## **Curriculum Vitae**



# Dante Quaglione BERKELEY RESEARCH GROUP 8 Salisbury Square | London EC4Y 8AP

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#### **SUMMARY**

Dr. Dante Quaglione holds a PhD in economics and has worked as an economist and strategist for over twenty-five years, primarily as a senior expert with leading global economic consultancies.

He has advised clients in the European Union, Africa, the Americas, Asia, and the Middle East. His expertise spans the entire realm of applied economics, including:

- Private antitrust litigation (e.g., card schemes, heavy duty detergents, Forex manipulation)
- Innovation economics, novel market failures (i.e., coordination failures and time-inconsistent policies), and dynamic efficiency (including FRAND policy, licensing, and litigation)
- Abuse of dominance (predation and margin squeeze in the energy, telecommunications and media, and airport industries, exclusionary practices in big data)
- Public policy (policy design, policy implementation, and policy impact analyses at the industry, ecosystem, and macroeconomic levels)
- Company, license, and concession valuation (in the energy and transport industries)
- Regulatory design and implementation (electricity, gas, telecommunications and media, airports, railways, and motorway industries)
- Labour economics and policy (labour market analysis, jobless growth, labour policies in advanced and emerging economies, including minimum wage policy)

Dr. Quaglione's expertise also extends to business strategy and implementation, with emphasis on complex and uncertain business environments (i.e., modern business ecosystems) prompted by fast-paced innovation, which he addresses through the David Teece's Dynamic Capabilities framework.

Dr. Quaglione leverages advanced modeling capabilities, which he tailors to the client and the specifics of the case, in order to help address complex problems at the intersection of business strategy, ecosystem analysis, and public policy. To this purpose, he has developed a quantitative strategy practice involving the creation and the calibration of partial and general equilibrium models in support of fully informed business and policy decisions. Such models have been used to assess the impact on value creation prompted by different national regulatory authorities' provisions, regulatory strategies, market developments, business scenarios, technology choices, and cross-border transactions. His current research interests focus on FRAND policy, innovation-related market failures, and class certification.

Dr. Quaglione has extensive experience in giving evidence, having been appointed as a testifying expert before regulatory, civil, and criminal courts. He has been also involved in proceedings adopting a concurrent evidence format (colloquially known as "hot tubbing"). As an instructor, Dr. Quaglione has taught many economics courses (e.g., microeconomics, macroeconomics, economic policy, industrial organization, money and banking, development

economics) for over a decade at New York University, the University of Rome "Tor Vergata," and the



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#### **EDUCATION**

New York University PhD, Economics, 2001 MA, Economics, 1998

Libera Università Internazionale degli Studi Sociali (LUISS), Rome Laurea, *Magna con Laude*, Business and Economics, 1991

#### PRESENT EMPLOYMENT

2011-present Managing Director, Berkeley Research Group, LLC, London

#### **PREVIOUS POSITIONS**

2002–2011	Associate Director (previously Consultant, then Senior Consultant), NERA
	Economic Consulting, Rome.
2000-2002	Consultant and Strategist, Bain&Co., Rome and Milan offices
1997-2000	Instructor, Microeconomics, Macroeconomics, Economic Development, New
	York University, New York.
1998	Instructor, Economics and Banking, Stern School of Business, New York.
1991–1996	Instructor and researcher, LUISS University and University of Rome

#### **SELECTED PROJECTS**

#### Projects in Competition Economics and Litigation

 For an international company in the consumer products industry, economic support related to ongoing private antitrust litigation, including quantification of harm and pass-on analysis as designated expert in proceedings in English courts.



- For a large UK-based international retailer, quantification of harm due to competition policy infringement against a major card scheme, as designated expert in cases before The UK High Court and Competition Appeal Tribunal.
- For a leading competitor in the market of mobile handsets, competition economic analyses for several expert reports on various alleged antitrust infringement within a multinational FRAND patent dispute.
- For a leading competitor in the market of mobile handsets, quantification of follow-on damages relating to several alleged antitrust infringements, including patent hold-up and patent ambush, FRAND licensing terms, royalties base and rate setting, SEPs disclosure and Injunction relief.
- o For a leading mobile broadband technology developer, series of competition economics papers alleged infringements in relation to SSO standards setting and IP policy, IPR policy and the purpose of the FRAND commitment, cross-licensing and patent pools, royalty stacking, nature of FRAND practices and implications for stakeholders, patent thickets, constant numerical proportionality, Incremental Value Test, SEPs' inherent value, and ex-ante auction to value SEPs.
- o For a European leading association of pharmaceutical industries, competition analysis and potential room for damages due to anticompetitive pricing of drugs.
- For a Greek mobile operator, predation analysis applied to a set of mobile retail offers launched by the largest mobile operator in Greece, bundling together voice and data services and preliminary assessment of follow-on damages.
- For an Italian vertically integrated network operator, margin squeeze test /replicability analysis applied to retail offers bundling together fixed voice and data services (including, where applicable, commercial promotions).
- For an Italian vertically integrated network operator, margin squeeze test/replicability analysis of a set of stand-alone fixed voice and broadband retail offers published by the incumbent operator in the years 2005 to 2008.
- For an Italian vertically integrated network operator, predation analysis of a set of stand-alone mobile voice and SMS offers published by Telecom Italia in the years 2005 to 2008.
- o For an Italian vertically integrated network operator, predation analysis of a set of bundled mobile voice and data offers published by the incumbent operator in the years 2005 to 2008.
- o For an Italian vertically integrated network operator, assistance in presenting the results of the replicability and predation analyses to the relevant Italian authorities.
- For an Italian vertically integrated network operator, creation of a bottom up LRIC models to calculate EEO and REO efficient price floors and ceilings of their fixed retail offers for competition analysis.
- For an Italian vertically integrated network operator, comparative cost efficiency study on the provision of access services to the fixed network and identification of the EEO and REO efficient cost standards to be used in replicability analyses.



### Projects in Economic Regulation

- International benchmark on a set of regulatory variables including Mobile Number Portability, fixed and mobile termination rates, SMSS regulation, roaming regulation, treatment of tax in the assessment of regulatory costs. The of in the EU-27 countries, as well as
- Advice to a Greek mobile operator in developing its regulatory strategy on the renewal of the 900MHz license and support to the development of its regulatory stance.
- Support to a Greek mobile operator in developing its preliminary auction strategy with regard to the renewal of the 900MHz license.
- For a provider of telecommunications services in Latin America, independent expert report certifying that the price for access and traffic services on a submarine cable between two large international telecommunications players was in line with the prevailing market price for those services.
- For an Italian vertically integrated operator, identification and discussion of the regulatory issues arising from migrating the fixed access network from legacy to NGN technologies, with specific focus on
  - risk of stranded investments on the legacy network,
  - quantification of stranded costs for the client.
- Position paper for an Italian vertically integrated operator on the methodological approach adopted by the Italian telecommunications regulator, Agcom, in its deliberation n.26/08/CONS to set the value of Fixed Termination Rates (FTRs) in Italy for a 5-years period. The position paper focused, in particular, on FTRs' glide path and symmetric value.
- Support in the consultation process launched by the Saudi Arabia regulator on the regulatory framework for the licensing of fixed services in the Kingdom of Saudi Arabia (on behalf of an international mobile operator).
- o For an Italian VolP operator:
  - estimation of the cost of capital (WACC) of Providing VoIP services in Italy to calculate the cost of terminating VoIP calls on VoIP networks,
  - calculation of the cost of terminating VoIP calls on VoIP networks.
- For an Italian vertically integrated operator, independent report including arguments in favor of the adoption of cost oriented, asymmetric, mobile termination charges in Italy motivated by the existence of structural (non-transitory) differences between new entrants and the incumbent operator.
- Support to a Greek fixed line operator on addressing the proposals included in a consultation document published by the Greek regulator on accounting separation and cost accounting.
- Support to an Algerian mobile operator on the definition of a business and regulatory strategy for its mobile business. The results of the analysis were used to develop business strategies and populate the 3-yaers OTA business plan.
- Support to an Algerian mobile operator in assessing the regulatory risks and implications prompted by the adoption of alternative business strategies in the national mobile markets for voice and data services. Production of expert reports presented before the national regulator in public hearings.



- Support to an Italian fixed line operator in the development of a regulatory strategy and creation of an independent cost accounting model for the regulatory review of the market of termination of voice calls in Italy.
- For an Italian vertically integrated telecommunications operator, analysis of the implications triggered by different options for the separation of the Telecom Italia fixed access network in Italy.
- For a mobile telecommunications group in Egypt, workshop in Cairo focusing on two broad set of topics:
  - innovative issues in the telecommunications industry (namely, development and adoption of Next Generation fixed and mobile technologies, spectrum allocation and refarming, fixed access network separation, infrastructure sharing, fixed-mobile converging services, among others);
  - regulatory challenges in selected countries: Pakistan, Bangladesh, Saudi Arabia, Iraq, Zimbabwe, Algeria, Tunisia, Morocco.
- Economic study for an international mobile operator of the Middle East to assess the effects of too much competition on the performance of mobile operators and their incentive to invest.
- o For an international airport:
  - support to the review of the regulatory framework launched by the Italian Ministry of Transport;
  - creation of a regulatory financial model to be used in estimating the regulatory costs, as well as the charges of regulated and unregulated services under a shared till approach;
  - estimation of the X factor for a price cap mechanism.
- Advice to a major Italian airport company in the estimation of the RAB with the HCA, CCA and market price methodologies.
- For an association of airports, international benchmark on the regulation of airport services in UK, Germany, Holland, Australia, and the US.
- Support to a South African airport in:
  - developing its regulatory position versus the Airlines and the Regulating Committee in Johannesburg;
  - presenting its position to the Airlines and the Regulator in Johannesburg in the final meeting for the approval of the permission document to levy airport charges in the period from 2007/2008 to 2011/2012.
- For a South African airport:
  - assistance to the review of the airport regulation launched by the South African regulator of airport services;
  - support to the development of a regulatory financial model, calculation of the Regulatory Asset Base (RAB), and estimation of the Weighted Average Cost of Capital (WACC).
- For a South African airport, production of several expert reports on the:
  - regulation of services' quality in other airports' jurisdictions;
  - pros and cons of the adoption of single till vs. dual till regulation;



- identification of airport services provided under competitive and non-competitive conditions;
- provision of effective incentives to invest in case of congested airport infrastructures.
- For a South African meteo services company:
  - Production of an expert report and witness before the South African Regulator on the regulatory issues discussed in the ongoing public consultation;
  - International benchmark on the regulation of weather services in Europe.
- Support to a Spanish power generator operating in Italy on the following subjects:
  - Bidding strategies in electricity auction for the Italian Single Buyer and their impact on the equilibrium prices of the Italian electricity commodity market;
  - Electricity import and long term contracts.
- Advice to Enel on all the issues related to the transition from a regulated system to a competitive one, including:
  - Development of an "electricity sector vision";
  - Assistance with the design of the liberalized electricity sector;
  - Wholesale market simulations and bidding strategy;
  - Generation investment strategy;
  - Methodological approaches for the calculation of the Regulatory Asset Base (RAB) for the electric industry in the international regulatory best practice.
- For the leading Italian electricity company, report on alternative methodologies to calculate the Regulatory Asset Base in electricity.
- o For the leading Italian electricity company, report on the principles of regulating services quality and international benchmark on the regulation of the quality of service in electricity distribution.
- o For the leading Italian electricity company, optimal regulation and the provision of investment incentives to expand electricity transmission network capacity.
- For a large investment bank, regulatory due diligence on a company operating in gas transportation, on all aspects relating regulated services.
- o For an Asian government, analyses of a segment of the domestic gas market, as well as review of the regulatory framework in place, with the purpose to assess the robustness of the assumptions specified in a model for damages. The model was then used to opine on the damages estimated by the claimant.
- For an upstream energy company, independent report in the review of the price of a LNG contract:
  - Analysis of the competitive conditions of the Italian gas market (liquidity, demand and supply, ongoing trends);
  - Review of the relevant regulatory and legal provisions in charge on the Italian gas market;
  - Assessment of effective de-coupling of the gas price with regard to indexed-oil pricing.



- For an Italian gas transport operator, assessment of the implications that would be triggered on the gas transport industry by adopting regulatory provisions in charge in the electricity transmission industry.
- For a UK investment bank, assessment of the regulatory revenues and analysis of the implications triggered by alternative regulatory measures on the value of a gas transport network.
- Expert report for the main Italian concessionaire of motorways in the price cap review for the second regulatory period. Tasks included:
  - · Survey of best regulatory practices;
  - International benchmarking of motorways regulated charges;
  - The estimate of the cost of capital (WACC);
  - Principles to calculate the Regulatory Asset Base;
  - Principles to calculate the X factor in incentive based regulation;
  - Analysis of the regulation in charge in other Italian sectors (energy and airports).
- For the leading Italian railway company, study on the railway regulation in Italy, with focus on:
  - The options relating to pricing mechanisms for tariffs of access to railway infrastructure;
  - The incentives for the diffusion of railway freight;
  - The definition of Price Cap mechanism for railway transportation tariffs;
  - The quantification of the real productivity growth according to the chosen Price Cap mechanism;
  - The quantification of the real increase in quality according to the chosen Price Cap mechanism.

#### Expert Appearances before Courts, Authorities, and Governmental Bodies

- Fully Distributed Costing, under historical and current cost accounting, applied to mobile voice call termination services before the Italian authority for telecommunications, Autorità per le Garanzie nelle Comunicazioni (AGCOM).
- LRIC based access charges to fixed networks before the Italian authority for telecommunications, Autorità per le Garanzie nelle Comunicazioni (AGCOM).
- Comparative cost efficiency benchmarking study in the provision of voice services over fixed telecommunications networks before the Italian authority for telecommunications, Autorità per le Garanzie nelle Comunicazioni (AGCOM).
- Regulated charges to access airport infrastructure before the Italian governmental body in charge of economic regulation, Ente Nazionale per l'Aviazione Civile (ENAC).
- Regulatory regimes and accounting in the provision of airport services before the Italian governmental body in charge of economic regulation, Ente Nazionale per l'Aviazione Civile (ENAC).
- Regulated charges to access airport infrastructures before the South African Regulating Committee of the Ministry of Transport.



 Regulated charges to access meteorological services infrastructures before the South African Regulating Committee of DEAT.

#### Strategic Quantitative Modeling Projects (several industries)

- For a vertically integrated Italian telecommunications operator, development of an independent quantitative model to calculate the regulatory cost of ULL in Italy for a new entrant in the fixed telephony market and impact on business planning.
- For a vertically integrated Italian telecommunications operator, development of an independent quantitative strategy model to investigate the regulatory costing and pricing implications of defining geographical (subnational) markets for the provision of fixed access services in Italy. The assignment included the assessment of the impact on business planning.
- For a Greek mobile operator, development of an independent quantitative strategy model to assess the costing implications of alternative options for the refarming of the 900MHz and 1800MHz spectrum in Greece.
- For a provider of Mobile TV services in broadcast technology, support to the development of a quantitative strategy model to assess the impact on value creation prompted by the adoption of alternative regulatory measures in the market for the provision of mobile TV services.
- For a Pakistani mobile operator, creation of a business plan to price mobile termination services and delivery of a number of expert report in support of the operator's response to the questions raised by the regulator in its consultation document on mobile termination.
- For a Greek mobile operator independent report assessing the exogenous objective cost differences in mobile termination costs to support the request of asymmetric mobile voice call termination rates and assessment of their impact on business planning.
- For an Algerian mobile operator, calculation of the regulated cost of capital (WACC) for the provision of mobile termination services.
- For an Algerian mobile operator, creation of a quantitative model to price mobile termination services and assessment of their impact on the business planning.
- For an Italian mobile operator, calculation of the regulated cost of capital (WACC) for the provision of mobile termination services.
- For an Italian vertically integrated operator, comparative study on the cost efficiency in the provision of voice services over fixed telecommunications networks. The study was conducted with reference to the level of cost efficiency of the US Local Exchange Companies (LECs).
- For an Italian integrated telecommunications operator, calculation of the Regulatory Asset Base (RAB) at current cost in compliance with the guidelines provided by the AGCOM Delibera n. 399/02/CONS.
- Support to a Swiss insurance company in:
  - calculating the impact on value creation of adopting an on line claim reporting system;
  - identifying the best timing for the system roll out process and subsequent roll out monitoring;
  - cost-benefit analysis on the consumer's benefit deriving from the roll out of the on line claim reporting system.



- o Support to an Internet Television company to develop a growth strategy including:
  - benchmark analysis on the successful internet television operators around the world;
  - identification and assessment of alternative technology solution for the provision of signal decoding;
  - assessment of the economic implications triggered by each of the alternative identified strategy options;
  - identification of the most attractive geographical markets that could be penetrated;
  - identification of potential partners with which to merge in order to maximize growth opportunities.
- Support to an Italian large airport in presenting its tariff proposal to renew airport charges. Creation of a regulatory financial model for the calculation of airport charges, P&L, Balance Sheet and Cash Flow statements. The model embedded a company valuation module to quantify the value of the stock of the airport.
- For a South African meteorological services company:
  - creation of a quantitative model for the calculation of the Regulatory Asset Base (RAB) at current cost;
  - creation of a regulatory financial model for the calculation of regulated charges under Cost Plus regulation;
  - calculation of the weighted Average Cost of Capital (WACC).
- Advice to a Spanish power generation company on:
  - investment strategy in power generation, with specific reference to renewable electricity generation plants (IAFR and CIP6);
  - development of a quantitative model to simulate the equilibrium price of Green Certificates in Italy;
  - creation and update of a database of operating CIP6 renewable power generation plants in Italy;
  - review of the Italian and EU regulation on co/generation plants;
  - assessment of the business and market implications triggered by the liberalization of the electricity metering in Italy;
  - development of a Capacity payment mechanism and assessment of its impact on value creation.
- For a Spanish power generation company, assistance to the creation of a company valuation model for regulated firms operating electricity transmission and distribution infrastructures. The model was supposed to calculate:
  - regulated charges and cap mechanisms for all regulated services provided by the firm;
  - the value of the regulated firm on the basis of the cash flow and multiples consistent with the regulated charges generated by the model.
- For an Italian gas transport operator, support to a gas transport operator in developing a regulatory strategy in relation to the tariff review. Our support included the:



- Estimation of the X factor of the incentives mechanisms in charge (revenue cap and price cap);
- Estimation of the beta parameter to be used in calculating the regulatory cost of capital (WACC) of gas transport services;
- Calculation of the Regulatory Asset Base (RAB) at current cost;
- International benchmarking on the ongoing public consultations regarding the regulatory review on gas transport.

#### ICT Policy Projects

- Draft for a consortia of operators working in the telecommunications, software and hardware industries, of a number of economic and industrial policy topics in Information and Communication Technology (ICT). The issues discussed include:
  - The effects prompted by ICT investments on firms' productivity: discussion of economic and industrial policy issues related to the empirical evidence;
  - Broadband diffusion in the European countries and, in particular, in Italy: the report focused on the barriers to the deployment of high capacity infrastructures and media contents production;
  - Open Source software vs. proprietary software: reasons underlying the success of Open Source software and assessment of the likely implications of its launch in the software mass market (Home PC).

#### ACCEPTED CONTRIBUTIONS TO INTERNATIONAL EVENTS

- Annual Insurance Skills Jam, "L'avvento del digitale nell'evoluzione dell'ecosistema assicurativo globale" (November 2014)
- Enel Cascade, "New Challenges and Value Creation Opportunities in Regulated Industries" (December 2012)
- o AAC, "Fostering the development of NGA networks through services' differentiation", 22nd Annual Communications and Competition Law Conference, Palais Auersperg, Vienna, Austria (May 2011)
- o 3rd Idate Workshop on Open Innovation: Paris (November 2009)
- ITS Europe, "The Determinants of Broadband Growth: insights to reconsider regulation and policy approaches to the deployment of broadband infrastructures" (2008)
- LUISS University of Rome: "Strategy, competition and regulation in the telecommunication industry" (June 2008)
- LUISS University of Rome: "The challenges arising in implementing best practice regulation in regards to airport and meteorological services" (June 2008)
- o Qualcomm: "European Future of Telecommunications and Media," Rome, Italy (2007)
- o ICom: Roundtable on "La gestione dello spettro delle frequenze e gli scenari concorrenziali" (2007)



- LUISS University: "Workshop on Next Generation Networks" (2007)
- AICA International seminar on the Digital Divide: "Il Digital Divide in Italia: cause strutturali e ambiti di intervento" (2003)
- Villa Mondragone Seminar XII Villa Mondragone International Economic Seminar, "Knowledge Economy, Information Technology Revolution and Regional Development" (2000)
- Society of Economic Dynamics, Alghero, Italy International seminar: presented the paper "Information Technology, Spillover Delay and Economic Growth" (1999)

#### **WORKING PAPERS**

- "Pass on in private antitrust litigation" with Andreas Groehn, mimeo (2014)
- "Anticompetitive pricing and service differentiation," BRG World Scientific Competition Handbook (2014, unpublished)
- "FRAND practice and coordination failures," working paper for BRG World Scientific IP Handbook (2014, unpublished)
- "Innovation and the evolution of the industry when the incumbent has the option to wait before innovating" (2012)
- "Digital Divide: structural causes and scope for intervention" (2012)
- "Faster Information Circulation, Productivity Slowdown and the Stock Market", Job Market Paper, New York University (2001)

#### ACADEMIC LECTURING

- New York University, Money and Banking (2000)
- New York University, Economics and Society in the Third World East Africa, (Spring 1999)
- New York University, Macroeconomics (Fall 1998)
- New York University, Microeconomics, (1997–1998)
- o University of Rome, Doctoral Program, Mathematics for Economists, (1995-1996)
- o Instructor, MBA, University of Rome and Anica, "Industrial Organization" (1992-1994)
- o Instructor, MBA, University of Rome and Finmeccanica, "Company valuation" (1992–1994)

#### PUBLISHED EMPIRICAL STUDIES

- "Wanted: New Competitive Paradigm," InterMEDIA (December 2014)
- "Taxation and Comparative Advantage," published in "Raccolta Studi Progetto Finalizzato sulla Internazionalizzazione dell'Impresa," CNR (1998)
- o "Il Sistema Italia e le Banche Locali" (co-author), Banca Popolare di Belpasso (1993)



 "The Evaluation of the Italian Firms in the 80's: Performance and Critical Factors of Success" (1992)

## **HONOURS AND AWARDS**

- o TA-ship, New York University (1997–2000)
- o "Carlo Ghiglieno" Award (1998)
- Fellowship, Consiglio Nazionale delle Ricerche (CNR) (1995–1997)
- o Research Scholarship, Consiglio Nazionale delle Ricerche (CNR) (1991-1994)
- LUISS University of Rome, distinction in the undergraduate program (1991)