

# On the Non-Neutrality of Statutory Incidence with Foreign Tax Credits

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## Abstract

Foreign tax credit (FTC) rules shape the effective tax burden on U.S. taxpayers with foreign income. In standard incidence analysis, shifting a tax's statutory burden across economically equivalent bases is irrelevant for real outcomes. This paper shows that this irrelevance can fail when FTC eligibility hinges on formal statutory classification—as under IRS rules. In that case, reallocating statutory liability across equivalent tax bases can reduce equilibrium employment, raise domestic wages, lower host-country revenue, and reduce firm profits.

**JEL Codes:** H22, H87

**Keywords:** Statutory incidence, foreign tax credit, tax creditability, payroll taxes, worldwide taxation, expatriate taxation

## Introduction

Quite famously, all citizens and most residents of the United States are subject to tax on their worldwide income. There are legal requirements to file a U.S. tax return, even when the individual has spent the year living and working abroad. Overseas earnings reflect a non-trivial portion of the tax base. For example in tax year 2021 nearly 12 million Federal tax returns invoked the foreign tax credit system in some form, and 7.8 million of those reported salaries and wages from overseas (IRS, 2023). For a sense of scale, in the same year 6.1 million individual returns came from the entire state of Illinois.

For the most part, taxes paid overseas are credited against U.S. tax liabilities. Consider a U.S. citizen living and working in the United Kingdom. Under a tax treaty between the two countries, the citizen has a notional tax liability to Washington, but a full dollar-for-dollar credit is allowed on “the income tax paid or accrued to the United Kingdom by or on behalf of such citizen or resident”.<sup>1</sup> The question of which taxes are *paid by* or *on behalf of* someone is the topic of tax incidence.

Tax incidence and the distinction between statutory and economic incidence is a cornerstone topic in public economics (Atkinson and Stiglitz, 2015; Fullerton and Metcalf, 2002). To emphasize this distinction, textbooks point to the “irrelevance” of statutory incidence (Gruber,

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<sup>1</sup>Available at <https://home.treasury.gov/system/files/131/Treaty-UK-7-24-2001.pdf>. The relevant portion is Article 24, “Relief from Double Taxation”.

2022, p. 563) or, stronger, that statutory incidence is “not a useful economic concept” (Salanié, 2011, p. 41).

A recent literature has questioned this view and refined our understanding of when statutory incidence might matter (for example Slemrod, 2008; Chetty, Looney and Kroft, 2009; Saez, Matsaganis and Tsakoglou, 2012; Kopczuk, Marion, Muehlegger and Slemrod, 2016; Hargaden and Roantree, 2019; Benzarti, Carloni, Harju and Kosonen, 2020; Fox, Hargaden and Luna, 2022; Jiménez, Martínez-Miera and Peydró, 2024; Benzarti, 2025, among others). This paper adds to this literature, noting that statutory incidence’s interaction with foreign tax creditability can affect real outcomes. Unlike the salience or enforcement channels identified in prior work, the mechanism here does not require a change in tax remittance or collection—only the *de jure* characteristic of who bears the tax shifts—yet real outcomes differ.

Under quite general conditions, I show that the non-creditability of foreign taxation reduces the labour supply of foreign workers, reduces the tax revenue of host-country governments, and raises equilibrium wages for domestic workers. With a relatively minor elasticity restriction, I prove that general-equilibrium wage pass-through cannot offset the mechanical loss to foreign workers, so their welfare falls monotonically, domestic firms profits fall, and that aggregate worker welfare declines.

For employees, the incidence of a foreign tax is the reduction in their take-home pay attributable to the existence of that tax. The IRS does not define the creditability or otherwise of foreign income taxes in this way. Rather, creditability is interpreted in quite practical terms, reflecting something closer to statutory incidence. For example, income taxes listed on a payslip are creditable, but payroll taxes statutorily on the employer are not. Nor are corporate taxes creditable for employees, even though corporate taxes are borne in part by labour (Fuest, Peichl and Siegloch, 2018). Nor are sales taxes creditable, even though in standard labour-leisure tradeoff models income taxes can be effectively equivalent to consumption taxes. Thus the sense that a ten percent sales tax is equivalent to a ten percent income tax is completely false for e.g. the 183,000 U.S.-individuals in the United Kingdom who reported \$45bn in foreign-source gross income in 2021.<sup>2</sup> Creditability also varies significantly by destination. Denmark raises 57 percent of tax revenue from creditable income taxes, while France raises 21 percent, relying instead on social contributions and payroll taxes (37 percent) that generally are not creditable.<sup>3</sup> The scope of creditability is itself a live policy issue. For a foreign tax to be creditable under U.S. rules, it must generally qualify as an income tax *imposed on* the taxpayer—that is, the legal liability must fall on the person claiming the credit.<sup>4</sup>

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<sup>2</sup>Of the 7.8 million tax returns that reported labour earned overseas in 2021, approximately 166,000 returns claimed the Foreign Earned Income Exclusion (FEIE), which allowed taxpayers to exclude up to \$108,700 of foreign earned income. The FEIE and the Foreign Tax Credit are mutually exclusive on the same income, and the fraction of returns claiming the FEIE is decreasing in income: only around 1 percent of those with foreign earnings above \$50,000 claim it. The mechanism in this paper principally applies to these relatively high-earners who are better-served using the foreign tax credit system. FTC claims are highly concentrated: returns with adjusted gross income above \$10 million represent fewer than 1 percent of claimants but account for 29 percent of all credits claimed.

<sup>3</sup>Figures are my own calculations based on data from the OECD website. France’s *Contribution Sociale Généralisée* is a notable exception of a social security contribution that *does* now qualify for a foreign tax credit from the IRS. This policy change occurred in 2019 as a result of *Eshel v. Commissioner of Internal Revenue*.

<sup>4</sup>Under IRC §901, a creditable foreign levy must satisfy a net income requirement (taxation of realized net gain) and a legal liability requirement (the taxpayer must be the person on whom foreign law imposes the tax). Employer-side payroll taxes fail the liability requirement because the statutory obligation falls on the firm; sales

This paper teases out the interaction between foreign tax credits and statutory incidence. I present a model with general preferences and production technology, and prove that statutory incidence (e.g. whether a tax is notionally on the employer or the employee) affects real outcomes like wages, hours worked, and government revenue. I show circumstances where the presence of a foreign tax credit makes statutory incidence binding. For the millions of U.S. tax returns that report foreign labour earnings, statutory incidence can matter.

## Model

### Workers, taxes, and institutions

Consider an economy with two types of worker, indexed by  $i \in \{1, 2\}$ , with masses  $N_1$  and  $N_2$  respectively. Workers are identical except for citizenship. Type 1 (“domestic”) workers are taxed only by the host country. Type 2 (“foreign”) workers are subject to local tax laws, but are potentially additionally subject to a citizenship-country worldwide income tax at rate  $f$ . Their citizenship country offers a foreign tax credit (FTC) for *creditable* host-country taxes.

The host country can tax labour earnings in one of two statutory forms: an employee-side income tax  $t$ , which is creditable for Type 2 under the FTC; or an employer-side payroll tax at rate  $\tau$ , which is *not* creditable for Type 2. Under a FTC system, Type 2 workers effectively face an income tax rate of  $\max\{t, f\}$ .

Let  $w$  denote the pre-tax wage paid by the firm per unit of labour, and  $\omega$  the after-tax wage faced by worker, and both may ultimately be functions of  $(t, \tau, f)$  and on FTC creditability. To reflect anti-discrimination laws, we assume that the firm must pay the same wage to all workers.<sup>5</sup>

### Preferences, labour supply, and production

Each worker of type  $i$  chooses hours  $n_i \geq 0$  to maximize a general utility function  $u(c_i, n_i)$  subject to  $c_i = \omega_i n_i$ .

**Assumption 1.** *The utility function  $u(\cdot, \cdot)$  is strictly increasing and concave in  $c$ , strictly decreasing and convex in  $n$ . Income effects on labour supply are absent, and there exists a continuously differentiable function  $s : \mathbb{R}_+ \rightarrow \mathbb{R}_+$  with  $s'(\omega) > 0$  such that*

$$n_i = s(\omega_i) \tag{1}$$

Assumption 1 permits a Frisch labour supply elasticity. Define the labour supply elasticity

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taxes and digital services taxes fail the net income requirement; corporate taxes are creditable for the corporation but not for its employees or shareholders. In January 2022, Treasury Decision 9959 replaced the longstanding “predominant character” test—which assessed creditability based on the economic substance of a foreign levy—with a stricter formalistic standard imposing separate realization, gross receipts, net income, and attribution requirements (Rosenberg, 2025). The new rules rendered additional categories of foreign taxes non-creditable, directly expanding the scope of the mechanism analyzed in this paper. Although IRS Notice 2023-80 has indefinitely suspended the new regulations, the policy direction favours narrower creditability.

<sup>5</sup>This assumption actually does not bind in our setting. The firm equates wages with the marginal product of labour, which depends only on *total* labour supplied.

at wage  $\omega$  by  $\varepsilon(\omega) \equiv \omega s'(\omega)/s(\omega)$ . A common special case is constant elasticity  $s(\omega) = \kappa\omega^\varepsilon$ , but the analysis below does not require this.<sup>6</sup>

A representative competitive firm produces output using labour only:  $Y = F(L)$ , where  $L$  is total hours hired.

**Assumption 2** (Neoclassical technology).  $F : \mathbb{R}_+ \rightarrow \mathbb{R}_+$  is twice continuously differentiable, strictly increasing, and strictly concave:  $F'(L) > 0$  and  $F''(L) < 0$  for  $L > 0$ , with  $F(0) = 0$ .

If an employer-side payroll tax at rate  $\tau$  applies, the firm chooses  $L$  to maximize  $\pi = F(L) - (1 + \tau)wL$ . The first-order condition is  $F'(L) = (1 + \tau)w$ , so that labour demand satisfies  $w = F'(L)/(1 + \tau)$ .

An equilibrium is a tuple  $(L, w, \{n_i\}_{i=1}^2)$  such that the firm's first-order condition holds, each worker type supplies hours according to (1) given  $\omega_i$ , and the labour market clears:  $L = N_1n_1 + N_2n_2$ . Under Assumptions 1–2, existence and uniqueness of equilibrium follow from the monotonicity of labour demand ( $w(L)$  is decreasing in  $L$ ) and labour supply ( $s(\cdot)$  is increasing in  $\omega$ ).

## Equilibrium outcomes and statutory incidence

We now solve for equilibrium outcomes under three tax configurations. Each case represents a different statutory arrangement of the same underlying tax burden. In Cases I and II, the standard irrelevance result holds. Case III shows that irrelevance breaks down when tax credibility depends on statutory form.

**Case I:** Host income tax  $t = t_I \in (0, 1)$ , no payroll tax ( $\tau = 0$ ), foreign tax  $f \in (0, t_I]$

A sensible benchmark is one with positive income taxes but no payroll taxes (note the  $t_I$  notation relates to Case I). Since  $t_I \geq f$ , Type 2 workers can fully offset their citizenship-country liability via the FTC on the host income tax. Both worker types face the same effective tax rate  $t_I$ , and the after-tax wage is  $\omega_1 = \omega_2 = (1 - t_I)w = (1 - t_I)F'(L)$ . Labour market clearing requires:

$$L = N s((1 - t_I)F'(L)), \quad N \equiv N_1 + N_2 \quad (2)$$

Let  $L_I$  denote the unique solution, with  $w_I = F'(L_I)$ .

Host revenue from the income tax is  $R_I = t_I F'(L_I)L_I$ , and firm profits are  $\pi_I = F(L_I) - F'(L_I)L_I$ .

**Case II:** Dollar-equivalent payroll tax  $\tau = t_I/(1 - t_I)$ , no income taxes ( $t = 0, f = 0$ )

This case verifies the standard irrelevance of statutory incidence. Starting from the Case I income tax rate  $t_I$ , we construct a dollar-equivalent employer-side payroll tax  $\tau = t_I/(1 - t_I)$ —which implies  $1/(1 + \tau) = 1 - t_I$ —and set  $t = f = 0$ . Workers face  $\omega_1 = \omega_2 = w =$

<sup>6</sup>One clarification on the transition from income to payroll taxes may be useful for some readers. Switching from an income tax where net wages  $W_N$  equal a percentage of gross wages, i.e.  $W_N = (1 - t)W_G$ , to a payroll tax where gross wages  $W_G$  are a scaled up percentage of net wages, i.e.  $W_G = (1 + \tau)W_N$ , requires  $\tau = t/(1 - t)$  for revenue neutrality. The intuitive case of  $\tau = t$  only holds for specific (per-unit) taxes, not ad valorem (Pauwels and Schroyen, 2024; Poensgen and Rodrian, 2025). I refer to  $\tau = t/(1 - t)$  as a “dollar-equivalent” payroll tax rate.

$F'(L)/(1 + \tau)$ . Labour market clearing is:

$$L_{II} = N s \left( \frac{F'(L)}{1 + \tau} \right) = N s((1 - t_I)F'(L)) \quad (3)$$

which is identical to the Case I condition (2).

**Proposition 1** (Statutory incidence neutrality). *Under Assumptions 1–2, replacing an income tax  $t_I$  with a dollar-equivalent employer payroll tax  $\tau = t_I/(1 - t_I)$  and setting  $t = f = 0$  leaves the real allocation unchanged:*

$$L_{II} = L_I, \quad \omega_{II} = \omega_I, \quad \{n_{1,II}, n_{2,II}\} = \{n_{1,I}, n_{2,I}\}$$

Moreover, host revenue, firm profits, and worker welfare coincide:  $R_{II} = R_I$ ,  $\pi_{II} = \pi_I$ , and  $V(\omega_{i,II}) = V(\omega_{i,I})$  for  $i \in \{1, 2\}$ .

*Proof.* By the dollar-equivalence relation, the Case I and Case II equilibrium conditions coincide, and uniqueness implies  $L_{II} = L_I$ . In Case II,  $w_{II} = F'(L_I)/(1 + \tau) = (1 - t_I)F'(L_I)$ , which equals the after-tax wage in Case I. Because labour supply depends only on the after-tax wage under Assumption 1, hours, consumption, and welfare coincide. Revenue in Case II is payroll revenue:  $R_{II} = \tau w_{II} L_I = \frac{\tau}{1 + \tau} F'(L_I) L_I = t_I F'(L_I) L_I = R_I$ , using  $\tau/(1 + \tau) = t_I$ . Profits satisfy  $\pi_{II} = F(L_I) - (1 + \tau)w_{II} L_I = F(L_I) - F'(L_I) L_I = \pi_I$ .  $\square$

**Case III:** Dollar-equivalent payroll tax  $\tau = t_I/(1 - t_I)$ , zero host income taxes ( $t = 0$ ), positive foreign tax ( $f > 0$ )

This case reintroduces the foreign tax while maintaining the payroll tax from Case II. Crucially, the employer-side payroll tax is *not* creditable under the FTC. Although domestic workers still effectively face the Case II environment, foreign workers now face binding foreign tax liabilities. The pre-tax wage is  $w = F'(L)/(1 + \tau)$ . Type 1 workers face no income tax, so  $\omega_1 = w$ . Type 2 workers face the foreign tax  $f$  on their worldwide income, so  $\omega_2 = (1 - f)w$ .<sup>7</sup> Labour market clearing requires:

$$L_{III} = N_1 s(w) + N_2 s((1 - f)w), \quad w = \frac{F'(L)}{1 + \tau} \quad (4)$$

**Proposition 2** (Non-credibility breaks neutrality). *Suppose Assumptions 1–2 hold and  $N_2 > 0$ . Fix  $\tau = t_I/(1 - t_I)$  and compare Case II ( $f = 0$ ) to Case III ( $f > 0$ ). Then:*

(i) *Equilibrium employment falls and the host wage rises:*

$$L_{III} < L_{II}, \quad w_{III} > w_{II} \quad \text{for all } f > 0$$

Moreover, equilibrium labour supply  $L_{III}$  is strictly decreasing in  $f$  and pre-tax wages  $w_{III}$  is strictly increasing in  $f$ .

<sup>7</sup>When  $t = 0$  and  $f > 0$ , there is no creditable host tax to offset against the citizenship-country liability, so Type 2 workers bear the full foreign rate  $f$ .

(ii) Domestic workers increase hours:  $n_{1,III} > n_{1,II}$ .

(iii) Total employment falls:  $L_{III} < L_{II}$ .

*Proof.* Define  $w(L) \equiv F'(L)/(1 + \tau)$  and  $\Phi(L, f) \equiv L - N_1 s(w(L)) - N_2 s((1 - f)w(L))$ . Equilibrium satisfies  $\Phi(L, f) = 0$ . The partial derivative with respect to  $f$  is:

$$\frac{\partial \Phi}{\partial f} = N_2 s'((1 - f)w(L)) w(L) > 0$$

Since  $w'(L) = F''(L)/(1 + \tau) < 0$  and  $s'(\cdot) > 0$ , we have:

$$\frac{\partial \Phi}{\partial L} = 1 - N_1 s'(w)w'(L) - N_2 s'((1 - f)w) (1 - f)w'(L) > 1 > 0.$$

By the Implicit Function Theorem,  $dL_{III}/df = -(\partial \Phi / \partial f) / (\partial \Phi / \partial L) < 0$ . Since  $w'(L) < 0$ , it follows that  $dw_{III}/df = w'(L_{III}) \cdot dL_{III}/df > 0$ . Setting  $f = 0$  recovers Case II, establishing (i). Part (ii) follows because  $n_1 = s(w_{III})$ ,  $w_{III} > w_{II}$ , and  $s' > 0$ . Part (iii) follows directly from part (i)  $\square$

**Proposition 3** (Revenue and profit effects). *Under Assumptions 1–2, suppose in addition that  $F'(L)L$  is strictly increasing in  $L$  over the relevant range.<sup>8</sup> Then:*

(i) Host-country revenue falls:  $R_{III}(f) < R_{II} = R_I$ .

(ii) Firm profits fall:  $\pi_{III}(f) < \pi_{II} = \pi_I$ .

*Proof.* Host revenue is  $R_{III} = \frac{\tau}{1+\tau} F'(L_{III})L_{III}$ . Under the condition that  $F'(L)L$  is strictly increasing,  $L_{III} < L_{II}$  implies  $F'(L_{III})L_{III} < F'(L_{II})L_{II}$ , so  $R_{III} < R_{II}$ .

Profits satisfy  $\pi_{III} = F(L_{III}) - F'(L_{III})L_{III}$ . Define  $g(L) \equiv F(L) - F'(L)L$ . Then  $g'(L) = -F''(L)L > 0$  by strict concavity, so  $g$  is strictly increasing. Since  $L_{III} < L_{II}$ , we have  $\pi_{III} = g(L_{III}) < g(L_{II}) = \pi_{II}$ .  $\square$

**Proposition 4** (Welfare effects). *Under Assumptions 1–2 with  $F'(L) + LF''(L) > 0$  and  $N_2 > 0$ :*

(i) In Case III, domestic worker welfare  $V(w(f))$  is strictly increasing in  $f$ , and foreign worker welfare  $V((1 - f)w(f))$  is strictly decreasing in  $f$ . In particular, Case III is never a Pareto improvement over Case II.

(ii) Aggregate utilitarian worker welfare  $W(f) \equiv N_1 V(w(f)) + N_2 V((1 - f)w(f))$  satisfies  $W'(0) < 0$ : introducing a small non-creditable foreign tax wedge is first-order harmful to aggregate worker welfare.

*Proof.* For part (i), domestic welfare follows immediately from Proposition 2(i) and  $V' > 0$ . For foreign workers, write  $\omega_2(f) = (1 - f)w(f)$  and let  $S(w, f) = N_1 s(w) + N_2 s((1 - f)w)$  denote

<sup>8</sup>This condition, equivalent to  $F'(L) + LF''(L) > 0$ , requires that the elasticity of the marginal product is less than one in absolute value. It holds automatically for Cobb-Douglas and is satisfied by many if not all standard production functions.

aggregate supply, with  $D(w)$  denoting labour demand. Implicit differentiation of  $D(w) = S(w, f)$  yields:

$$\frac{d\omega_2}{df} = -w \cdot \frac{-D'(w) + N_1 s'(w)}{-D'(w) + N_1 s'(w) + N_2(1-f)s'((1-f)w)} < 0 \quad (5)$$

since  $-D'(w) > 0$  and  $s'(\cdot) > 0$ . Thus  $\omega_2$  falls monotonically in  $f$ , and  $V' > 0$  gives the result. That general-equilibrium wage pass-through cannot fully offset the  $(1-f)$  wedge is the key economic content: the numerator of (5) reflects the “absorption” of the wage increase by domestic workers and by the downward-sloping demand curve, leaving foreign workers strictly worse off.

For part (ii), at  $f = 0$  both types face the same wage  $w_0 = w(0)$ , so:

$$W'(0) = V'(w_0) [N w'(0) - N_2 w_0]$$

From the equilibrium condition at  $f = 0$ , implicit differentiation gives  $w'(0) = N_2 w_0 s'(w_0) / (-D'(w_0) + N s'(w_0))$ , and substituting:

$$N w'(0) - N_2 w_0 = N_2 w_0 \cdot \frac{D'(w_0)}{-D'(w_0) + N s'(w_0)} < 0$$

since  $D'(w_0) < 0$ . As  $V'(w_0) > 0$  we have  $W'(0) < 0$ . □

Propositions 1–4 establish the paper’s core results using only regularity conditions on preferences and technology. Proposition 1 confirms the standard statutory incidence irrelevance result—including welfare equivalence—under general conditions. Propositions 2–3 show this irrelevance breaks down when tax creditability depends on statutory form. Proposition 4 characterizes the welfare consequences: the reform creates winners (domestic workers) and losers (foreign workers), but the losses dominate at the margin. The key insight is that when the host country shifts from creditable (income) to non-creditable (payroll) taxes, the FTC can no longer offset the citizenship-country liability for Type 2 workers, creating a wedge between the effective tax rates faced by the two types. This heterogeneity in effective wedges shifts aggregate labour supply inward, with consequences for wages, employment, revenue, profits, and welfare. Importantly, the mechanism is not that a second tax is introduced: the same underlying economic burden is present across all three cases, and only the statutory form of the host-country tax changes. To be precise, statutory incidence irrelevance continues to hold within the host country’s own tax system; the breakdown identified here arises from the interaction between the host’s statutory choice and the home country’s credit-based regime.

Note that moving between the three cases, statutory incidence holds *locally*. If  $N_2 = 0$ , foreign taxes have no effect, and as long as all tax payments are creditable, foreign taxes have no effect. However, shifting from a creditable tax base (income) to a non-creditable base (payroll, sales, corporate, etc.) will have real effects as long as  $N_2 > 0$ . When the host-country rate exceeds the citizenship-country tax ( $t_I > f$ ), the worker is in an “excess credit” position under Case I and the quantitative effects of shifting to non-creditable taxation depend on carry-forward provisions, but the qualitative direction of the results is preserved.

## A Numerical Example

A simple example fixes ideas. Suppose a U.S. citizen (home tax rate  $f = 0.10$ ) earns €100 in an EU country with income tax  $t = 0.15$ . Under the income tax, she remits €15 abroad, claims €15 in foreign tax credits against her €10 U.S. liability, and keeps €85. Now suppose the EU country shifts to a dollar-equivalent employer payroll tax. By standard incidence, her gross wage adjusts to €85 and her consumption is unchanged—but she now has no creditable foreign income tax. Filing her Form 1040, she reports €85 in gross income with zero foreign tax credits, and her home country levies 10% on €85, leaving her with €76.50. The €8.50 reduction in after-tax income is caused entirely by the ineligibility of payroll taxes for the foreign tax credit.

## Calibrated Illustration

To give a sense of magnitudes, I calibrate the general model using standard functional forms: Cobb-Douglas production  $F(L) = L^\alpha$  and iso-elastic (Frisch) labour supply  $s(\omega) = \omega^\varepsilon$ , which corresponds to quasi-linear preferences  $u(c, n) = c - n^{1+1/\varepsilon}/(1 + 1/\varepsilon)$ . Under these functional forms, closed-form solutions are available. Define the indirect utility from an after-tax wage  $\omega$  by  $V(\omega) \equiv \max_{n \geq 0} u(\omega n, n) = u(\omega s(\omega), s(\omega))$ . By the envelope theorem,  $V'(\omega) = u_c(\omega s(\omega), s(\omega)) \cdot s(\omega) > 0$ : indirect utility is strictly increasing in the after-tax wage,  $V(\omega) = \omega^{1+\varepsilon}/(1 + \varepsilon)$ .

I set the labour share  $\alpha = 2/3$ , consistent with the conventional estimate for developed economies. For the Frisch elasticity, I use  $\varepsilon = 0.75$ , which falls within the range identified by Chetty, Guren, Manoli and Weber (2011) in their reconciliation of micro and macro estimates. Let  $\gamma \equiv 1/(1 + \varepsilon(1 - \alpha)) = 0.8$ .

Suppose the economy has  $N_1 = 0.80$  domestic workers and  $N_2 = 0.20$  foreign workers (i.e., 20% of the workforce is subject to worldwide taxation). While the aggregate share of expatriate workers in the economy at large is considerably smaller, the mechanism's quantitative bite depends on concentration in the *relevant* labour market. Foreign workers subject to worldwide taxation are disproportionately represented in high-skill sectors such as finance, technology, and academia, where their share may substantially exceed 20%. Let the initial income tax rate be  $t = 0.35$  and the foreign tax rate be  $f = 0.25$ .

Under Cobb-Douglas, equilibrium wages and labour take closed forms. In Case I (income tax only), with  $\tilde{N} = N$  since both types face  $t$ :

$$w^* = \left[ \frac{\alpha}{N^{1-\alpha}(1-t)^{\varepsilon(1-\alpha)}} \right]^\gamma, \quad L^* = [\alpha^\varepsilon N(1-t)^\varepsilon]^\gamma$$

In Case III (payroll tax plus foreign tax), defining  $\tilde{N} \equiv N_1 + N_2(1-f)^\varepsilon$ :

$$w^* = \left( \frac{\alpha}{1+\tau} \right)^\gamma \tilde{N}^{-(1-\alpha)\gamma}, \quad L^* = \tilde{N}^\gamma \left( \frac{\alpha}{1+\tau} \right)^{\varepsilon\gamma}$$

Table 1 reports equilibrium outcomes.

Table 1: Equilibrium outcomes under alternative tax regimes

	Case I (Income tax)	Case II (Payroll tax)	Case III (Payroll + foreign)	% Change (II → III)
Domestic income tax $t$	0.35	0	0	
Payroll tax $\tau$	0	0.538	0.538	
Foreign tax $f$	0.25	0	0.25	
Gross wage $w^*$	0.788	0.512	0.517	+1.0%
After-tax wage (Type 1)	0.512	0.512	0.517	+1.0%
After-tax wage (Type 2)	0.512	0.512	0.388	-24.2%
Total labour $L^*$	0.605	0.605	0.587	-3.0%
Domestic revenue $R$	0.167	0.167	0.164	-2.0%
Firm profits $\pi$	0.239	0.239	0.234	-2.0%
Welfare, Type 1	0.177	0.177	0.180	+1.8%
Welfare, Type 2	0.177	0.177	0.109	-38.4%

Notes: Parameters are  $\alpha = 2/3$ ,  $\varepsilon = 0.75$ ,  $N_1 = 0.80$ ,  $N_2 = 0.20$ ,  $t = 0.35$ ,  $f = 0.25$ . Production is Cobb-Douglas  $F(L) = L^\alpha$  and labour supply is iso-elastic  $s(\omega) = \omega^\varepsilon$ . The dollar-equivalent payroll tax rate is  $\tau = t/(1-t) = 0.538$ . Cases I and II confirm statutory incidence irrelevance (Proposition 1). Case III shows the effects of non-credibility (Propositions 2–4).

Cases I and II yield identical real outcomes, confirming Proposition 1. In Case III, the shift to non-creditable payroll taxes creates a wedge. Foreign workers face their home country's tax of  $f = 0.25$  on top of the economic burden of the payroll tax, reducing their after-tax wage by 24%. Their reduced labour supply tightens the labour market, raising domestic workers' wages by 1%. Total employment falls by 3%, domestic tax revenue falls by 2%, and firm profits fall by 2%.

The welfare results in Table 1 illustrate Proposition 4. Domestic workers are unambiguously better off in Case III—their welfare rises by 1.8%. Foreign workers are unambiguously worse off, with welfare falling by 38%, consistent with the result that general-equilibrium wage pass-through cannot offset the non-creditable tax wedge. The losses to foreign workers dominate the gains to domestic workers: aggregate utilitarian worker welfare falls, confirming the local result in Proposition 4(ii) and extending it to this discrete change in  $f$ .<sup>9</sup> Migration responses, absent from this model, would likely amplify these effects.

From the perspective of the host country's government, the reform presents a trade-off. Domestic workers—who vote—enjoy higher wages and welfare. But domestic tax revenue falls, and if the government values the welfare of all residents (including foreign workers), aggregate welfare declines. Importantly, the point of this paper is that this tradeoff *exists*, when standard irrelevance would suggest it does not.

<sup>9</sup>This welfare measure is the sum of workers' indirect utilities and abstracts from the disposition of tax revenue and firm profits; a full social welfare comparison would depend on how the host and citizenship-country governments value their respective revenue changes.

## Conclusion

Millions of Americans claim the Foreign Tax Credit. This paper shows that statutory incidence can affect both the pre- and post-wage income for workers subject to a foreign tax credit system. Under quite general assumptions, I demonstrate that the standard irrelevance result holds when all taxes are creditable (Proposition 1) but breaks down when tax creditability depends on statutory form (Propositions 2–3). When not all taxes borne by labour are fully creditable, as is the case in the real world, the incidence of a tax can have real effects. In particular, the model shows a shift from an income tax to a payroll tax—a reform that would be neutral in a closed economy—can lower the after-tax wage of foreign workers, raise the after-tax wage of domestic workers, reduce total employment, and lower host-country revenue.

The model abstracts from at least three considerations. First, I assume workers are perfect substitutes and that labour markets are perfectly competitive. While departures from these assumptions could alter the incidence results quantitatively, the qualitative insight about creditability should persist.<sup>10</sup> Skill heterogeneity in particular could generate richer dynamics: if foreign and domestic workers are complements, then domestic workers could also be harmed by the reduction in foreign labour supply. Second, and perhaps most unreasonably, migration is not possible in the model. Tax-induced migration effects could be large (cf. Kleven, Landais and Saez, 2013; Kleven, Landais, Saez and Schultz, 2014), but they are absent from this paper. Third, the model is static and does not consider the possibility of prior-year credits or loss carryovers, which would affect a transition from an income- to a payroll-based system.

Despite these limitations, the core mechanism is robust: when tax creditability depends on statutory form, statutory incidence has real consequences. A government considering a shift from income to payroll taxation should recognize that such a reform, while potentially beneficial for domestic workers, may harm foreign workers and reduce the domestic tax base. Conversely, a country seeking to attract foreign workers might gain a competitive advantage by maintaining income-based taxes that are creditable abroad.

I close with two observations. First, the preference of foreign workers for taxes they can claim to have “paid” could serve as an identification strategy in future empirical work—comparing labour supply responses to otherwise equivalent tax reforms that differ in statutory form. Second, although all examples here concern citizens and income taxes, the same logic applies to corporate taxation. Multinational firms face analogous questions about which foreign levies qualify for corporate foreign tax credits (Desai, Foley and Hines, 2004; Dharmapala, 2014), with implications for investment location and transfer pricing. A host country shifting from creditable corporate income taxes to non-creditable gross receipts taxes would, by this logic, raise the effective tax burden on foreign-headquartered firms whose home countries operate credit-based systems. A particularly live example concerns digital services taxes, which are increasingly common but generally non-creditable under current U.S. rules; to the extent that such taxes are ultimately borne by labour within the firm rather than the corporate structures on which they are statutorily imposed, the loss of creditability is compounded.

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<sup>10</sup>Empirical work such as Saez, Schoefer and Seim (2019), Guo (2024) and Lobel (2022) suggests that equity concerns, firm-specific taxes, and market power can lead to deviations from competitive wage pass-through predictions, but does not speak to the creditability mechanism analyzed here.

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