International Tax Post-BEPS: Is the Corporate Tax That Bad?

With a brief comment on TWPs 2015, 2016

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Introduction:

- This is a brief, critical discussion of the two Treasury Working Papers TWP 2015-1 and TWP 2016-2

- My main conclusion is that the two papers do not provide convincing arguments for the policy measures they intend to support, one main reason being that the economic model their work is based on is not fit for purpose

- A second conclusion is that Australia needs an independent research institute along the lines of the UK's Institute for Fiscal Studies, as a source of objective economic analysis of Australian tax policy.

- Presents analysis of marginal excess burdens (MEBs) of five major forms of tax, suggests desirability of raising GST and land tax to fund reductions in stamp duty and company tax
- Raising \$1 of tax revenue costs $\$(1 + m)$, m is the marginal excess burden, increases with tax rate
- Computed as $E(P_0, U_0) - E(P_0, U_1)$ for \$1 increase in tax revenue

- Results (Chart 33, page 53):

t	Stamp duty	CIT	PIT≡LET*	GST	Land tax
m (\$)	0.70	0.50	0.21	0.19	-0.10

(*Labour earnings tax equivalent to PIT for welfare analysis since capital supply perfectly inelastic)

- These suggest that stamp duty and CIT should be significantly reduced, land tax should be sharply increased and labour earnings tax (equivalent to PIT in terms of welfare analysis) and GST should be increased to make up for residual tax revenue losses taking care that we end up with all marginal excess burdens broadly equal
- (*Remark: if domestic capital supply perfectly inelastic why not just tax this? But we're probably not meant to take it that seriously)
- But if increasing GST and land tax is ruled out and you still want to lower CIT what do you do now?
- Answer: TWP2016-2

- Underlying model and assumptions the same as TWP2015-1, (pretty much a cut-and-paste job, incl. typos, e.g. Whinston)
- But policy focus more specific and the results presented differently - cost-benefit analysis of CIT cut from 30% to 25% rather than estimation of MEBs
- Sensitivity analysis more restricted (see below) but otherwise very similar
- Presents results as equivalent variation proportional welfare gains

$$[E(P_0, U_1) - E(P_0, U_0)]/E(P_0, U_0) \tag{1}$$

- Though mathematically closely related to MEBs, numbers of course look quite different across the two TWPs

Basic story the same:

- Reduction in CIT rate $\rightarrow$ increase in domestic demand for capital $\rightarrow$ inflow of new foreign capital (perfectly elastic supply at world interest rate, domestic capital supply perfectly inelastic) $\rightarrow$ pre-tax interest rate falls to new equilibrium
- Resulting rise in domestic capital stock $\rightarrow$ rise in labour productivity $\rightarrow$ increased demand for labour $\rightarrow$ rises in wages, employment, GDP to new equilibrium
- Domestic capital owners receive tax credit for CIT so with unchanged PIT lose from lower pre-tax interest rate

- Considers three alternatives to replace lost tax revenue:

1. Lump sum tax, no distortions, therefore zero MEB associated with policy;
2. Increase in *flat rate personal income tax*;
3. Cut in public expenditure, no welfare loss - PE assumed worthless!!! Policy totally costless

- Bottom line welfare gains when these taken into account:

1. 0.2% p.a.
2. "around" 0.1% p.a.
3. 0.7% p.a.

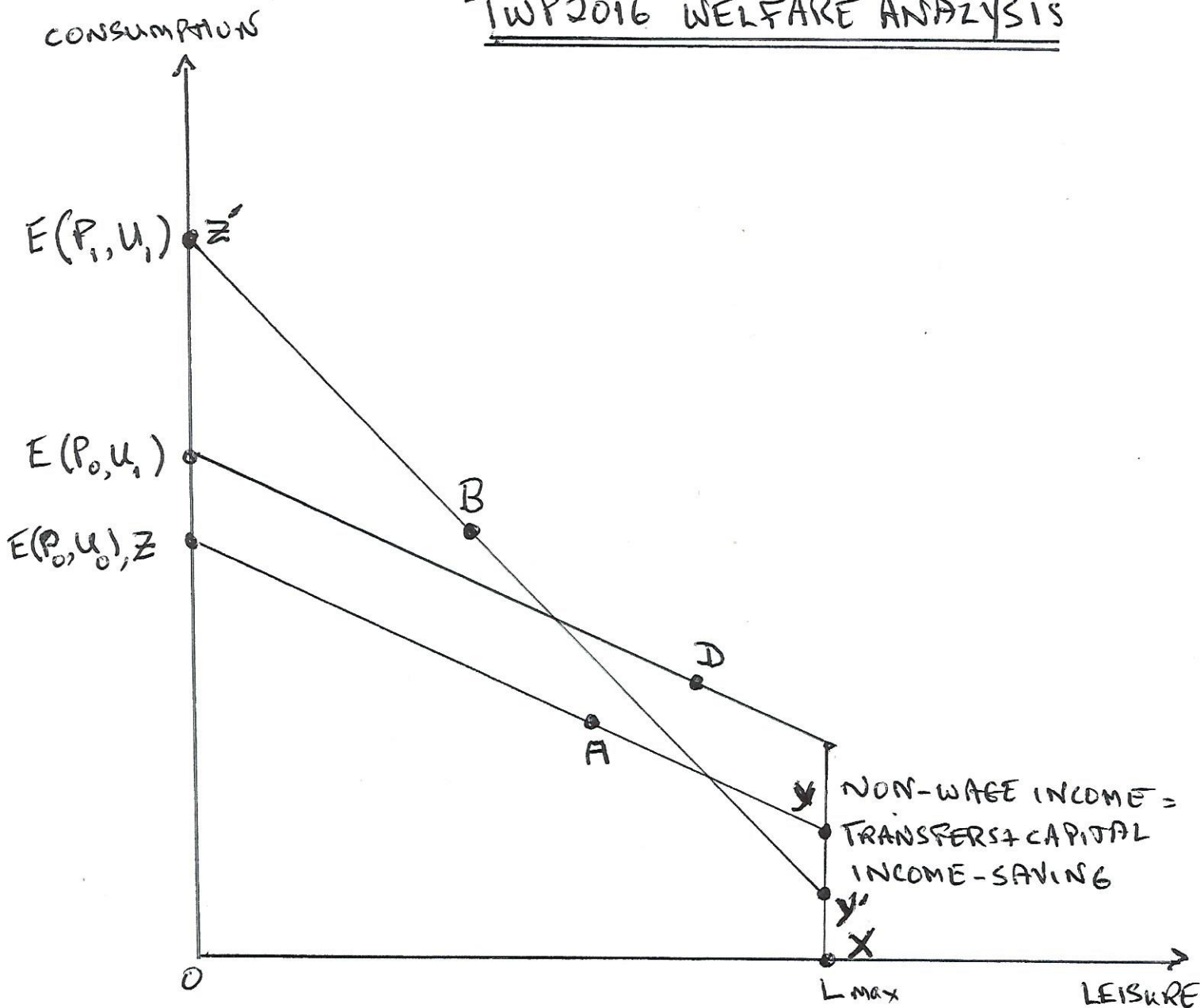- Increase in PIT the only one that need be taken seriously

Representative household model:

- Cannot capture detailed interactions of the tax/transfer [system] important for welfare analysis
- Impact of progressive tax scales [actual tax system] cannot be examined

Comparative static analysis:

- May overstate the welfare gain of CIT cuts because it does not account for resource and adjustment costs along the transition path
- These are disarmingly frank admissions
- Following diagrams intended to amplify these points

TWP2016 WELFARE ANALYSIS

Diagram axes: CONSUMPTION (vertical), LEISURE (horizontal).

Vertical axis labels (top to bottom):
$E(P_1, U_1)$ — point z'
$E(P_0, U_1)$
$E(P_0, U_0)$, z

Points in diagram: B, D, A, y, y', X

Horizontal axis: O ... L_{max} ... LEISURE

Annotation: NON-WAGE INCOME = TRANSFERS + CAPITAL INCOME − SAVING

A: OPTIMAL POINT BEFORE POLICY

B: " " AFTER "

D: EQUIVALENT POINT TO B IF NO POLICY

$$EV = E(P_0, U_1) - E(P_0, U_0) = \text{WELFARE GAIN}$$
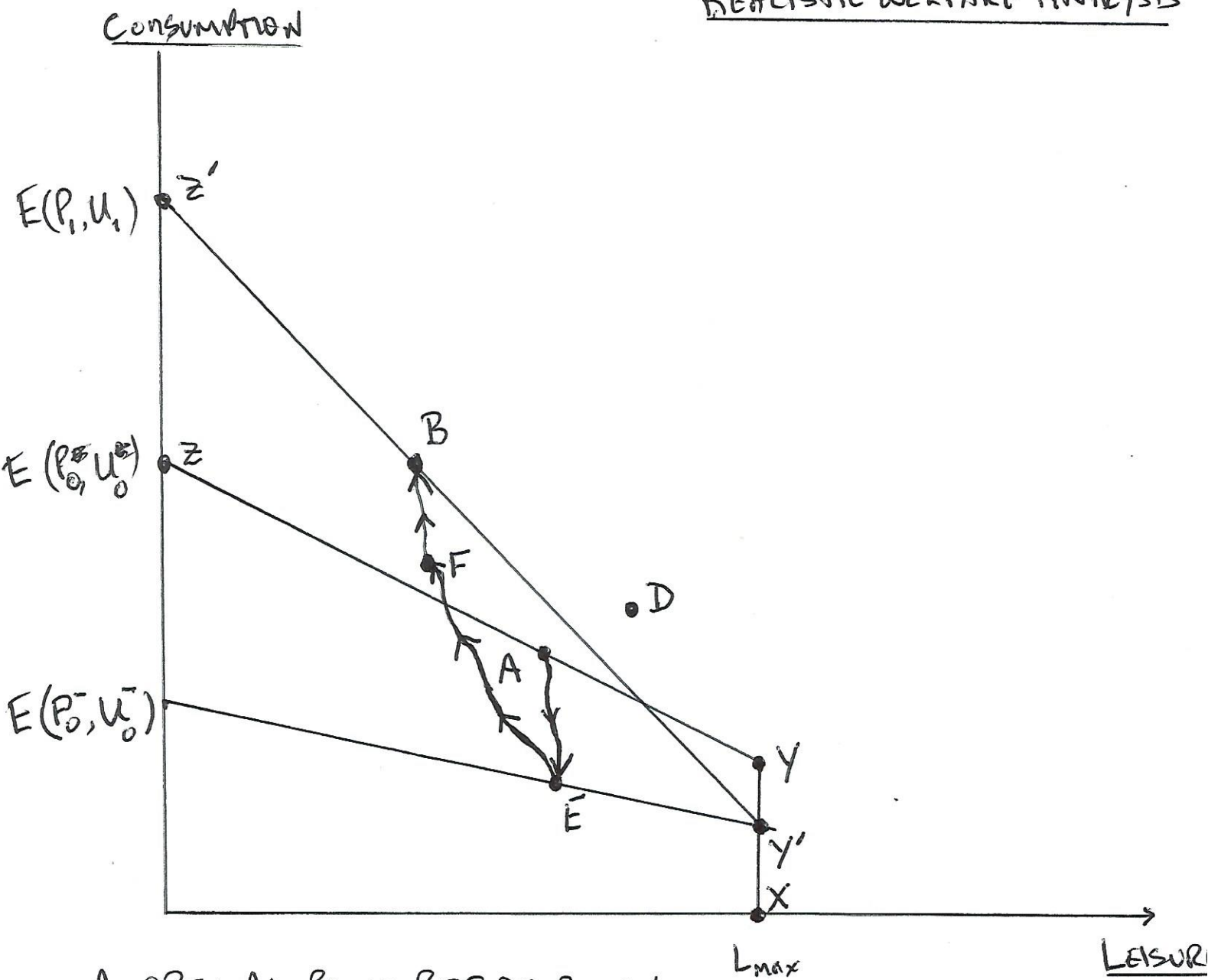
TAX CUT MOVES CONSUMER DOWN TO y'
PRE-TAX WAGE INCREASE <u>NET</u> OF HIGHER P.I.T. $\Rightarrow$
BUDGETLINE $y'z'$ AND NEW CONSUMER OPTIMUM B
D YIELDS SAME UTILITY AS <u>B</u> : B $\sim$ D

Consumption

$E(P_1, U_1)$ — z'

$E(P_0^{*}, U_0^{*})$ — z

$E(P_0^{-}, U_0^{-})$

B

F

D

A

E

Y

y'

X

L_{max}

LEISURE

A: OPTIMAL POINT BEFORE POLICY

E: " " IMMEDIATELY AFTER POLICY

F: EQUIVALENT TO A : F ∼ A

1. HOW LONG DOES IT TAKE TO GET FROM E TO F ?

2. HOW LONG DOES IT TAKE TO GET FROM F TO B ?

3. WHAT ARE THE PROBABILITIES OF THESE EVENTS ?

N.B.: MOVE FROM A → E ON INTRODUCTION OF POLICY ALMOST
       IMMEDIATE & CERTAIN

More fundamental criticisms of model methodology

- The DFAs just reported do not go far enough and seem to have no impact on the conclusions of the TWPs

- Representative household model, and single flat tax with weighted average tax rate, acknowledged as a major limitation in both TWPs but no discussion of what it means for the policy recommendation

- Incapable of saying anything about across-household distributional implications of policy change, welfare analysis rudimentary, capital vs labour

- Permits avoidance of question of exactly how tax rates in the actual piecewise linear tax system will be changed, e.g. pro rata? All on the middle? Affects **both** efficiency **and** equity measures

- Use of average flat rate tax and weighted average labour supply elasticity likely to **under**estimate estimates of welfare loss from PIT increase, not **over**estimate as TWP16 seems to claim at one point

- CGE: comparative statics methodology, no discounting for time or risk, especially important because costs incurred well before benefits accrue, lost tax revenue quite certain, long term benefits much less so, therefore benefit estimates significantly biased upward relative to costs
- Sensitivity analysis rudimentary, based on just "one at a time" relaxations, no "state of the world" or "scenario" analysis with associated probabilities, testing combinations of variations in assumptions - optimism bias in presentation of results
- Sensitivity analysis presented in TWP16 gives suspiciously robust results - net welfare gain almost never different to 0.1% and never below it, occasionally 0.2 % or 0.3%
- In any case focuses on the wrong parameters
- Appropriate sensitivity analysis would be on

1. Time paths and probabilities of costs and benefits
2. Implications of modeling a more realistic tax system with due account taken of heterogeneity across worker types in labour supply elasticities (rudimentary attempt at this in TWP15 and shows high sensitivity)

Conclusions

See Introduction