



Digital Economy Legal Updates

Co-investment in Digital Infrastructure

13 December 2019



- Welcome and Meet the Presenters
- Co-Investment Models: Financial Markets Perspective
- Co-investment: Economics and Regulation
- EU Regulatory and Competition Law Considerations
- Questions and Discussion

Presenters



Francesco Liberatore

francesco.liberatore@squirepb.com

+44 207 655 1505

SQUIRE
PATTON BOGGS



Mark Williams

mark.williams@thinkbrg.com

+44 (0)20 3514 7021

BRG
Berkeley Research Group



Luigi Minerva

luigi.minerva@hsbcib.com

+44 20 7991 6928

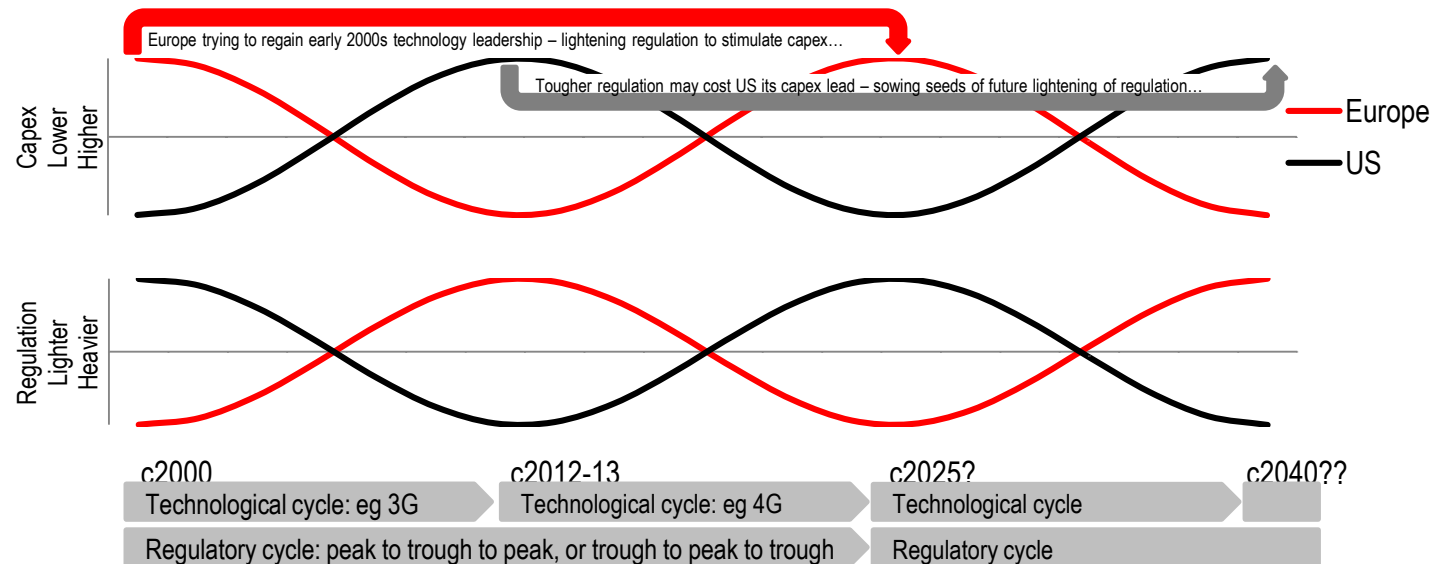
HSBC

Co-Investment Models: Financial Markets Perspective

Luigi Minerva



Co-Investment within European Telecoms



Source: HSBC

- European regulatory cycle: pro-consumer to pro-investment
- Turning point: Non discrimination and cost methodology (Sept'13)
- EECC gives more prominence to co-investment

Co-Investment within European Telecoms

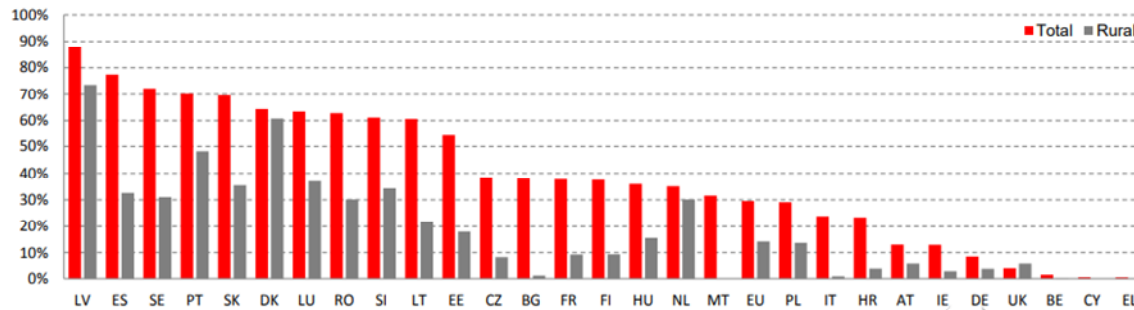
- Competition: wholesale-based vs infrastructure-based
 - Wholesale-based: recurrent unit cost to access infrastructure
 - Infrastructure-based: “sunk costs”
- Co-investment in fixed-line:
 - (-) larger operator shares scale advantage, but
 - (+) avoids sunk costs, (+) instils capital discipline, (+) reduces product commoditization
- Co-investment/network sharing in mobile:
 - 5G auctions prompt acceleration in agreements
 - Network densification / small cells make 3-4 deployments inefficient
 - Network sharing still an inferior outcome than in-market mobile consolidation

Co-investment – Economics and Regulation

Mark Williams

FTTP/VHC remains a very high policy priority across Europe

Fibre to the Premises (FTTP) coverage, mid 2018



Source: IHS and Point Topic

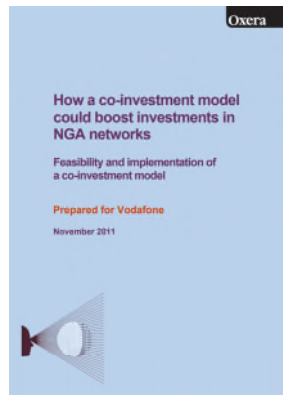
DESI Report 2019 – Connectivity

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Co-investment: not a new policy idea

Interest by operators and investors of fibre access networks prompted extensive debate about how to avoid replicating the situation in copper in which a single operator owned the vast majority of the infrastructure with regulation focusing on wholesale access.



2011



2012

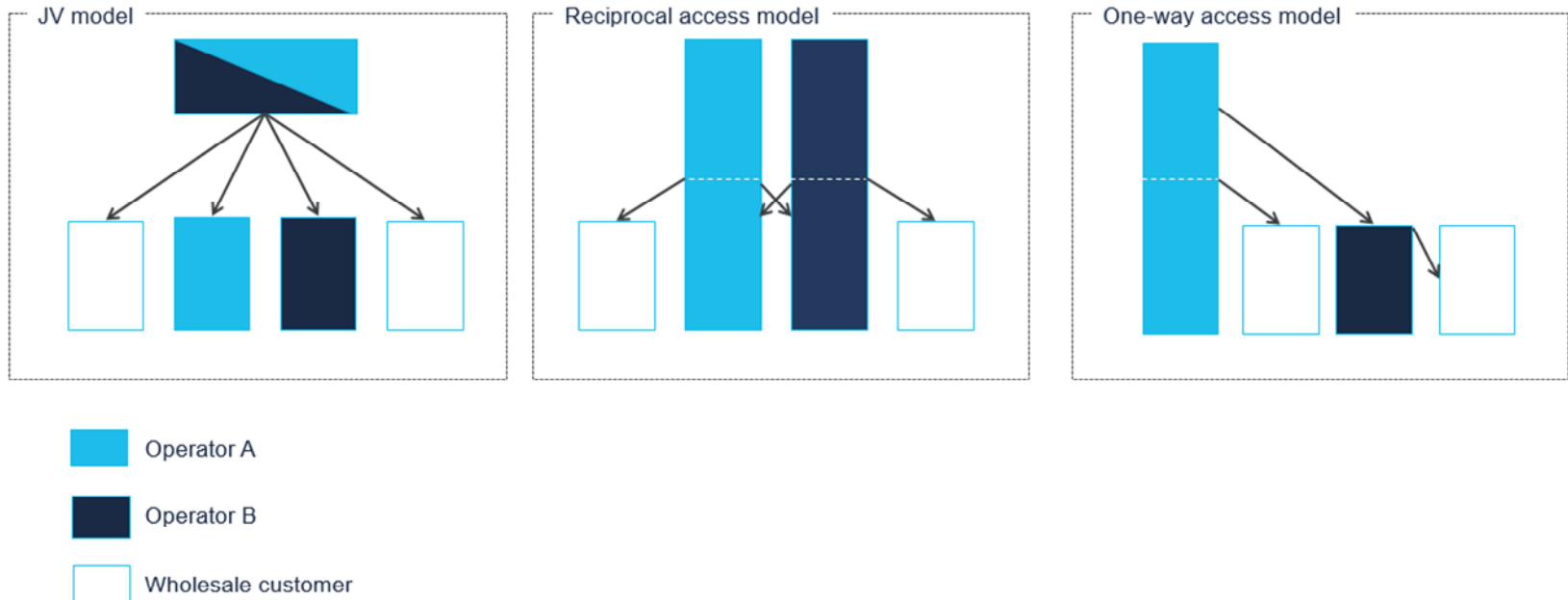


2017



2018

In practice, there are several different models of co-investment



Gained traction around with some significant projects across Europe

- **Joint-venture**
 - Telecom Italia-Fastweb (2016)
 - Vodafone Ireland-ESB (2014)
 - Vodafone UK - O2 UK (Cornerstone - 50:50 jointly owned company that owns and manages passive tower infrastructure)
- **Reciprocal access**
 - Jazztel-Telefónica (2012)
 - Vodafone Spain-Orange (2013)
 - Portugal Telecom-Vodafone Portugal (2014)
- **One-way access**
 - France: mutualisation approach used between the “building operator”. and operators who wish to use the access (2010)

Co-investment and the BT settlement

Ofcom, July 2017

We will measure how the new model delivers for people and businesses

1.15 We expect Openreach to be responsive to different commercial models of investment proposed by its customers, including co-investment and risk sharing.

Industry outcomes and metrics

4.17.1 Network investment: Openreach working effectively with customers to establish new commercial models and relationships to support continued investment and quality, including approaches such as co-investment and risk sharing where appropriate.

Ofcom CEO's "Key Test" for Openreach is a Fibre Co-Investment Deal with Rival

Tuesday, October 17th, 2017 (11:36 am) - Score 2,906

Email | Link News

39 Comments



The Chief Executive of the UK telecoms regulator, Sharon White, has told a cross-party committee of MPs that a "key test" of [Ofcom's](#) new regulatory approach to [BT](#) will be whether or not [Openreach](#) can "do a co-investment deal with another operator" following their "full fibre" broadband consultation.

Earlier this year [Ofcom](#) reached a voluntary agreement with [BT](#) ([here](#)), which among other changes brought about the "legal separation" of [Openreach](#) from the telecoms giant and the establishment of a

Multiple FTTP joint ventures in the UK



January 2018

- £40 million pounds network investment in Milton Keynes,
- Phase 1 of plan to roll out in 12 cities, 1 million premises
- Fast broadband marketed by Vodafone
- Vodafone exclusivity for defined period

Sky in talks with Virgin Media as FTTP ventures attract investors

By Steve McCaskill September 02, 2019 Networking

Sky reportedly to invest in FTTP infrastructure



September 2019

- Sky in talks with Liberty Global to develop FTTP network
- Virgin Media would also participate in the investment

Commercial perspectives on co-investment

- Only of interest for FTTP network investment. Once this has been made, unlikely to be further interest in joint ventures for new build (although could be interest in ex-post network sharing/consolidation).
- Very high fixed cost of network investment and uncertain revenue (take-up and price) means that horizontal joint ventures are attractive because of significantly reduced capex (replacing some capex with opex).
- Vertical joint-ventures can significantly reduce risk for network builder.
- Co-investment affects competition between joint-venture partners in different ways.

Regulatory perspectives on co-investment

- Regulators generally supportive of co-investment.
- Efforts to encourage it through regulatory incentives and structural measures.
- Scrutiny of specific co-investment deals by competition regulators.
- Limited guidance for operators on how deals should be structured and how they will be treated by regulators.
- ECC Article 74, Annex IV
- BT Settlement with regards to Openreach

EU Regulatory and Competition Law Considerations

Francesco Liberatore



EU Electronic Communications Code

Network sharing is encouraged to promote efficient investment in infrastructure and innovation, as well as to lower the environmental cost of deploying electronic communications infrastructure and serve public health, public security and meet town and country planning objectives (see Recitals 105 and 124)

Competent authorities may impose network sharing to:

☐ (See Articles 44, 47, and 61(4))

☐ Promote effective and efficient use of the spectrum

☐ Promote coverage

☐ Promote the rapid deployment of networks

☐ Promote effective competition or

☐ Protect the environment, public health, public security or to meet town- and country- planning objectives.

National regulatory authorities may refrain from imposing access regulation on co-investments in very high capacity networks.

☐ (See Article 74)

☐ Co-investment in this context includes co-ownership, long-term risk sharing, co-financing and purchase agreements giving rise to specific rights of a “structural character”.

☐ The conditions for the rolling back of network access regulation for co-investment are that:

☐ the co-investment offer is fair, reasonable and non-discriminatory;

☐ it is open to any co-investor for the lifetime of the network; and

☐ provides for access for non-co-investors to legacy capacity and, over time, to more advanced capabilities of the network.

BEREC Common Position

Guidance on co-investment is work in progress.

The parameters for NRAs to consider when assessing network sharing:



EU Competition Law



Cooperation between non-competitors

- Vertical Agreements Guidelines



Cooperation between competitors

- Horizontal Agreements Guidelines



Full-function Joint Venture

- Horizontal Mergers Guidelines

Market definition

Counterfactual

EC Horizontal Cooperation Guidelines

Three/O2, para. 1229 :

“network sharing can have pro-competitive effects by achieving cost synergies in the deployment and operation of mobile networks which in turn can enable MNOs to achieve better coverage and higher network quality, promoting effective competition and thereby benefiting consumers and society as a whole.”

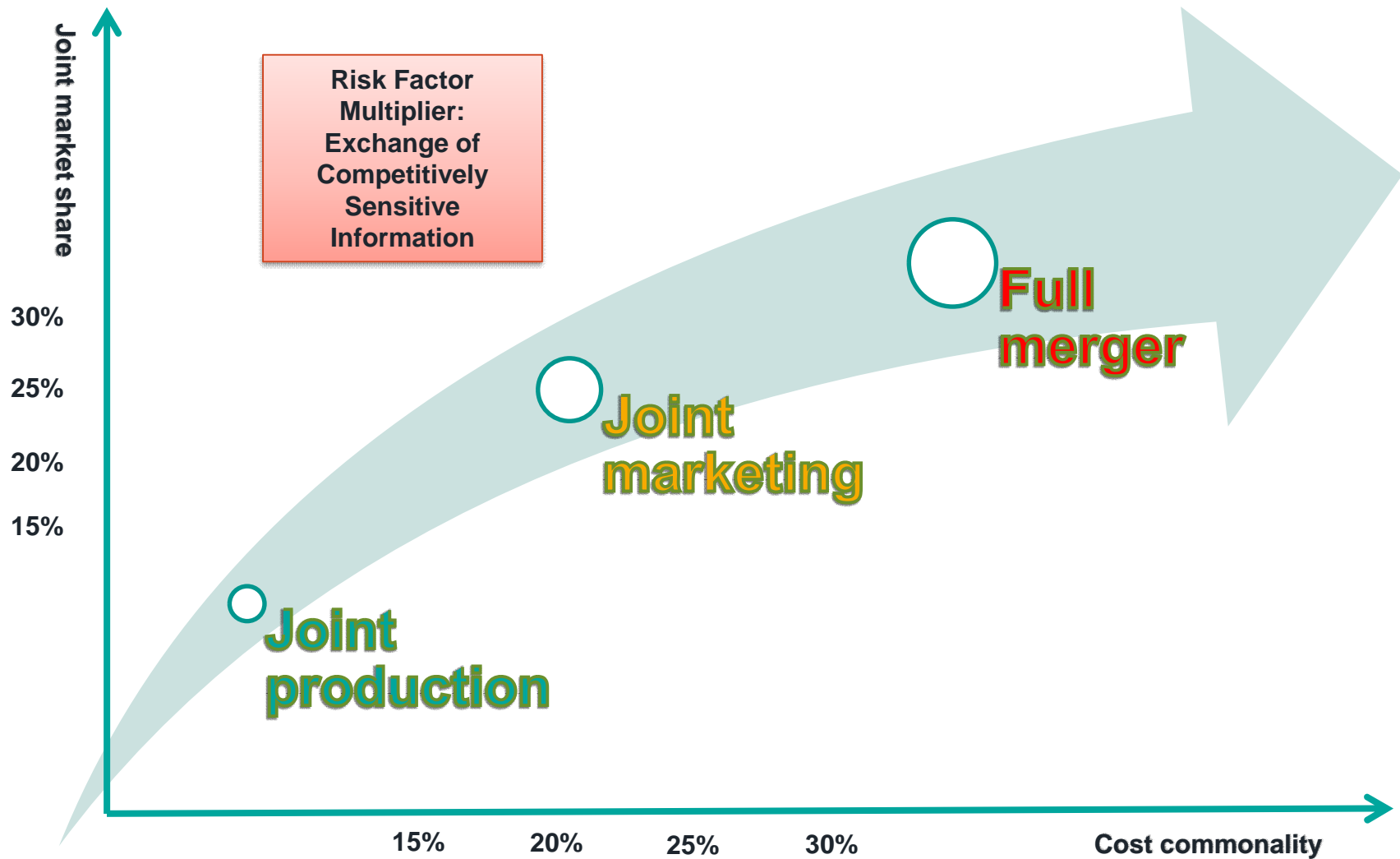
Potential effects based Theories of Harm

- Reduction of infrastructure competition and innovation
- Foreclosure of competitors
- Exchange of commercially sensitive information

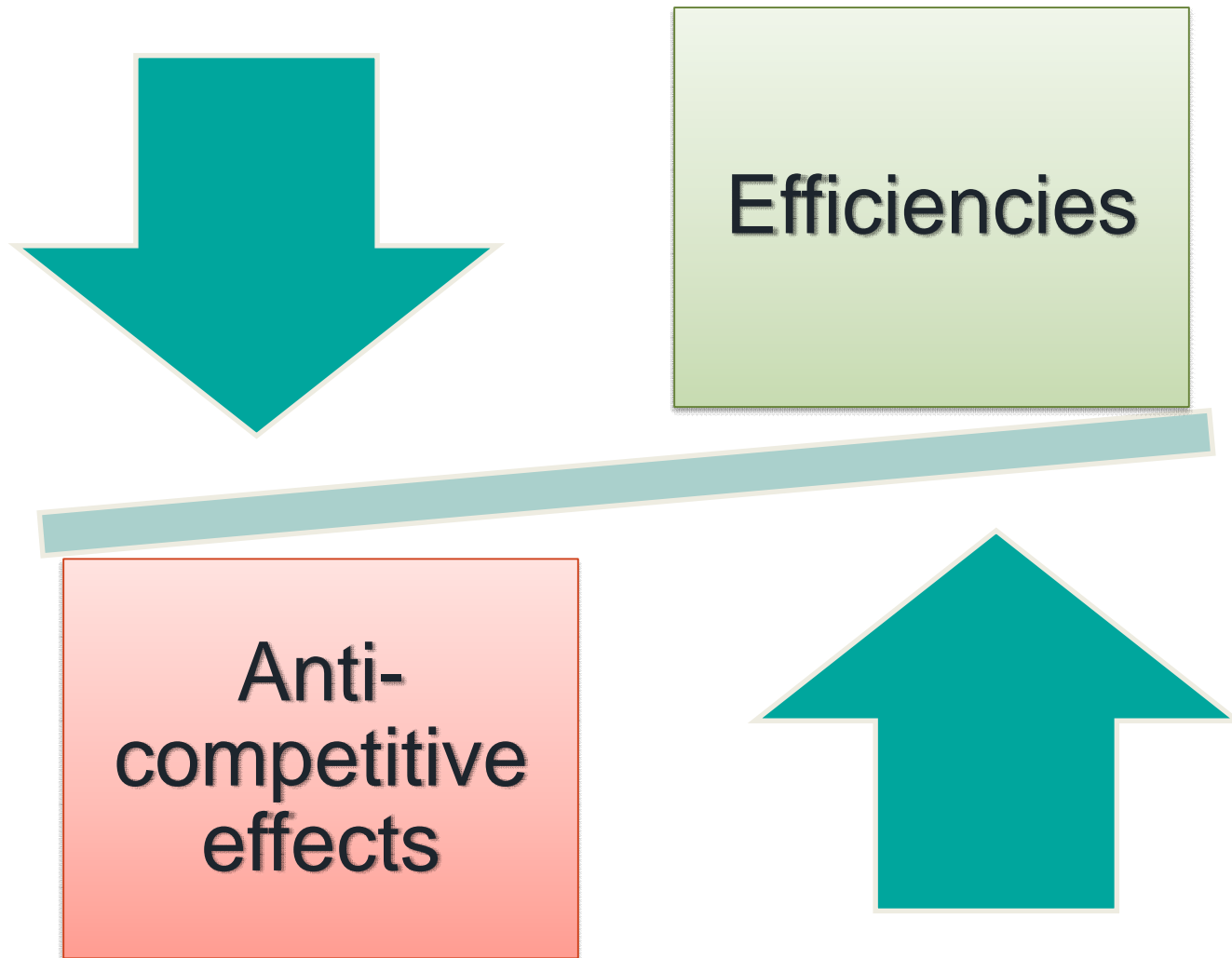
Criteria to assess restrictive effects

- General criteria as characteristics of the market, eg. concentration of market
- Specific criteria considering actual agreement, eg. commonality of costs

Risk Assessment

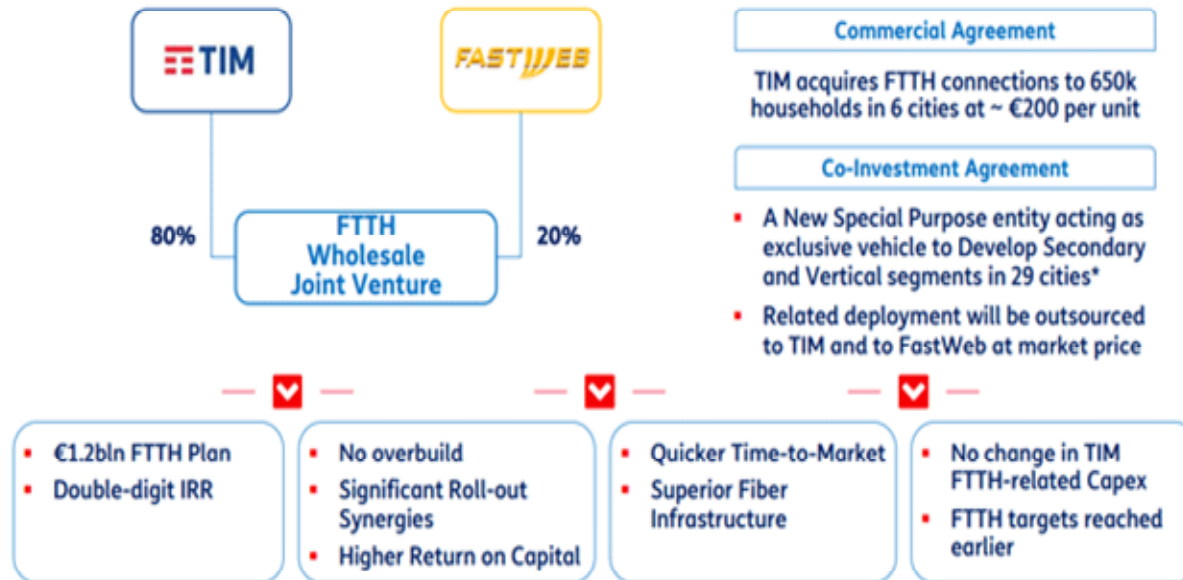


Balancing Act



Co-investment Case Study: Italy

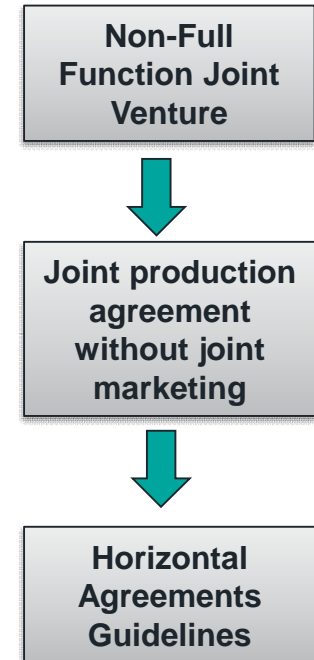
FTTH: a «Faster and Deeper» Combination



*Excluding Milan and areas already covered by TIM and FastWeb with FTTH

Telecom Italia Group Results - 2Q'16
Flavia Cottareo

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Co-investment Case Study: Italy (cont.)

Market shares

- Wholesale level
 - TI: 96% (volume) and 87% (value)
 - Others: 4% (volume) and 10% (value)
 - Fastweb: credible alternative through FTTC and sub-loop unbundling

High market shares

Competition concerns

- Direct limitation of competition between the parties
- Coordination
- Input foreclosure
 - Exclusivity, long duration
 - IRU (30 years) on Fastweb's network and exclusive access to TI's ducts
- Spill-over effects
 - Price coordination at retail level
 - Reduction of competition on quality

High proportion of
variable costs in
common

Co-investment Case study: Italy (cont.)





Remedies Package mirrors EU Electronic Communications Code conditions for co-investment

- **Remedy 1:** Deployment milestones and monitoring trustee
- **Remedy 2:** No reserved capacity for JV parents
- **Remedy 3:** VULA and Bitstream access on non-discriminatory terms, as well as passive infrastructure access on transparent, non-discriminatory, fair and reasonable terms
- **Remedy 4:** Duration of JV limited to 2035
- **Remedy 5:** Limit scope of JV, e.g. to exclude white areas and vectoring outside the 29 cities where there is FTTC
- **Remedy 6:** Competitively sensitive information exchange safeguards

Network Sharing

(96) Figure 12 below provides an overview of the different forms of network sharing.

Figure 12: Extent of sharing under different forms of network sharing

	No sharing	Passive sharing	Active sharing	Spectrum sharing / roaming	Full network sharing (JV/merger)
 Mobile site					
 Base station					
 Frequency band					
 Core network					

Source: Commission's decision of 28 May 2014 in case M.6992 – Hutchison 3G UK/Telefónica Ireland, Figure 8

Network Sharing Cases

O2 UK / T-Mobile Germany 3G Network Sharing

- UK and Germany
- Passive sharing and roaming

MBNL and Orange/T-Mobile JV (Everything Everywhere)

- UK
- Commitment to support MBNL for Three

CTIL and Vodafone Limited / O2 UK JV

- UK
- Passive sharing

Telia and Telenor

- Denmark
- Passive and frequencies sharing

Three / Eircom Network Sharing and Three / Telefonica Ireland Merger

- Ireland
- Commitment to support network sharing with Eircom

Vodafone / Wind

- Greece
- Active sharing

SFR / Bouygues

- France
- Active sharing

Telia / DAN

- Finland
- Active sharing

Two cases pending:

- O2 CZ, CETIN and T-Mobile CZ (active sharing)
- Vodafone / Telecom Italia (Inwit) (full function JV?)

Network Sharing Case Study: Czech Republic

Press release:

- “Network sharing is a widespread practice that
 - can **facilitate the roll out** of electronic communications networks **by reducing costs**.
 - network sharing is a **source of efficiencies**.”
- “However, in some circumstances it may have a negative impact ... in the present case ... :
 - the Czech mobile communications market is highly concentrated with **only three MNOs**
 - the sharing parties O2 CZ/CETIN and T-Mobile CZ are the **two largest operators**”
 - The network sharing “covers **all mobile technologies** (i.e. 2G, 3G and 4G) and the entire territory of Czechia with the exception of Prague and Brno, thus amounting to **around 85% population**.”
- “The Commission holds the view ... network sharing agreement is **likely to remove the incentives** for the two mobile operators to improve their networks and services to the benefit of users.”
- “...is without any prejudice to any future assessment of network agreements involving emerging technologies such as **5G, which may have very different characteristics**.”

When is active network sharing anticompetitive ? Is the assessment similar to BEREC Common Position ?

Network Sharing Case Study: Italy

EC Consolidated Jurisdictional Notice, para. 98:

- “Where sales from the joint venture to the parent companies are intended to be made on a lasting basis, the essential question is whether, regardless of these sales, the joint venture is geared to play an active role on the market and can be considered economically autonomous from an operational viewpoint. In this respect **the relative proportion of sales made to its parents compared with the total production of the joint venture is an important factor.** [...] If the joint venture achieves more than 50 % of its turnover with third parties, this will typically be an indication of full-functionality. Below this indicative threshold, a case-by-case analysis is required, whereby, for the finding of operational autonomy, the relationship between the joint venture and its parents must be truly commercial in character. [...] If the joint venture will treat its parent companies in the same commercial way as third parties, it may be sufficient that at least 20% of the joint venture's predicted sales will go to third parties. However, the greater the proportion of sales likely to be made to the parents, the greater will be the need for clear evidence of the commercial character of the relationship.”

Three / Wind, para. 113:

- “INWIT is the largest operator by number of sites and it is also the operator with the highest tenancy ratio, which corresponds to the number of tenants per site. In 55% of its sites, INWIT hosts at least another MNO other than TIM. TIM is INWIT's main customer accounting for approximately 80% of INWIT's sales. The other customers of INWIT are the other MNOs: Vodafone, WIND and H3G.”

When is network sharing a full-function JV, subject to merger control assessment?

Conclusion

Incentive for co-investment and network sharing under sector-specific regulation must be reconciled with the need to comply with competition law



Competition law assessment is needed from the outset and at regular intervals



Full function joint venture may provide more legal certainty, but has timing implications and regulatory cost of merger control filing



European Parliament recommends on 5G to “*Promote infrastructure sharing for 5G: Policy for 5G networks should be based on encouraging infrastructure sharing*”

Questions & Discussion

