CHALLENGES IN TAXING THE DIGITALISING ECONOMY

Designing robust national and international tax system for the future

24-10-2018
THE CONTEXT
- What are the challenges?

DOES INTERIM MEASURES ADDRESS CHALLENGES?
- No solid arguments for the EU DST

ARE THE PROPOSED LONG-TERM MEASURES ANY BETTER?
- A first look at ‘digital significant presence’
THE CONTEXT
- WHAT ARE THE CHALLENGES?
Challenges in corporate taxation for high-tech industries

1. High-tech industries growing in importance...

![Sector weighting S&P 500 Index](chart1)

- Biotech and Healthcare: 15%
- ICT: 24%

2. ...shares of intangible investments rising

![Intangible fixed assets share of gross fixed capital formation](chart2)

3. Risk capital essential: risks high, collateral values small

![Dependence for the median firm, 1980-2005](chart3)

- Denmark: 0.65
- USA: 0.60
- EU28: 0.14
- Germany: 0.07
- Spain: 0.07

Conclusions

1. Debt bias in tax systems increasing problem (and lack of deep risk capital markets in EU)
2. A case for “good” tax treatment of R&D expenditure (on input or output side)
3. Transfer pricing becomes more challenging depending on business model
Transfer pricing and business models in high-tech sectors

DST: What is its stake for different countries with different comparative advantages?

From a transfer pricing perspective: ‘Easier’ to tax digital businesses than other high-tech industries

Simple to apply transfer pricing rules for purely digital businesses (“critical mass without local presence”)

US: Production, development and sale
EU: No physical presence

Complex transfer pricing rules for pharmaceuticals

Member state A production
US sales
Member state B R&D

<table>
<thead>
<tr>
<th>Industry size</th>
<th>Share of Gross Value Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>0.9%</td>
</tr>
<tr>
<td>Germany</td>
<td>4.7% (ICT) 4.7% (Pharma)</td>
</tr>
<tr>
<td>Denmark</td>
<td>3.8% (Pharma) 0.1% (ICT)</td>
</tr>
</tbody>
</table>

Source: UN comtrade

Net export
Bilateral

United States
$3.5 bn
Pharmaceutical
$300 million
Digital services
$22.3 bn
Cars
$1.8 bn

Germany
$100 million
Pharmaceutical
$300 million
Digital services

Denmark
Source: UN comtrade

Car manufacturing
ICT sector
Pharmaceutical sector

Copenhagen Economics
DO INTERIM MEASURES ADDRESS CHALLENGES?
No solid arguments for the DST

1. Digitalisation does not erode corporate tax base

2. No evidence of under-taxation in digital companies

3. Proposed concept of user contribution not meaningful

**Tax on corporate profits**

<table>
<thead>
<tr>
<th>Year</th>
<th>% of GDP</th>
</tr>
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<tbody>
<tr>
<td>1995</td>
<td>2.6%</td>
</tr>
<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
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<tr>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

Corporate tax base has remained stable for two decades (If target companies are outside EU then EU countries cannot be losing corporate taxes in pure digital models)

Tax records show that average tax rates are the same (come back to calculation in a minute)

User contributions in a corporate tax perspective difficult! Proposal does not really help us

How to measure value? Time? A click?

The ringfencing approach fails to capture the nature of digital economy

Proposed tax base has no link to risk taking activity which is the essence of a corporate tax base
### DST design also creates wide range of distortions

Any attempt to change within narrow DST framework just move around, does not really reduce distortions

1. **Distortion to digital vs non-digital platforms and services**
   - **In scope:** Online intermediary platforms & digital advertisement
   - **Outside scope:** Brick & mortar stores and non-digital consumption (e.g. CDs vs streaming)

2. **Distortion to above vs below the thresholds**
   - **In scope:** Platform above thresholds:
     - More than €750 million worldwide revenue
     - More than €50 million EU digital service revenue
   - **Outside scope:** Platform below thresholds e.g. large platform with limited EU presence

3. **Distortion to third-party vs own sales**
   - **In scope:** Third party sellers using online intermediary platforms to reach customers (often SMEs)
   - **Outside scope:** Own sales by businesses with mixed business models (e.g. online intermediaries)

4. **Distortion to EU exporters vs non-EU competitors for exports via online platform**
   - **In scope:** EU businesses exporting to non-EU buyers via online platforms
   - **Outside scope:** Non-EU user selling similar goods and services to non-EU buyers via the same online platform

5. **Distortion to compliant vs non-compliant businesses**
   - **In scope:** Compliant businesses, e.g. businesses with presence in the EU where enforcement is relatively more feasible
   - **Outside scope:** Non-compliant businesses, e.g. businesses without EU presence and hence difficult to enforce against
Should Germany (EU) compensate for aggressive R&D incentives & patent boxes in (some) other Member States?

The German and French tax systems: the story in a nutshell!

**Effective average tax rate, Germany**

- Statutory CIT rate 30%
- Traditional firm: 9%
- Digital firm no IP box, no strong R&D incentive: 21%
- IP box: 30%
- R&D Incentive: 0%
- Digital firm: 25%

**Effective average tax rate, France**

- Statutory CIT rate 34%
- Traditional firm: 8%
- Digital firm no IP box, no strong R&D incentive: 35%
- IP box: 43%
- R&D Incentive: -8%
- Digital firm: -18%

IP boxes are driving most of the difference in EATR between traditional and digital companies in EU

Average difference between digital and traditional EATR in EU countries without IP-box: 8%

Average difference between digital and traditional EATR in EU countries with IP-box: 18%

**Four lessons:**

I: In the absence of specific incentives, debt bias punishes digital (and pharma) in Germany

II: If EU is concerned about too aggressive R&D incentives, modify!

III: OECD BEPS and US tax reform helping reduce real abuse

IV: Illogical that Germany should introduce a DST to correct for patent boxes & R&D incentives in some (EU) countries
DST especially non-sensical in Germany

1. German digital businesses already have the highest effective average tax rate according to 2016 study by ZEW / PwC

2. The DST is tax on top of existing corporate taxation – equivalent to a 20% CIT rate for a median digital business

3. Germany has an unreformed corporate tax system with one of the highest statutory CIT rates in the OECD (cuts in US and France)

   US tax reform with lower rate and exemption principle gives incentives to US in-sourcing and choice of low rate EU countries

* For France the 2022 corporate income tax rate is displayed
ARE THE PROPOSED LONG-TERM MEASURES ANY BETTER?

- A FIRST LOOK AT ‘DIGITAL SIGNIFICANT PRESENCE’
Significant digital presence does not really solve profit allocation issue

Very limited impact:

1. Significant digital presence only affects the right to tax – not the amount

2. Transfer pricing rules still apply
   Allocate the taxable profits to the place of value creation
   (user contributions are not part of guidelines)

3. Potentially a significant administrative burden for businesses (and tax administrations)

Illustration: Corporate tax system today in comparison with future with ‘significant digital presence’ implemented

Today

US
R&D, production and sales force
Rest of the world
No physical presence and no taxable nexus

Conclusion: Corporate tax paid in the US. No transfer pricing needed.

Future with significant digital presence

US
R&D, production and sales force
Rest of the world
Significant digital presence and hence taxable nexus

Conclusion: Corporate tax still paid in the US. Transfer pricing rules would allocate all profits to the US
There are many unresolved issues when combining significant digital presence with the CCCTB

What is the Common Consolidated Corporate Tax Base? (2016 proposal)

1. A harmonised set of rules applied to MNEs operating in multiple Member States to calculate the taxable profits (or tax base) (CCTB)

2. An allocation mechanism (Formula Apportionment) for allocating taxable profits to individual Member States:

\[
\text{Share } A = \frac{1}{3} \frac{\text{Sales}_A}{\text{Sales}_{\text{group}}} + \frac{1}{3} \left( \frac{1}{2} \frac{\text{payroll}_A}{\text{payroll}_{\text{group}}} + \frac{1}{2} \frac{\text{No of employees}_A}{\text{No of employees}_{\text{group}}} \right) + \frac{1}{3} \frac{\text{Assets}_A}{\text{Assets}_{\text{group}}} \]

3. The 2016 CCCTB proposals also include a whole bundle of other policies, including: R&D incentives, Allowance for Growth and Investment (AGI) and further transfer pricing measures

Proposed solution: Add ‘user contribution’ term to the formula...

Key issues

1. How to ring-fence digital activity: All actors increasingly using digital tools to interact in the value-chain.
2. What weight to put on user contributions?
3. How to measure value: A click, number of users, input time?

Conclusion

- Many of the issues with DST is essentially not resolved in long-term solution
- User contribution principle: hard to believe in it from a practical or economics perspective
More fundamental concern with the CCCTB + new PE definition: Are we moving away from taxing value creation?

Today:
- According to globally agreed, long-established principles, business profits are allocated to the country where value is created

With CCCTB:
- In contrast, under the CCCTB, business profits would be allocated to the countries where the firm merely has a local presence
- The amount of allocation would be calculated using a fixed formula – by definition not aligned with value creation

Implications:
- Introducing the proposed Formula Apportionment would provide fewer incentives for Member States to increase productivity e.g. by investing public funds to boost research, development and innovation at national level
- Is that what Europe needs?
The inherent challenges with user contributions

1. **User intensity varies greatly across business models**
   - **User participation intensity**
   - **High**
   - **Low**
   - Manufacturing
   - Cloud computing
   - E-commerce (tangible goods)
   - E-commerce (intangible goods)
   - Collaborative consumption
   - Social networks


2. **... furthermore, value creation and user intensity are two completely different things**

   “Just having a large number of loyal customers in a given jurisdiction who receive a firm’s product (either via online channels or conventional shipping) is not enough to justify unfettered source-based taxation”

   Source: Becker & Englisch (2018) Taxing Where Value is Created: What’s “User Involvement” Got to Do With It?

3. **The whole economy is digitising: what, where and who should be taxed?**

   Car manufactures are collecting data to improve their product (e.g. for predictive maintenance or improvements to new generations). Should they start allocating profits to where users are?

   “we do not believe that it is sensible to attempt to “ring-fence” the digital economy as if it were distinct and separate from the rest of the economy”

   Source: Devereux and Vella (2017) Implications of digitalisation for international corporate tax reform

   “Neither the work by the OECD nor related literature provides a definition of “economic activity” or “value creation” as the new mantra of international tax policy. This is particularly critical when considering digital business models. The digital economy is not an exclusive group of multinational IT companies that engage in tax planning. Digitalization rather entails new types of transactions and business models across all sectors”

   Source: Olbert & Spengel (2016) International Taxation in the Digital Economy: Challenge Accepted?

4. **Conclusion:**

   - User contributions don’t seem aligned with taxing corporate profits where the risk taking activity is taking place...
   - ... are users really exposed to any risks?
Policy objectives and tax policy instruments (some reflection)

Globally:

• Tax policies to support growth of knowledge intensive industries: debt bias a key problem
• Transfer pricing:
  i. Defining tax base focusing on risk taking activities in a corporate tax perspective
     i. Risk taking activities rather than depth or stability of customer interaction
  ii. Digital business models with limited local presence not really problem, i.e. DST barking up the wrong tree
• CFC and Minimum tax rates:
  i. CFC meant to ensure that parent companies cannot reduce their domestic tax burden by shifting activities to low tax jurisdictions
  ii. Defining minimum tax rate regimes can be used to determine when to apply CFC
  iii. Less clear minimum tax rates will / should have any role with respect to delivery of services that does not require any local risk bearing presence (transfer pricing versus global levelling playing field)
  iv. No tax revenues are being lost

National tax policies with a German perspective:

• With US and French tax reforms, German is challenged!
  i. Top statutory rate and weak R&D incentives: challenge for knowledge intensive industries
  ii. US reform with lower rate and exemption principle also implies that US firms will have large incentive to shift production to US or alternatively to EU jurisdictions with low rates (Ireland)
  iii. Can Germany avoid a genuine corporate tax reform with much lower effective and statutory rates: growth and profit shifting
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