

Corporate Income Taxation in a Modern Economy

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The Corporate Income Tax

- Conventional economic analysis
 - Harberger analysis - CIT distorts allocation of capital across sectors
 - Dynamic analysis - CIT slows economic growth, discourages capital formation, and reduces productivity.
 - Portfolio analysis - CIT encourages reliance on debt financing.
 - Builds a strong case against the corporate income tax
- New analyses
 - The CIT distorts investment across assets of different aggregate riskiness.
 - The CIT aggravates pre-existing distortions in the economy, particularly those arising from imperfect competition
 - The CIT reduces incentives for entrepreneurship and innovation.
- This presentation emphasizes basic points important in technologically advanced economies
 - Apply basic economic principles to interactions of risk, innovation, imperfect competition, and taxation
 - Find an even stronger case against the CIT.

Good Tax Policy versus the CIT

- What is CIT?
 - Tax on purchase of capital equipment and services
 - Equivalent to tax on sales *if* technology is Leontief.
- Inverse elasticity rule:
 - Tax rates should be lower for goods with high elasticity of demand; flat tax is best if all goods have similar elasticity of demand.
 - The CIT increases the cost of producing goods made by corporations, even though there is no reason to believe that those goods have low elasticities of demand - marginal efficiency costs are 5-30 cents per dollar.
 - Asset income taxation produces an exploding distortion between consumption today versus future consumption.

- Productive efficiency:
 - Tax only final goods; taxes on intermediate goods and services only reduce efficiency.
 - The CIT encourages corporations to substitute away from capital to other inputs, such as materials and labor, raising the social cost of production.
 - Capital goods produced by corporations are priced higher than other capital goods, reducing efficiency among all downstream firms.
 - Corporations will favor capital services and goods that can be financed with debt.
- Net result: CIT creates production inefficiencies and raises prices paid by purchasers of output.

CIT and Risk

- The corporate form is often chosen because of high *idiosyncratic* risk and/or large scale of efficient operation.
- CIT will create tax rate differentials across assets with different *aggregate* risk.
- Aggregate portfolios will be inefficient.
- CIT creates productive inefficiencies: assets are not final goods, just ways of producing the final goods.

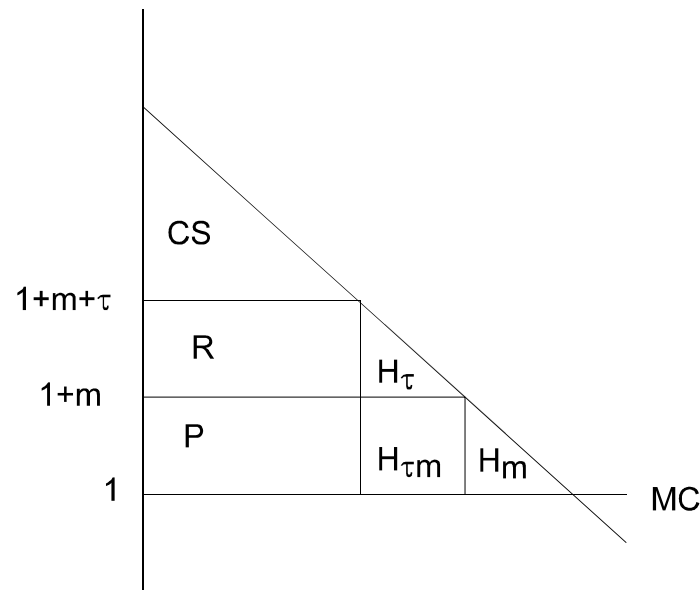
- Equalizing tax rates across assets produces large welfare gains per dollar of revenue shifting

Table 3: Marginal Excess Burden of Taxes on Assets

τ_b	τ_1	τ_2	MEB_b	MEB_1	MEB_2
-0.20	0.00	0.40	-0.08	0.06	0.17
-0.20	0.20	0.40	-0.10	0.20	0.20
-0.20	0.40	0.60	-0.24	0.64	0.64
-0.20	0.60	0.40	-0.31	16.8	0.27
0.20	0.20	0.20	0.11	0.11	0.11
0.20	0.40	0.60	-0.03	0.37	0.44
0.20	0.60	0.40	-0.10	.75	0.30
0.40	0.40	0.40	0.23	0.23	0.23

CIT and Imperfect Competition

- Markets are *not* perfectly competitive.
 - Empirical studies find substantial price-cost markups
 - Patents and product differentiation allow markups.
- Imperfect Competition \sim Taxation
 - Imperfect competition implies price exceeds marginal cost
 - R & D: Patent \equiv Privately imposed excise tax to finance the fixed costs of R&D.



Taxation and Monopolistic Competition

- Antitrust policy is not appropriate
 - Patents are legal monopolies
 - Increasing returns to scale, product differentiation, and trade secrets are legal.
- The CIT piles new distortions upon existing, unavoidable distortions:

Table 4: Marginal Excess Burden of Taxes on Capital

η	τ_K	MEB_K	η	τ_K	MEB_K
2	0.1	0.15	4	0.1	2.17
	0.2	0.23		0.2	2.62
	0.3	0.48		0.3	9.19
	0.4	2.50		0.4	-4.42

Innovation by Corporations

- Corporations spend money on R&D in hopes of producing new products and/or processes.
- Consider situation where R&D will reduce unit cost of production
 - Firm receives a fraction of social benefit from R&D
 - CIT raises costs of production, reduces demand, reduces profits from R&D, reduces R&D incentives
- R&D tax credit has large bang-for-buck, larger for corporations paying CIT.

Innovation by Noncorporate Firms

- Life cycle for innovative firms
 - Begin as entities (individuals or partnerships) not paying CIT.
 - Spend time and money on project.
 - Failure: Deduct expenses against personal income
 - Success: Incorporate and pay taxes at personal and corporate level.
- The CIT gives the government a call option on entrepreneurial profits, like progressive taxation.
- Expensing implies that effective tax rate on entrepreneurs is

$$\tau_E = \tau_{corp} \frac{1 - \tau'_p}{1 - \tau_p} + \frac{\tau'_p - \tau_p}{1 - \tau_p}$$

τ_{corp} : CIT

τ_p : personal rate if failure

τ'_p : personal rate if success - dividends, capital gains

- Higher tax rate with conventional treatment of capital and the distortions described above.

Conclusions

- Old bad news
 - Corporate income taxation distorts allocation of capital across sectors
 - Corporate income taxation discourages capital formation
- New bad news
 - Differential taxation from CIT creates inefficient distortions in portfolio distortions
 - Taxes on capital used by firms with market power aggravates distortions.
 - Combinations of CIT and market power blunts incentives for innovation.
 - These distortions are cumulative, particularly as we consider input-output flows.
- Practical implications
 - Gains from integrating corporate and personal taxation are much greater than usually estimated
 - Consumption tax reform is much more beneficial than usually estimated
 - The case against the CIT is much stronger.