

Business Tax Incentives

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Overview

- Tax incentives \approx departures from what would otherwise be the tax base for business income
- Do they work?
 - Are they effective in promoting particular activities?
- Are they a good idea?
 - Are there unintended side-effects or other downsides?
 - Do benefits outweigh costs?
 - Are there better ways of promoting the same activities?

Outline

- Some comments on “tax expenditures”
- What should be the (baseline) tax base for business income?
 - Treatment of capital expenditure or the “normal” return to capital
- Some examples:
 - Accelerated/bonus depreciation
 - Research and development (R&D)
 - Small and medium-sized enterprises (SMEs)

Tax expenditures

- A basic difficulty in applying the concept of tax expenditures in the context of business taxation is the absence of general agreement on what should be the reference tax base
- Whether or not the “Allowance for Corporate Equity” provisions introduced in Belgium and Italy should be classified as a tax expenditure depends on whether our reference point is a tax on income or a tax on rents

Tax expenditures

- A second difficulty in comparing tax expenditures across countries is that differences may reflect heterogeneity in the structure of economies, as well as differences in tax rules

Example

- Suppose we agree that the benchmark treatment of R&D is expensing, and that any more generous treatment (credits, super-deductions, etc.) will be classed as a tax expenditure
- Suppose that countries A and B have the same tax base, with a super-deduction for R&D
- Suppose all R&D is done by the pharmaceutical sector: country A has a large pharma sector that does lots of R&D, while country B does not
- Measured tax expenditure will be higher in country A than in country B, although their tax bases are identical

Tax expenditures

- A third difficulty is that countries may use both tax and non-tax policies to pursue the same objective, and differ in their choice of the mix between tax and non-tax measures

Example

- Suppose that country A allows 200% of R&D expenditure to be deducted from taxable profits, and has a tax rate of 20%
- While country C allows R&D to be expensed, but provides direct grants or subsidies which cover 20% of R&D expenditure for all firms
- Both policies lower the cost of R&D to firms by 20%, and have the same fiscal cost (abstracting from tax losses)

Tax expenditures

- Hence we certainly need to take care in applying the concept of tax expenditures to business taxation
- Arguably a better approach is to think first about what the tax base should be in normal circumstances, and then to think about the costs and benefits of deviating from this tax base either for particular types of expenditure (e.g. R&D) or for particular types of business (e.g. SMEs)

The corporate tax base

- Debate on the appropriate corporate tax base is partly a sub-plot of a broader debate on whether the direct tax base should be income or consumption
- Although in the specific context of source-based corporate taxes in small open economies with a high degree of capital mobility, there are additional reasons for favouring the consumption tax approach

The corporate tax base

- The conventional corporate income tax base allows deductions for :
 - some approximate cost of depreciation
 - interest payments (\approx cost of debt finance)
- But not for:
 - the opportunity cost of equity finance
- This:
 - Favours debt finance over equity finance
 - Discourages investment (which is largely financed from internal equity/retained profits)
 - Distorts investment mix (depending on relation between true depreciation and fiscal depreciation)

The corporate tax base

- None of these distortions seems particularly desirable
- Since indexation is complex and largely eschewed, their magnitude also varies over time with inflation, in an arbitrary way
- In a small open economy with perfect capital mobility, the incidence of a source-based corporate income tax is shifted onto labour (via less capital per worker and lower wages), and is inefficient relative to taxing labour income directly

Neutral corporate tax bases

- Various alternative corporate tax bases have been proposed, which eliminate these distortions in theory (at least with perfect capital markets), and would plausibly reduce them in practice
- Key features:
 - Equalise tax treatments of debt and equity finance
 - More generous allowances related to investment (narrower tax base)

Cash flow tax bases

- The simplest example would abolish deductions for depreciation and interest, while treating capital expenditure in the same way as current expenditure (expensing treatment/100% first year allowance)
 - regardless of how investment is financed
- With a constant tax rate and perfect capital markets, this is equivalent in NPV terms to a tax on profits in excess of the required or normal rate of return, or on “economic rents”

Cash flow tax bases

- While theoretically attractive, there are important practical difficulties, including:
 - Application to banks
 - Recognition under double tax treaties
 - Timing mis-match between investment outlays and subsequent profits → increased occurrence of “tax losses” and increased reliance on loss provisions

Allowance for Corporate Equity

- A different approach exempts more directly the required or normal return on capital invested
- The ACE allowance is easily calculated as a risk-free nominal interest rate times a book value measure of equity capital (calculated on the basis of fiscal depreciation rather than accounting depreciation)

Allowance for Corporate Equity

- Loosely, the ACE provides a deduction for the cost of equity finance, comparable to interest deductibility for the cost of debt finance
- Combined with ordinary depreciation allowances, these provide full tax relief for the required rate of return or “cost of capital”

Allowance for Corporate Equity

- More precisely, the ACE allowance can be designed so that the treatments of debt and equity finance are equalised, and tax distortions to both the level and composition of investment are avoided (regardless of tax depreciation schedules or inflation)
- With a constant tax rate and perfect capital markets, the ACE tax base is equivalent in NPV terms to a version of the cash flow tax
 - Intuition: a tax saving of 1 this period, or $(1+r)$ next period, or r per period forever, are equivalent in NPV terms

Allowance for Corporate Equity

- Some practical advantages of the ACE approach include:
 - Straightforward application to banks
 - Recognition under double tax treaties
 - Closer alignment between timing of deductions and timing of returns → less reliance on tax loss provisions
- Versions of the ACE allowance have been introduced in Belgium (2008) and Italy (2012)

The corporate tax base

- There is scope for disagreement on the relative merits of the conventional corporate income tax base and at least one viable alternative
- Depending on the choice of reference, the presence of an ACE allowance may be classed as a positive tax expenditure, or the absence of an ACE allowance may be classed as a negative tax expenditure

Accelerated/bonus depreciation

- Allowing the cost of purchasing capital assets to be written off more quickly than implied by (best estimate of) true economic depreciation
- Expensing/immediate write-off is a special case
- Within a conventional corporate income tax, can be used to promote particular forms of investment (e.g. environmentally friendly) and/or at particular times (e.g. bonus depreciation provisions in USA, 2001-04 and 2008-)

Accelerated/bonus depreciation

- Within an otherwise neutral cash flow tax, similar incentives could be introduced by allowing more than 100% of the purchase cost to be deducted immediately (super-deduction)
- Within an otherwise neutral ACE tax, similar incentives could be introduced by allowing some fraction of the purchase cost to be deducted immediately *and* disregarding this deduction when calculating subsequent depreciation and ACE allowances

Does accelerated depreciation work?

- Yes!
- Investment is influenced by the cost of capital, in both short term and long term
- Micro evidence from cross-sectional pattern of investment in USA following introduction of bonus depreciation (Mahon-Zwick, 2013) or 1986 tax reform (Cummins, Hasset, Hubbard, 1994)
- Macro evidence from sectoral panel data for OECD countries (Bond-Xing, 2012)

Is accelerated depreciation a good idea?

- Much less clear
- Unintended side-effects may include promoting the wrong forms of investment (if incentives are poorly targeted) and/or stimulating investment at the wrong times (if temporary incentives are poorly timed)
- Tax provisions introduced initially on a temporary basis can also prove difficult to revoke

Is accelerated depreciation a good idea?

- Environmental objectives (e.g. promoting investment in energy-efficient equipment) may be pursued more directly (e.g. by taxes on energy use)
- Macro stabilisation may be pursued more flexibly through monetary policy (at least in normal times)

Is accelerated depreciation a good idea?

- In general the ***threshold*** for ***evidence*** of market failures or spillover benefits required to justify targeted investment tax incentives should be set ***high***, and the ***search*** for alternative policy responses should be ***comprehensive***, given the obvious ***dangers*** of special pleading from lobby groups, pork barrel politics, etc.

R&D tax incentives

- Strong theoretical reasons to expect underinvestment in R&D, due to inappropriability of resulting knowledge (Arrow)
- Considerable empirical evidence of R&D spillover effects, i.e. positive externalities (Griliches et seq.)
 - Productivity of firm A benefits from R&D investment of firm B

R&D tax incentives

- From an economic perspective, R&D has the characteristics of an investment, requiring outlays now in the expectation of returns in the future
- But most R&D is classed as current expenditure in commercial accounts (labour and material costs), and hence can be expensed in conventional corporate income taxes

R&D tax incentives

- “R&D tax credits” refer to a range of additional tax incentives, which provide a more generous treatment than expensing
- Often in the form of a super-deduction
 - more than 100% of the expenditure can be deducted in calculating taxable profits
- Rather than a pure tax credit
 - under which the tax payment, not the tax base, would be reduced by a specified amount

Do R&D tax credits work?

- Yes!
- R&D investment is influenced by the cost of capital, in both short term and long term
- Micro (dif-of-dif) evidence from cross-sectional pattern of R&D following introduction of UK credit for large firms (Guceri, 2013)
- Macro evidence from panel data for OECD countries (Bloom, Griffith, Van Reenen, 2002)

Are R&D tax credits a good idea?

- Unintended side-effects may include re-labelling of other expenditures as “R&D”
- And bidding up the wages of scientific researchers, whose supply is relatively inelastic at least in the short run (Goolsbee, 1998)
 - resulting in more expensive R&D, rather than more R&D volume

Are R&D tax credits a good idea?

- Other policy responses are available, including patent protection, and direct government funding of R&D expenditure by firms
- But these are also imperfect
- Patents protect R&D → knowledge which can be codified, but not R&D → tacit knowledge, and patent protection restricts competition *ex post*
- Grants and subsidies can be targeted towards forms of R&D with high externalities, but government bureaucracies may be weak at identifying and/or selecting these forms

Are R&D tax credits a good idea?

- Governments in many developed countries now include tax incentives in the mix of policy responses to underinvestment in R&D
- If we are persuaded that this is a good use of tax policy (at least up to a point), then there are risks in including the (full) cost of R&D tax credits in a set of tax expenditures, particularly as their fiscal cost will be determined partly by economic structure

R&D tax incentives

- Similar arguments do *not* apply to “patent boxes”, which tax income derived from patents at a lower rate than ordinary income
- Evidence for positive externalities relates to the location of R&D activity, not to the location of patent ownership
- Weak basis for attributing particular income to particular patents
- Patent box provisions are an open invitation for tax avoidance, undermining the credibility of governments who claim to be concerned about base erosion

SME tax incentives

- Proliferation of tax measures which favour smaller companies, including lower tax rates, more generous allowances, exemption for the first €X, and tax reliefs for providers of finance
- Often supported by arguments that SMEs are particularly dynamic or innovative, with high potential for growth
- But population of SMEs is highly *heterogeneous*, with many SMEs being “lifestyle” businesses with no potential (or desire) for rapid growth

SME tax incentives

- Hard to think of a market failure for which a universal tax relief for *all* SMEs provides an appropriate response
- Worse, the *average* small firm is less productive than the average large firm, and also inferior in most measurable dimensions of employment (wages, job security, training, health and safety,...)
- Evidence for positive dynamic externalities from *some* small firms would need to be extremely compelling to warrant distorting the size distribution of firms towards this less productive end of the spectrum

SME tax incentives

- More serious arguments relate to the high cost and/or difficulty in accessing sources of finance for investment, particularly for start-up firms in high tech (high risk) sectors
- But these point towards tax reliefs linked to measurable outlays on investment (e.g. accelerated depreciation or expensing), perhaps targeted at younger firms and/or riskier sectors, not preferential tax rates for all SMEs

Business tax incentives

- Here and elsewhere, it would seem prudent to require a ***high threshold*** for ***evidence*** of market failures or spillover benefits in order to justify particular business tax incentives, and ***full consideration*** of alternative policy responses to the same issues, given the ***obvious dangers*** of special pleading from lobby groups, pork barrel politics, etc.