

Comments on “International Tax
Competition”,
by
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To begin...

This very nice paper presents:

- a logically organized treatment of a body of literature
- built around the “canonical” tax competition model
- with a consistent notation and natural progression of topics.

These features should make it appealing and useful for readers who seek an introduction to this field.

Key point of emphasis: Strategic interactions, game-theoretic approach.

Incl. repeated games, vertical as well as horizontal strategic interactions, system perspective (coordination/alliances), a bit of political economy, ...

Disclaimer: IANAGT.

How to Comment?

What “terms of reference” for paper?

The title is quite broad, hence much more *could* (but *should*?) be included.

- Intro section sets limits for the paper...
- perhaps calling for a rather different title?

Such as:

“The Theory of Strategic Tax Competition”?

Two possibilities – I’ll attempt a bit of both.

(a) “Within” comments (“W”):

- staying within the specific framework of the paper as written.

(b) “Outside” comments (“O”):

- new topics that could possibly be incorporated, *if* it seems desirable to expand the scope of the paper – depending on space/time/energy constraints.

Outline

W.1: Strategic (Imperfect) vs. Atomistic (Perfect) Competition.

W.2: Capital Mobility: Perfect vs. Imperfect.

W.3: Technical Matters – functional forms, global vs. local analysis, existence/uniqueness.

W/O.1: Types of Policy Instruments: Rates and Bases

W/O.2: Types of Policy Instruments: Net Capital Flows/Trade Balance/Trade Policy; Gross vs. net capital flows/risk/IO considerations.

O.1: Labor Mobility *instead of* Capital Mobility.

O.2 Labor Mobility *in addition to* Capital Mobility.

W.1: Competition for Capital or Customers: Strategic vs. Atomistic

One basic question: Is competition for capital perfect or imperfect?

Paper discusses both, but emphasizes small-number (“duopoly”) case.

How does one assess the “degree of competitiveness”?

In IO: What is an “oligopoly”? (Industry concentration indices.)

Among countries competing for capital inputs: What is an “oligopsony”? (Or “input oligopoly”?)

Key empirical question *within the model*:

What effect does t_i have on ρ , worldwide net return to k ?

W.1 (cont.): Competition for Capital or Customers: Strategic vs. Atomistic

As the paper states, strategic interactions disappear if $d\rho/dt_i \rightarrow 0$.

Just like terms of trade/optimal tariff (Bickerdike, 1911(?)).

What fraction of world capital stock, or GDP, is accounted for by 4 largest countries (“4 nation concentration ratio”)?

Answer: Not all that much. (Not a Sherman Act violation.)
Except for US, all nations $< 15\%$; US, EU $\approx 20\%$; China $< 15\%$; Japan $\approx 5\%$.

A fortiori, terms of trade effects must be even smaller for subnational governments.

Suggestion: Help us understand better the intended scope of application of the analysis.

W.2: Capital Mobility: Perfect vs. Imperfect

The scope of application may depend on “long run” vs. “short run” considerations, and on the “degree of integration” of capital market(s):

Is capital adjustment instantaneous or gradual?

Is competition global, regional, local, and how do we know?
– Models with local/regional market linkages generally point to trade, labor rather than capital.

Is it true *a priori* that instantaneous adjustment → competition is global, and likely atomistic?

How can/should we incorporate time/proximity? (Personal preference: explicit dynamics.)

W.3: Role of Functional Forms

Quadratic production function in benchmark case:

Not a “natural” economic assumption. Perhaps explain why linearizations are used, and what they imply:

(i) Technical reasons: Global vs. local analysis in small number vs. atomistic models (as in IO).

(ii) Linear \rightarrow elasticity of demand for k falls along MP_k curve. (E.g., not Cobb-Douglas.)

(iii) Even more technical challenges with imperfect competition among firms (oligopoly, etc.), as in Section 3.2. (Walz-Wellisch *ITAX* 1996.)

(iv) How about some explicit discussion of existence/uniqueness, some examples where they fail? (E.g., Taugourdeau/Ziad *RSUE* 2011 and references therein.)

Students might appreciate some technical guidance.

W.3: *Choice of Strategic Variables* (within canonical model)

Bertrand vs. Cournot oligopoly: Firms may choose prices or quantities *but not both*. Nash non-cooperative equilibria in prices or quantities. (“Conjectural variations”.)

How to choose?

Governments could choose tax rates or public expenditure levels (*but not both*).

How to choose?

Other models: welfare competition (NNE in benefit levels), general benefit spillover models/voluntary contributions (NNE in public goods levels), regulatory/abatement policies

Briefly discussed in Section 3.1 (“infrastructure”), but may warrant more.

W/O.1: *Types of Policy Instruments*

Canonical model developed for property tax incidence analysis.
Zodrow/Mieszkowski *et al.*

Local tax systems far simpler than *state/provincial/national*,
however:

ITCs, depreciation rules, other determinants of ETRs (from
policy/empirical literature – King-Fullerton, Devereux-Griffith,
Chirinko-Wilson).

Deductions vs. credits (Bond-Samuelson *EJ* 1989).

W/O.2: Types of Policy Instruments, Part 2

“W”: Capital is homogeneous → all capital flows are *net* flows
→ capital inflow \equiv trade deficit. Hence:

Policies that affect trade surpluses/deficits are part of competition for capital:

- Summers *ca.* 1980(?): capital flows limited by trade interventions
- Sinn *ca.* late 1980s: trade balance driven by capital tax policies.)
- VATs? Trade liberalization?

“O”: *Gross* FDI and financial flows much larger than *net*. Why?

Jurisdiction-specific risks, risk-pooling. (Relevant even/especially for small jurisdictions.)

Cross-ownership; tax exporting/expropriation, time consistency.

IO considerations. (Is the capital that Toyota invests in US different from the capital that Pfizer invests in Ireland?)

O.1: What Is “ k ”? Could It be L ?

“Capital” – because we say so.

Varying interpretations are possible, however:

Labor (homogeneous). (No difference between *gross* and *net* flows.)

Skilled labor. (Homogeneous.)

Unskilled labor. (Homogeneous.)

Heterogeneous mobile labor: Empirically, *gross* flows are consistently far larger than *net*. Probably not just wasteful cross-hauling.

Many papers have looked at competition – atomistic and strategic – with labor mobility. Formally, almost identical. Policy-wise, quite different!

O.1 (cont.): Is Migration Important?

Much literature proceeds as if safe to presume that labor is fixed factor, capital variable.

Cognitive dissonance for those who learned the reverse (short-run vs. long-run)!

Empirically, no question about importance of labor mobility:

- Large fractions of populations are foreign-born. (10-15% in many countries.)
- Large fractions (30%+) of college grads migrate within/among countries. (Kodrycki, Bound, Docquier *etc.*)
- Fiscal implications (expenditures/revenues both) of demographic changes *far* exceed those of capital flows.
- Active policy issues: Quotas, point systems, border enforcement, Schengen, tax/expenditure policies (welfare/social expenditures/tax competition), education/brain drain, intergovernmental transfers, *etc.*

Worth mentioning?

O.2: What About K and L Together?

Suppose $Q = F(K, L, T)$ (T = land, natural resources, ...).

Don't K and L adjust together?

Cities/businesses without residents/workers? People without cities/jobs?

$F_{KL} > 0$ empirically, no question.

Empirically, K and L co-evolve. *E.g.*, 19th c. development of Western Hemisphere (Williamson, Hatton, Taylor ...), many more modern examples. Economic development policies generally.

Capital tax/subsidy/regulatory policies → labor markets/migration;

Labor tax/subsidy/regulatory policies → capital markets/investment flows;

→ competition occurs across *many* policy instruments.

Conclusion

The paper provides a terrific window on significant branch of literature.

Student-(reader-)friendly. Fits the *Handbook* spirit well.

Interjurisdictional policy competition (“Open Economy Public Economics”) is a rich subject.

Back to the “physics”:

Is there time/space/energy to expand scope?