

## **Curriculum Vitae**

### **Massimiliano MARCELLINO**

Citizenship: Italian  
Marital Status: Married, two children

Office: Department of Economics, Bocconi University.  
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### **Current Job**

- Professor of Econometrics, Department of Economics, Bocconi University, since 2005
- Research Fellow, CEPR
- Research Fellow, IGIER, BIDSa, Baffi-Carefin

### **Experience (academic)**

- Part-time Professor, RSCAS, European University Institute, 2013-2019
- Pierre Werner Professor, European University Institute 2011-2013 (on leave from Bocconi University)
- Professor of Econometrics, European University Institute, 2009-2010 (on leave from Bocconi University)
- Associate Professor, Department of Economics, Bocconi University, 2000-04
- Assistant Professor, Department of Economics, Bocconi University, 1999
- Research Fellow, I.G.I.E.R., 1998
- Research Fellow, European University Institute, 1997
- Visiting Scholar, Harvard University, Spring 2001; Fall 1999; Fall 1998
- Visiting Scholar, University of California at San Diego, Fall 1996

## **Experience (administrative)**

- Chairman of the Local Organizing Committee for the 2022 EEA-ESEM Congress
- Member of the Bocconi Committee for Appointments and Promotions
- Chairman of the Local Organizing Committee for the 2020 World Congress of the Econometric Society
- Scientific Chair of the Euro Area Business Cycle Network, 2014-2016 (Vice-Chair for 2011-13)
- Member of the Advisory Panel, The Conference Board, 2012 to present
- Member of the Selection Council for the Scientific Committee of the Italian CNR, 2012
- Head, Department of Economics, European University Institute 2009-2011
- Member of the Executive Committee, European University Institute 2009-2011
- Director of the Undergraduate Degree in Economics (DES), Bocconi University, 2004-2008
- Deputy Director, IGIER, 2004-2006
- Coordinator of the European Forecasting Network, 2001-2018

## **Education**

European University Institute, PhD. in Economics, 1996

Bocconi University, BA/MA in Economic, Statistical and Social Sciences (DES), 1993

## **Language competence**

Italian (native language); English (fluent); French (read-oral: good, written: basic)

## **Teaching experience**

Time Series Analysis (PhD, 2003 to present)

Applied Econometrics (Undergraduate, Master, 1999-2008)

Econometrics (Undergraduate, Master, 2000-2008, 2013 to present)

Macroeconomics (Undergraduate, 1999-2001)

## **Thesis supervision**

- Main supervisor of 12 completed PhD dissertations (name and first job): Mario Porqueddu (Bank of Italy), Margherita Grasso (ENEL), Pierre Guerin (Bank of Canada), Edwin Goni Pacchioni (Inter American Development Bank), Klemens Hauzemberger (Bundesbank), Claudia Foroni (Norges Bank), Matthieu Droumaguet (Goldman Sachs), Damien Puy (IMF), Vasja Sivec (Bank of Slovenia), Angela Abbate (Bundesbank), Francesco Corsello (Banca d'Italia), Valerio Nispi Landi (Banca d'Italia)
- Currently supervising 1 PhD student as main advisor
- Second supervisor of 6 PhD students
- Over 70 MA dissertations as supervisor or co-supervisor

## **Grants**

2019-2021 MIUR, Prin project “Econometric Analysis of High Dimensional Models with Network Structures in Macroeconomics and Finance”  
2011-13 European Parliament, Framework contract for the provision of economic services  
2005-06 Università Bocconi, “Monitoring the European Economy”  
2005-06 MIUR Prin project, “Dynamic factor models”  
2001-04, European Commission (DG-Ecfin), coordinator of the European Forecasting Network  
2003-04 Università Bocconi, “Large scale factor models”  
2003-04 MIUR Prin project, “Forecasting macroeconomic and financial time series”  
2001-02 MIUR Prin project, “Factor models and macroeconomic forecasting”  
2001-02 Università Bocconi, “Progressive Modelling: Non-nested Tests and Encompassing”  
1999-00 Università Bocconi, “Publicly financed infrastructure: A critical reassessment”  
1999 Harvard University, European Center, “A dynamic factor analysis of the EMU”

## **Conferences and Seminars (selection, with paper presentation)**

2021: University of Pennsylvania, IIEA Conference. 2020: Banco de Espana, ECB, Wien Forecasting Conference, PSE-Banque de France workshop, NIESR workshop, EC2 Conference. 2019: ECB, USC Panel Conference (Keynote), UCLA, EABCN Conference, King’s College, University of Strathclyde. 2018: Big Data Conference at Bank of Italy (Keynote), Barcelona GSE Summer Forum, ECB, Montreal Econometrics Seminar, Forecasting Conference at National Bank of Poland (Keynote), Macroeconometrics Conference at DG ECFIN (Keynote) . 2017: Bank of Portugal, United Nations CES (Keynote), ECB, Bundesbank Forecasting Conference, Norges Bank Big Data Conference, Cirq-IWH (Keynote). 2016: Banque de France, Bank of England, Barcelona GSE Summer Forum, IAEE Conference, CIRET Conference (Keynote), ESOBE, NUS. 2015: DIW-Berlin, Warwick-Queen Mary Forecasting Workshop, Bank of Canada, Bundesbank. 2014: ECB Big Data Conference; Moscow, New Economic School; Universitat Pompeu Fabra; Aarhus-Creates Conference on Factor Models. 2013: Monash University Conference on Forecasting; Reserve Bank of Australia; Universidad Carlos III, ECB - Bank of Italy workshop on Exchange Rates. 2012: ECB Conference on Forecasting, University of Amsterdam, University of Rotterdam, NBER Summer Institute, IMF-GWU Forecasting Conference. 2011: Central Bank of Turkey, ESOBE Conference, Banque de France. 2010: NBER Summer Institute, University of Oslo, Bank of Italy, Eurostat Colloquium. 2009: NBER/NSF Time Series Conference, San Francisco FED, Bundesbank, Cass Business School. 2008: EUI, International Symposium on Forecasting, NBER Summer Institute, Bank of France. 2007: Oxford University, Bank of France, Bank of England, ECB, EUI. 2006: NBER Summer Institute, Humboldt University, Carlos III, Aarhus, Bundesbank’s Spring Conference, DNB, Bank of Spain. 2005: ICEEE, University of Amsterdam, ECB, European Commission. 2004: Stanford University, UC Berkeley, UC Davis, UC San Diego, ECB. 2003:

ECB, Ente Einaudi, Bank of Portugal. 2002: ECB, ISF, NBER Summer Institute. 2001: Bank of Spain, Bank of England, Harvard University, CEPR-Bank of Italy, ECB. 2000: Winter Meetings of the Econometric Society, University of Southampton, ECB, CEPR-Essim Symposium, Erasmus University. 1999: IMF, Harvard University, UC San Diego. 1998: EC<sup>2</sup>, Harvard University, New York FED, UC Berkeley, University of Indiana, University of Aarhus, University of Bilbao. 1997: ESEM, London Business School, Bank of Italy. 1996: ESEM, EC<sup>2</sup>, International Monetary Fund, University of Indiana.

### **Research Interests**

Econometrics, Empirical Macroeconomics, Economic Statistics, Time-series analysis

### **Editorial Services**

Departmental Editor, Journal of Forecasting (2006-)

Associate Editor, Journal of Business and Economic Statistics (2015-)

### **Referee for**

*Econometrics journals:* Econometrica, Econometrics Journal, Econometrics Reviews, Econometric Theory, International Journal of Forecasting, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Forecasting, Oxford Bulletin of Economics and Statistics, Review of Economics and Statistics

*Statistical journals:* Annals of Statistics, Journal of Multivariate Analysis,

*Economic Journals:* Economic Modelling, Economica, Economics Letters, Empirical Economics, European Economic Review, Giornale degli Economisti, Journal of Economic Dynamics and Control, Journal of Economic Surveys, Journal of the European Economic Association, Journal of International Economics, Journal of Monetary Economics, Oxford Economic Papers, Review of Economic Studies

### **Research**

#### *Books*

1. (2018) *Applied Economic Forecasting using Time Series Methods*, with Eric Ghysels, Oxford University Press.
2. (2016) *Applied Econometrics: An Introduction*, Bocconi University Press (previous Italian editions: 2006, 2013)
3. (2006) *The European Enlargement: Prospects and Challenges*, with Michael Artis and Anindya Banerjee (eds.), Cambridge: Cambridge University Press.

### *Special Journal Issues*

4. (2016) *The Econometric Analysis of Mixed Frequency Data Sampling*, with Eric Ghysels (eds.), *Journal of Econometrics*, 193.
5. (2010) *Advances in Business Cycle Analysis and Forecasting*, with Gian Luigi Mazzi (eds.), *Journal of Forecasting*, 29.
6. (2008) *Encompassing*, with David Hendry and Grayham Mizon (eds.), *Oxford Bulletin of Economics and Statistics*, 70.

### *Articles published in international journals*

7. (2021a) “Time-Varying Instrumental Variable Estimation”, with Liudas Giraitis and George Kapetanios, *Journal of Econometrics*, forthcoming.
8. (2021b) “No Arbitrage Priors, Drifting Volatilities, and the Term Structure of Interest Rates”, with Andrea Carriero and Todd Clark, *Journal of Applied Econometrics*, forthcoming.
9. (2021c) “Forecasting the Covid-19 Recession and Recovery: Lessons from the Financial Crisis”, with Claudia Foroni and Dalibor Stevanovic, *International Journal of Forecasting*, forthcoming.
10. (2021d), “Using Time-Varying Volatility for Identification in Vector Autoregressions: An Application to Endogenous Uncertainty”, with Andrea Carriero and Todd Clark, *Journal of Econometrics*, forthcoming.
11. (2020a) “Markov-Switching Three-Pass Regression Filter”, with Pierre Guerin and Danilo Leiva-Leon, *Journal of Business and Economic Statistics*, 38(2), 285-302.
12. (2020b) “Assessing International Commonality in Macroeconomic Uncertainty and its Effects”, with Andrea Carriero and Todd Clark, *Journal of Applied Econometrics*, 35(3), 273-293.
13. (2020c) “A Similarity-based Approach for Macroeconomic Forecasting”, with Yiannis Dendramis and George Kapetanios, *Journal of the Royal Statistical Society, Series A*, 183(3), 801-827.
14. (2019a), “Forecasting gross domestic product growth with large unbalanced data sets: the mixed frequency three-pass regression filter”, with Christian Hepenstrick, *Journal of the Royal Statistical Society, Series A*, 182(1), 69-99.
15. (2019b) “Large Vector Autoregressions with stochastic volatility and flexible priors” with Andrea Carriero and Todd Clark, *Journal of Econometrics*, 212, 137-154.
16. (2019c) “Mixed frequency models with MA components”, with Claudia Foroni and Dalibor Stevanovic, *Journal of Applied Econometrics*, 34(5), 688-706.
17. (2019d) “Tax shocks with high and low uncertainty”, with Fabio Bertolotti, *Journal of Applied Econometrics*, 34(6), 972-993.

18. (2019e) "Large Time-Varying Parameter VAR: A Non-Parametric Approach", with George Kapetanios and Fabrizio Venditti, *Journal of Applied Econometrics*, 34(7), 1027-1049.
19. (2018a) "Point, interval and density forecasts of exchange rates with time varying parameter models", with Angela Abbate, *Journal of the Royal Statistical Society, Series A*, 181(1), 155-179.
20. (2018b) "Macroeconomic Uncertainty Through the Lenses of A Mixed-Frequency Panel Markov Switching Model" with Roberto Casarin, Claudia Foroni and Francesco Ravazzolo, *Annals of Applied Statistics*, 12(4), 2559-2586.
21. (2018c) "Measuring uncertainty and its impact on the economy" with Andrea Carriero and Todd Clark, *Review of Economics and Statistics*, 100(5), 799-815.
22. (2018d), "Using low frequency information for predicting high frequency variables", with Claudia Foroni and Pierre Guerin, *International Journal of Forecasting*, 34(4), 774-787.
23. (2017a) "Have standard VARs remained stable since the crisis?", with Knut Are Aastveit, Andrea Carriero and Todd Clark, *Journal of Applied Econometrics*, 32(5), 931–951.
24. (2017b) "Selecting predictors by Bayesian model averaging in bridge models" with Lorenzo Bencivelli and Gianluca Moretti, *Empirical Economics*, Volume 53(1), 21–40.
25. (2017c) "Structural FECM: Cointegration in large-scale structural FAVAR models ", with Anindya Banerjee and Igor Masten, *Journal of Applied Econometrics*, 32(6), 1069–1086.
26. (2017d) "Explaining the time-varying effects of oil market shocks on U.S. stock returns", with Claudia Foroni e Pierre Guerin, *Economics Letters*, 155, 84-88.
27. (2016a) "Short-term GDP forecasting with a mixed frequency dynamic factor model with stochastic volatility" with Mario Porqueddu and Fabrizio Venditti, *Journal of Business and Economic Statistics*, 34, 118-127.
28. (2016b) "Mixed frequency structural VARs", with Claudia Foroni, *Journal of the Royal Statistical Society, Series A*, 179(2), 403-425.
29. (2016c) "Monetary, Fiscal and Oil Shocks: Evidence based on Mixed Frequency Structural FAVARs", with Vasja Sivec, *Journal of Econometrics*, 193, 335–348.
30. (2016d) "Structural analysis with Multivariate Autoregressive Index models", with Andrea Carriero and George Kapetanios, *Journal of Econometrics*, 192, 332-348.
31. (2016e) "Variable Selection for Large Unbalanced Datasets Using Non-Standard Optimisation of Information Criteria and Variable Reduction Methods ", with George Kapetanios and Fotis Papailias, *Computational Statistics and Data Analysis*, 100, 369-382.
32. (2016f) "Common Drifting Volatility in Large Bayesian VARs", with Andrea Carriero and Todd Clark, *Journal of Business and Economic Statistics*, 34, 375-390.
33. (2016g) "Factor based identification-robust inference in IV regressions", with Lynda Khalaf and George Kapetanios, *Journal of Applied Econometrics*, 31(5), 821–842.
34. (2016h) "The Changing International Transmission of Financial Shocks", with Angela Abbate, Wolfgang Lemke and Sandra Eickmeier, *Journal of Money, Credit and Banking*, 48(4), 573–601.
35. (2016i) "On the importance of sectoral and regional shocks for price-setting" with Guenter Beck and Kirstin Hubrich, *Journal of Applied Econometrics*, 31(7), 1234–1253.

36. (2016j) "Time Variation in Macro-Financial Linkages", with Esteban Prieto and Sandra Eickmeier, *Journal of Applied Econometrics*, 31(7), 1215–1233.
37. (2015a) "Forecasting economic activity with targeted predictors", with Guido Bulligan and Fabrizio Venditti, *International Journal of Forecasting*, 31, 188-206.
38. (2015b) "Bayesian VARs: Specification choices and forecasting performance", with Andrea Carriero and Todd Clark, *Journal of Applied Econometrics*, 30, 46-73.
39. (2015c) "U-MIDAS: MIDAS regressions with unrestricted lag polynomial", with Claudia Foroni and Christian Schumacher, *Journal of the Royal Statistical Society, Series A*, 178, 57-82.
40. (2015d) "A Classical Time Varying FAVAR Model: Estimation, Forecasting, and Structural Analysis", with Wolfgang Lemke and Sandra Eickmeier, *Journal of the Royal Statistical Society, Series A*, 178, 493–533.
41. (2015e) "Macroeconomic forecasting during the Great Recession: The return of non-linearity?", with Laurent Ferrara and Matteo Mogliani, *International Journal of Forecasting*, 31, 664–679.
42. (2015f) "Real-Time Nowcasting with a Bayesian Mixed Frequency Model with Stochastic Volatility", with Andrea Carriero and Todd Clark, *Journal of the Royal Statistical Society, Series A*, 178, 837-862.
43. (2015g) "Markov-Switching Mixed Frequency VAR Models", with Claudia Foroni and Pierre Guerin, *International Journal of Forecasting*, 31, 692-711.
44. (2015h) "EuroMInd-C: A Disaggregate Monthly Indicator of Economic Activity for the Euro Area and member countries", with Cecilia Frale, Stefano Grassi, Gian Luigi Mazzi and Tommaso Proietti, *International Journal of Forecasting*, 31, 712-738.
45. (2014a) "Forecasting with Factor Augmented Error Correction Models", with Anindya Banerjee and Igor Masten, *International Journal of Forecasting*, 30, 589-612.
46. (2014b) "The effects of the monetary policy stance on the transmission mechanism", with Ana Galvao, *Studies in Nonlinear Dynamics and Econometrics*, 18(3).
47. (2014c) "Mixed-Frequency Structural Models: Identification, Estimation, and Policy Analysis", with Claudia Foroni, *Journal of Applied Econometrics*, 29, 1118-1144.
48. (2014d) "A comparison of mixed frequency approaches for nowcasting Euro area macroeconomic aggregates", with Claudia Foroni, *International Journal of Forecasting*, 30, 554-568.
49. (2014e) "Forecasting with a DSGE model of a Small Open Economy within the Monetary Union", with Yuliya Rychalovska, *Journal of Forecasting*, 315-338.
50. (2014f) "Regime Switches in the Risk-Return Trade-off", with Eric Ghysels and Pierre Guerin, *Journal of Empirical Finance*, 28, 118-138.
51. (2013a) "Markov Switching MIDAS models", with Pierre Guerin, *Journal of Business and Economic Statistics*, 31(1), 45-56.
52. (2013b) "Pooling versus model selection for nowcasting GDP with many predictors: Empirical evidence for six industrialized countries", with Vladimir Kuzin and Christian Schumacher, *Journal of Applied Econometrics*, 28(3), 392-411.

53. (2013c) “Empirical Simultaneous Confidence Regions for Path-Forecasts”, with Oscar Jorda and Malte Knoppel, *International Journal of Forecasting*, 29, 456-468.
54. (2013d) “The multiscale causal dynamics of foreign exchange markets”, with Stelios Bekiros, *Journal of International Money and Finance*, 33, 282-305.
55. (2012a) “Forecasting Government Bond Yields with Large Bayesian VARs”, with Andrea Carriero and George Kapetanios, *Journal of Banking and Finance*, 36(7), 2026-2047.
56. (2012b) “A Credibility Proxi: Tracking US Monetary Developments ” with Maria Demertzis and Nicola Viegi, *B.E. Journal of Macroeconomics*, Topics, 12(1).
57. (2011a) “Forecasting Large Datasets with Bayesian Reduced Rank Multivariate Models”, with Andrea Carriero and George Kapetanios, *Journal of Applied Econometrics*, 26, 736-761.
58. (2011b) “MIDAS vs Mixed-Frequency VAR for Nowcasting GDP in the Euro Area”, with Vladimir Kuzin and Christian Schumacher, *International Journal of Forecasting*, 27, 529-542.
59. (2011c) “Sectoral survey-based confidence indicators for Europe”, with Andrea Carriero, *Oxford Bulletin of Economics and Statistics*, 73, 175–206.
60. (2011d) “The Reliability of Real Time Estimates of the Euro Area Output Gap”, with Alberto Musso, *Economic Modelling*, 28, 1842–1856.
61. (2011e), “EUROMIND: A Monthly Indicator of the Euro Area Economic Conditions” with Cecilia Frale, Gianluigi Mazzi and Tommaso Proietti, *Journal of the Royal Statistical Society*, Series A, 174, 439-470.
62. (2011f) “Econometric Analyses with Backdated Data: Unified Germany and the Euro Area”, with Elena Angelini, *Economic Modelling*, 28, 1405–1414.
63. (2011g) “LSM: A DSGE Model for Luxembourg”, with Szabolcs Deak, Lionel Fontagne and Marco Maffezzoli, *Economic Modelling*, 28, 2862–2872.
64. (2010a), “Path Forecast Evaluation”, with Oscar Jorda, *Journal of Applied Econometrics*, 25, 635-662.
65. (2010b) “Survey Data as Coincident or Leading Indicators”, with Cecilia Frale, Gianluigi Mazzi and Tommaso Proietti, *Journal of Forecasting*, 29, 109-131.
66. (2010c) “Factor-MIDAS for now- and forecasting with ragged-edge data: A model comparison for German GDP”, with Christian Schumacher, *Oxford Bulletin of Economics and Statistics*, vol. 72, 518-550.
67. (2010d) “Cross-sectional Averaging and Instrumental Variable Estimation with Many Weak Instruments”, with George Kapetanios, *Economic Letters*, vol. 108, 36-39.
68. (2010e) “Factor-GMM Estimation with Large Sets of Possibly Weak Instruments”, with George Kapetanios, *Computational Statistics and Data Analysis*, 54, 2655-2675.
69. (2009a) “Regional inflation dynamics within and across euro area countries and a comparison with the US”, with Guenter Beck and Kirstin Hubrich, *Economic Policy*, 24, 141-184.
70. (2009b), “Forecasting Exchange Rates with a Large Bayesian VAR”, with Andrea Carriero and George Kapetanios, *International Journal of Forecasting*, 25, 400-417.



71. (2009c), "A Parametric Estimation Method for Dynamic Factor Models of Large Dimensions", with G. Kapetanios, *Journal of Time Series Analysis*, 30, 208-238.
72. (2008a) "A benchmark for models of growth and inflation", *Journal of Forecasting*, 27, 305-340.
73. (2008b) "Factor analysis in a new-Keynesian model", with Andreas Beyer, Roger Famer and Jerome Henry, *Econometrics Journal*, 11, 271-286.
74. (2008c) "Model selection for nested and overlapping nonlinear dynamic and possibly misspecified models", with Barbara Rossi, *Oxford Bulletin of Economics and Statistics*, 70, 869-893.
75. (2008d) "Forecasting Euro-Area Variables with German Pre-EMU Data", with Ralf Brüggemann and Helmut Lutkepohl, *Journal of Forecasting*, 27, 465-481.
76. (2007a) "Pooling based data interpolation and backdating", *Journal of Time Series Analysis*, 28, 53-71.
77. (2007b) "The Transmission Mechanism in a Changing World", with Michael Artis and Ana Galvao, *Journal of Applied Econometrics*, 22, 39-61.
78. (2007c) "A macroeconomic model for the Euro economy", with Christian Dreger, *Journal of Policy Modeling*, 29, 1-13.
79. (2007d) "A Comparison of Methods for the Construction of Composite Coincident and Leading Indexes for the UK", with Andrea Carriero, *International Journal of Forecasting*, 23, 219-236.
80. (2006a) "A Comparison of Direct and Iterated AR Methods for Forecasting Macroeconomic Series h-Steps Ahead", with Jim Stock and Mark Watson, *Journal of Econometrics*, 135, 499-526.
81. (2006b) "Interpolation with a large information set", with Elena Angelini and Jerome Henry, *Journal of Economic Dynamics and Control*, 30, 2693-2724.
82. (2006c) "Are there any reliable leading indicators for the US inflation and GDP growth?", with Anindya Banerjee, *International Journal of Forecasting*, 22, 137-151.
83. (2006d) "Some stylized facts on fiscal policy in the Euro area", *Journal of Macroeconomics*, 28, 461-479.
84. (2006e) "Factor based index tracking", with Francesco Corielli, *Journal of Banking and Finance*, 30, 2215-2233.
85. (2006f) "Leading indicators", in Elliott, G., Granger, C.W.J. and Timmermann, A. (eds), *Handbook of Economic Forecasts*, Amsterdam: Elsevier.
86. (2005a) "Modelling and Forecasting Fiscal Variables for the euro Area", with Carlo Favero, *Oxford Bulletin of Economics and Statistics*, 67, 755-783.
87. (2005b) "Characterizing business cycles for accession countries", with Mike Artis and Tommaso Proietti, *Journal of Business Cycle Measurement and Analysis*, 2, 7-41.
88. (2005c) "Testing for PPP: Should We Use Panel Methods?", with Anindya Banerjee and Chiara Osbat, *Empirical Economics*, 30, 77-91.
89. (2005d) "Leading indicators for Euro area inflation and GDP growth", with Anindya Banerjee and Igor Masten, *Oxford Bulletin of Economics and Statistics*, 67, 785-813.

90. (2005e) "Principal components at work: the empirical analysis of monetary policy with large datasets", with Carlo Favero and Francesca Neglia, *Journal of Applied Econometrics*, 20, 603-620.
91. (2005f) "Factor forecasts for the UK", with Mike Artis and Anindya Banerjee, *Journal of Forecasting*, 24, 279-298.
92. (2004a) "Dating the Euro area business cycle", with Mike Artis and Tommaso Proietti, *Oxford Bulletin of Economics and Statistics*, 66, 537-565.
93. (2004b) "Stochastic processes subject to time-scale transformations", with Oscar Jorda, *Journal of Time Series Analysis*, 25, 873-894.
94. (2004c) "Some cautions on the use of panel methods for integrated series of macro-economic", with Anindya Banerjee and Chiara Osbat, *Econometrics Journal*, 7, 322-340.
95. (2004d) "Forecast pooling for European macroeconomic variables", *Oxford Bulletin of Economics and Statistics*, 66, 91-112.
96. (2004e) "Forecasting EMU macroeconomic variables", *International Journal of Forecasting*, 20, 359-72.
97. (2003a) "Macroeconomic forecasting in the Euro area: country specific versus Euro wide information", with Jim Stock and Mark Watson, *European Economic Review*, 47, 1-18.
98. (2003b) "Modeling High-Frequency Foreign Exchange Data Dynamics", with Oscar Jorda, *Macroeconomic Dynamics*, 7, 618-635.
99. (2002a) "A Markov-switching vector equilibrium correction model of the UK labour market", with Hans-Martin Krolzig and Grayham Mizon, *Empirical Economics*, 27, 233-254.
100. (2002b) "Robust decision theory and the Lucas critique", with Mark Salmon, *Macroeconomic Dynamics*, 6, 167-185.
101. (2001a) "Small system modelling of real wages, inflation, unemployment and output per capita in Italy 1970-1994", with Grayham Mizon, *Journal of Applied Econometrics*, 16, 359-370.
102. (2001b) "Fiscal forecasting: the track record of IMF, OECD and EC", with Mike Artis, *Econometrics Journal*, 4, s20-s36.
103. (2000a) "Forecast Bias and MSFE encompassing", *Oxford Bulletin of Economics and Statistics*, 62, 533-542.
104. (2000b) "Modelling shifts in the wage-price and unemployment-inflation relationships in Italy, Poland and the UK", with Grayham Mizon, *Economic Modeling*, 17, 387-413.
105. (2000c) "Linear aggregation with common trends and cycles", *Research in Economics*, 54, 117-131.
106. (1999a) "Some consequences of temporal aggregation for empirical analysis", *Journal of Business and Economic Statistics*, 17, 129-136.
107. (1999b) "Ex Post and Ex Ante Analysis of Provisional Data", with Giampiero Gallo, *Journal of Forecasting*, 18, 421-433.
108. (1998) "Temporal disaggregation, missing observations, outliers, and forecasting: a unifying non-model based procedure", *Advances in Econometrics*, 13, 181-202.

*Articles published in books and national journals*

109. (2021a) "Can Machine Learning Catch the COVID-19 Recession? " with Philippe Goulet Coulombe and Dalibor Stevanovic, *National Institute Economic Review*, forthcoming.
110. (2021b) "Nowcasting GDP Growth in a Small Open Economy", with Vasja Sivec, *National Institute Economic Review*, forthcoming.
111. (2017a) "A Survey of Econometric Methods for Mixed-Frequency Data", with Claudia Foroni, Chapter 9 in Mazzi, G.L. (Ed.), *Handbook on Rapid Estimates*, Luxembourg: Publications Office of the European Union, 251-284.
112. (2017b) "Combined Forecasting Methods and Rapid Estimates", Chapter 12 in Mazzi, G.L. (Ed.), *Handbook on Rapid Estimates*, Luxembourg: Publications Office of the European Union, 350-375.
113. (2017c) "The Challenge of Big Data", with Buono, D., Kapetanios, G., Mazzi, G.L., and Papailias, F., Chapter 16 in Mazzi, G.L. (Ed.), *Handbook on Rapid Estimates*, Luxembourg: Publications Office of the European Union, 450-462.
114. (2017d) "Guidance and Recommendations on the Use of Big data for Macroeconomic Nowcasting", with Kapetanios, G. and Papailias, F., Chapter 17 in Mazzi, G.L. (Ed.), *Handbook on Rapid Estimates*, Luxembourg: Publications Office of the European Union, 464-477.
115. (2016) "A daily indicator of economic growth", with Valentina Aprigliano, Claudia Foroni, Gian Luigi Mazzi and Fabrizio Venditti, *International Journal of Computational Economics and Econometrics*, 7, 43-63.
116. (2015a) "An overview of the Factor augmented Error Correction Model", with Anindya Banerjee and Igor Masten, in Hillebrand, E. and Koopman, S.J. (eds) "Advances in Econometrics: Dynamic Factor Models".
117. (2015b) "A Shrinkage Instrumental Variable Estimator for Large Datasets", with Andrea Carriero and George Kapetanios, *L'Actualité économique, Revue d'analyse économique*, vol. 91, 67-87.
118. (2013) "Mixed-frequency Vector Autoregressive Models", with Claudia Foroni and Eric Ghysels, in Fomby, T., Kilian, L and Murphy, A. (eds), "Advances in Econometrics (In Honour of Chris Sims): VAR Models in Macroeconomics, Financial Econometrics, and Forecasting -New Developments and Applications."
119. (2009), "Factor augmented error correction models", with Anindya Banerjee, in Castle, J. and Shepard, N. (Eds.), *The Methodology and Practice of Econometrics – A Festschrift for David Hendry*, Oxford: Oxford University Press, Ch. 9, 227-254.
120. (2008) "Forecasting Macroeconomic Variables Using Diffusion Indexes in Short Samples with Structural Change", with Anindya Banerjee and Igor Masten, in Mark E. Wohar and David E. Rapach, eds., *Forecasting in the Presence of Structural Breaks and Model Uncertainty*. Amsterdam: Elsevier.

121. (2006a) “TFP, costs and public infrastructure: An equivocal relationship”, with Eliana La Ferrara, in Artis, M., Banerjee, A. and Marcellino, M. (eds.), *The European Enlargement: Prospects and Challenges*, Cambridge: Cambridge University Press.
122. (2006b) “Characterizing business cycles for accession countries”, with Mike Artis and Tommaso Proietti, in Artis, M., Banerjee, A. and Marcellino, M. (eds.), *The European Enlargement: Prospects and Challenges*, Cambridge: Cambridge University Press.
123. (2006c) “Forecasting macroeconomic variables for the accession countries”, with Anindya Banerjee and Igor Masten, in Artis, M., Banerjee, A. and Marcellino, M. (eds.), *The European Enlargement: Prospects and Challenges*, Cambridge: Cambridge University Press.
124. (2005a) “Dating the Euro Area Business Cycle”, with Mike Artis and Tommaso Proietti, in Reichlin, L. (ed.), *The Euro Area Business Cycle: Stylized Facts and Measurement Issues*, CEPR.
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