

# INTERNATIONAL TAXATION AND MNE FIRM BEHAVIOUR (An Econometric Approach)

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# Backdrop of Global Crisis

- The global financial crisis of 2008–09 led to a collapse of confidence, comprised deep breaches in economic fundamentals including excessive bank credit, build-up of private consumption based on uncollateralized loans, and an inexorable rise in public debt.
- Remittances slowed down, export demand weakened, export credit dried up and capital flows dwindled.

# Emergence and Role of G20

- The G20 provided the critical mass needed for building global consensus for mobilizing resources to fend off the impending economic crisis.
- The G20 embarked on re-regulating the financial sector, correcting macroeconomic and development imbalances, and providing for global public goods.
- Perhaps most importantly, the G20 ensured that members opted for national policies that were not detrimental to the recovery of others, and agreed to avoid premature withdrawal of stimuli and exit from the programmes in a coordinated way.
- The G20 is broadly perceived to have delivered on the immediate goal of preventing the crisis from deteriorating into a full-blown depression and the global economy was perceived to recovered well in 2010.
- All of this occurred; then G20 took up international tax matters (BEPS).

# Role of Developing and Emerging Economies

- Brazil, Russia, India, China and South Africa (BRICS) were well placed to influence, support and even lead agenda on specific issues and contribute to global economic discussion and policy settings, while **reaching out to fellow emerging and developing economies**, having a high stake in and possessing decisive power towards global recovery in the short run and global governance in the longer run.

# Emergence of BEPS

- Subsequent to **Finance** and **Development**, the G20 directed its focus on the mobilisation of resources by governments as global resources mobilised through **Taxation** dwindled with the onset of the 2008 global financial crisis that soon converted to a global economic crisis (Shome, 2011, 2012, 2013).
- The low tax revenue offered by selected selected multinational enterprises (MNEs) on a global basis, attracted attention of several advanced and emerging economy governments suffering lack of financial resources with its accompanying adverse socio-economic effects .

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- The G20 assigned the OECD to the task of initiating analysis and suggesting appropriate measures to stem the MNEs' global tax **base erosion** through **profit shifting (BEPS)** among parents, branches and subsidiaries.
- Accordingly, the OECD issued fifteen Actions on 5<sup>th</sup> October, 2015 with commensurate analysis and recommendations to contain BEPS and its ramifications worldwide.
- Selected advanced economies are already introducing income tax rules to reflect the BEPS Action Points:
  - There is also a fear that the pendulum may swing too far by requiring MNEs to meet BEPS obligations that may turn out to be difficult at best and impossible at worst, stunting, in the process, global economic activity and growth.

# To Arrive at Nature of Tax Payments

- We check on interest payments, royalty payments, and ask various questions such as, how much are these payments by Domestic (D) and Non-Domestic (ND) firms at same level of domestic parameters such as borrowing or firm revenue. Or,
- At same level of firm revenue, do ND firms pay higher or lower Corporate Income Tax (CIT).
- We finally arrive at effective CIT rate of ND vs. D through econometric estimates.

# Econometric Approach

- Indian data, Prowess database for 15 years 2000-14.
  - 27,571 firms in database (they begin from 1998-99).
  - We exclude financial firms since nature of their income flows is different, e.g. interest payments and interest receipts have different profiles than non-financial firms.
- Now we have 20,090 firms and subject it to Rs. 1 billion cut off for firm revenue, to arrive at a sample of 8,422 firms.



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- From here, we identify 2,254 firms that can be categorised as Indian or Foreign (others did not report foreign or domestic shareholding) from their 2014 status/reporting.
- All firms which have foreign promoters' shareholding of more than 50% are ND, if less than 50%, they are D.
- This results in 2104 D and 150 ND firms, with significant variation in mean and standard deviation in variables, thus yielding a wide and comprehensive sample, covering large and small firms, and the possibility of differences in behaviour.
- Given time series cum cross section Panel, we obtain 33,800 observations.

# Sequence of Results

- We use 6 equations:

| Dependent Variable | Independent Variables   | Direction of Relation | Elasticity               | Who Pays more: ND or D   |
|--------------------|-------------------------|-----------------------|--------------------------|--|
| (1) Interest paid  | Borrowing               | (+)                   | $e < 1$                  | ND remits more   |
| (2) Firm revenue   | Borrowing and GFA       | (+)                   | $e = 0.18$<br>$e = 0.63$ | ND report higher firm revenue than D for given value of Borrowing or GFA |
| (3) Corporate tax  | Profit before tax (PBT) | (+)                   | $e = 0.98$               | Tax response is higher for ND than for D for a unit increase in PBT.*    |

\* We find interest payments, for same increase in borrowing are higher for ND than D.

- Nevertheless, the –ve effect of higher interest on tax base for ND is being overwhelmed by the +ve effect of higher borrowings on firm revenue.
- This leads to net higher impact on CIT for ND than for D.

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| Dependent Variable     | Independent Variables          | Direction of Relation | Elasticity                  | Who Pays more: ND or D  |
|------------------------|--------------------------------|-----------------------|-----------------------------|---|
| (4) Corporate tax      | Firm revenue and Interest paid | (+)<br>(-)            | $e = 1.26$<br>$e < 0$ [-ve] | For same level of firm revenue, ND pays higher tax (reflects higher avg. CIT nominal rate for ND) |
| (5) Effective CIT rate | Entity type dummy variable     | ---                   | ---                         | Higher for ND than for D**  |
| (6) Royalty            | Sales                          | (+)                   | $e = 0.87$                  | ND pays out higher royalty at given amount of sales   |

\*\* Thus, tax response is higher for ND than D for a unit increase in PBT.

# Conclusions

I.

- At given level of borrowing, ND pays out/remits more interest.
- At given level of sales, ND also remits more royalty.
- But for same borrowing and GFA, ND earn/report more firm revenue.
- The higher revenue effect overwhelms negative interest/royalty effects.

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### II.

- We also find, for a unit increase in PBT, ND pay more corporate tax than D.
- But it could be argued that ND remit more royalty etc. for every unit increase in firm revenue; hence the denominator PBT would tend to be smaller for ND than for D (thus yielding a higher effective corporate tax rate when defined as  $CIT/PBT$ ).
- So we estimated corporate tax also with respect to full firm revenue. This also yielded higher impact in case of ND than for D.
- Thus we concluded that ND bear higher effective CIT than D.

# Appendix: Definitions

- $PBT = \text{Provision for Direct Tax} + \text{Firm Revenue} + \text{Change in Stock} - \text{Total Expense}$

## Where:

- $\text{Provision for Direct Tax} = \text{Corporate tax} + \text{MAT credit utilised} + \text{MAT credit created} + \text{deferred tax} + \text{Deferred tax assets and credit} + \text{other direct taxes}$
- $\text{Firm Revenue} = (\text{Sales} + \text{Income from financial services} + \text{Other income} + \text{Prior period and extra-ordinary income}) - (\text{Income Capitalised} + \text{Income transferred to DRE})$
- $\text{Change in Stock} = \text{Change in stock of finished goods} + \text{Change in stock of wip and semi finished goods} + \text{Change in stock of real estate and construction}$
- $\text{Total Expenses} = \text{Raw materials, stores \& spares} + \text{Packaging and packaging expenses} + \text{Purchase of finished goods} + \text{Power, fuel \& water charges} + \text{Compensation to employees} + \text{Indirect taxes} + \text{Royalties, technical know-how fees} + \text{rent, lease rent} + \text{repairs \& maintenance} + \text{Insurance premium paid} + \text{Outsourced manufacturing jobs} + \text{Outsourced professional jobs} + \text{Non-executive directors' fee} + \text{Selling \& distribution expenses} + \text{Travel expenses} + \text{Communications expenses} + \text{Printing \& stationery expenses} + \text{Miscellaneous expenditure} + \text{Provisions} + \text{Depreciation} + \text{Amortisation} + \text{Write-offs} - \text{Other capitalisation} - \text{Other expenses transferred to DRE} - \text{Expenses charged to other expenditure heads} + \text{Prior period and extra-ordinary expenses} + \text{Provisions for Direct tax}$

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