TAX COMPETITION WITH PARASITIC TAX HAVENS

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Tax Haven:

- A jurisdiction that imposes no or only nominal taxes itself and offers itself as a place to be used

  by non-residents to escape taxation in their country of residence.

- Its laws or administrative practices prevent the effective exchange of information on taxpayers

  that are escaping taxation.

- Tax havens are "parasitic" on the tax revenues of the non-haven countries.

Purpose of paper: Develop a theory of tax havens and tax competition that explains why countries are, and should be, concerned about the detrimental effects of havens on their citizen's welfare.

1998 OECD report: "Governments cannot stand back while their tax bases are eroded through the actions of countries which offer taxpayers ways to exploit tax havens [and preferential regimes] to reduce the tax that would otherwise be payable to them." (p. 37).

Economic Theory: Tax havens are beneficial.

- The presence of the haven reduces the (distorting) effective marginal tax rate on mobile capital

  for any given statutory tax rate.

- **Critical Assumption**: Countries are unable to differentiate the statutory tax rates on mobile and

  immobile capital; tax havens overcome this constraint.

- **Our Model:** Unlike the havens-are-good literature, we endogenize the relative statutory rates at

  which mobile and immobile factors are taxed; mobile capital is taxed because collecting taxes on

  immobile labor is costly (tax evasion).

Our Results

o Tax havens lead to the wasteful expenditure of resources.

o Tax havens worsen tax competition problems by causing countries to further reduce their tax

rates.

o Either full or partial elimination of havens is welfare-improving.

o Partial elimination can leave all countries better off, including the remaining havens.

Standard Tax Competition Model

- N countries; identical except for size, measured by number of identical workers, L.

- Competitive firms use mobile capital and immobile labor to produce output, which is sold as private consumption x or transformed into a public good g (assume no scale economies—a publicly provided good).

- Residents finance x with wage income w and capital income rK^*.

- The government chooses g and taxes to maximize utility, $u(x, g)$.

- The business tax system is treated as "territorial," meaning that each government taxes only the capital income earned within its borders.

Endogenize the choice between taxes on wage and capital income:

- Each country's government chooses its tax rates, t on capital income and τ on wage income.

- Firms can shift capital income to tax havens, and so the government expends resources on tax enforcement, b per firm, to reduce this income-shifting.

- Taxing wage income is also costly (tax evasion).

- Tax rates τ and t are both positive because both create "deadweight losses" in the form of the "wasteful" use of resources by taxpayers to evade taxes, and by the government to prevent tax evasion.

- If t were zero, then a rise in t from zero would actually lower this total deadweight loss.

    o   The wage would fall, reducing the wage income subject to tax evasion.

    o   Any capital-market inefficiencies would be second-order in importance.

Proposition 1.   *Countries tax both labor and capital*

MC^{Γ} MC^{T} $MC^{T'}$

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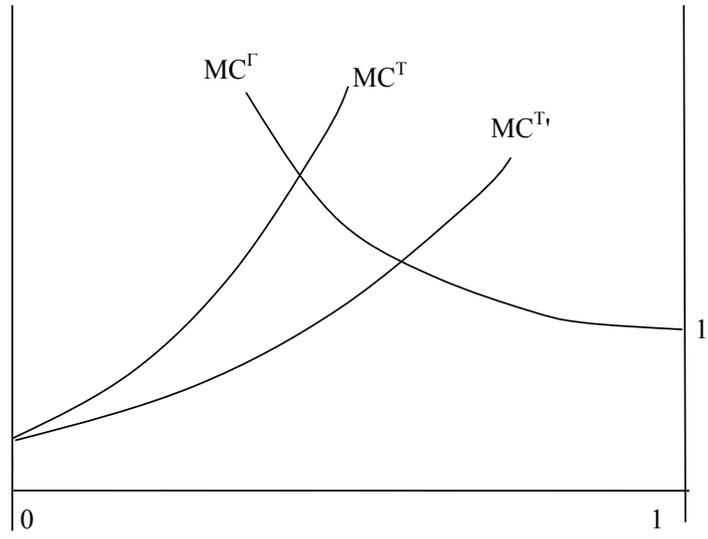
Tax Havens

- Investors create firms using one unit of capital per firm, which they invest where the expected after-tax return is highest.

- Firms learn the value of a random cost parameter, θ, representing a fixed cost that must be paid to shift income internationally for tax purposes.

- Firms purchase labor and produce output, and those firms with low θ's purchase "concealment services" from competitive tax havens at the unit price, $p = p(C)$, where $C =$ worldwide purchases. The supply curve, $p(C)$, is upward-sloping. (For now, assume a fixed number of havens.)

- Countries face a fixed after-tax return on capital, r, but the before-tax return is higher because of the capital tax and expenditures of resources on tax evasion:

$$R = r + T + D^K$$

Effective Tax Rate: $T = tR(1 - \alpha s) - b;$

Deadweight Loss: $D^K = R(\alpha(pc + E(\theta/\theta < \Theta))) + b;$

where $\alpha \equiv$ share of firms participating in tax havens

$c =$ a firm's concealment purchases;

$pc + \theta =$ total cost of concealment;

$s = s(c, b) =$ income-shifting function; $\dfrac{\partial s}{\partial c} > 0;$ $\dfrac{\partial s}{\partial b} < 0;$ $\dfrac{\partial^2 s}{\partial c \partial b} < 0$;

$tRs =$ tax savings from income shifting.

Wage Taxation

- Effective tax rate on wage income: Γ.

- Deadweight Loss: $D^L = D^L(W, \Gamma)$.

  The Government Optimization Problem: maximize u(x, g), subject to government budget

  constraint (in per capita terms), $g = Tk(R) + \Gamma$.

The rules for a country's optimal pubic good level

- **Financed with Wage Taxation:**

$$\frac{u_g}{u_x} = 1 + D_\Gamma^L \equiv MC^\Gamma.$$

- **Financed with Capital Taxation:**

$$\frac{u_g}{u_x} = \frac{\left(1 - D_W^L\right)\left(1 + D_T^K\right)}{1 - \dfrac{T}{R}\varepsilon\left(1 + D_T^K\right)} \equiv MC^T,$$

where ε = capital demand elasticity.

- Underprovision of the public good: $\dfrac{u_g}{u_x} = \dfrac{\left(1 - D_W^L\right)\left(1 + D_T^K\right)}{1 - \dfrac{T}{R}\varepsilon\left(1 + D_T^K\right)} \equiv MC^T > 1$

- Two reasons for underprovision relative to first-best:

   1. A fiscal externality: Each country treats as a cost the capital outflow that occurs when it raises its tax rate, but this outflow represents a beneficial inflow for other countries.

   2. A higher tax rate increases the deadweight losses from tax evasion, which is reflected in a higher before-tax return R, leading to a lower wage (D_T^K in the numerator) and a higher capital outflow (D_T^K multiplying the capital elasticity in the denominator).

- If tax havens are eliminated, then these deadweight losses disappear and the fiscal externality becomes less severe (because dR/dT = 1, rather than dR/dT = 1 + D_T^K).

Complete Elimination of Tax Havens

Proposition 2.   *The elimination of tax havens raises the equilibrium level of the public good and*

increases country welfare.

MC

MC'

MB'

MB

g*   g**

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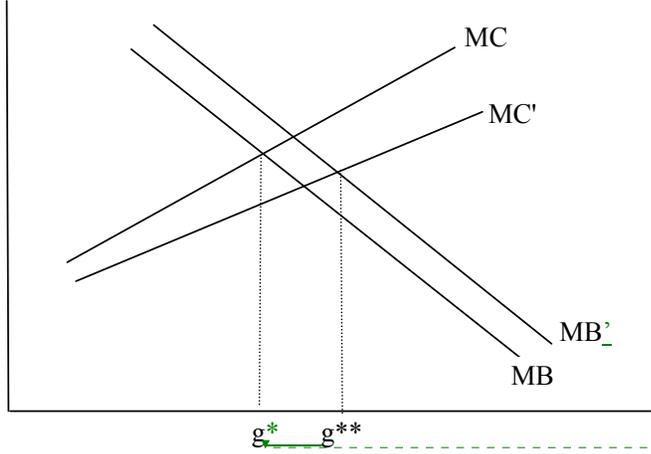
Partial Elimination of Tax Havens

- Benefit from partial elimination: Higher price of concealment services (p).

Lemma 1. *For the homogeneous income-shifting function, $s(c/(\gamma +b))$, if $b > 0$ in equilibrium, then a rise in the unit price of concealment services, holding fixed the after-tax return, r, raises a country's welfare.*

Basic argument: The increase in p enables countries to reduce their enforcement expenditures, b, without causing the amount of concealment services to rise. Since b is financed out of the government budget, countries are then able to increase public good provision or reduce the wage tax.

Proposition 3. *Assume the homogeneous income-shifting function, and consider an equilibrium where b > 0. By increasing the concealment price p, a reduction in the number of havens causes all countries to increase their public good provision. Provided tax competition leads to underprovision of the public good, this reduction in havens must raise welfare.*

Enforcement Expenditures

- Reducing the capital tax and raising enforcement creates a negative externality: Firms reduce their purchases of concealment services, causing the equilibrium price p to fall: tax evasion increases in all other countries.

- Conclusion: Countries would be better off if they financed their public goods with higher taxes and lower enforcement.

Proposition 4. *Assume that: (1) the evasion technology implies a homogeneous income-shifting function; (2) b > 0 in the initial equilibrium; (3) tax competition leads to underprovision of the public good; and (4) the supply curve for concealment services is upward-sloping. Then countries enforce their capital tax collections too stringently. In particular, if each country reduces the enforcement level b by the same amount, while adjusting its capital tax t to keep its cost of capital unchanged, given the equilibrium r and p, then p will rise and all countries will be better off.*

Country Size and Tax Havens

- The cost of becoming a haven is modeled as a suboptimal tax system (zero capital tax in our

  model).

  o This cost per resident is independent of country size.

- The benefit is the "profits" from the sale of concealment services.

  o These profits are independent of country size, and so profits per resident decline with size.

- **Conclusions**

  o The smaller countries become havens.

  o The supply of concealment services is upward-sloping because a higher price p is needed to

    induce larger countries to become havens.

The welfare effects of restricting the number of havens

o The marginal haven is the one that is largest. This haven is indifferent about being a haven.

o If there is only a small reduction in havens, starting with the larger havens, then non-haven countries are better off (higher p), remaining havens are better off (higher p), and no country is worse off.

o Large restrictions: Small havens that are forced to give up haven status may be worse off.

Final Remarks

- We have developed a theory of tax havens and tax competition that justifies concerns about the detrimental effects of havens on welfare.

- The elimination of a sufficiently small number of havens will leave all countries better off.

- The analysis points to the potential difficulties involved in eliminating large numbers of havens, including small ones.

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