

CURRICULUM VITAE

PERSONAL DATA

Ana Lozano Vivas
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Dpt. Teoría e Historia Económica
Facultad CC.EE.
Universidad de Málaga
Campus El Ejido s/n
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EDUCATION

DOCTORATE

- Ph.D. in Economics from the University of Malaga in 1991 (with memory, “Banks as multiproduct firms” under the direction of Dr. Alfonso Pajuelo).

DEGREE

- BS Economics, (degree by thesis), University of Malaga, 1987.

ACADEMIC AND RESEARCH COMPETITIVE ACKNOWLEDGMENTS:

- 5 Quinquenios
- 4 Sexenios

ACADEMIC EMPLOYMENT

- Full Professor (field Knowledge of Economic Analysis), from July 26, 2002-present
Full-time staff. University of Malaga.
- Senior Research Fellow of the Financial Engineering Laboratory (FEL) of Technical University of Crete (January 2010-present).
- Associate Professor of Staff (field Knowledge of Economic Analysis), University of Málaga, 1992-2002.
- Acting Assistant Professor (field Knowledge of Economic Analysis), University of Málaga, 1990-1992.

- Assistant Professor LRU. (Field Knowledge of Economic Analysis), University of Málaga, 1988-1990.
- Associate Professor, (field Knowledge Statistic and Econometrics), University of Málaga, 1987-1988.

ACADEMIC APPOINTMENT

- **2019:** Visiting Professor, invited at Finance Department of the Free University of Bozen-Bolzano, Italy, February and March.
- **2018:** Visiting Professor, invited at Finance Department of the Free University of Bozen-Bolzano, Italy, April.
- **2017:** Visiting Professor, invited at Finance Department of the Free University of Bozen-Bolzano, Italy, June.
- **2017:** Visiting Research, invited at the Research Center of Operational Research of the University Miguel Henández, Elche, Spain, July.
- **2016:** Visiting Research, invited at the Research Center of Operational Research of the University Miguel Henández, Elche, Spain, March.
- **2015:** Visiting Scholar, Finance Department, Stern Business School, New York University (USA), from April 1 to August 31.
- **2012:** Visiting Research, invited at the Research Center of Operational Research of the University Miguel Henández, Elche, Spain, October.
- **2009:** Visiting Research, (invited) Central Bank of Luxembourg and Finance Department of the University of Luxembourg, April.
- **2006:** Visiting Professor (invited) Finance Department, University of Leicester (UK), February.
- **2005:** Visiting Professor (invited) Economic Department, University of Strasbourg (France), October.
- **2003:** Visiting Research (invited) Federal Reserve of Atlanta, USA, November, 2003.
- **2000:** Visiting Scholar, Economic Department, Ohio State University, (USA). From June 1 to November 31.
- **1997:** Visiting Scholar, Finance Department, Florida State University, (USA). From March 1 to May 30, 1997.
- **1996:** Visiting Research (invited) Economic Department, University of Strasburg (France), June 1996.
- **1995:** Visiting Scholar, Finance Department, Florida State University, (USA). From January 31 January, 1994 to January 31, 1995.

RESEARCH CONSULTATION

- **2015:** Spanish Bank –“Bank Deposit Tax” (expert witness).
- **2014-2017:** *European Commission*, Evaluator of the SME instrument program.

- **2014:** *European Commission*, Expert on the *Greek Presidency of the Council of the European Union. Horizon 2020 Financial Instrument in enhancing smart inclusive and sustainable growth in Europe*—“Growth Enhancing Access to Finance for Research and Innovation”.
- **June 2013-October 2015:** *European Commission*, Expert of the Risk Finance Advisory Group.
- **2010-2011:** *External Consultant Bank of Luxembourg* on PERFILUX project—“Productivity and Efficiency of Foreign Banks in Luxembourg.
- **2010:** *OECD Consultant* —“Études économiques de l’OCDE, Espagne 2010. Rééquilibrer l’économie. L’efficience économique des banques espagnoles: une analyse de frontière stochastique”.
- **2008:** *External Expert IMF*—“Regional Conference on Central America, Panama and the Dominican Republic: European cross-border banking activity”.

RESEARCH APOINTMENT

- Member of the selection committees of the “Ramón y Cajal” and “Juan de la Cierva” Scholarships. Ministerio de Economía y Competitividad. 2018.
- Member of the selection committees of Scholarships of "la Caixa" for Master and PhD. studies in Europe, Spain and America North and Asia-Pacific. 2018.
- Member of the selection committees of Scholarships of "la Caixa" for postgraduate studies in America North and Asia-Pacific. 2015.
- President of the Expert panel of the Economic Group for the evaluation of the Plan Andaluz de Investigación. Consejería de Educación y Ciencia, Junta de Andalucía, 2003.
- Secretary of the Extraordinary Prizes of Doctorate 2003/2004 Facultad de CC.EE. 2005.
- Member of the Expert panel for the elaboration of “Mapa de infraestructuras científicas y tecnológicas en Ciencias Sociales” Ministerio de Educación y Ciencias, FECYT, 2005.
- Member of the jury for the Prize CECA “Intermediación Financiera”, 2005.
- Invited to be member of the committee for the development of the “Diccionario de términos Económicos y Financieros (Diccionario Oficial de la RACEF)” proposed by Real Academia de Ciencias Económicas y Financieras.

OTHER EMPLOYMENT

- Member of the Board of the Banco Europeo de Finanzas, April 2018-present.
- Member of the Board of the Company SEGURÁNDALUS MEDIATION, INSURANCES BROKERS, S.A appointed on September 28, 2007-present.
- First Vice-President of the City Business Group, 2012-present.
- First Vice-President of the University of Málaga (February 2005-January 2012).
- Course Director of Diploma in Insurance Management, UMA, 2007-2008.
- Professor, Master in Banking and Financial Institutions given by ESESA (2006/07-2007/08).
- Subdirector of qualifications of the University of Málaga (1995-June 1997)

EDITORIAL BOARD

- Member of the Editorial Board of Cuadernos Económicos de ICE (2019-present).
- Associated Editor Journal of Financial Stability, (January 2019-present).
- Editor Special Issue on “Financial Engineering and Banking”, Journal of Financial Services Research.
- Editor Special Issue on “Banking, Financial markets, risk and financial vulnerability”, Journal of Multinational Financial Management.
- Associated Editor International Journal of Banking, Accounting and Finance. (July 2007-present)
- Editor Special Issue on “Recent Trends in Global Banking”, International Journal of Banking, Accounting and Finance.

PROFESSIONAL AWARDS

- Extraordinary prize of doctorate, Economics School UMA, academic course 2006-2007, In the modality of Doctoral Thesis of Economy. Adviser Ana Lozano Vivas, Ph.D. Student Eva Isabel González Guerrero. Thesis entitled “Eficiencia y productividad de las empresas hoteleras andaluzas: Un análisis no paramétrico”.
- Award Ernst & Young to the best paper in Banking “Off-Balance- Sheet activity under adverse selection: The European experience”, XVII Foro de Finanzas, November, 2009.
- Award Italian Banking and Finance Association (ADEIMF) to the best paper “Foreign bank diversification and efficiency prior to and during the financial crisis: Does one business model fit all?” at the Summer Workshop 2014, Catholic University of Milan.
- *Who's Who in the World*, Marquis Publications

RESEARCH GRANTS

- 2014: Grant from the Ministerio de Educación “Salvador de Madariaga program” for research mobility to New York University, Stern Business School, NY (EE.UU.), 5 month.
- 2000: Grant from the Ministerio de Educación y Ciencia for research mobility to Ohio State University, Ohio (EE.UU.), 6 month.
- 1997: Grant from the Consejería de Educación y Ciencia, Junta de Andalucía for research mobility to Florida State University, Florida (EE.UU.), 3 month.
- 1996: Grant from the UMA for research mobility to Strasburg (France), 1 month.
- 1994: Grant from the Ministerio de Educación y Ciencia for research mobility to Florida State University, Florida (EE.UU.), 12 months.
- 1987: Grant Plan Específico F.P.I., Ministerio de Educación y Ciencia.
- 1987: Grant Plan General de F.P.I, Ministerio de Educación y Ciencia.

PARTICIPATION IN COMPETITIVE RESEARCH PROJECTS

- RTI2018- 097620-B-I00. Ministerio de Ciencias, Innovación y Universidades, 2019-2021. Principal Researcher.
- ECO2014-52345-P. Subdirección General de Proyectos de Investigación, Ministerio de Economía y Competitividad, 2015-2018. Principal Researcher.
- ECO2011-26996. Dirección General de Investigación (DGI) del Ministerio de Educación y Ciencias, 2012-2014. Principal Researcher
- ECO2008-04424. Dirección General de Investigación (DGI) del Ministerio de Educación y Ciencias, 2008-2011. Principal Researcher
- "Eficiencia y competencia en un entorno de integración bancaria" UMA, 2008. Principal Researcher
- "Fundamentos Microeconómicos" SEJ 194. Consejería de Educación y Ciencia, Junta de Andalucía, 2002-2011. Principal Researcher
- "Eficiencia productiva, contestabilidad e integración" SEJ2005-08598. Dirección General de Investigación (DGI) del Ministerio de Educación y Ciencias, 2005-2008. Principal Researcher
- "Un estudio comparativo de la eficiencia productiva y tecnología bancaria en España y Túnez", Joint international research Project between Spain and Tunis, Agencia Española de Cooperación Internacional, Ministerio de Asuntos Exteriores, 2004. Principal Researcher
- "Integración, diferenciación y estabilidad de las instituciones bancarias europeas", Fundación BBVA. Grant to Economic Research, 2004-2005. Principal Researcher
- "Economía Bancaria y Finanzas Empresariales", Fundación Centro de Estudios Andaluces, centrA, 2003. Principal Researcher
- "Technical Input Efficiency: A new approach " UMA, 2003. Principal Researcher
- "Competencia, Eficiencia e Integración" BEC2002-02852. DGESIC, Ministerio de Educación y Cultura, 2003-2005. Principal Researcher
- "El comportamiento de bancos y cajas de ahorros ante la desregulación: un análisis estratégico" Fundación Empresa Pública, April-December, 2001. Principal Researcher
- "Fundamentos Microeconómicos" SEJ 194. Consejería de Educación y Ciencia, Junta de Andalucía, 2001-2002. Principal Researcher
- "Medidas de crecimiento de la productividad: una aproximación input" Consejería de Educación y Ciencia, Junta de Andalucía, 2001. Principal Researcher
- "Metodologías fronteras del análisis de eficiencia y productividad en un contexto internacional: efectos de la desregulación y la globalización" PB98-1408-C02-01. DGESIC, Ministerio de Educación y Cultura, 2000-2002. Principal Researcher
- "Economía Financiera" SEJ 194. Consejería de Educación y Ciencia, Junta de Andalucía, 1999-2000. Principal Researcher
- "Foreign banks, production technology, and efficiency: Spanish experience" Consejería de Educación y Ciencia, Junta de Andalucía, 1999. Principal Researcher
- "Eficiencia y productividad" con referencia PS95-0176. DGICYT, Ministerio de Educación y Cultura, 1996-1999. Principal Researcher
- "Economía Financiera" SEJ 194. Consejería de Educación y Ciencia, Junta de Andalucía, 1996-1999. Principal Researcher

- "Comparación internacional sobre eficiencia de los bancos comerciales en Francia y España" PF ECS96-0007. DGICYT, Ministerio de Educación y Cultura dentro del Programa de Cooperación Franco-Español en Ciencias Sociales y Humanas entre el CNRS y la DGICYT, 1997. Principal Researcher
- "Posibilidades de convergencia en los sistemas bancarios de la Unión Europea" IVIE evaluated by A.N.E.P, 1996.
- "La eficiencia de los bancos comerciales en Francia y España" PF ECS95-0005. DGICYT del Ministerio de Educación y Ciencia in the Programa de Cooperación Franco-Español en Ciencias Sociales y Humanas entre el CNRS y la DGICYT, 1996. Principal Researcher
- "Estudio de metodologías y técnicas econométricas en el análisis de la eficiencia". UMA, 1995. Principal Researcher
- "Análisis Económico" SEJ 192. Consejería de Educación y Ciencia, Junta de Andalucía, 1991-1994. Researcher Participant
- "Economía Industrial" SEJ 192. Consejería de Educación y Ciencia, Junta de Andalucía, 1988-1991. Researcher Participant
- "Análisis económico comparado de los sistemas de enseñanza superior español y francés" Ministerio de Educación y Ciencia, in the program Acciones Integradas Hispano-Francesas, 1989. Researcher Participant
- "Construcción de un banco de datos a nivel regional". Consejería de Educación y Ciencia, Junta de Andalucía, 1987-1988. Researcher Participant

PARTICIPATION IN FIRM AND PUBLIC ORGANIZATIONS PROJECTS

- "Diseño de un conjunto de indicadores que permitan la evaluación y el seguimiento de las diferentes actuaciones que contiene el plan bahía competitiva". Consejería de Ciencias y Tecnología de la Junta de Andalucía, November 2009-March 2010.
- "Un estudio exhaustivo sobre costes e ingresos de las plazas concertadas en centros de personas con discapacidad". Consejería de Asuntos Sociales de la Junta de Andalucía, 17 December, 2004 a 20 June, 2005.
- "Situación estratégica del sector turístico de Andalucía frente a competidores potenciales". Consejería de Turismo y Deporte, Junta de Andalucía, 01-1997/12-1997.
- "Efficiency and competitiveness of the Tunisian banking sector". Ministerio de Desarrollo Económico de Túnez, 1996.

TEACHING

- Intermediate Microeconomic (Spanish and English)
- Industrial Organization
- Finance
- Principles of Economics (Spanish and English)
- Microeconomics
- Efficiency and Productivity

- Microeconomics of Banking
- Economics of Uncertainty and Information
- Spanish Banking System
- Finance and Microeconomics of Banking

PUBLISHED RESEARCH

PUBLISHED PAPERS IN REFEREED (ACADEMICS) JOURNALS

1. "Macprudential policies, corporate governance and bank risk: Cross-country evidence" (joint work with Ch. Gaganis , P. Papadimitri and F. Pasiouras). **Journal of Economic Behaviour and Organization**, Vol, 169, pp, 126-142, 2020.
2. "Are Charter Value and Supervision Aligned? A Segmentation Analysis" (joint work with J Aparicio, MA Duran, A Lozano-Vivas, JT Pastor). **Journal of Financial Stability**, Vol. 37, pp. 60-73, 2018.
3. "Banking Stability and the financial cycle: The Spanish Experience" (joint work with Flores Martínez Alba). **Cuadernos Económicos del ICE**, nº 92, pp. 11-36, 2016.
4. "Corporate Governance of SOEs and Performance in Transition Countries" (joint work with Claudia Curi and Justas Gedvilas). **Modern Economy**, Vol.7 No.12, 2016.
5. "Branching Deregulation and Merger Optimality" (joint with Miguel A. Meléndez and Antonio J. Morales). **The Manchester School** , Vol. 84, Issue 2, pp. 270-295, 2016.
6. "Foreign Bank Efficiency during the Financial Crisis: Does one business model fit all?." (joint work with Claudia Curi and Valentin Zelenyuk). **Journal of Banking and Finance**, Volume 61, Supplement 1, pp. S22–S35, 2015.
(Paper granted with the Award of the Italian Banking and Finance Association (ADEIMF) to the best paper, 2014)
7. "Financial center productivity and innovation prior to and during the financial crisis" joint work with C. Curi. **Journal of Productivity Analysis**, Volume 43, Issue 3, pp 351-365, 2015
8. "Moral Hazard and the Financial Structure of Banks," joint work with M.A. Duran, **Journal of International Financial Markets, Institutions & Money**, 34 (1), 28-40, 2015.
9. "Types of Risk Shifting: The US Banking System", joint work with Miguel A. Durán. **Journal of Financial Stability**, 13, pp. 64-74, 2014.
10. "Bank productivity change and off-balance-sheet activities across different levels of economic development" joint work with Fotios Pasiouras. **Journal of Financial Services Research**, Volume 46 (3), pp 271-294, 2014.
11. "Off-Balance Sheet Activity under Adverse selection: The European Experience" joint work with M.A. Duran, **Journal of Economic Behavior & Organization** , 85, pp. 176-190, 2013.
(Paper granted with the Award Ernst & Young to the best paper in Banking, XVII Foro de Finanzas, 2009)
12. "Is foreign-bank efficiency in financial centers driven by home or host country characteristics?" Joint work C. Curi, P. Guard, and V. Zelenyuk, **Journal of Productivity Analysis** 40(3) pp. 367-385, 2013.
13. "How Do Risky Banks Finance their Assets", joint work with M.A. Duran, **International Advances in Economic Research**, 18 (4), pp. 451-462, 2012.

14. "Consolidation in the European Banking Industry: How effective is it?" joint work with Subal C. Kumbhakar, Meryem Fethi and Mohamed Shaban, **Journal of Productivity Analysis** 36(3), pp. 247-261, 2011.
15. "With whom to merger? A Tale of the Spanish banking deregulation process" joint work Miguel A. Meléndez and Antonio J. Morales. **Journal of the Spanish Economic Association**. Vol. 2, pp. 159-184, 2011.
16. "The impact of non-traditional activities on the estimation of bank efficiency: International evidence." joint work with F. Pasiouras, **Journal of Banking and Finance**, vol 34(7), pp. 1436-1449, 2010.
17. "Do Performance and Environmental Conditions Act as Barriers for Cross-Border Banking in Europe?", joint work with J.T. Pastor, **OMEGA**, vol. 38(5), pp. 275-282, 2010.
18. "Deregulation and Product Differentiation in the Banking Industry", joint work with A.J. Morales, **Banks and Bank Systems**, vol 4(4), pp. 36-47, 2009.
19. "How Does Cross-Border Activity Affect the EU Banking Markets", joint work with L. Weill, **European Financial Management**, pp. 36-47, 2009.
20. "Measuring and Explaining the Impact of Vertical Differentiation on Banking Efficiency", **Managerial Finance**, vol. 35(3), pp. 246-259, 2009.
21. "Deregulation and Convergence of Banking: The EU Experience", joint work with P. Evans and I. Hasan, **Finish Economic Papers**, vol. 21(1), pp. 1-14, 2008.
22. "Multistrategic Spatial Competition in Banking", joint work with M. Kim y A.J. Morales, **International Journal of the Economics of Business**, vol 14 (3), pp. 351-366, 2007.
23. "Demanda y competencia potencial en el sector turístico de Andalucía", joint work with Antonio J. Morales Siles, María Lucía Navarro Gómez, **Boletín Económico ICE: Información Comercial Española**, pp. 45-58, 2006.
24. "Banking and Economic Activity Performance: An Empirical Study at the Country Level", joint work with J.T. Pastor, **The Manchester School**, vol. 74 (4), pp. 469-482, 2006.
25. "Relating Macroeconomic Efficiency to Financial Efficiency: A Comparison of Fifteen OECD Countries over Eighteen Year Period", joint work with J.T. Pastor, **Journal of Productivity Analysis**, vol. 25(1), pp. 67-78, 2006.
26. "La competencia y la eficiencia en el sector bancario español" Comments. Ana Lozano Vivas, **Perspectivas del Sistema Financiero** nº 83, pp. 87-88, 2005.
27. "Loan loss provision decisions: an empirical analysis of Spanish depository institutions", joint work with I. Hasan, **Journal of International Accounting, Auditing and Taxation**, vol. 14 pp. 55-77, 2005.
28. "Deregulation and Productivity: The case of Spanish banks", joint work with S. Kumbhakar, **Journal of Regulatory Economics**, vol. 27:3, pp. 331-351, 2005.
29. "Does deregulation make markets more competitive? Evidence of Mark-ups in Spanish Savings banks", joint work with S. Kumbhakar, **Applied Financial Economics**, Vol. 14, pp. 507-515, 2004.
30. "Deregulation, markup and productivity change: the case of Spanish banks", joint work with S. Kumbhakar **Research in Banking and Finance**, Vol. 3, pp. 79-100, 2003.
31. "The role of loan loss provisions in earnings management, capital management, and signaling: the Spanish experience", joint work with A. Anandarajan e I. Hasan, **Advances in International Accounting**, vol. 16, pp. 43-63, 2003.

32. "Productividad y Estructura de Balance en el Sector Bancario", *Papeles de Economía Española*, nº 94, pp. 170-180, 2002.
33. "An efficiency comparison of European banking systems operating under different environmental conditions", joint work with J. T. Pastor y J. M. Pastor, *Journal of Productivity Analysis*, Vol. 18(1), pp. 59-78, 2002.
34. "Bias in Malmquist index and cost function productivity measurement in banking", joint work with D. B. Humphrey, *International Journal of Production Economics*, 76 pp. 177-188, 2002.
35. "Organizational form and expense preference: Spanish experience", joint work with I. Hasan, *Bulletin of Economics Research*, Vol. 18, nº 1, pp. 59-78, 2002.
36. "La eficiencia del sistema bancario español en el marco de la Unión Europea", *Ekonomiaz*, nº 48 pp. 318-343, 2001.
37. "How emergent countries banks could improve their performance by adopting the technology of developed countries: the case of Tunisia" joint work with M. Chaffai y M. Dietsch, *Journal of Development and Economic Policy*, Vol. 3 nº 2 pp. 51-74, 2001.
38. "European bank performance beyond country borders: What really matters?", joint work with I. Hasan y J.T. Pastor, *European Finance Review*, Vol. 5 (1/2) pp. 141-165, 2001.
39. "Technological and environmental differences in the European banking industries", joint work with M. Chaffai y M. Dietsch, *Journal of Financial Services Research*, Vol. 19 (2/3) pp. 147-162, 2001.
40. "The effects of deregulation on the performance of financial institutions: The case of Spanish savings banks", joint work with S. Kumbhakar, C.A.K. Lovell e I. Hasan, *Journal of Money, Credit, and Banking*, 33(1) pp. 101-120, 2001.
41. "How the environment determines banking efficiency: A comparison between French and Spanish industries", joint work with M. Dietsch, *Journal of Banking and Finance*, 24 pp. 985-1004, 2000.
42. "Deregulation, strategy, bank performance and efficiency: the Spanish experience", joint work with I. Hasan y C. Hunter, *International Business and Finance*, Vol. 14 pp. 189-210, 1999.
43. "Efficiency and technical change for Spanish banks", *Applied Financial Economics*, nº 8 pp. 289-300, 1998.
44. "Efectos de las fusiones de las cajas de ahorros sobre la eficiencia productiva", joint work with J. Escribano, *Revista Gallega de Economía*, nº 3 pp. 67-87, 1997.
45. "Profit efficiency for Spanish savings banks", *European Journal of Operational Research*, Vol.98, nº 2 pp.381-394, 1997.
46. "La rentabilidad de las cajas de ahorros andaluzas", *Cuadernos de Ciencias Económicas*, joint work with M. Rubio, nº 34 pp. 11-28, 1996.
47. "Rentabilidad, eficiencia y concentración en la banca española", joint work with A. Pajuelo, *Información Comercial Española (ICE)*, *Revista de Economía*, nº 714 pp. 99-111, 1993.
48. "Un estudio de la eficiencia y economías de diversificación del sistema bancario español", *Revista Española de Financiación y Contabilidad*, Vol. XXI nº 73 pp. 855-880, 1992.

BOOKS

1. Economía Teoría y Política: Libro de problemas. En colaboración. **McGraw-Hill**, 3ª edition, 1994.

2. Las entidades bancarias como empresas multiproducto: Una estimación de la función de costes del Sistema Bancario Español, ed. **UNICAJA**, ISBN 84-604-3792-2, 1992.
3. Economía Teoría y Política: Libro de problemas. En colaboración. **McGraw-Hill**, 2ª edition, 1991.

PUBLISHED PAPERS IN EDITED BOOKS

1. Probability of default and banking efficiency. How does the market respond? Joint work with Claudia Curi in "**Advances in Efficiency and Productivity II**" edited by Springer, (forthcoming), 2019.
2. Agency Problems in Banking: Types of and Incentives for Risk Shifting. Joint work with M.A. Duran, in Malavasi, R., and S. Rossi (eds.), **Financial Crisis, Bank Behaviour and Credit Crunch**, Springer, 2015 (ISBN: 978-3-319-17412-9).
3. Productivity of foreign bank: evidence from a financial center, joint work with C. Curi, in **Efficiency and Productivity Growth - Modeling in the Financial Services Industry**, F. Pasiourari (ed.) UK. Wiley, pages. 95-211, 2013.
4. Walras's Law, in Segura, Julio and Carlos Rodríguez Braun (eds.), **An Eponymous Dictionary of Economics**, UK: Edward Elgar, ISBN 1 84376 175 0, pages. 268-269, Dec 2004.
5. Deregulation and efficiency of Taiwanese banks, joint work with R. Chou e I. Hasan, in **Productivity and Economic Performance in the Asia-Pacific Region**, edited by Tsu-Tan Fu, C. J. Huang y C.A.K. Knox, Edward Elgar Ltd. , ISBN 1-84064-726-4, pages. 184-207, 2002.
6. Factores explicativos de las diferencias en eficiencia de las instituciones bancarias", joint work with T. Gómez, y M. Rubio, **Temas de Finanzas**, ed. AEFIN, ISBN 84-605-6947-0, pages. 430-451, 1997.
7. "Evidencia de la relación existente entre rentabilidad y cuota de mercado en los bancos nacionales españoles", **Temas de Economía y Empresa**, ISBN 84-7496-272-2, pages. 331-353, 1994.

WORKING PAPERS

1. "El Comportamiento de bancos y cajas de ahorros ante la desregulación: un análisis estratégico", joint work with A. J. Morales, Documento de Trabajo de la Fundación Empresa Pública, nº 0109, 2001.
2. "Eficiencia de las cajas de ahorros desde la función de beneficios", Actas de las XI Jornadas de Economía Industrial, pp. 205-212, 1995.
3. "Un estudio de la eficiencia en costes del sistema bancario español", Centro Internacional Carlos V. Serie: Banca y Finanzas, nº 8 pp. 1-50, 1992.
4. "Eficiencia desde una función frontera estándar versus no estándar de beneficios: aplicación al caso de las cajas de ahorros españolas", Documento de Trabajo UMA, nº 3, 1995.
5. "Eficiencia y cambio tecnológico: el caso de los bancos y cajas de ahorro españolas", Documento de Trabajo UMA, nº 1, 1995.
6. "La teoría de los mercados impugnables y la teoría tradicional de los mercados", Documento de Trabajo UMA, nº 1, 1991.

CURRENT PAPERS UNDER REVIEW AND ON GOING

- “Managerial ability as tool for prudential regulation” Claudia Curi and Ana Lozano-Vivas (Submitted)
- “How do macroprudential and monetary policy shape financial stability?” Ana Lozano-Vivas and Fotios Pasiouras (Submitted).
- “Achieving a sustainable cost efficient business model in banking: The case of European banks”. Subal C. Kumbhakar, Ana Lozano-Vivas and Oleg Ben (Submitted).
- “Market discipline and bank stability”. Iftekhar Hasan, Kose Jhon and Ana Lozano-Vivas.
- “A new approach for measuring market power: the European Banking Industry”. José Baño Pino, Ana Lozano-Vivas and Ana Rodríguez-Alvarez.
- “Evaluating risk-taking in bank cost efficiency in EU countries.” Subal C. Kumbhakar and Ana Lozano-Vivas.

RECESSIONS

- "Claves actuales de la economía andaluza", Joaquín Auriolos. Revista de Estudios Regionales, nº 25, 1989.

CONFERENCES AND SEMINARS

CONTRIBUTIONS TO CONFERENCES

2019: 9th International Conference of The Financial Engineering & Banking Society, Prague, 5-6, May; European Workshop on Efficiency and Productivity AnalySis (EWEPA), London, June 13-15; 4th Islamic Financial, Banking and Business Ethic Conference (IFBBE), Valencia, 16-17, Sepember.

2018: European Financial Management 2018 Annual Meeting, Milan, June 27-30; The Second Santander Chair International Workshop of Efficiency and Productivity 2018, Alicante, 4-5, June; 8th International Conference of The Financial Engineering & Banking Society, Rome, 5-6, June; Third annual ECB macroprudential policy and research Conference, European Central Bank, Frankfurt 17-18, May; North American Productivity Workshop X (NAPW X), Miami, June 12-15; VIII Congreso de Eficiencia y Productividad, EFIUCO, Córdoba, 10-11, May.

2017: International Risk Management Conference 2017 10th Edition of the Annual Meeting of The Risk, Banking and Finance Society Florence, Italy, June 12-13; 6th Workshop on Efficiency and Productivity Analysis, Oporto; XIV Simposio Nacional y XI Simposio Internacional de Expertos en Finanzas, Universidad Javariana, Colombia; 15th EWEPA Conference, London.

2016: 6th International Conference of The Financial Engineering & Banking Society; VII Congreso de Eficiencia y Productividad, EFIUCO, Córdoba (Spain); Workshop on Financial Stability, CEMFI, Madrid; First annual ECB macroprudential and research conference, ECB, Frankfurt.

2014: Financial Crisis and Credit Crunch: Micro and Macroeconomic Implications International , Cagliari (Italy); Conference of the Financial Engineering and Banking Society (FEBS), Surrey (UK); VI Congreso de Eficiencia y Productividad, EFIUCO, Córdoba (Spain)

2013: 10th Eurasian Business and Economic Society, EBES Conference - ISTANBUL, TURKEY; European Workshop on Efficiency and Productivity Analysis, EWEPA"13 conference, Helsinki, Finland; 3rd International Conference of the Financial Engineering and Banking Society (FEBS), Paris, France; World Finance Conference, Cyprus;

2012: 4th International IFABS Conference on Rethinking Banking and Finance: Money, Markets and Models; 2nd International Conference of The Financial Engineering & Banking Society; Workshop "Banks how-big is big enough? A joint workshop hosted by the Basel Committee on Banking Supervision, the Centre for Economic Policy Research (CEPR), and the Journal of Financial Intermediation; 73rd International Atlantic Economic Conference.

2011: XII European Workshop on Efficiency and Productivity Analysis; Conference on Financial Sector Performance & Risk (Post-Crisis); Workshop on Regulation, Capital Markets, and Financial Institutions; V Congreso de Eficiencia y Productividad, EFIUCO; PERFILUX Final Conference.

2010: International Workshop on Efficiency and Productivity in honor of Prof. Knox Lovell; 11th Annual Bank of Finland/CEPR Conference BANKING IN EMERGING; The North American Productivity Workshop; XVIII Finance Forum; 14th International Conference on Macroeconomic Analysis and International Finance.

2009: Global trends in the Efficiency and Risk Management of Financial Services and the Financial Crisis; XVII Finance Forum of the Spanish Finance Association IESE Business School; XI European Workshop on Efficiency and Productivity Analysis; 13th International Conference on Macroeconomic and International Finance.

2008: V Workshop on Efficiency and Productivity; North American Productivity Workshop V; Uses of Frontier Efficiency methodologies for performance measurement in the financial services sector conference.

2007: XVI Tor Vergata Conference on Banking and Finance; Tenth European Workshop on Efficiency and Productivity Analysis; III Congreso de Eficiencia y Productividad.

2006: North American Productivity Workshop; Workshop en Eficiencia y Productividad;

2005: XIII Foro de Finanzas; II congreso de Eficiencia y Productividad. EFIUCO; Ninth European Workshop on Efficiency and Productivity; Symposium on Money, Banking and Finance, MMF.

2004: XX Jornadas de Economía Industrial; North America Workshop of Productivity;

2003: Eighth European Workshop on Efficiency and Productivity Analysis; Workshop on Productivity and Efficiency Measurement; EURO/INFORMS Joint International Meeting.

2002: XI International "Tor Vergata" Conference on Banking and Finance: Monetary Integration, Markets and Regulation; Asian Pacific Productivity and Efficiency Conference; XIV Villa Mondragone International Economic Seminar: "Institutions and Growth: The Political

Economy of International Unions and the Constitution of Europe”; North American Productivity Workshop; Workshop de Microeconomía, Centra.

2001: Seventh European Workshop on Efficiency and Productivity Analysis; Econometric Society Australian Meeting; European Finance Association Meeting; VII Jornadas de Economía Internacional; The banking sector in Arab countries: performances and challenges.

2000: IX International “Tor Vergara” Conference on Banking and Finance; 2000 FMA Annual Meeting; Risk Management in the Global Economy: Measurement, Management, and Macroeconomic Implications; Workshop on Banking and Finance; North American Productivity Workshop; El Futuro de la Intermediación Financiera; CFS Research Conference: Competition among Banks: Good or Bad?.

1999: Sixth European Workshop on Efficiency and Productivity Analysis; Asian Pacific Productivity and Efficiency Conference; 16 Journées de Micro-économie Appliquée.

1998: VII Financial Conference: Competition among financial systems and bank firm relationship after Euro; International Atlantic Economic Society; Georgia Productivity Workshop; The Eighth International Conference on Panel Data; Conferencia Internacional de Euro/Informs-98; International Conference: L'euro et le Financement de la Croissance en Méditerranée;

1997: XXII Simposio de Análisis Económico; Foro de Finanzas; International Meeting of Financial Management Association; International Atlantic Economic Society; Fifth European Workshop on Efficiency and Productivity Analysis; XIII Jornadas de Economía Industrial; Euro XV Informs XXXIV. Conferencia Internacional de Euro/Informs-97; International Trade and Finance Association. Seventh International Conference; International Meeting, Performance of Financial Institutions;

1996: XXI Simposio de Análisis Económico; Georgia Productivity Workshop; Academy of International Business, N.E. Conference.

1995: XX Simposio de Análisis Económico; III Foro de Finanzas; Fourth European Workshop on Efficiency and Productivity Measurement; Financial Management Association's International Meeting; XI Jornadas de Economía Industrial;

1994: Georgia Productivity Workshop.

SEMINARS

1. “Achieving a sustainable cost efficient business model in banking: The case of European banks”, Economics and Finance, Portsmouth Business School, UK, June, 2018.
2. “Achieving a sustainable cost efficient business model in banking: The case of European banks”, Department of Economics, University of Verona, January, 2018.

3. "Achieving a sustainable cost efficient business model in banking: The case of European banks", The Research Center of Operational Research of the University Miguel Hernandez, 2017.
4. "Achieving a sustainable cost efficient business model in banking: The case of European banks", Departamento de Economía de la Universidad de Oviedo, 2017.
5. "Achieving a sustainable cost efficient business model in banking: The case of European banks", XIV Simposio Nacional y XI Simposio Internacional de Expertos en Finanzas, Universidad Javariana, Colombia, 2017.
6. "A new approach for measuring market power: the European Banking Industry", Department of Management, Católica Porto Business School, Porto, Portugal, 2016.
7. "Horizon 2020 Financial Instrument in enhancing smart inclusive and sustainable growth in Europe". Greek Presidency conference titled "Growth Enhancing EU financial instruments for RDI. European Commission, Athens, Greece , June 12-13, 2014
8. "A new approach for measuring market power: the European Banking Industry" Departamento de Economía de la Universidad de Oviedo, 16 May 2014
9. "España en la Encrucijada: La Salida de la Crisis", UMA Summer Courses, Ronda (Málaga), July 8-12, 2013.
10. The CDE-Swiss Re Workshop on "Performance Measurement", invited to present the paper entitled "Consolidation in the European Banking Industry: How effective is it? New Delhi (India), January 5-7, 2009.
11. Workshop on Efficiency and Productivity in Banking Industry, Keynote Speaker with the presentation entitled "Consolidation in the European Banking Industry: How effective is it? Lille, France, April 2008.
12. Meeting organized by the IMF at Regional Conference on Central America, Panama and the Dominican Republic, presentation entitled "European cross-border banking activity", San Salvador (El Salvador), June 26-27, 2008.
13. Workshop on "Productivity and Efficiency of European Banks", invited to present the paper entitled "Do performance and environmental conditions behave as barriers for cross-country banking activity in Europe? University of Verona, 4 June 2007, Italia.
14. Seminar at the University of Oviedo, Department of Economics June 2005. "Riesgo bancario y su medición"
15. I Workshop en Eficiencia y Productividad EFIUCO. Invited as Key Speaker with the presentation entitled "Medición de la Productividad: Una Aproximación Unificada", Córdoba, 13-16 May, 2003.
16. CEMFI, Madrid, paper entitled "Multistrategic Spatial Competition with Application to Banking", Madrid, 12, March, 2003.
17. VIII Encontro de Novos Investigadores de Análisis Económica, invited conference entitled "Medición de la Productividad: Una Aproximación Unificada", A Coruña, Spain. 10-12 July 2002.
18. Workshop de Microeconomía, Centra. Invited to present the paper entitled "Comportamiento estratégico multidimensional en banca: una aplicación al sistema bancario español", Sevilla, February, 2002.
19. Governance, Regulation and Supervision of Market-Based Micro Finance Intermediaries, organized by IDRC (International Development Research Centre), BCEAO, World Bank and the University of Laval. Invited to give the seminar entitled "The governance of mutual intermediaries: a micro approach and implications for regulation and supervision", Dakar, Senegal, 10, December 2001.

20. Governance, Regulation and Supervision of Market-Based Micro Finance Intermediaries, organized by IDRC (International Development Research Centre), BCEAO, World Bank and the University of Laval. Invited to give the seminar entitled "Expense preferences and the governance of mutual intermediaries", Dakar, Senegal, 11, December 2001.
21. Jornadas sobre la Singularidad de las Cajas de Ahorro Españolas, organized by the Federación de Usuarios de Cajas. Invited to give the seminar entitled "Estructura de balance y productividad en las cajas", Zaragoza, May, 2001.
22. Seminar at the Economic Department of Ohio State University. "Deregulation and convergence of Banking and Economic Growth across the European Union", Columbus, Ohio, US. November, 2000.
23. Seminar at the Federal Reserve of Atlanta. "European bank performance beyond country borders: What really matters?" Atlanta, US. September, 2000.
24. Seminar at the Dpt. of Finance Florida State University. "Efficiency and Technical Change for Spanish Banks", Tallahassee, Florida, US. December, 1994.
25. Workshop Productividad, Eficiencia y Rentabilidad en Banca, IVIE. "Eficiencia frontera en beneficios de las cajas de ahorros", Valencia, 25 y 26 de May, 1995.
26. Workshop Eficiencia en Banca, IVIE. "La ineficiencia de los bancos nacionales y las cajas de ahorro españolas", Valencia, 9 y 10 de December, 1993.
27. Cursos Internacionales: Bancos y Cajas de Ahorros ante el reto de Europa. "Rentabilidad eficiencia y concentración en la banca española", Universidad de Alicante, Alicante, 22-25 September 1992.

ORGANIZATION OF CONFERENCES AND MEMBER OF THE LOCAL COMMITTEE

ORGANIZATION OF CONFERENCES

- **6th Conference of the Financial Engineering and Banking Society (FEBS), 2016.** Organizer and Chair.
- **EEA-ESEM Málaga 2012.** Organizer and Chair.
- **Fostering a European Network on Financial Efficiency** (IFRESI-CNRS), international meeting, February, 2008, Lille (France). Organizer
- **Eficiencia y competencia en un entorno de integración bancaria**, foreign visiting researcher (University of Strasbourg) at the UMA, February, 2008. Organizer
- **Jornadas de Economía Española**, Facultad de CC.EE. Universidad de Málaga, April 2005. Organizer and Chair
- **Jornadas de Economía Española**, Centra, 2003. Organizer and Chair
- **Medidas de crecimiento de la productividad: una aproximación input**, foreign visiting researcher (Binghamton University, USA), June 2002. Organizer
- **UMH- Workshop on Banking and Finance**, participation of the Nobel Prize, Prf. Gary Becker. Alicante, 19-20 May, 2000. Organizer
- **Foreign banks, production technology and efficiency: Spanish experience**, foreign visiting researcher (Binghamton University, USA), December 1999. Organizer

MEMBER OF THE LOCAL COMMITTEE

- **Simposio de la Asociación Española de Economía.** Málaga, 2011.
- **III Internacional Meeting on Experimental and Behavioral Economics,** IMEBE. Málaga March 22-24, 2007.
- **VII Jornadas de Economía Internacional,** Málaga 20-22 June, 2001.

OTHER MERITS

SUPERVISION OF PHD STUDENTS

- Eva Isabel González Guerrero, "Eficiencia y productividad de las empresas hoteleras andaluzas: Un análisis no paramétrico", Sobresaliente Cum Laude por unanimidad, UMA July, 2007.
- José María Sánchez Ros, "Solvency of the financial institutions" (under supervision)
- Julio Caballero Sánchez "Optimal bank rescues regimen" (under supervision)
- Cristina Ortega "Financial Behavior: Sentiment on banking market" (under supervision)
- Flores Alba "Financial stability and macroprudential policies" (under supervision)

ADVISER OF RESEARCH WORK

- Adviser of Degree Thesis in Economics Degree of the University of Málaga, 2014 (3 Students, best one Alejandro Gutiérrez); 2015 (Adriana González Sánchez); 2016 (2 students); 2017 (1 student); 2018 (2 students).
- Co-adviser (with A. Morales) of the research Project entitled "Networks formation processes in banking" grant FPI of D. M. Angel Meléndez, in the research Project **DGESIC del Ministerio de Educación y Cultura** (PB98-1408).
- Co-Adviser (with A. Morales) of the research work entitled "Las fusiones no son una barrera a la entrada" presented by D. Antonio Díez de los Ríos at the Economic Department, 1998-1999.
- Adviser of the research work entitled "Costes en el sistema bancario español", presented by D. Antonio Arriscado Lara, Ph. D. Courses on Economics, 1991-1993.
- Adviser of the work entitled "Eficiencia técnica y asignativa del sistema bancario español", presented by D. Samuel López, Ph. D. Courses on Economics 1991-1993.
- Adviser of the work entitled "El sector aéreo en la Comunidad Europea: eficiencia y competitividad", presented by D. Juan Carlos Álvarez Flores, Ph. D. Courses on Economics 1995-97.

ADVISER OF ASSISTANT PROFESSORS

- Director of the Grant called **Juan de la Cierva** granted to Ascensión Andina into the Project of the Dirección General de Investigación del **Ministerio de Educación y Ciencias** SEJ2005-08598 (Principal Researcher: Ana Lozano Vivas).

- Grant FPI granted to Juan Aparicio Baeza into the research **Project DGEIC del Ministerio de Educación y Cultura** BEC2002-02852, (Principal Researcher: Ana Lozano Vivas) (2003-2005).
- Grant FPI granted to M. Angel Meléndez, into the researcher project **DGEIC del Ministerio de Educación y Cultura** PB98-1408, (Principal Researcher: Ana Lozano Vivas) (2000-2003).
- Director of scholar's collaborators at the Department of Economic Theory, UMA, academic year: 1991-1992 (two scholars), 1993-1994 (one scholar), 1995-1996 (two scholars), 1996-1997 (two scholars), 1997-1998 (one scholar), 1998-1999 (two scholars), 1999-2000 (one scholar), 2002-2003 (one scholar).

REVIEWING AND EVALUATION OF RESEARCH

- **Reviewer of the journals:** Annals of Operations Research; Applied Financial Economics; Brussels Economic Review; Canadian Journal of Development Studies; Contemporary Economics; Economic Modeling; Economic Change and Restructuring; Emerging Markets Finance and Trade; Empirical Economics; European Economic Review; European Finance Review; European Journal of Operational Research; International Economics; International Economics and Finance Journal; Investigaciones Económicas; International Journal of Banking, Accounting and Finance; International Journal of Information Technology & Decision Making; International Review of Economics and Finance; International Journal of the Economics of Business; International Journal of Industrial Organization; International Journal of Financial Studies; Journal of Banking and Finance; International Review of Economics and Finance; Journal of Business Economics and Management; Journal of Economic Studies; Journal of Economics and Business; Journal of Financial Services Research; Journal of Financial Stability; Journal of Financial Management, Markets and Institutions; Journal of International Financial Markets, Institutions and Money; Journal of Modeling in Management; Journal of Money, Credit, and Banking; Open Journal of Business and Management; Journal of Productivity Analysis; Moneda y Crédito; Papeles de Economía, FUNCAS; Review of Economics Studies; Revista Asturiana de Economía; Revista de Economía Aplicada; Revista Española de Financiación y Contabilidad; Revista de Economía Financiera; Scandinavian Journal of Management Economics. The Journal of Financial Management, Markets and Institutions; The Quarterly Review of Economics and Finance; Book on access to bank credit and SME financing, Palgrave Macmillan.
- **Reviewer for Institutions:** King Fagd University of Petroleum and Minerals Research Projects (2013-2016). Agencia Nacional de Evaluación y Prospectiva, (ANEP), Research project in Economics, 2002-2011, 2013-2015. The Luxembourg National Research Fund, 2016. Research Program BBVA, 2015.

➤ **Promotion committee for International Universities:**

- Full Professor of the Prof. D. Tanweer Hasan (Walter E. Séller College of Business Administration, Roosevelt University, EE.UU.).
- Distinguished Profesor of Economics of the prof. S.C. Kumbakhar (Department of Economics, Binghamton University, State University of New York, EE.UU.).
- Full Professor of the prof. D. Iftexhar Hasan (Lally School of Management and Technology, Rensselaer Polytechnic Institute, New York, EE.UU.).
- Full Professor of the prof. D. Asokan Anandarajan (New Jersey Institute of Technology University Heights Newark, NJ EE.UU.).
- Full Professor of the prof. Mette Asmild, (Department of Resource and Food Economics, University of Copenhagen).
- Full Profesor of the prof. Dr Arman Eshraghi (Department of Finance, Portsmouth Business School, University of Portsmouth, UK).

- Full Professor of the prof. Mette Asmild, (Department of Resource and Food Economics, University of Copenhagen).

➤ **Scientific Committee:**

Workshop on Banking and Finance, 2000. 28th Annual Meeting of the European Finance Association EFA' 2001. I Workshop de Eficiencia y Productividad, EFIUCO, 2003. II-VII Workshop de Eficiencia y Productividad, EFIUCO, 2005, 2007, 2009, 2011, 2013, 2015; XIII Foro de Finanzas, 2005; I Congreso Eficiencia y Productividad, León; V Workshop on Efficiency and Productivity, September 2008, Gijón; III Workshop de Eficiencia y Productividad, EFIUCO, 2009; IV Workshop de Eficiencia y Productividad, EFIUCO, 2010; Global trends in the Efficiency and Risk Management of Financial Services and the Financial Crisis. 2009; 1th International Conference of the Financial Engineering & Banking Society, 2010, University of Chania, (Greece); Conference on Financial Sector Performance & Risk (Post-Crisis) 2011; Workshop on Regulation, Capital Markets, and Financial Institutions. 2011. 2th International Conference of The Financial Engineering & Banking Society, 2011, University of Surrey, (UK); 3th International Conference of The Financial Engineering & Banking Society, 2013, ESCP European Business School, (UK); 4th International Conference of The Financial Engineering & Banking Society, 2014, ESCP Europe Paris Campus, (France); 5th International Conference of The Financial Engineering & Banking Society, 2015, Audience Nantes School of Management, (France); 6th International Conference of The Financial Engineering & Banking Society, 2016, University of Malaga, (Spain). 25th International Rome Conference on Money, Banking and Finance, 2016, University of Rome (Italy); 5th Anniversary Conference of Financial Intermediation Network of European Studies, 2017, LUM University (Italy).

PHD COMMITTEES

- Inmaculada Silvert, ``Algunos Aspectos del Problema de Evaluación de la Eficiencia con Modelos DEA'', Universidad Miguel Hernández de Elche, June, 2001.

- Antonio Caparrós, “Análisis de la Movilidad Laboral en España”, Universidad de Málaga, November, 2001.
- Oscar David Marcenaro Gutiérrez, “Los estudiantes universitarios y el USO de su tiempo: una función de producción educativa”, Universidad de Málaga, October, 2002.
- Jesús Alvarez, “Nuevas aproximaciones en la medición de eficiencia”, Universidad de la Laguna, July, 2003.
- Victoria M. Ateca Amestoy, “Demanda y valoración de bienes culturales” President of the Doctoral committee UMA, 20 June 2005.
- Mario F. Rueda Narváez, “Discriminación salarial por razón de género y capital humano: UN análisis con datos de panel”, UMA, December 2005.
- Judit Montoriol, “Relationship Lending and Small Business Finance: Empirical Análisis of Cost of Capital, Credit Rationing, and Firm Performance” European Doctorate Pompeu Fabra 29 November 2006.
- Juan Aparicio Baeza, “DEA: Selección de Targets y Medidas de Productividad”, University Miguel Hernández de Elche, November 2007.
- Alan John Wall, “Essays on production risk”, Universidad de Oviedo, 2009.
- D. Julio Florentino del Corral Cuervo “Econometric estimation of economic models with unobserved heterogeneity”, Universidad de Oviedo, 2009.
- D. Fillipo Di Pietro, “Medición del Riesgo Operacional”, Universidad de Sevilla, 2011.
- Eva Crespo Cebada, “La educación secundaria en España: un análisis de eficiencia con aproximaciones alternativas”, Universidad de Extremadura, 2012.
- Antonio Jesús Blanco Oliver, “Predicciones de la insolvencia en microempresas mediante análisis logit y redes neuronales artificiales”, Universidad de Sevilla, 2013.
- Sonia Chopo Murillo, “El Sector Asegurador en España: Diversificación y Resultados”, Universidad de Zaragoza, 2014.
- Matías Daniel Cabrera, “Essays on Market Discipline, Banking and Regulation”, Universidad Carlos III, 2016.
- Mr. Riyad Khadija, “The effects of financing contracts characteristics and contracts' portfolio diversification on banks' performance: Empirical evidence from Islamic banks”, Department of economics at the University of Haifa, Israel. 2017.