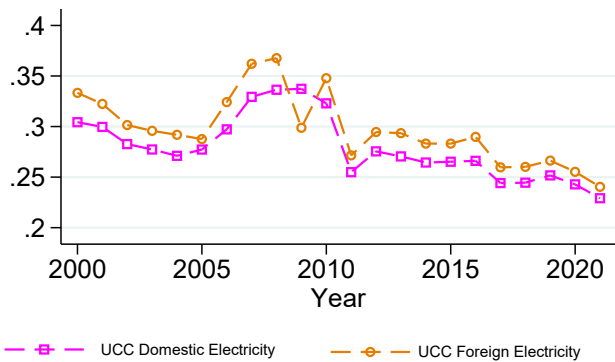
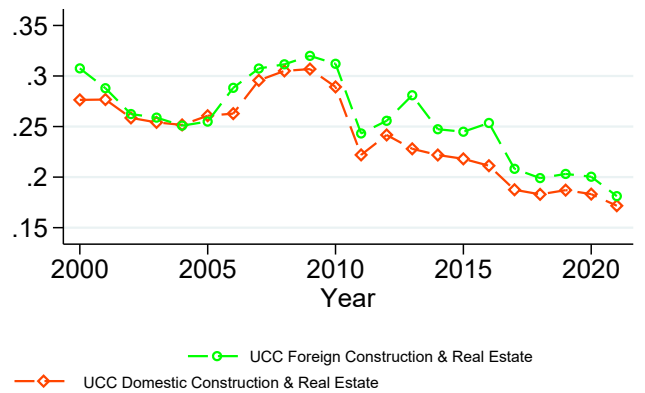
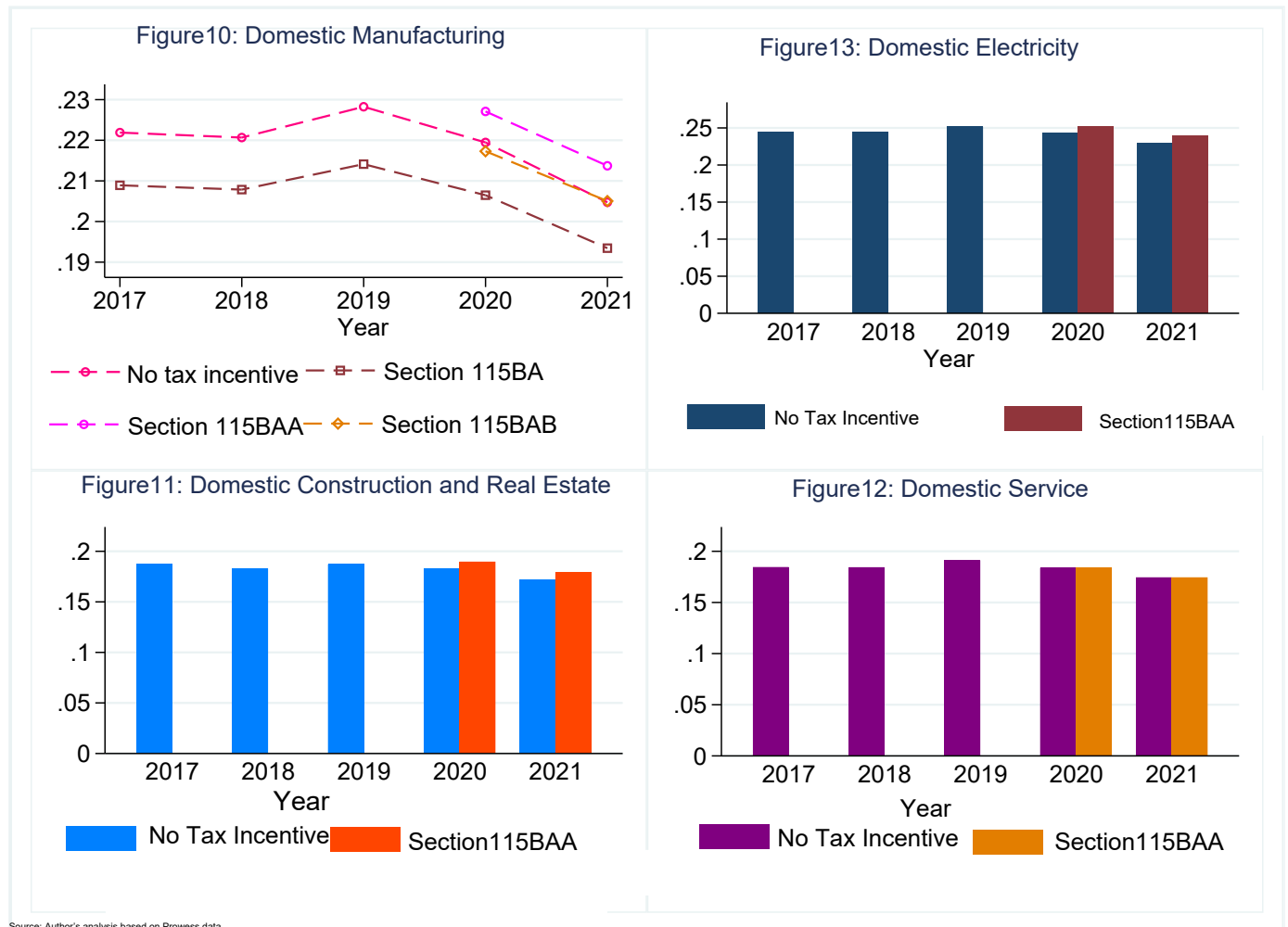


Figure8: UCC Construction and Real Estate

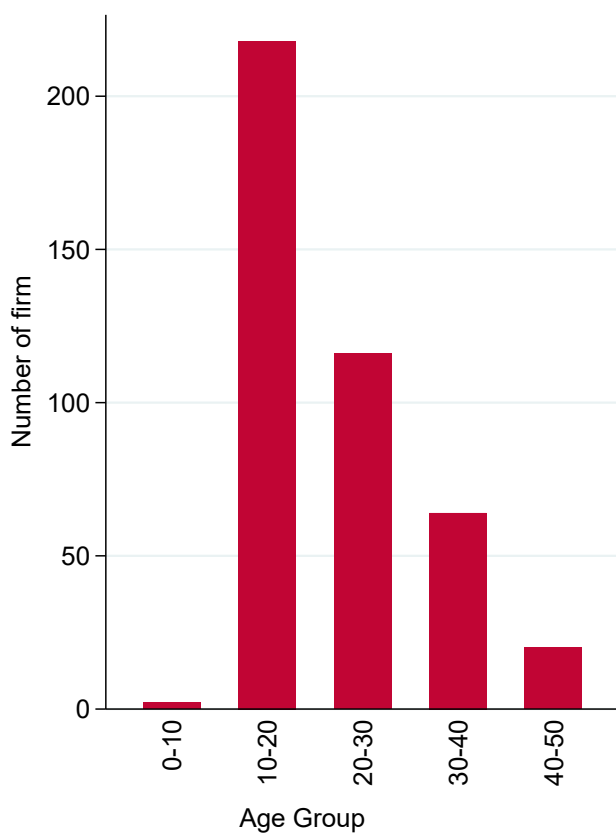


Source: Author's analysis based on Prowess data



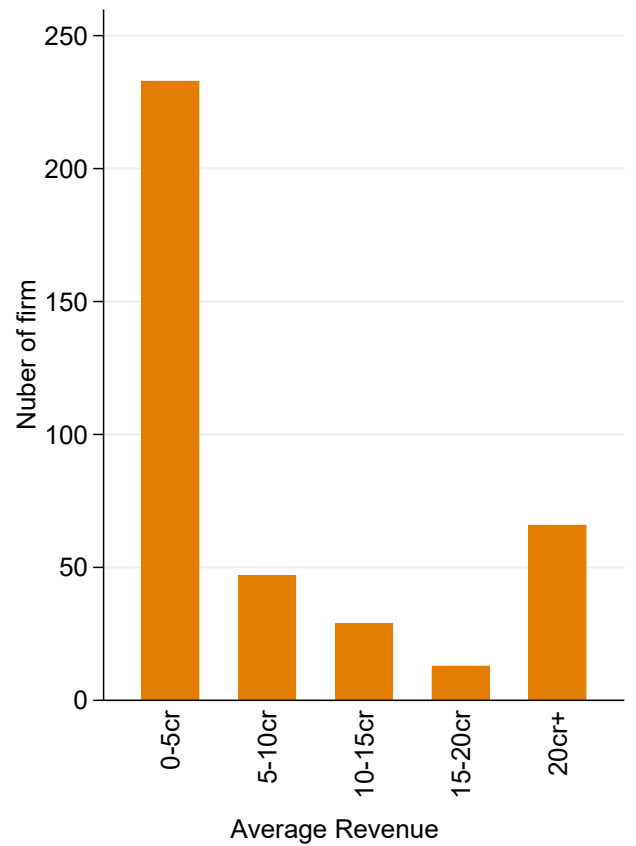
User Cost of Capital

Figure14: No of Loss-Making Firms By Age



Source: Author's analysis based on Prowess data

Figure15: No of Loss-Making Firms by Revenue



Source: Author's analysis

Table 1: Summary of major aspects of s. 115Ba, s.115BAA and s. 115BAB:

Particulars	Section 115 BA	Section 115 BAA	Section 115 BAB
Effective date	A.Y.2017-18	A.Y.2020-21	A.Y.2020-21
Eligible entities	All domestic companies engaged in the manufacturing and production of articles	All domestic companies	All domestic companies engaged in the manufacturing and production of articles
Date of introduction	Incorporated and commenced on and after first march 2016	No specific requirement	Incorporated on and after 1st October 2019 and commenced on and before 31st march 2023
Allowance for specified deductions	Not allowed	Not allowed	Not allowed
Basic rate of tax	25%	22%	15%
Surcharge	7% if income above Rs 1 crore up to Rs 10 crores 12% for income above Rs 10 crores	10%	10%
Cess	4%	4%	4%
Mat applicability	applicable@15%	Not applicable	Not applicable
Provision for specified domestic transactions	Not applicable	Not applicable	Applicable
Restriction on use of second-hand plant & machinery building used as a hotel or convention centre	No such restriction	No such restriction	Restriction is applicable

Note: Author's compilation

Table 2: Percentage of companies opting for the concessional tax regime and those under earlier tax regime by total income classification (Financial Year 2019-20)

S. No.	Slabs of Total Income (in crores)	Percentage of companies who availing 115BAA	Percentage of companies who availing 115BAB	Percentage of companies who availing earlier tax rate of 30% (plus surcharge and cess)	Percentage of Total Income (under 115BAA)	Percentage of Total Income (under 115BAB)	Percentage of Total Income (under earlier tax rate of 30% plus surcharge and cess)
1	Less Than Zero and Zero	8.35%	0.19%	91.47%	0.00%	0.00%	0.00%
2	0-1	23.12%	0.08%	76.80%	32.55%	0.06%	67.40%
3	1-10	50.30%	0.02%	49.68%	52.32%	0.01%	47.67%
4	10-50	60.78%	0.00%	39.22%	61.73%	0.00%	38.27%
5	50-100	64.71%	0.00%	35.29%	64.63%	0.00%	35.37%
6	100-500	68.44%	0.00%	31.56%	68.51%	0.00%	31.49%
7	>500	65.43%	0.00%	34.57%	62.41%	0.00%	37.59%

Source: Author's calculation based on Receipt Budget, 2022-2023

MORE IN THE SERIES

- Sacchidananda Mukherjee (2023) [Revenue Performance Assessment of Indian GST](#), WP No. 392 (April)
- Yadav Jitesh and Lekha Chakraborty (2023). [Public Financial Management and Crime Against Children: A State level Analysis in India](#), WP No. 391 (Feb)).
- Hussain Adam (2023). [Effect of Tax Cut on Investment: Evidence from Indian Manufacturing firms](#), WP No. 390 (Feb).

Supriyo De is, RBI Chair Professor, NIPFP
Email: supriyo.de@nipfp.org.in

National Institute of Public Finance and Policy,
18/2, Satsang Vihar Marg,
Special Institutional Area (Near JNU),
New Delhi 110067
Tel. No. 26569303, 26569780, 26569784
Fax: 91-11-26852548
www.nipfp.org.in