Curriculum vitae

GENERAL INFORMATION

Full Name: Fabio Di Dio Place and date of birth: -Citizenship: -Permanent Address: -Mobile: -E-mail : -Spoken Languages: -Web: <u>-</u>

RESEARCH INTERESTS

Environmental policies and monetary economics. Design of fiscal policies and structural reforms. R&D network formation in oligopolistic markets

CURRENT POSITION

Jan 2018-

ECONOMIST AT THE EUROPEAN COMMISSION, DIRECTORATE B - GROWTH AND INNOVATION, UNIT B1 - FINANCE AND ECONOMY, JOINT RESEARCH CENTRE (ISPRA, VA) – European Commission's economic forecast and detection of the relevant innovations driving the short and medium-term GDP growth. Simulations to provide a quantification of the main drivers of the GDP growth in the Euro Area (Shock Decomposition). Business cycle analysis with GM, a multi-country Dynamic Stochastic General Equilibrium (DSGE) model. Assessment of fiscal and structural measures for Europe with DGSE models. Assessment of competition policies in Europe with the QUEST model.

PREVIOUS POSITIONS

May 2009- Dec. 2017

ECONOMIST - IT ECONOMIA – MODELLI DI PREVISIONE ED ANALISI STATISTICHE, Sogei SpA, Italy's Ministry of the Economy and Finance. Assessment of fiscal policies and structural reforms with the European Commission DSGE model QUEST III with R&D. Development and estimation of a new model of general equilibrium for Italy (IGEM) with a focus on fiscal policies in Italy. Development and estimation of a new model of general equilibrium including climate-energy variables (GEEM). Notes, official documents and simulation analysis of structural reforms for Italy in implementation of the Europe 2020 strategy.

June 2007 - May 2008

COMMISSIONE TECNICA PER LA FINANZA PUBBLICA (assignment granted by Ministerial Decree of 26 July 2007) (Italy's Government); Italy's Ministry of the Economy and Finance. Development and implementation of the review program of public spending in Italy. Use of econometric models to pin down the relevant drawbacks of central government programs, identifying problems and options of resources reallocation.

Mar. 2007

ADVISOR AT CENTRE FOR ECONOMIC AND INTERNATIONAL STUDIES, CEIS report on services 2007 in Europe.

Feb. 2007 - Dec. 2007

ADVISOR AT CENTRO EUROPA RICERCHE (CER), Elaboration of a macroeconometric model to estimate Italy's Public Administration personnel costs to be incorporated in the CER macro-econometric model.

Sep. 2004 - Sep. 2006

ADVISOR AT CONSIP SP.A. (ITALY'S MINISTRY OF THE ECONOMY AND FINANCE), Macroeconomic modelling and forecasting. Development and management of a disaggregated econometric model for forecasting Italy's Public Administration personnel cost per institutional unit and geographical area.

Nov. 2003 - May 2007

PH.D. IN ECONOMICS: Elaboration of an econometric model designed to produce estimates per institutional unit and geographical area of Public Administration personnel spending. The model is able to provide Italy's Government with a measure related to the impact of renewals of public contracts and the block of the personnel turnover. The model made use of large volumes of data to feed model predictions.

EDUCATION

May 2003

LAUREA IN ECONOMIA E COMMERCIO (ECONOMICS), address in Economics, University of Rome La Sapienza

Title of the thesis (Game Theory): Equilibrium and learning in Bertrand models

Nov. 2003 - May 2007

PH.D. IN ECONOMICS at the Department of Economics, University of Rome La Sapienza Title of the thesis (Econometrics): Exact aggregation and heterogeneity in economics: theoretical aspects and applications

PUBLICATIONS - PEER REVIEWED JOURNAL ARTICLES

THE EURO AREA'S COVID-19 RECESSION THROUGH THE LENS OF AN ESTIMATED STRUCTURAL MACRO MODEL, 2021. VoxEU-CEPR (with R. Cardani, O. Croitorov, L. Frattarolo, M. Giovannini, S. Hohberger, P. Pfeiffer, M. Ratto, L. Vogel)

A STOCHASTIC ESTIMATED VERSION OF THE ITALIAN DYNAMIC GENERAL EQUILIBRIUM MODEL, 2020. Economic Modelling, 92, 339-357 (with N. Acocella, E. Beqiraj, G. Di Barlolomeo, M. Di Pietro, F. Felici, G. Alleva, B. Liseo)

<u>QUALITY-IMPROVING AND COST-REDUCING STRATEGIC ALLIANCES</u>, 2020. Economia Politica. Journal of Analytical and Institutional Economics, 37(2), 493-524 (with L. Correani)

<u>R&D NETWORKS AND ABSORPTIVE CAPACITY IN A SALOP MODEL</u>, 2019. Research in Economics, 73, 2, 123-128 (with L. Correani)

<u>COLLABORATION NETWORKS IN A HOTELLING GAME</u>, 2019. Economics Bulletin, 39, 1, 127-141 (with L. Correani)

ENVIRONMENTAL POLICY AND ENDOGENOUS MARKET STRUCTURE, 2018. Resource and Energy Economics, 52, 186-215 (with B. Annicchiarico and L. Correani)

<u>A NOTE ON LINK FORMATION AND NETWORK STABILITY IN A HOTELLING GAME</u>, 2017. Operations Research Letters, 45, 3, 289–292 (with L. Correani)

GHG MITIGATION SCHEMES AND ENERGY POLICIES: A MODEL-BASED ASSESSMENT FOR THE ITALIAN ECONOMY, 2017. Economic Modelling, 61, 495-509 (with <u>B. Annicchiarico</u>, S. Battles, P. Molina and P. Zoppoli)

<u>GHG EMISSIONS CONTROL AND MONETARY POLICY</u>, 2017. Environmental and Resource Economics, 67, 4, 823–851, (with <u>B. Annicchiarico</u>)

ENVIRONMENTAL POLICY AND MACROECONOMIC DYNAMICS IN A NEW KEYNESIAN MODEL, 2015. Journal of Environmental Economics and Management, 69, 1-21 (with <u>B. Annicchiarico</u>)

FISCAL DEVALUATION SCENARIOS: A QUANTITATIVE ASSESSMENT FOR THE ITALIAN ECONOMY, 2015. Open Economies Review, 26, 4, 731-785 (with <u>B. Annicchiarico</u>, F. Felici)

THE SIMPLE ANALYTICS OF OPTIMAL GROWTH WITH MIGRATION, 2015. Quality & Quantity: International Journal of Methodology, 49, 441–454 (with L. Correani, S. Patri)

ASSESSING POLICY REFORMS FOR ITALY USING ITEM AND QUEST III, 2014. Rivista di Politica Economica, 3, 211-244, July-Sept, (with <u>B. Annicchiarico</u>, F. Felici and F. Nucci)

OPTIMAL CHOICE OF FISCAL POLICY INSTRUMENTS IN A STOCHASTIC IS-LM MODEL, 2014. Mathematical Social Sciences, 71, pp. 30-42 (with L. Correani and S. Patri)

PRO-COMPETITIVE REFORMS AND TIMING OF IMPLEMENTATION: AN IGEM-BASED SIMULATION ANALYSIS FOR ITALY, 2013. Rivista Italiana di Economia Demografia e Statistica, LXVII, 2, pp. 155-170 (with <u>B. Annicchiarico</u>, F. Felici)

STRUCTURAL REFORMS AND THE POTENTIAL EFFECTS ON THE ITALIAN ECONOMY, 2013. Journal of Policy Modeling, 35, 1, pp. 88-109 (with <u>B. Annicchiarico</u> and F. Felici)

<u>GROWTH AND SOCIAL CAPITAL: AN EVOLUTIONARY MODEL</u>, 2011. Quality & Quantity: International Journal of Methodology, 45, 1, pp. 173-186 (with L. Correani and G. Garofalo)

ESTIMATING CORE INFLATION IN NORWAY, 2009. Journal of Applied Economic Sciences, IV, 3(9), 355-371,(with F. Felici)

WORKING PAPERS

<u>CLIMATE ACTIONS, MARKET BELIEFS, AND MONETARY POLICY</u>, 2021. Available at SSRN: https://ssrn.com/abstract=3895754 or http://dx.doi.org/10.2139/ssrn.3895754, (with B. Annicchiarico and F. Diluiso)

<u>OPTIMAL CORRECTION OF THE PUBLIC DEBT AND FISCAL RESILIENCE MEASURES</u>, 2020. CEIS Working Paper No. 479 (with B. Annicchiarico and S. Patri).

THE GLOBAL MULTI-COUNTRY MODEL (GM): AN ESTIMATED DSGE MODEL FOR EURO AREA COUNTRIES, 2019. European Economy - Economic Papers, Discussion Paper 102.

<u>IGEM-PA: A VARIANT OF THE ITALIAN GENERAL EQUILIBRIUM MODEL FOR POLICY ANALYSIS</u>, 2017. Working Papers 2, Department of the Treasury, Italian Ministry of the Economy and of Finance (with B. Annicchiarico, C. Battiati, C. Cesaroni, F. Felici) IGEM II: A NEW VARIANT OF THE ITALIAN GENERAL EQUILIBRIUM MODEL, 2016. Working Papers 4, Department of the Treasury, Italian Ministry of the Economy and of Finance (with <u>B. Annicchiarico</u>, F.Felici)

<u>GEEM: A POLICY MODEL FOR ASSESSING CLIMATE-ENERGY REFORMS FOR ITALY</u>, 2016. Working Papers 3, Department of the Treasury, Italian Ministry of the Economy and of Finance (with <u>B.</u> <u>Annicchiarico</u>, S. Battles, P. Molina and P. Zoppoli)

<u>IGEM: A DYNAMIC GENERAL EQUILIBRIUM MODEL FOR ITALY</u>, 2013. Working Papers 4, Department of the Treasury, Italian Ministry of the Economy and of Finance (with <u>B. Annicchiarico</u>, F. Felici and L. Monteforte)

THE MACROECONOMICS OF EUROPE 2020 REFORM STRATEGY AND THE POTENTIAL EFFECTS ON THE ITALIAN ECONOMY, 2011. Working Papers 8, Department of the Treasury, Italian Ministry of the Economy and of Finance (with <u>B. Annicchiarico</u>, F. Felici)

OTHER ARTICLES, REPORTS AND PUBLISHED MATERIALS

MODELLING THE MACROECONOMIC IMPACT OF COMPETITION POLICY: Update and further development 2018-2020, European Commission, December 2021

MODELLING THE MACROECONOMIC IMPACT OF COMPETITION POLICY: Update and further development 2017-2019, European Commission, December 2020

EUROPEAN ECONOMIC FORECAST, INSTITUTIONAL PAPER 136, NOVEMBER 2020, European Commission, Autumn 2020

MODELLING THE MACROECONOMIC IMPACT OF COMPETITION POLICY: Update and further development 2017-2019, European Commission, December 2019

EUROPEAN ECONOMIC FORECAST, INSTITUTIONAL PAPER 115, NOVEMBER 2019, European Commission, Autumn 2019

EUROPEAN ECONOMIC FORECAST, INSTITUTIONAL PAPER 102, MAY 2019, European Commission, Spring 2019

EUROPEAN ECONOMIC FORECAST, INSTITUTIONAL PAPER 089, NOVEMBER 2018, European Commission, Autumn 2018

EUROPEAN ECONOMIC FORECAST, INSTITUTIONAL PAPER 077, MAY 2018, European Commission, Spring 2018

OPTIMAL GROWTH AND MIGRATION IN A DISCRETE-TIME RAMSEY MODEL: A NOTE, 2012. Journal of Academic Research in Economics, 4, 1, pp. 1-10 (with L. Correani and S. Patri)

FORECASTING PUBLIC ADMINISTRATION WAGE DYNAMICS. AN APPLICATION TO THE ITALIAN NATIONAL HEALTH SERVICE, 2010. Journal of Applied Research in Finance 2(4), pp. 121-131 (with L. Correani)

THE EVOLUTIONARY DYNAMICS OF TOLERANCE, 2010. Theoretical and Practical Research in Economic Fields, I, 2(2), pp. 218-230 (with L. Correani and G. Garofalo)

CORE INFLATION MEASURES AND THE EFFECTIVENESS OF MONETARY POLICY. AN INTERPRETATIVE MODEL, 2009. Global and Local Economic Review, XIII, 1, 5-43 (with L. Correani)

DINAMICHE SOCIALI, CRESCITA ECONOMICA E CORRUZIONE. MODELLI A CONFRONTO, 2008. Global and Local Economic Review, XII, 1, 7-37 (with L. Correani)

LA REVISIONE DELLA SPESA PUBBLICA - RAPPORTO 2008, Commissione Tecnica per la Finanza Pubblica

REPORT ON "GROWTH AND PRODUCTIVITY IN SERVICES SECTOR", 2007, CEIS, University of Rome "Tor Vergata"

RAPPORTO INTERMEDIO SULLA REVISIONE DELLA SPESA, 2007. Commissione Tecnica per la Finanza Pubblica

RESEARCH PAPERS IN PROGRESS

CLIMATE POLICY ACCORDING TO HANK, (with Lorenzo Frattarolo)

AUTOMATIC FISCAL STABILISERS IN THE EURO AREA AND THE COVID-19 CRISIS, (with Francesca Maria D'Auria, Lorenzo Frattarolo, Stefan Hohberger, Marco Ratto and Lukas Vogel)

CLIMATE ACTIONS AND BACKLOADING STRATEGIES, (with Barbara Annicchiarico and Francesca Diluiso)

ENVIRONMENTAL POLICIES IN A STACKELBERG DIFFERENTIAL GAME (with Roy Cerqueti and Luca Correani)

CLIMATE ACTIONS AND STRANDED ASSETS IN AN ESTIMATED DSGE MODEL, (with Barbara Annicchiarico and Francesca Diluiso)

OPTIMAL CORRECTION OF THE PUBLIC DEBT AND FISCAL RESILIENCE MEASURES, (with Barbara Annicchiarico and Stefano Patri)

MARSHALLIAN EXTERNALITIES IN AN ESTIMATED DSGE MODEL, (with Barbara Annicchiarico and Luca Correani)

DO COURNOT COMPETITION AND R&D COOPERATION YIELD SPATIAL AGGLOMERATION? (with Luca Correani)

ORGANIZATION OF INTERNATIONAL COURSES

GM Training Course, Using the Global Multi-country model in ECFIN's forecast exercises, Mar. 2018

GM Training Course, Using the Global Multi-country model in ECFIN's forecast exercises, Sep. 2018

GM Training Course, Using the Global Multi-country model in ECFIN's forecast exercises, April 2019

GM Training Course, Using the Global Multi-country model in ECFIN's forecast exercises, Sep. 2019

GM Training Course, Using the Global Multi-country model in ECFIN's forecast exercises, Feb. 2021

DYNARE Course - Identification analysis and global sensitivity analysis for Macroeconomic Models, Nov. 2018 (<u>https://ec.europa.eu/jrc/en/event/workshop/dynare-gsa-macroeconomic-models</u>)

DYNARE Course - Identification analysis and global sensitivity analysis for Macroeconomic Models, Nov.2019 (https://ec.europa.eu/jrc/en/event/workshop/dynare-gsa-macroeconomic-models-2019)

Virtual DYNARE Course - Identification analysis and global sensitivity analysis for Macroeconomic Models, Nov. 2020 (<u>https://ec.europa.eu/jrc/en/event/webinar/dynare-gsa-macroeconomic-models-</u> 2020)

Virtual DYNARE Course - Identification analysis and global sensitivity analysis for Macroeconomic Models, Nov. 2021 (<u>https://ec.europa.eu/jrc/en/event/webinar/dynare-gsa-macroeconomic-models-</u> 2021)

REVIEWER ACTIVITIES

REVIEWER FOR THE FOLLOWING PEER-REVIEWED JOURNALS: Journal of Economics, Journal of Policy Modeling, Rivista di Politica Economica, Journal of Applied economics, The Manchester School, Open Economies Review, The Review of Economics and Statistics, Environmental and Resource Economics, Technology Analysis & Strategic Management, Computational Economics

ACCADEMIC APPOINTMENTS/TEACHING EXPERIENCE

Oct. 2007 - Feb. 2011

LECTURER AT TUSCIA UNIVERSITY OF VITERBO - Faculty of Economics.

Teaching of Econometrics. Mar. 2008 - Feb. 2009

LECTURER AT LUISS UNIVERSITY OF ROME - Faculty of Economics. Teaching of

Economic policy.

Mar. 2008 - Feb. 2011

LECTURER AT TUSCIA UNIVERSITY OF VITERBO - Faculty of Organization and Management. Teaching of Economics and Political Economy.

SOCIETY MEMBERSHIP, AWARD AND HONORS

Aug. 2017

ITALIAN ABILITAZIONE SCIENTIFICA NAZIONALE (ASN; National Scientific Qualification) as Associate Professor in <u>POLITICA ECONOMICA</u> (Economic Policy; Settore Concorsuale 13/A2) and <u>SCIENZA DELLE FINANZE</u> (Economics of the Public Sector; Settore Concorsuale 13/A3) from the Italian Ministry of Education, University and Research (MIUR).

Sep. 2010-2017

Member of the board of FORECASTING AND MODELING group, Directorate I - Economic and Financial Analysis of Italy's Ministry of Economy and Finance.

Oct. 2002 - Feb. 2005

Three-year Ph.D. Scholarship from the University of Rome "La Sapienza"

TRAINING

June 2003 Workshop on Inequality and Economic Integration, Certosa of Pontignano, Siena (Italy). Sept. 2003

Summer school for Ph.D. students in Econometrics (90 hours), organized by CIDE in Bertinoro (Italy). Dec. 2003 School for SAS language (basic, advanced and macro language), organized by SAS Institute (Italy). July 2004 Summer School in Computational Economics (25 hours), organized by the University of Lecce (Italy). Dec. 2004 XIII International "Tor Vergata" Conference on Banking and Finance: "Transparency, Governance and Markets", University of Rome "Tor Vergata" (Italy). Oct.2006 Course in Forecasting Evaluation (by Lucio Sarno), Warwick Business School (UK). Mar. 2007 Course in Monetary Economics (by Carl Walsh), University of Rome "Tor Vergata" (Italy). Sep. 2007 Course in Methodology of quantitative analysis' (Data Envelopment Analysis), organized by Scuola Superiore di Economia e Finanza (Italy). Sep. 2008 Course in STATA language (basic, advanced and macro language), organized by Scuola Superiore di Economia e Finanza (Italy). July 2009 Course in Macroeconometric Modelling using TROLL, organized ECOMOD (Belgium). Nov. 2010 Course of Pratical CGE Modelling, organized by Monash University (Poland). Jul. 2012 Barcelona Macroeconomics Summer School, organized by CREI, Barcelona Pompeu Fabra University (Spain). Apr. 2013 IGEM: A Dynamic General Equilibrium Model for Italy, organized by Italy's Ministry of the Economy and Finance. Feb. 2014 Econometria applicata alla finanza pubblica: casi di studio, organized by Scuola Superiore dell'Economia. Apr. 2015 Identification analysis and global sensitivity analysis for Macroeconomic Models, organized by European Commission. Nov. 2017 Identification analysis and global sensitivity analysis for Macroeconomic Models, organized by European Commission. PARTECIPATION/PRESENTATION TO CONFERENCES July 2010

EcoMod2010 conference, organized by ECOMOD, *Keynote Speaker* July 2011 EcoMod2011 conference, organized by ECOMOD, *Keynote Speaker* Sep. 2011 Study Visit of the Albanian Ministry of Finance, organized by Italy's Ministry of the Economy and Finance, *Keynote Speaker* Jan. 2012 Study Visit of the Government of Serbia, organized by Italy's Ministry of the Economy and Finance. May 2013, *Keynote Speaker* Assessing policy reforms for Italy using ITEM and QUEST III, organized by SIEDS - Università Europea di Roma, Keynote Speaker June 2013 IGEM: a Dynamic General Equilibrium Model for Italy, Workshop on Advances in DSGE Models - Università di Milano – Bicocca, Keynote Speaker Nov. 2013 Workshop on Structural Reforms in Europe (EPC group), organized by European Commission. Jan. 2014 Effects on growth of structural reforms (Lime working group), organized by European Commission, Keynote Speaker Oct. 2014 Research and Innovation in applied models of growth for policy-making, organized by European Commission, Keynote Speaker Dec. 2015 What is the impact of structural reforms on the Italian economy? A comparative model-based simulation analysis using Quest III and IGEM, organized by European Commission June 2016 The assessment of macroeconomic impact of Italy's reforms with a focus on credibility, organized by European Commission, Keynote Speaker June 2017 IGEM-PA: a Variant of the Italian General Equilibrium Model for Policy Analysis, Villa Mondragone Conference, Keynote Speaker Nov. 2017 GHG Emissions Control and Monetary Policy, Bank of England, London, Keynote Speaker Feb 2018 Climate Actions and Backloading Strategies, World Congress of Environmental and Resource Economists, Gothenburg, Keynote Speaker Using the Global Multi-country model in ECFIN's forecast exercises, organized by European Commission. Feb. 2020 Modelling fossil fuel phase-out and stranded assets: a political economy perspective, organized by Potsdam Institute for Climate Impact Research (Berlin), Keynote Speaker June 2020 **NBER** International Seminar on Macroeconomics June 2020 Ex-post economic evaluation of European competition policy, organized by European Commission (DG Competition), Keynote Speaker July 2020 International Conference on Economic Modeling and Data Science (EcoMod2020), CefES-JRC Nov. 2020 Secular Stagnation, Low Interest Rates and Low Inflation: Causes and Implications for Policy, co-organised by ECFIN B.3, CEPR and the Journal of Economic Dynamics and Control Nov. 2020 Federal Reserve Bank of Richmond Climate Economics workshop Dec. 2020 Macroeconomic Dynamics: Theory and Applications, Bank of Italy Mar. 2021 Climate-related Financial Risks Seminar, Joint Research Centre Mar. 2021 Should the ECB Adjust its Strategy in the Face of a Lower r*, CefES and the European Commission - Joint Research Centre April 2021 Ninth Annual Conference, IAERE,

Italian Association of Environmental and Resource Economists June 2021 Climate Actions, Market Beliefs, and Monetary Policy, Online seminar, Venice October 2021 Climate Actions, Market Beliefs, and Monetary Policy, 62nd Annual Conference -Italian Economic Association

COMPUTER KILLS

Working knowledge of the most common Microsoft Office software such as WORD, EXCEL AND POWER POINT; LaTeX document preparation system, the econometric software programs STATA, EVIEWS and SAS; the language for technical computing MATLAB; simulation programs for solving DSGE models (TROLL, DYNARE)