Comment on LE/PWC Study "Impact of Regulatory Framework on Investment across Europe"

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Brussels
7th May 2007

Comments on LE/PWC Study on Regulatory Quality and Telecoms Investment in the EU (I)

- **Dubious selection of firms** included in the various national (sub)samples (e.g.: Why does the German sample include *EnviaTel* and exclude players with significant infrastructure investment such as *Hansenet*, *QSC*, or *COLT*)
- **Deficient criterion variable** (gross investment in tangible assets in years 2001 to 2004)
  - Exclusion of intangibles
  - Neglect of impact of technological advances on investment levels (e.g. lower investment levels could reflect increased investment/ technological efficiency rather than bad sector regulation)
  - Neglect of previous investment levels not covered in the study's time window
- **Deficient measurement of independent regulatory variables** (i.e. OECD and ECTA regulatory indices)
  - Regulatory measures are much too broad/vague to capture anything of relevance to investment decisions at the business unit level of analysis
  - "In developing any regulatory index, inevitably a range of simplifying assumptions need to be made and it is hard both to develop a clear and objective assessment of what the concept of regulatory quality should mean and how it should best be measured. In the case of the ECTA scorecard it should be borne in mind that the underlying data is based on the opinions of ECTA members" (LE/PWC 2006: 87)
- **Inadequate firm or country level of analysis**
  - Investment decisions of firms are made mainly at the individual **business unit level**, therefore any analysis purporting to capture interrelations between regulatory performance and telecom investment must use regulatory measures which focus on the specific telecom submarket (e.g., mobile voice, fixed IPTV) for which investment decisions are to be made
  - Study discusses correlation findings concerning investments and regulation on the overall firm level of analysis or at the country level without measuring BU related regulatory quality (LE/PWC 2006: 43, 45, 49, 83-86)

Comments on LE/PWC Study on Regulatory Quality and Telecoms Investment in the EU (II)

- **Fragmentary transparency and completeness of reports of statistical findings**
  - Lack of reporting of correlation coefficients in key graphs (LE/PWC 2006: 43, 45, 71, 83-86)
  - Lack of reporting of statistical significance levels of correlation coefficients in key graphs (LE/PWC 2006: 43, 45, 71, 83-86)
- **Overstated conclusions from a weak data set and study design**
  - Main conclusion: “Overall, we conclude … that a better performing regulatory regime, as measured by the OECD index, **does contribute** to higher levels of investment. Use of an alternative regulatory index, the ECTA index, suggests a similar contribution to investment levels” (LE/PWC 2006: 50)
  - Wording of main conclusion creates **impression of causality** for which no evidence is provided (given the cross-sectional nature of the correlation analyses)
  - Conclusion is not supported by LE/PWC(2006: 49) regression of firm level investment on various country-, market- and firm-specific variables in which the **regulatory performance measure** (I.e., log of OECD index) **fails to achieve conventional levels of statistical significance** (I.p., $p \geq 0{,}13$) and in which four other predictors appear to display much higher explanatory power
  - Pertinent **regression using the ECTA index is not shown** in the study