Curriculum Vitae Andrea Caggese (February 2022)

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Sex: Male

Citizenship: Italian

Married to Eva Østergaard-Nielsen Children: Lukas, Anna, and Laura

Education

London School of Economics and Political Science, Ph.D. Economics, 2002. London School of Economics and Political Science, M.Sc. Economics, 1997. Tor Vergata University of Rome, B.Sc. in Business and Economics, 1993, Summa cum Laude.

Past Appointments and Affiliations:

Visiting Researcher, Boston University, 2015-2016 Assistant Professor, Pompeu Fabra University, 2001-2007. Research Assistant, Financial Markets Group, 1998-2001. Researcher for Mediocredito Centrale, 1994-1996 and 1998-2000. Researcher for the Italian National Research Institute (CNR), 1994-1995.

Current Appointments and Affiliations:

Associate Researcher, CREI, September 2013-Present.

Associate Professor (with tenure), Department of Economics, Pompeu Fabra University, 2007-Present.

Affiliated Professor, Barcelona Graduate School of Economics, 2007-Present.

Major Fields of Interest:

Macroeconomics; Investment Theory; Innovation, Frictions and Firm Dynamics.

Working Papers

"Income Inequality and Entrepreneurship: Lessons from the 2020 Covid Recession" Latest draft, November 2021 (with Christoph Albert, Beatriz Gonzalez and Victor Martin-Sanchez).

"Which Workers Suffer (or Benefit) from Firm-level Uncertainty Shocks?" Latest draft, November 2021 (With Vicente Cuñat and Daniel Metzger).

"Identifying Firm-Level Financial Frictions Using Sign Restrictions" latest draft, November 2021 (Joint with Geert Mesters)

"The Short- and Long-run Employment Impact of Covid-19 through the Effects of Real and Financial Shocks on New Firms". Bank of Spain Working Paper N. 2039, December 2020 (with Christoph Albert and Beatriz Gonzalez).

"Firm Debt Deflation, Household Precautionary Savings, and the Amplification of Aggregate Shocks". Latest Draft, March 2020 (Joint with Angelo Gutierrez and Ander Perez).

Work in Progress

"Employment Protection, Productivity, and Credit" With Ozan Guler, Mike Mariathasanz, and Klaas Mulier.

"A Dynamic Measure of Misallocation: Theory and Applications", with Sergi Basco, Beatriz Gonzalez and David Lopez-Rodriguez

"The Real Effects of Financial Shocks on Short Term and Long Term Entrepreneurial Decisions", With Kizkitza Biguri, Jose Luis Peydro and Charlotte Østergaard

Publications

"How Stimulative are Low Real Interest Rates for Intangible Capital?", *European Economic Review*, Volume 142, 2022, https://doi.org/10.1016/j.euroecorev.2021.103987 (With Ander Perez).

Cyclical Fluctuations, Financial Shocks, and the Entry of Fast Growing Entrepreneurial Startups, The *Review of Financial Studies*, Volume 34, Issue 5, May 2021, Pages 2508–2548, https://doi.org/10.1093/rfs/hhaa112 (With Christoph Albert).

Comments on: "What drives aggregate investment? Evidence from German survey data", *Journal of Economic Dynamics and Control*, Volume 115, 2020.

"Firing the Wrong Workers: Financing Constraints and Labor Misallocation", *Journal of Financial Economics*, Vol. 133, Issue 3, September 2019, Pages 589-607. (With Vicente Cuñat and Daniel Metzger).

"Financing Constraints, Radical versus Incremental Innovation, and Aggregate productivity", 2019, *American Economic Journal: Macroeconomics* 11 (2), 275-309.

"Financing Constraints, Firm Dynamics, Export Decisions, and Aggregate Productivity", *Review of Economic Dynamics*, Special Issue on Misallocation and Productivity, edited by Diego Restuccia & Richard Rogerson, vol. 16(1), pages 177-193, January 2013. (With Vicente Cuñat).

"Entrepreneurial Risk, Investment and Innovation", *Journal of Financial Economics*, Volume 106, Issue 2, November 2012, Pages 287-307.

How important are capital markets imperfections in determining firm decisions and aggregate fluctuations?" 2012, El *Opuscles del CREI* n.33.

"Financing Constraints and Fixed Term Employment Contracts" (With Vicente Cuñat), *The Economic Journal*, 2008, Vol. 118, Issue 533, Pages 2013-2046.

Testing Financing Constraints on Firm Investment Using Variable Capital", *Journal of Financial Economics*, n.86, December 2007, Pages 683-723.

"Financing Constraints, Irreversibility and Investment Dynamics", *Journal of Monetary Economics*, n.54, October 2007, Pages 2102-2130.

"Financial Constraints on Investments: a Three Pillar Approach" (Joint with Michele Bagella and Leonardo Becchetti), *Research in Economics*, 2001, vol. 55, Pages 219-54.

"Financial Constraints on Investments: Evidence from Direct Revelation of Italian Firms" (Joint with Michele Bagella and Leonardo Becchetti), in (M.Baldassarri, M.Bagella and L. Paganetto, Eds.) Financial Markets, Imperfect Information and Risk Management, 2001, Palgrave.

"Effects of Index Option Introduction on Stock Index Volatility: a Procedure for Empirical Testing Based on SSC-GARCH models" (Joint with Leonardo Becchetti) *Applied Financial Economics*, 2000, vol. 10, Pages 323-41.

"Option Trading, Speculation and Firm Specific Risk: an Empirical Testing on Industrial Firm Equities", in (M.Bagella, Ed.) Finance, Investment and Innovation: Theory and Empirical Analyses, 1999, Ashgate.

"Financing Constraints, Precautionary Saving and Firm Dynamics", Financial Markets Group Working Paper no. 338, London School of Economics, 1998.

Other Publications in Italian:

"La Struttura del Capitale in un'Economia con Piccole e Medie Imprese" [On Capital Structure in a Small-Medium Firm Economy], (Joint with Michele Bagella and Leonardo Becchetti), Note Economiche, 1997.

"Finanza, Investimenti e Innovazione in Italia: il Divario tra Nord e Sud", [Finance, Investments and Innovation: the North-South Gap] (Joint with Michele Bagella and Leonardo Becchetti) Published in the Book of the University of Campobasso 'Finance and Growth' Conference, 1997, Il Mulino.

"Struttura del Capitale, Agevolazioni, e Rendimento delle Imprese Manifatturiere Italiane" [Capital Structure, Subsidies and Performance of Italian Manufacturing Firms] (Joint with Michele Bagella) Rassegna Economica, n.4, 1995.

Grants and Awards:

2021-2024: EIBURS grant on "Intangibles, Technology Diffusion and Public Policies: Implications for Firm Investment, Market Structure and Aggregate Productivity". Amount Granted: 300.000 euros (I am the Principal Investigator of this Project, joint with Carolina Villegas Sanchez (ESADE)).

2021-2024: Ministerio de Educación y Ciencia grant n. PID2020-116268GB-I00 on "Firms and Households Heterogeneity, Aggregate Fluctuations, and Macroeconomic Policies". Amount Granted: 81.191 Euros (I am the principal investigator of this project, joint with Davide Debortoli (UPF)).

2019-2022: "la Caixa" Foundation Research Grants on Socioeconomic Well-being. Title: "The Effects of Firm-Level Uncertainty on Firm Employment Decisions", reference number: CG-2019_01, amount granted: 20.000 euros. I am the Principal Investigator of this Project.

AEI/FEDER, UE-ECO grant n. 2017-82596-P, "Heterogeneidad microeconómica, fluctuaciones agregadas y políticas macroeconómicas. 2017-2020, Budget: 55.000 Euros (I was the Principal Investigator of this project).

Grant "Salvador de Madariaga" for mobility of professors, January-June 201. Total Budget 29.000 Euros. (I was the Principal Investigator of this project)

Resercaixa Grant on "Financial Constraints, Hiring and Firing, and the Careers of Young Workers", Principal Investigator, 2015-2018, Total Budget, 62.700 Euros (I was the Principal Investigator of this project).

Ministerio de Educación y Ciencia grant n.2014-55555 on "La prevención de crisis y conflictos: el papel de las instituciones, el capital humano, la regulación y las redes sociales", 2014-2017, total budget 108.900,00 (Marta Reynal PI)

Ministerio de Educación y Ciencia grant for "Human Capital, Entrepreneurship and Productivity" (Antonio Ciccone PI), 2012-2014.

Ministerio de Educación y Ciencia grant for "Human Capital, Growth and the Structure of Production" (Antonio Ciccone PI), 2009-2011.

Ministerio de Educación y Ciencia grant for "Institutions and Financial Assets under Asymmetric Information" (Jose Marin PI), 2006-2008. This project was selected for an ex-post evaluation by the Spanish ministry, and it was awarded the highest available grade.

Ministerio de Educación y Ciencia grant for "Fiscal and Monetary Policy under Market Imperfections" (Albert Marcet PI), 2002-2005.

Ministerio de Educación y Ciencia grant for "Financial Decisions under Imperfect Information" (Xavier Freixas PI), 2002-2005.

Training and Mobility of Researchers (TMR) Fellowship, 1998-2001.

Economic and Social Research Council (ESRC) Research Scholarship, 1998, 1999, 2000.

Scholarship for Postgraduate Studies, La Sapienza University of Rome, 1997.

Scholarship for Postgraduate Studies, Tor Vergata University of Rome, 1996.

Keynote Speeches, Invited Lectures, Special Lectures

Series of Invited Lectues on "Finance, Firm Dynamics, and Aggregate Outcomes" (online), Central Bank of Chile, 18-21 December 2020

Keynote Speaker, Money, Macro and Finance Research Group, Conference on "Investment, funding and industrial policy", London, UK (October 2017)

One-week Course on "Finance and Firm Dynamics" Halle Institute for Economic Research, May 2017

CREI Macroeconomics Summer School, one-week I participacourse on "Finance, Firm Dynamic and the Business Cycle: Theory and Evidence", 2014-19.

Keynote Speaker at the 16th Annual DNB Research Conference, Dutch National Bank, Amsterdam, Holland, October 2013.

One-week Course on "Advanced Macro Finance" for central bank researchers, University of the Banco Central do Brasil (UNIBACEN), July 2010.

Conferences and workshops.

2022: 2nd CompNet, EBRD and IWH Conference on Finance and Productivity, April (2022).

2021: Central Bank of Chile Workshop on "Covid-19: economic implications and policy lessons". January 2021, Online. Bank of Italy Workshop on "The Effects of Insolvency, Zombie Firms, and Debt Overhang on the post COVID-19 Economy", October 2021, Online. IV Madrid Barcelona Worshop on Banking and Corporate Finance, October 2021, Madrid, Spain.

2020: Annual Meeting of the Central Bank Research Association (CEBRA), September 2020, Online. Barcelona Graduate School of Economics workshop on COVID-19 and the Economy: Data, Theory and Policy, September

2020 (online). BdF-BdI-Science Po-CEPR conference on "Firms in times of the pandemic", December 2020 (Online).

2019: Assa Meetings, Atlanta, USA; Marrackech Macro Conference, Marrakech, May 2019. Second Annual Conference of the Catalan Economic Society, Barcelona, May 2019. Fed St. Louis-JEDC-SCG-SNB-UniBern Conference on "Disaggregate Data and Macroeconomic Models", October 2019, Gerzensee, Switzerland (Discussant). 1st CompNet, EBRD and IWH Conference on Finance and Productivity (FINPRO), December 2019, London, UK.

2018: Society for Economic Dynamics (SED) Annual Conference, Mexico City, Mexico. IMF First Annual Macro-Financial Research, Conference, Washington, USA. Conference on Corporate Finance Beyond Public Companies", Manchester, UK (discussant). 6th ECB - CBRT Conference, Izmir (Turkey), October 2018. Workshop "Puzzles in non-financial corporations debt, savings and investment", European Commission, December 2018.

2017: Society for Economic Dynamics (SED) Annual Conference, Edimburgh, UK. Money, Macro and Finance Research Group, Conference on "Investment, funding and industrial policy", London, UK (Keynote Speaker). 5th ECB - CBRT Conference: Productivity and Sectoral Reallocation, Izmir (Turkey), October 2017. 1st Banco de España Annual Research Conference, September 2017 (Discussant)

2016: SFS Finance Cavalcade, Toronto Canada; BGSE Summer Forum, Workshop on Asset Prices, Finance and Macroeconomics (Planned); Econometrics Society Winter Meeting, Philadelphia; NBER Summer Summer Institute on Macroeconomics and Productivity, Cambridge, US; NBER Summer Summer Institute on Capital Markets and the Economy, Cambridge, US*; NBER Summer Summer Institute on Money, Macro and Financial Frictions, Cambridge, US

2015: European Summer Symposium in International Macroeconomics (ESSIM), Tarragona, Spain

2014: Society for Economic Dynamics (SED) Annual Conference, Toronto, Canada* (paper presented by a Co-Author).

2013: Barcelona GSE 2013 Summer meetings, 21th European Summer Symposium in International Macroeconomics (ESSIM), Izmir, Turkey; Society for Economic Dynamics (SED) Annual Conference, Seoul, Korea; 16th Annual DNB Research Conference, Danish National Bank, Amsterdam, Holland (Keynote speaker).

2012: Barcelona GSE 2012 winter meetings, FMG Conference for the 25th Anniversary, London, UK; 20th European Summer Symposium in International Macroeconomics (ESSIM), Tarragona, Spain; NBER Summer Institute on "Capital Markets and The Economy", Boston, Massachusetts. NBER Summer Institute on "Aggregate Implications of Micro Consumption Behavior", Boston, Massachusetts; LSE / BOE conference on "Unemployment, productivity and potential output: the aftermath of the crisis". Bank of England, London, UK.

2011: Conference on Asset Prices and the Business Cycle, CEPR, CREI and Universitat Pompeu Fabra, Barcelona, Spain. Society for Economic Dynamics (SED) Annual Conference, Ghent, Belgium; 19th European Summer Symposium in International Macroeconomics (ESSIM), Gerzensee, Switzerland.

2009: 8th Workshop on Macroeconomic Dynamics: Theory and Applications, Pavia University, Italy; International Conference on "Financial market imperfections, corporate governance and economic outcomes", University of Sassari, Italy.

2007: Society for the Advancement of Economic Theory (SAET) Annual Meeting, Kos, Greece, III Workshop in Public Policy Design, Institutions and Labour Markets, University of Girona, Spain.

2006: Society for Economic Dynamics (SED) Annual Conference, Vancouver, Canada. International Finance Conference, University of Copenhagen, Denmark.

2005: NBER Summer Institute on "Capital Markets and The Economy", Boston, USA.

2004: North American Winter Meeting of the Econometric Society, Philadelphia, USA. 2nd ECB/IMOP Workshop on Dynamic Macroeconomics, Hydra, Greece.

2003: CEPR Conference on Entrepreneurship, Financial Markets and Innovation, Universitat Pompeu Fabra, Barcelona, Spain. NBER Summer Institute on "Capital Markets and The Economy", Boston, Massachusetts. European Economic Association Annual Conference, Stockholm, Sweden. European Econometric Association Annual Conference, Stockholm, Sweden.

2001: Society for Economic Dynamics (SED) Annual Conference, San Jose, Costa Rica.

1999: Money and Finance Conference, Oxford, UK. Society for Economic Dynamics (SED) Annual Conference, Alghero, Italy. European Association of Research in Industrial Economics (EARIE) Annual Conference, Copenhagen, Denmark. Annual Conference of the Royal Economic Society, Stoke on Trent, UK.

^{*}Paper presented by a co-author

2022: Danish National Bank. 2020: Esade. 2019: Danish National Bank. 2018: Manchester University. 2017: Norwegian School of Economics; Halle Institute for Economic Research. 2016: Bank of Finland; Bank of Spain; Boston College; Boston University, Economics Department; Boston University, Finance Department. 2015: University of Copenhagen. 2014: University of Surrey, UK. 2013: Vienna Graduate School of Finance, Austria. 2012: University of Glasgow Business School, UK. 2011: Cass Business School, UK. 2010: University of Trento, Italy; Banco Central do Brasil, Brasilia, Brasil. 2009: University of Milan, Milan, Italy. 2008: Instituto de Empresa, Madrid, Spain. LUISS University, Rome, Italy. 2007: University of Warwick, Coventry, UK. Stockholm School of Economics, Stockholm, Sweden. 2004: Bank of Italy (Ente Einaudi), Italy. Banco de España, Spain. Center for Applied Microeconometrics, University of Copenhagen, Denmark. 2001: CEMFI, Spain. Federal Reserve Bank of Philadelphia, USA. University of Salerno, Italy.

Media:

2010: Article published on the Italian online Economics Magazine "La Voce", including a non-technical explanation of my 2007 paper on "Financing Constraints and Fixed Term Employment Contracts".

2011: Three interviews with "Estrategia" (<u>www.estrategia.cl</u>) on the European Financial Crisis, on March 11, July 12 and Sept. 27.

2012: Radio Interview with "Informacion Privilegiada" http://www.informacionprivilegiada.cl on the European Financial Crisis.

2013: Interviews about the political and economic crisis in Italy and its effects in Europe and Spain, Telecinco (Spain) and Duna FM (Chile).

Referee:

American Economic Review, American Economic Journal: Macroeconomics, Econometrica, Journal of Monetary Economics, Review of Economic Studies, Management Science, Economic Journal, Review of Economic Dynamics, Journal of the European Economic Association, Journal of Money, Credit and Banking, Economica, Regional Science and Urban Economics, Investigaciones Economicas, Advances in Macroeconomics.

Referee for competitive research grants for: Italian National Agency for the Evaluation of Research; Spanish National Evaluation Agency; Swiss National Science Foundation.

PhD Supervision

Doctoral Thesis - Main Advisor

Alfonso Ugarte: "Investment with Learning and Financial Constraints: The effects of relationship lending on the Cost and Access to Credit" (Defended in 2011, grade: Excellent Cum Laude). First Placement: BBVA - Research Department.

Roger Gomis: "The effects Cash Holdings on Competition and its Macroeconomic Consequences" (Defended in February 2018, grade: Excellent Cum Laude. *First placement: International Labour Organization*)

Jose Jorge Pozo: "The Macroeconomic Effects of Capital Requirements" (Defended in December 2019. Grade: Excellent. *First Placement: Central Bank of Peru*).

Andrea Sy: "Firm Financing Over the Business Cycle: Public vs. Private Firm" (Expected completion: October 2023)

Marko Irisarri: "The Rise in Intangibles and its Macroeconomic Implications" (Expected completion: October 2024)

Gianmarco Ruzzier: "Essays on Banks' efficiency and Firms financing decisions"

<u>Doctoral Thesis – Member of Tribunal</u>

Jose Manuel Peres Jorge (UPF, March 2005); Jose Antonio Dorich (UPF, July 2008); Eva Luethi (UPF, July 2010); Carlos González-Aguado (CEMFI, September 2010); Antoni Sureda (UPF, October 2010); Andrea Lanteri (LSE, July 2016); Haozhou Tang, UPF (December 2017); Beatriz Gonzalez (CEMFI, October 2019).

Thesis Proposal—Committee member

Paula Garda, "Informal Employment over the Business Cycle" (2010); Mladjan Mrdjan, "External Dependence and the Severity of the Great Depression" (2010); Isabel Cairo', "Financing Constraints and Job Destruction" (2011); Stefan Gissler, "Sushi and the City: Urban Economics and variety in consumption" (2011); Jagdish Tripathy, "On Non-Monotonic Effects of Finance" (2013); Tom Schmitz, "Investment and Firm Dynamics over the Business Cycle" (2013). Francesc Rodriguez Tous, "The Eects of Bank Capital Regulation on Non-Financial Firms: Some Evidence and Theory" 2013; Haozhou Tang, "Aggregate Productivity and Firm Sizes over the Bubbly Business Cycle" (2014); Giacomo Caracciolo, "Optimal Monetary and Fiscal Policy in a Model with an Underground Sector" (2015); Sebastian Diz, "Minimum Wages and Economic Fluctuations"; Willy Scherrieble, "Essays on Macroeconomics and Financial Intermediation" (2018); Andrea Fabiani, "Essays in empirical macrofinance" (2018); Sampreet Goraya, "Essays on Firm Heterogeneity and Macroeconomics" (2018); Janko Heineken (2018), "Essays on Debt and Speculation" (2018). Marta Morazzoni (2020), "Essays in Macroeconomics". Lauri Esala (2020), "Essays on the macroeconomic effects of firm-level frictions". Narek Ohanyan (2020), "Essays in Information Economics and Monetary Policy Design". Hayk Sargsyan (2021), "Optimal Monetary and Macro-Prudential Policies in a World with Consumer Default".

Teaching Experience

Graduate courses

Professor, Topics in Macro-Finance (Graduate Program, UPF), 2007, 2011-2015, and 2017-Present. Professor, Advanced Macroeconomics II (Graduate Program, UPF), 2015. Professor, Advanced Macroeconomics I (Graduate Program, UPF), 2009-2010 and 2014; Professor, Macroeconomics I (Graduate Program, UPF), Winter 2009, 2010, 2013; Professor, Empirical Finance (Graduate Program, UPF), Spring 2008; Professor, Applied Macroeconomics (Graduate Program, UPF), Fall 2005, 2006; Professor, Elements of Macroeconomics (Graduate Program, UPF), Fall 2001, 2002;

<u>Undergraduate courses</u>

Professor, Economia Internacional 1 (3rd-4th year Undergraduate, UPF), 2018; (Professor, Advanced Macroeconomics I (3rd-4th year Undergraduate, UPF), 2012-2015 and 2016-Present; Professor, Macroeconomia Aplicada (Fiscal Policy, 3rd-4th year Undergraduate), 2003-2012; Professor, Econometria I (3rd-4th year Undergraduate, UPF), 2001-2004; Professor, Macroeconomia II (3rd-4th year Undergraduate, UPF), Winter 2001; Professor, Temes de Macroeconomia (Topics in Macroeconomics, 3rd-4th year Undergraduate, UPF), Spring 2001, 2002; Professor, Teoria Economica IV (Monetary and International Economics, 2nd year Undergraduate), Spring 2005, 2006, 2007; Teaching Assistant, The Economic Analysis of the European Union (at LSE), 1997-1999; Teaching Assistant, Principles of Finance (at LSE), 1997-1999.

Academic Service

Coordinator, Master of Research in Economics, Finance and Management, Universitat Pompeu Fabra, 2012-2015, 2016-present.

Coordinator of Undergraduate teaching in Macroeconomics (UPF, 2012-present)

Member of the Academic Committee, Barcelona Graduate School in Economics (Barcelona GSE, 2013-2015)

Coordinator of graduate and undergraduate teaching assistants (UPF, 2007-2011).

Coordinator of the Job market applications in Macroeconomics (UPF, 2008-2012).

Member of the Recruiting committee (UPF, 2008-2009, 2010-2012).

Academic Advisor for the Master in Finance (UPF, 2007-2008).

Interviewer for UPF Recruiting, 2005, 2009 and 2019 ASSA meetings.

European Finance Association Annual meeting, Member of the Program Committee, 2016-present.

European Economics Association Annual meeting, Member of the Program Committee, 2018.

Organisation of International Conferences

Co-Organiser of the Workshop on Rise of Intangibles: Implications for Technology Diffusion, Firm Dynamics and Aggregate Outcomes, BSE Summer Forum, 2019, 2021, 2022.

Co-Organiser of the Workshop on Financial Shocks, Channels, and Macro Outcomes, BSE Summer Forum, 2019, 2021, 2022.

Co-Organiser of the Workshop on Asset Prices and Business Cycle, BSE Summer Forum, 2013, 2014, 2015, 2016, 2017, 2018, 2020.

Co-Organiser of the Workshop on Firms in the Global Economy, BSE Summer Forum, 2017, 2018.

Co-Organiser of the first International Workshop on Asset Prices and Business Cycle, Barcelona GSE, CREI, CEPR and Universitat Pompeu Fabra, December 2011.

Co-Organiser of the Seminar series: Entrepreneurship, Financial Markets and Innovation: Theories and Empirical Evidence.

Languages:

English (fluent), Italian (mother tongue), Spanish (fluent), Catalan (intermediate), Danish (basic).