

# title

- Honor among Tax Havens
- or : American Spelling for a Canadian Group

# The Late Mr. Clarence Decatur Howe

- “A better approach might be to reduce Canadian tax rates, thus cutting the payback on international tax planning.”
- quoted (out of context) from May 2 press release attacking federal government proposal to reduce tax benefits of interest payments to foreign subsidiaries
- so : do higher corporate income taxes in industrialized countries lead to more use of offshore tax havens by multinationals?

## Slemrod and Wilson (2006)

(presented at CPEG 2006)

present a coherent general–equilibrium model, in which countries’ choice of status — “country” or “parasitic tax haven” — is endogenous

in their model, tax havens provide “concealment services” which use scarce (immobile) local resources as inputs

so there’s an upward–sloping supply function for tax havens

# Tax Havens :

- have small populations
- tend to charge a (very low) flat fee for incorporation of multinationals' subsidiaries
- (sometimes) don't have any corporate income tax at all
- operate in plain sight ; no concealment is provided
- try hard to convince people that they're reputable

# Firms that use Tax Havens

- tend to be in footloose industries (shipping, finance, software, international engineering services)
- incorporate lots of different offshore subsidiaries
  - some in different tax havens

# The Model

- each firm has an exogenous amount of income  $z$  which it can shelter offshore
- the amount of income which can be sheltered differs across firms ;  $F(z)$  is its distribution function
- paying an annual fee to a tax haven enables a firm to avoid paying any taxes at all on the shelterable income  $z$
- but there is an [**exogenous**] probability  $\gamma$  of a coup in a tax haven ; a coup results in the tax haven going legit, and forcing the firm to pay taxes on its offshore subsidiary's income
- diversifying, by incorporating subsidiaries in 2 or more different tax havens, reduces risk from a coup  
(probability of sheltering income successfully is  $1 - \gamma^m$  if the firm incorporates in  $m$  different tax havens)

# distribution of firms

- so firms will use offshore tax havens if their shelterable income is  $z_1$  or more
- and will incorporate in exactly  $m$  different tax havens if their income is between  $z_m$  and  $z_{m+1}$
- the cut-off income levels are defined by

$$z_m \equiv \frac{x_m}{\gamma(1-\gamma)^{m-1}\tau}$$

where

- $\tau$  : tax rate in the multinational's home jurisdiction
- $x_m$  : annual incorporation fee charged in tax haven  $m$

# fees charged by tax havens

- firms regard tax havens as perfect substitutes for each other and so will incorporate in the  $m$  lowest-priced tax havens, if they choose to incorporate  $m$  subsidiaries
- difference from Slemrod–Wilson : tax havens don't incur any costs
- what prevents Bertrand competition from driving fees to 0?

# the temptation to confiscate

- what makes credible tax havens' governments' promise not to tax subsidiaries' income?
- with footloose paper assets, firms could always repatriate offshore earnings ; the most a tax haven can confiscate is  $\tau Z$
- commitment not to confiscate is credible only if the shelterable earnings of subsidiaries in the tax haven are less than the value of foregone future annual fees due to loss of reputation

# diversification complications

- (I assume that) a firm with subsidiaries in more than one tax haven is immune to confiscation risk from tax haven #1 if tax haven #2 can commit credibly not to confiscate the firm can just transfer assets from one subsidiary to another at the first sign of renegeing by tax haven #1
- (implicit assumption : it takes time to incorporate a subsidiary, so that a firm with only one offshore subsidiary won't have enough lead time to diversify)
- implication : the temptation to confiscate applies only to firms with shelterable earnings in  $[z_1, z_2]$

# credibility condition

- the tax haven with the lowest fee (or tied for the lowest fee) will be tempted to confiscate unless

$$\tau \int_{z_1}^{z_2} z dF(z) \leq \frac{1}{\delta} x (1 - F(z_1)) \quad (1)$$

where  $\delta$  is the rate it uses to discount future fees (which would be foregone if it loses its reputation)

- an annual fee  $x$  will be credible only if it is high enough that condition (1) holds
- but  $z_1$  depends on  $x$  ; substituting  $x = (1 - \gamma)\tau z_1$  into (1) makes the credibility condition

$$\delta \int_{z_1}^{z_2} z dF(z) - (1 - \gamma) z_1 (1 - F(z_1)) \leq 0 \quad (2)$$

- condition (2) is relevant for tax haven #1 only if no other (credible) tax haven has a lower fee
- but if that complication is ignored for a moment, the condition defines a reaction function for tax haven #1 to other tax havens' fees (which determine  $z_2$ )  
the left side of (2) must be positive at  $z_1 = 0$ , and negative at  $z_1 = z_2$ , so that there must be some minimal  $z_1$  for which the inequality holds ; the fee corresponding to that  $z_1$  ( $x = \frac{z_1}{\tau(1-\gamma)}$ ) is the tax haven's minimum credible fee
- so the temptation to confiscate curtails fee competition among tax havens : too low a fee is not credible

# identical tax havens in equilibrium

if all tax havens charge the same fee  $x$ , this will constitute an equilibrium fee if

- each tax haven's  $z_1$  is its best reaction to  $z_2$
- $z_1 = \gamma z_2$  (since all tax havens charge the same fee)
- no tax haven wants to raise its fee, and attract only diversifying firms

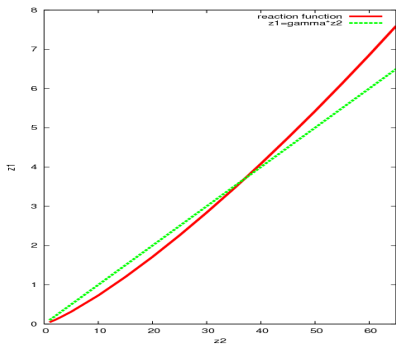


illustration of the first two equilibrium conditions

# equilibrium condition

the first two equilibrium conditions together imply that  $z_1$  will be an equilibrium cut-off income level if

$$\delta \int_{z_1}^{\frac{z_1}{\gamma}} z dF(z) - (1 - \gamma)z_1(1 - F(z_1)) = 0 \quad (3)$$

what's not in equation (3)?

$\tau$

Proposition : lowering tax rates in industrialized countries will cause tax havens' fees to fall by the same proportion, so that offshore income sheltering activity is unaffected

## other partial–equilibrium comparative statics

- less concern for reputation (higher  $\delta$ ) shifts up the reaction curve in the previous figure, so that  $z_1$  and  $z_2$  fall in the new equilibrium if tax havens care less about the consequences of their confiscation, there will be more firms sheltering income offshore, and more firms using multiple tax havens
- more political instability (higher  $\gamma$ ) shifts up both the reaction curve, and the curve  $z_1 = \gamma z_2$ , so that the effect on  $z_1$  (and on the number of firms using tax havens) is ambiguous, as is the effect on  $z_2$  so a greater risk of a coup could lead to **fewer** firms insuring by using several tax havens in the new equilibrium

# benefits of being a tax haven

- total tax havens' revenue depends on the incorporation fee, and on the number of multinational firms which choose to incorporate offshore subsidiaries and on the number of subsidiaries which each firm incorporates
- that total revenue is divided equally among all  $N$  tax havens (in an equilibrium in which all tax havens charge the same fee)
- this revenue per tax haven does not depend on the tax haven's population, so that ([virtually] by assumption) benefit per capita of tax haven status is a decreasing function of the country's population

# costs of being a tax haven

- the cost (in my model) : tax havens can't levy a corporate income tax on any capital invested there
- if the marginal cost of public funds exceeds 1, that is a cost
- and the cost per capita is the same for all countries

# the Hibernian embarrassment

- the assumption on the previous slide notwithstanding some tax havens **do** levy a corporate income tax from which offshore subsidiaries are exempt
- some of the larger tax havens (Singapore, Ireland) attract both “parasitic” paper assets, and bricks-and-mortar investment and collect non-trivial corporate income tax revenue
- are there any costs to becoming a tax haven?