



# Measuring and challenging BEPS

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# Outline

- The issue : globalization and mobility
- Observing and measuring BEPS: towards a BEPS Statistics and its use
- Policy challenge
  - Approximating EBEPS and FAIRET
  - How to distribute a taxable value co-generated by at least two countries?

# G20 Antalya meeting

- Les chefs d'Etat et de gouvernement réunis en Turquie ont aussi répété leurs engagements des dernières années sur la coopération entre administrations fiscales, avec pour objectif de mettre en place des systèmes d'échange automatique d'informations dès 2017 et au plus tard avant la fin 2018.
- Le plan de l'OCDE, censé empêcher les grandes multinationales de contourner l'impôt grâce à des stratégies comptables sophistiquées, prévoit par exemple d'obliger les entreprises à détailler leurs résultats et leur charge fiscale pays par pays. Il doit aussi déboucher sur un grand traité multilatéral contraignant contre ces pratiques d'"optimisation fiscale agressive".
- L'OCDE, organisation regroupant une trentaine de pays développés, estime que les ruses rendues célèbres par Google, Apple et autres multinationales privent les Etats de 100 à 240 milliards de dollars de recettes fiscales chaque année.
- Source : LaLibre.be, Nov 16th, 2015

# The issue

- Today MNE decide on
  - How much tax they pay, and
  - How they distribute that amount among countries
- Challenge:
  - how to manage the tax system in such a way governments receive their fair part of the taxable value generated in their respective territory,
  - let us say 34, assuming a tax rate of .34 and a tax base of 100.

# Governments respond

- Mobility of flows – as part of globalization –
  - Makes MNE's more powerful than each government taken separately
  - But the balance of power may change if those governments cooperate
    - Exchanging information
    - Signing a multilateral treaty or a series of bilateral treaties which expand the authority of governments beyond their domestic territory
    - And if public opinion pushes up reputation costs

# Observing and measuring BEPS

- Based on Graphs and Network theory, especially the Dijkstra algorithm (though not necessary in the simple and visual case below)
  - Start with a direct path between a Source in a Permanent Establishment in the Source country, and a Destination in a Head Establishment in the Destination country, as a benchmark
  - Then optimize the path, minimizing the tax liabilities
  - And compare the benchmark and least taxed paths, producing a BEPS statistics

# A graph / network representation

- Let BEL1 be the Source, actually the flow of EBITDA generated in Source, and Dest the Destination, e.g. the last node before entering the US
- Two nodes per country: « in » and « out »
- A Corporate Tax is levied on black arcs/edges « within » the country
- A withholding tax is levied on brown arcs/edges « between » countries

# A graph / network representation

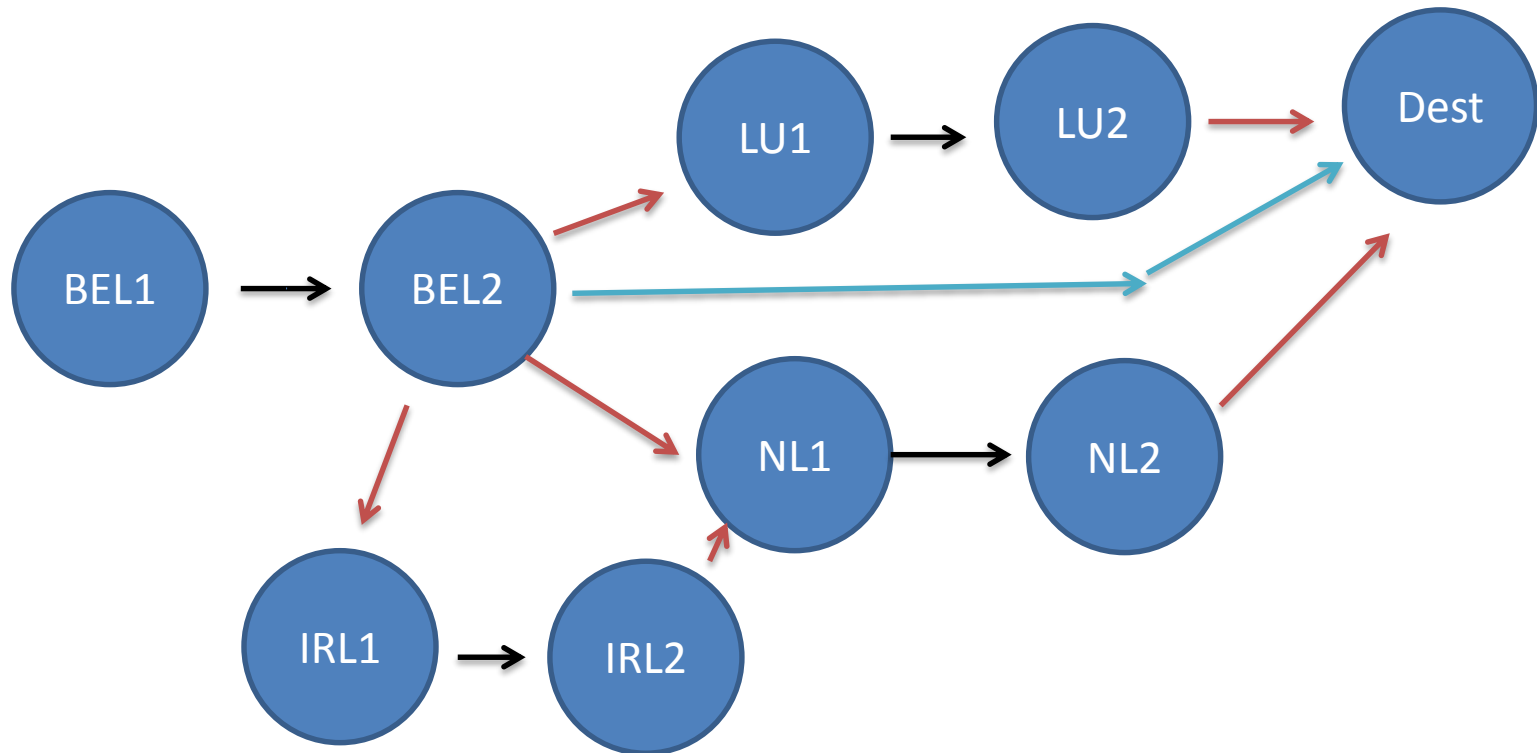
- CIT and WT costs depend on both tax rates and tax bases
  - Examples: deductibility of interests, notional interests (ACE), partial exemption of royalties on patents...
- CIT and WT are costs of using the arcs / edges but those costs might be contingent to the history of the path
  - Going through a tax heaven at some point of the history might rule out the benefit of exemption for dividends



# A graph / network representation

- Multimodality
  - You may change of tax vehicles at any « in » node e.g. turning an interest or a royalty into a dividend
- Examples from the real world
  - Google case study
  - IKEA case study: See <http://www.greens-efa.eu/fr/corporate-tax-avoidance-15183.html> and <http://www.greens-efa.eu/corporate-tax-avoidance-15176.html>
  - Mittal case study : [http://www.expatica.com/be/news/How-Mittal-paid-14-tax-over-4-years\\_368753.html](http://www.expatica.com/be/news/How-Mittal-paid-14-tax-over-4-years_368753.html)

# A graph / network representation



# Observing and measuring BEPS

BEL1	-> .34 PE	BEL2	-> .00 Profit	-> ->	-> ->	-> ->	-> ->	->US*	V=66 B=34
BEL1	-> .34 Di/PE	BEL2	-> .00 Di/PE	LUX1	-> .00 DP-Di	LUX2	-> .00 Divid	->US*	V=66 B=34
BEL1	-> .00 Roylt	BEL2	-> .00 Roylt	LUX1	-> .06 <b>Ro-Di</b>	LUX2	-> .00 Divid	->US*	V=94 LU=6
BEL1	-> .00 Roylt	BEL2	-> .00 Roylt	NL1	-> .05 <b>Ro-Di</b>	NL2	-> .00 Divid	->US*	V=95 NL=5
BEL1	-> .00 Inter	BEL2	-> .00 Inter	IRL1	->.13 <b>Int-Di</b>	IRL2	-> .00 Divid	->US* ->NL-	V=87 IR=13
BEL1	-> .00 NPE	BEL2	-> .00 NPE	IRL1	->.13 <b>NP-Di</b>	IRL2	-> .00 Divid	->US* ->NL	V=87 IR=13

# Fair base vs BEPS

- A Belgium entity generates a taxable value of 100  
=> 34 for Belgov and 66 for shareholders; no further tax till reaches the US Umbrella (e.g. Bermuda). Let us note 34/66
- But that taxable value might be offset by
  - Royalties -> Lux (t=.06)-> into div => 00/94
  - Royalties -> Neth (t=.05) -> into div => 00/95
  - Interests -> Irl (t=.125) -> into div => 00/87.5
  - Benefits of non permanent establishment ->Irl (t=.125) -> into div => 00/87.5

# At the end

- MNE has decided
  - How much it pays as tax
    - Between 5 and 34
  - How it distributes that payment among countries
    - 34 for Belgium vs. 5 for The Netherlands

# A BEPS Statistics

- Define FAIRET as a fair effective tax rate based on internationally admitted principles, like the right to tax is allowed to the origin country of the taxable value
- And MinET as the effective tax on the least taxed path

$$\begin{aligned} EBEPS &= \frac{FAIRET - MinET}{FAIRET} \\ &= \frac{34 - 5}{34} = .8529 \end{aligned}$$

# Extensions

- We can associate an EBEPS to each path of our matrix above, respectively :  $(0/34)=0$ ;  
 $(28/34)=.8235$ ;  $(29/34)=.8529$ ;  $(21,5/34)=.2122$
- And generalize to complex graphs and networks using sums of logarithms

$$V' = \sum_{i=01}^{D2} \ln(1 - t_i) \Rightarrow V = \exp(V')$$

# Policy Challenge

- How to design the international tax system in order to approximate EBEPS and FAIRET?
  - Dividends: no ACE, align on Permanent Establishment
  - Interests: reduce deductibility through
    - Moving to CBIT (or study reshaping ACE)
    - Adopting thin capitalization rules, like a max ratio D/E, or
    - Adopting a max % of interests deductible against EBITDA
  - Royalties: abolish exemption and possibly replace it by a tax credit for local research



# Policy Challenge

- How to distribute a taxable value co-generated by at least two countries?
  - In the OECD approach transfer prices seem to remain an issue (marginally manipulating the transfer price is still an avenue for BEPS despite obligation of more documentation / exchange of information)
  - Use that improved doc. / exch. of info) to move to a EU-like CCCTB approach i.e. F&A? See EU June package and proposal of directive on tax avoidance; debated: cash flows with destination principle (sales); from CIT to Value Added Corporate tax
  - In any case information quality and quality checking will remain an issue.

Thank you for your attention  
Questions are welcome

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