

Network tower sharing analysis in Greece: A Structure – Conduct – Performance approach

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Network tower sharing analysis in Greece

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- Acknowledgements
- Tribute

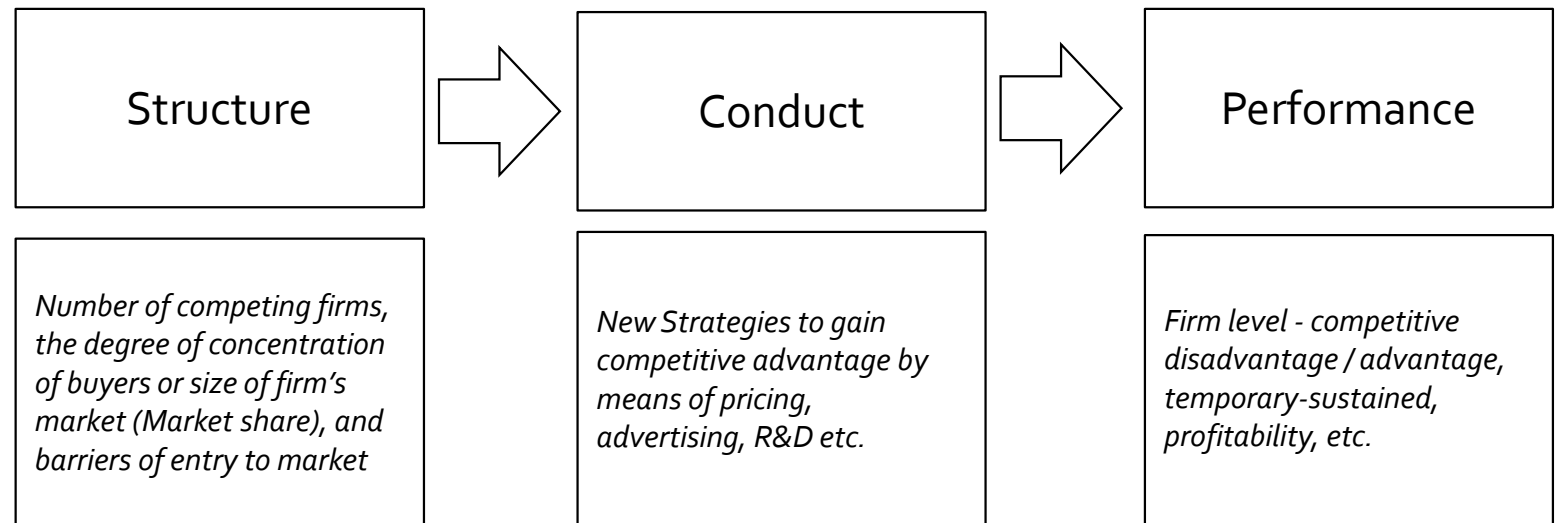
Network tower sharing analysis in Greece

OUTLINE

- Methodology
- Analysis
- Literature Review
- Conclusions & future research

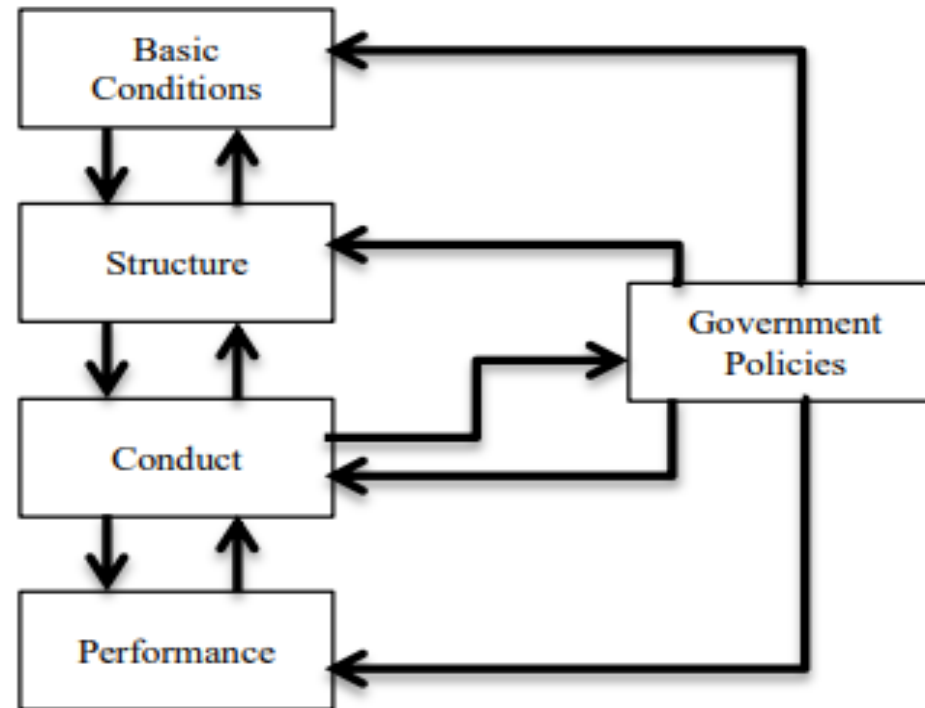
Methodology - The SCP paradigm

- The original SCP model provides a one-way relationship
- market structure determines firms' conducts which in turn affect the performance of the industry



Methodology - The extended SCP model

The Structure – Conduct – Performance (SCP) paradigm (Carlton and Perloff, 2000)



Carlton, D.W. and Perloff, J.M. (2000), Modern Industrial Organization, Reading MA: Addison., Addison-Wesley

Analysis - Basic Conditions and Structure of the Greek Mobile Market

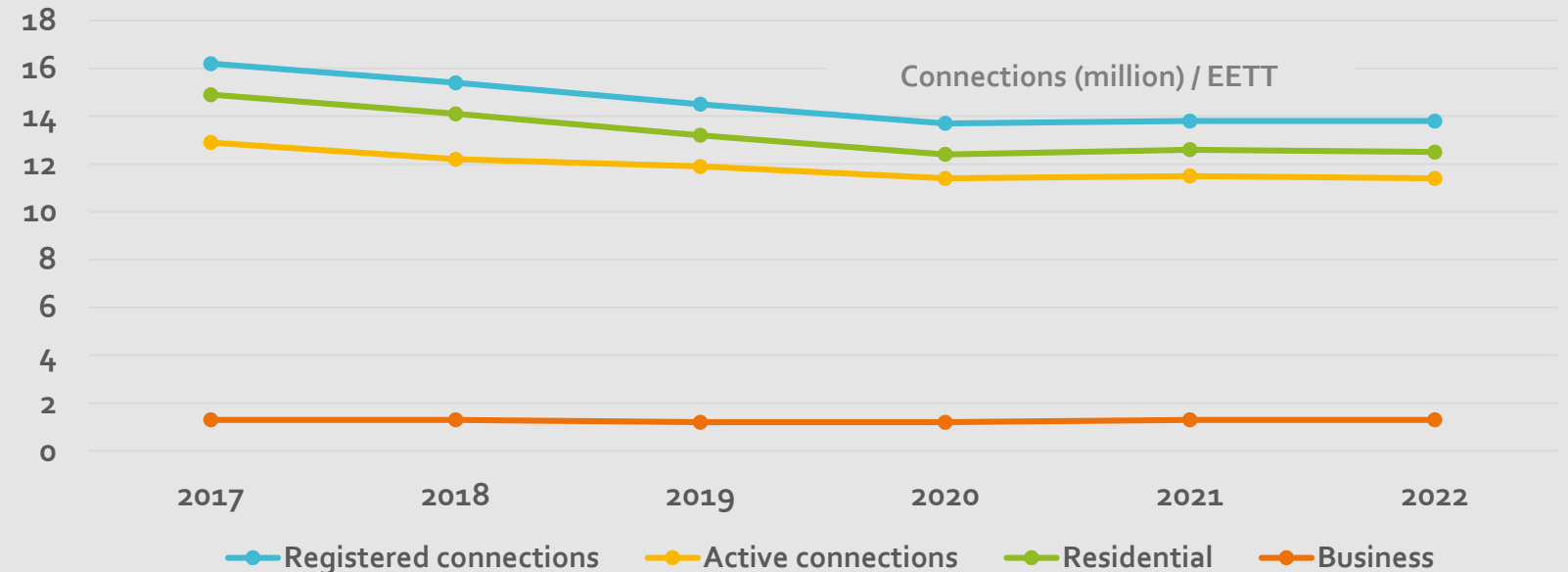
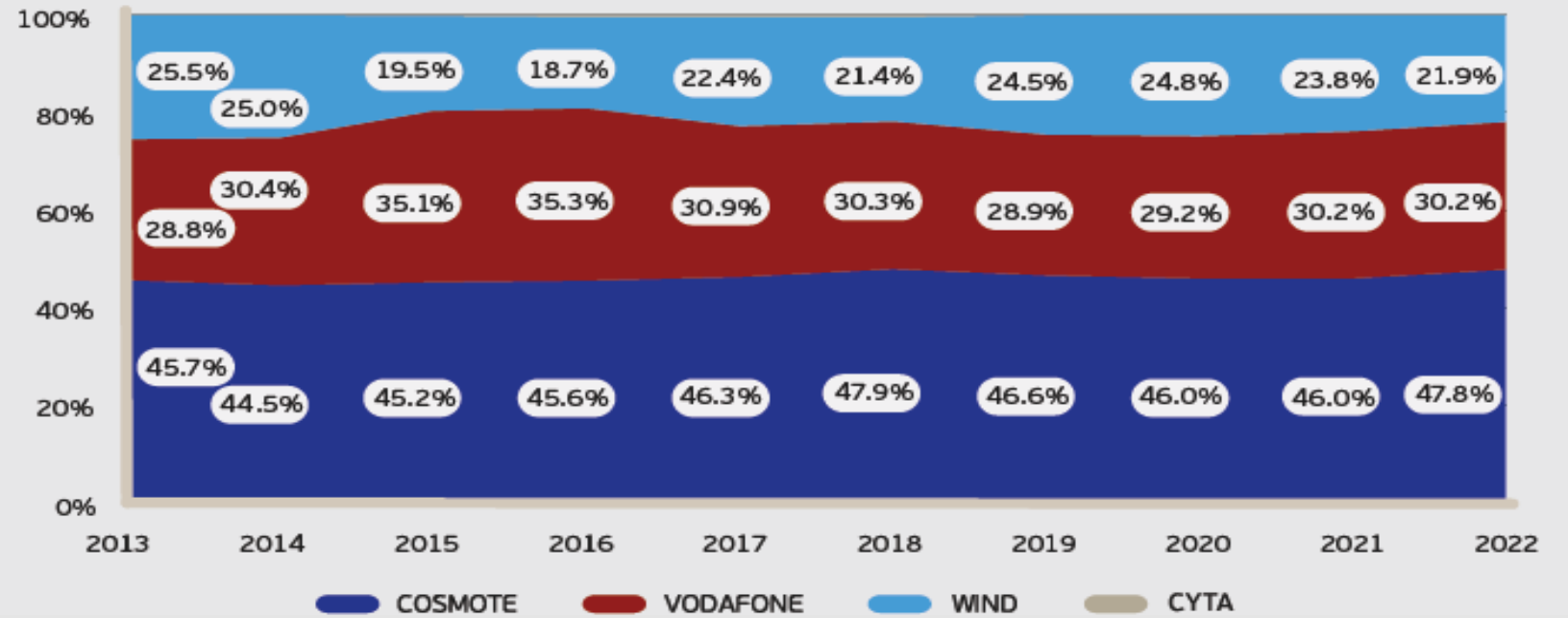
Basic Conditions - changes over the last 30 yrs



- **1992 - Mobile Telephony started**
- **2010-2018 economic crisis**
- **COVID-19 pandemic crisis** (decrease sector's turnover to 4.8 billion (fall by 3.4%) in 2020)

Analysis - Basic Conditions and Structure of the Greek Mobile Market

MNOs market shares based on registered connections / EETT



Analysis -
Government
Policies ◆
vs.
Market ◆
Conduct

2011



- Law 3959/2011 on the Protection of Free Competition (articles 5-10)
- 900 MHz and 1800 MHz licenses - **commercial negotiation of collocation and sharing of passive infrastructure between operators** - no strict rules

2012



- Law 4070/2012 (article 29 par. 3) on the Organization and Operation of Electronic Communications Sector – **imposing the sharing of masts and antennae for environmental reasons**

2013



- **an agreement** between VODAFONE and WIND **come to EETT for approval on 26 June 2013** for network infrastructure sharing (2G/3G)

10 March 2014



- Victus Networks starts operations (joint venture)

2015



- EETT's Decision 750/7/19-2-2015 on the Regulation of co-location and joint use facilities - **mandatory provisions for any type of agreement**

Analysis - Government Policies ◆ vs. Market ◆ Conduct

2018

- ◆◆ • **Public consultation** conducted by EETT for the amendment and codification of the Co-location Regulation (Decision 750/7/19.2.15), in accordance with the provisions of Law 4463/2017

3 Sep. 2020

- ◆ • Notification to EETT | sole control of WE towers passed to VF → Vantage Towers (62% owned by VF)-> 62% passed to Vantage Towers (an independent Tower Co holding VF's EU tower operations)

2021

- ◆ • EETT unconditional **clearance Decision** (EETT's Decision 967/1/12-2-2021)

2022

- ◆◆ • **Public consultation** conducted by EETT, in accordance with the provisions of Law 4727/2020 (Decision 1056/3/28.11.2022)

2023

- ◆ • EETT's Decision 1081/2/29-9-2023 on the **Regulation for the co-location and joint use of facilities** (articles 134 and 152 of Law 4727/2020) – *final*

Overview of benefits from sharing

Benefits arisen from the sharing of Sites (**co-location**) and Masts:

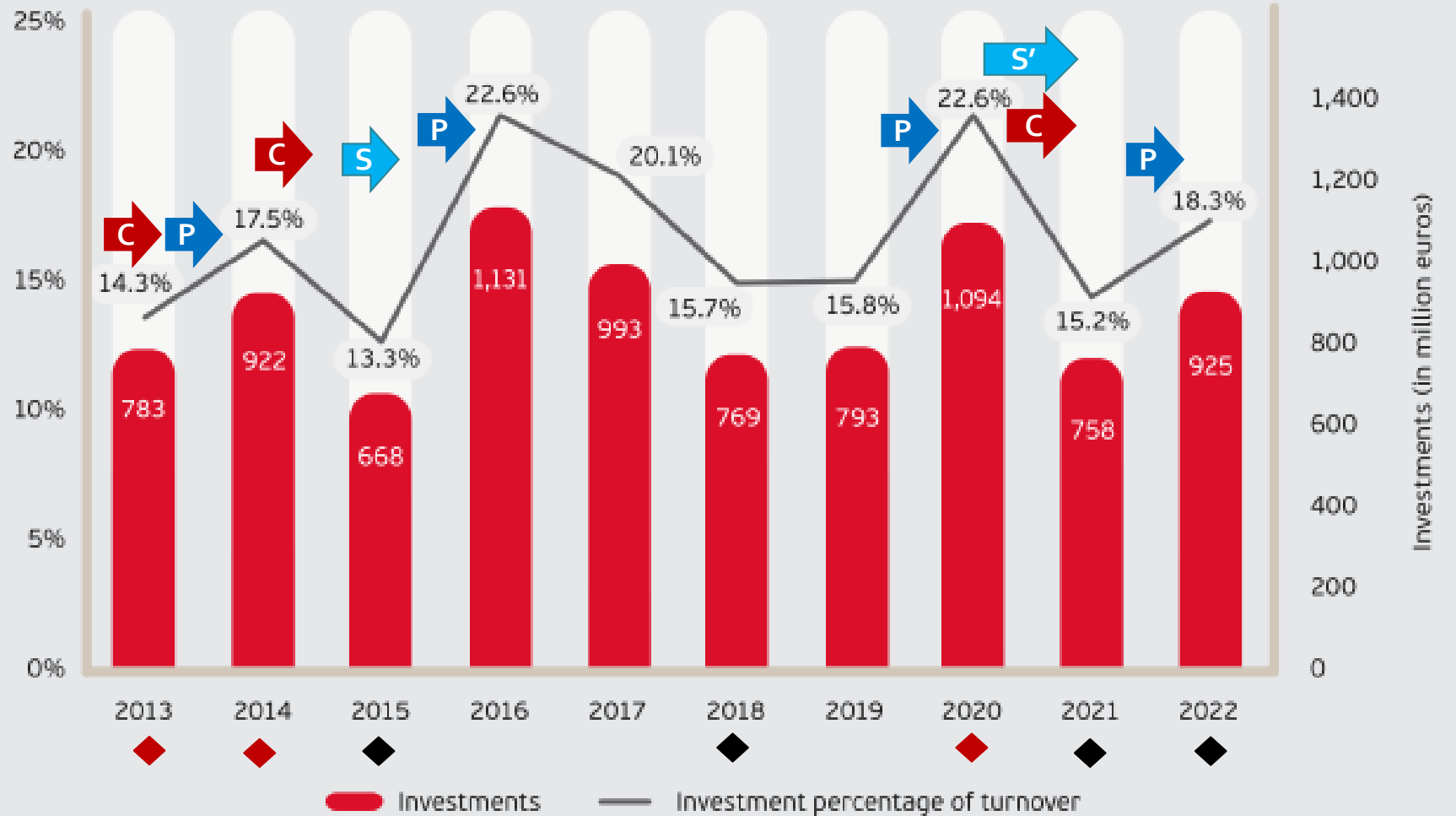
- **Reduction of site-acquisition times and build-completion times** (increasing likelihood of obtaining planning permission for new sites)
- **Access to locations of strategic importance**, particularly in special spaces that access to new sites is limited (i.e. **urban areas**)
- **Reduction of OPEX (site lease) and CAPEX (site build)**
- **Expand into previously unprofitable areas** by reducing CAPEX and OPEX requirements (i.e. rural areas).
- **Reduction of environmental and visual impact**
- **Reduction of complexity and length of governmental approvals** when new sites were built

Analysis - Market re-structure (2)

Operator	Share of Macro and Micro Sites <u>Before</u> Market Restructuring	Share of Macro and Micro Sites <u>After</u> Market Restructuring
COSMOTE	35% - 45%	35% - 45%
VODAFONE	15% - 25%	0% - 5%
WIND	15% - 25%	0% - 5%
TowerCo	-	35% - 45%
FORTHNET	0% - 5%	0% - 5%
RURAL CONNECT	0% - 5%	0% - 5%
DIGEA	0% - 5%	0% - 5%
OTHER	5% - 15%	5% - 15%

How does the Re-structure of the market affect Performance?

Analysis- Market Performance



Source: EETT (based on data provided by the active licensed operators)

Market Structure **S**

Market Conduct **C**

Market Performance **P**

Policy Recommendations

*Draghi et al (Sept. 2024), The
Future of European
Competitiveness - In-depth
analysis and recommendations*

Recommendations:

- Upgrade EU digital infrastructure as part of the Digital Decade
- 750-800 billion in additional investment will be required each year

Especially for Telecoms, it should be encouraged/increased:

- **infrastructure cost-sharing**
- **cross-border mergers and operations so as to increase investments in telecom infrastructures**
- **weight of innovation and investment commitments in the EU's rules for clearing mergers** (plus efficiencies in the form of improved quality)
- **reduction of country-level ex ante regulation**, which disincentivizes investments and risk-taking
- **favour rather ex post competition enforcement** in cases of abuse of dominant position or other anticompetitive conducts
- **Strengthen the legal means to intervene ex post**, i.e. enable fast enforcement of ex post remedial measures.

Literature Review

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Conclusions & Future Research

- ✓ The extended version of SCP model seems effective, as a methodological tool applied in the Greek telecommunications market (infrastructure sharing sub-sector)

Next steps

- Identify critical variables/Verify the existence of data
- Proceed to a quantitative analysis of SCP paradigm, employing statistical modeling - econometrics.



Thank you for your attention!

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Analysis - Market Conduct



10 March 2014 - *Victus Networks starts operations - 1st stage*

- manage RAN of parent Cos - implement a partial active RAN sharing for 2G and 3G technologies
- ✓ both VF and WIND, had the opportunity to invest in new geographical areas and new technologies
- ✓ Extra cost for operating the new company was covered by benefits arising from the joint control of the assets, alongside with transfer prices paid for their usage (in Victus case)

3 Sep. 2020 - *Vantage Towers is arising - 2nd stage*

- Notification to EETT | sole control of WE towers passed to VF → Vantage Towers (62% owned by VF)-> 62% passed to Vantage Towers (an independent Tower Co holding VF's EU tower operations)