Tax Incentives for Corporate Investment

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Agenda

- Evidence in the literature from tests of associating tax incentives with investment
- Some reasons why investment is not as responsive to tax incentives as one would predict
- Evidence with respect to one of these theories
- Summary

Evidence in literature

- Aggregate
  - Historically, little evidence that aggregate investment varies with time series changes in tax policy.
    - Hines (1998) “The apparent inability of tax incentives to stimulate aggregate investment spending is one of the major puzzles in the empirical investment literature.”
  - To be fair, empirically this is hard to test.
    - Endogeneous
    - Difficult to control for the effect of contemporaneous non-tax shocks on investment.
  - Recent work documents evidence of tax incentives (user cost of capital) having some effect.

Test at firm/industry/asset level

- Capital Equipment - Bonus Depreciation
  - Again, evidence is scarce.
    - But again, endogeneity is a problem.
  - Most convincing is House and Shapiro (2008)
    - Utilize fact that bonus depreciation was explicitly temporary and compared qualifying to non-qualifying assets. Also, compared long-lived qualifying assets to those with shorter lives.
    - Find response for qualifying assets with longest lives.
    - Cannot tell us about aggregate investment – much of response is timing. How much is shifting from one asset class to another? How much is relabeling (reporting)? (i.e., Slemrod's hierarchy)

Confounding issue

- Implicit taxes
  - Goal of the incentives are to increase quantity, tests are often on value.
  - Input prices could rise due to increased demand for inputs, question then is whether/how much quantity actually increases?
    - Goolsbee (1998) –Concludes that much of investment tax credit incentives go to capital suppliers via increased prices.
    - Edgerton (2011) – Examines construction, farm, and mining machinery; concludes very little of tax incentives are passed into prices. Hasset and Hubbard (1998) also conclude that little ends up in price and House and Shapiro (2008) find little price effect during bonus depreciation period.
    - One explanation for differences is more globalization over time.
    - Implicit tax issue exists for R&D investment as well.

Why is responsiveness apparently weak?

- Tom Neubig (2004) Tax Notes article and Congressional Testimony - “Where’s the applause?”
  - Essentially, offered companies full expensing, no standing ovation but rather the proverbial “one hand clapping.”
  - Puts forth some reasons:
    - Accounting effects mitigate tax incentives
    - Much already expensed (intangible-based firms)
    - Expensing policy would likely eliminate interest deductibility
    - Would result in NOL positions (not immediate benefits)
    - etc.
- An aside, firms sometimes do not use most accelerated option
    - e.g., 1954 authorization of accelerated depreciation and Knittle (2007) finding of firms that did not use bonus depreciation

Financial Accounting Effects - public firms

- Trade-off between (or interaction of) tax incentives and financial accounting effects for public firms.
  - Erickson, Hanlon, Maydew (2004) – firms that fraudulently overstated accounting earnings were willing to pay substantial taxes on the overstated earnings.
  - Graham, Hanlon, and Shevlin (2011) – Companies state that they move overseas and retain cash overseas because of tax effects AND accounting effects.
  - Graham, Hanlon, and Shevlin (2011) report that of 595 firms surveyed, 40% state that the corporation's GAAP ETR is a more important metric at their company than the cash taxes paid and 36% state that the two metrics are equally important.
  - What about investment? How does accounting affect investment?

Accounting Effects

- Accelerated depreciation improves cash flow, but there is no accounting benefit.
  - Accelerated depreciation does not decrease income tax expense on the income statement reported to shareholders.
  - Income tax expense is accrued to the current period.

- Some evidence:
  - Investment tax credit versus accelerated depreciation
    - Edgerton (2011) –evidence that the responsiveness to the ITC is stronger than to accelerated depreciation. ITC reduces income tax expense for financial accounting; accelerated depreciation does not.
  - Older studies on manufacturing overhead (1973 tax change) and LIFO/FIFO studies of accounting methods.

Complexity/Simplicity?

- J. Graham, CFO Survey (Duke University) – September 2011
  - "Would you be willing to give up all existing tax exemptions and credits in return for a reduction in the overall corporate tax rate - for example, to 25%?"
    - 70% - yes, even though I am not sure we'd come out ahead, I'd prefer a simpler system
    - 17% - yes, because our company would pay less in taxes
    - 13% - no
  - Sample: 295 private, 111 public, 42 gov/nonprofit
  - 50% of sample has sales revenue $25M - $499M

Summary

- Output demand dominates tax incentives.
- Leads to endogeneity problems when testing tax policy effects.

- Implicit taxes and accounting effects likely mitigate the effectiveness of incentives under certain circumstances.
- And, the myriad of incentives lead to a complicated tax system (the perception of which is often “unfair”).

- Lower corporate rate, especially for publicly traded firms and even large private firms, would be simpler and promote more response.
  - Location of investment would likely be affected as well.