

INDICE TEMATICO DE SESIONES PARALELAS

Area A - INFORMACIÓN FINANCIERA Y NORMALIZACIÓN CONTABLE

Información financiera y mercados de capitales

[A RELEVÂNCIA DO JUSTO VALOR: ENTIDADES COM TÍTULOS COTADOS NAS BOLSAS DE LISBOA E DE MADRID](#)

[OPERATING LEASES: AN ANALYSIS OF THE ECONOMIC REASONS AND THE IMPACT OF CAPITALIZATION ON IBEX 35 COMPANIES](#)

[REAL EARNINGS MANAGEMENT AND INFORMATION ASYMMETRY IN THE EQUITY MARKET](#)

[FINANCIAL CONSTRAINTS AND EMPLOYMENT GROWTH: EVIDENCE PRE AND POST FINANCIAL CRISIS IN SPANISH SMEs](#)

[EL INFORME DE GESTIÓN: VALIDEZ Y PERSPECTIVAS \(REFERENCIA A LOS ÚLTIMOS DESARROLLOS: CNMV, UNIÓN EUROPEA E INFORME INTEGRADO\)](#)

Análisis financiero

[SALUD FINANCIERA DEL CLÚSTER DEL VINO: LA RIOJAY CATALUÑA](#)

[LA CONTABILIDAD COMO CONSTRUCTORA DE UNA RACIONALIDAD DE CONTROL SOBRE LOS RECURSOS NATURALES](#)

[MATERIALIDADE E RISCO, OS EFEITOS DA CRISE DE 2008](#)

[IMPACTO DE LA CULTURA EN LA GESTIÓN DE LOS RESULTADOS: UN ANÁLISIS CON SEIS DIMENSIONES CULTURALES Y 19 PAÍSES](#)

Auditoría

[ANÁLISIS DE LA MOVILIDAD Y LOS PRECIOS EN EL MERCADO DE AUDITORÍA ESPAÑOL](#)

[A CONCORRÊNCIA NO MERCADO DE AUDITORIA PORTUGUÊS: UMA ANÁLISE EMPÍRICA DOS ANOS DE 2010 A 2012](#)

[ANÁLISE EMPÍRICA DOS RELATÓRIOS DE AUDITORIA EMITIDOS PELOS FISCAS ÚNICOS DOS HOSPITAIS PÚBLICOS PORTUGUESES NO PERÍODO DE 2003-2008](#)

Normativa contable internacional

[NATIONAL CULTURE AND INTERNATIONAL ACCOUNTING STANDARDS IN BANKING INDUSTRY: IS THERE AN INFLUENCE ON CREDIT RISK?](#)

[DIFFERENTIAL INFORMATION CONSEQUENCES OF REAL VERSUS ACCRUALS EARNINGS MANAGEMENT](#)

[ANÁLISIS DE LA IMPLEMENTACIÓN DE LAS NIIF-IFRS A NIVEL INTERNACIONAL](#)

[AS CORREÇÕES FISCAIS À INFORMAÇÃO FINANCEIRA EM SEDE DE IRC EM STP](#)

[THE VALUE RELEVANCE OF THE OPERACIONAL LEASES](#)

Area B - VALORACIÓN Y FINANZAS

Valoración de empresas

[INVESTMENT VALUATION CRITERIA IN THE VENTURE CAPITAL SECTOR: A CROSS-EUROPEAN ANALYSIS](#)

[EL VALOR DE UN EURO: LA TRANSACCIÓN BANCO DE VALENCIA](#)

[HOW MUCH DO THE TAX BENEFITS OF DEBT ADD TO FIRM VALUE?: EVIDENCE FROM SPANISH LISTED FIRMS](#)

[SMEs ACCESS TO FINANCE AND THE VALUE OF SUPPLIER FINANCING](#)

[VALORACIÓN DE UNA PYME DEL SECTOR PLÁSTICO CON PROPÓSITO DE VENTA](#)

Mercados de valores

[INDIVIDUAL BEHAVIOR IN EXPERIMENTAL ASSET MARKETS WITH VOLATILITY SHIFTS](#)

[AN EMPIRICAL TEST TO SINGLE AND MULTIFACTOR CAPM MODELS IN THE EURONEXT LISBON \(THE PORTUGUESE STOCK EXCHANGE\)](#)

[CRISIS FINANCIERA: EFECTO EN LA COTIZACIÓN BURSÁTIL DE LAS EMPRESAS DE LA BOLSA MEXICANA DE VALORES](#)

Financiación de empresas

[VALORACIÓN DE OPCIONES REALES: LA OPCIÓN DE REDUCCIÓN VALORACIÓN DE OPCIONES REALES: LA OPCIÓN DE REDUCCIÓN](#)

[THE REGULATORY ROLE OF THE EUROPEAN CENTRAL BANK AND THE EUROPEAN SOVEREIGN DEBT CRISIS: EFFECT IN THE FINANCING OF PORTUGUESE COMPANIES](#)

[EL GAP DE LA FINANCIACIÓN A LA PYME INDUSTRIAL DE MÉXICO. UN ESTUDIO COMPARATIVO](#)

[SELF-DECLARED FINANCIAL CONSTRAINTS: EMPIRICAL ANALYSIS FOR A SAMPLE OF SPANISH SMEs](#)

Análisis de inversiones

[DETERMINANTES DE LAS DOTACIONES PARA LOS DETERIORES DE LAS INVERSIONES CREDITICIAS: CICLO CONTABLE, CICLO ECONÓMICO, MOROSIDAD](#)

[A COST-BENEFIT ANALYSIS OF THE LONG-TERM PRISON SENTENCES ENFORCEMENT MODEL](#)

[GEOGRAPHICAL PROXIMITY EFFECTS ON THE ADJUSTMENT PROCESS IN THE COMPANIES' FINANCIAL STRUCTURE. DOES THE FIRM HETEROGENEITY MATTER?](#)

[LAS INVERSIONES EN TIC Y SU INCIDENCIA SOBRE EL ÉXITO EMPRESARIAL: UN ANÁLISIS DESDE LA ÓPTICA DE RECURSOS Y CAPACIDADES](#)

[PREDICCIÓN DE INSOLVENCIA Y FRACASO FINANCIERO: MEDIO SIGLO DESPUÉS DE BEAVER \(1966\). AVANCES Y NUEVOS RESULTADOS](#)

C - DIRECCIÓN Y ORGANIZACIÓN

Emprendimiento

[DIMENSIONES DEL EMPRENDIMIENTO ENTRE LOS JÓVENES: INTENCIÓN Y REALIDAD](#)

[UNA APROXIMACIÓN AL PERFIL DEL EMPRENDIMIENTO FEMENINO: UN ESTUDIO EMPÍRICO](#)

[LA CULTURA INTRAEMPREDEDORA Y SU EFECTO EN LA INNOVACIÓN DE LAS SPIN-OFF ACADÉMICAS](#)

[ORIENTACIÓN EXPORTADORA DE LAS PYME Y SU RELACIÓN CON FACTORES DE ÉXITO PARA SU DESARROLLO ESTRATÉGICO. RESULTADOS EN COAHUILA, MÉXICO](#)

Innovación

[LA CULTURA ORGANIZACIONAL: FACTOR PROMOTOR DE LA INNOVACIÓN PARA EL CRECIMIENTO E INTERNACIONALIZACIÓN DE LAS PYMES DE LA SALUD UBICADAS EN GUADALAJARA, JALISCO, MÉXICO](#)

[BARRERAS Y DRIVERS PARA LA ECO-INNOVACIÓN EN LAS PYMES ESPAÑOLAS: ESTRUCTURA FINANCIERA Y ORGANIZACIÓN](#)

[LA INNOVACIÓN EN EL SECTOR DE COMPONENTES DEL AUTOMÓVIL Y SU EFECTO EN EL RESULTADO EMPRESARIAL](#)

[STARTUP ACCELERATORS: AN OVERVIEW OF THE CURRENT STATE OF THE ACCELERATION PHENOMENON](#)

[LA INFLUENCIA DEL ENTORNO EMPRESARIAL EN LA DINÁMICA DE LA INNOVACIÓN Y EN EL RENDIMIENTO DE LA PYME](#)

Aprendizaje y gestión del conocimiento

[ELEMENTOS FUNDAMENTALES DEL PROCESO DE APRENDIZAJE ORGANIZATIVO, LA APLICACIÓN DEL CONOCIMIENTO Y LA ORIENTACIÓN AL APRENDIZAJE EN LAS ORGANIZACIONES QUE PRESTAN SERVICIOS DE ASESORAMIENTO FINANCIERO](#)

[GESTIÓN DEL CONOCIMIENTO Y SU INFLUENCIA CON LA INNOVACIÓN EN LA PYME](#)

[ANÁLISIS DE LAS RELACIONES EXISTENTES ENTRE LOS DISTINTOS NIVELES ONTOLÓGICOS DEL APRENDIZAJE ORGANIZATIVO: UNA APLICACIÓN EN EL SECTOR UNIVERSITARIO](#)

[EL USO DE LAS TECNOLOGÍAS DE LA INFORMACIÓN COMO ELEMENTO DE GESTIÓN DEL CONOCIMIENTO EN LAS INSTITUCIONES DE EDUCACIÓN SUPERIOR](#)

Empresa familiar y pymes

[LA GESTIÓN DE LA SEGURIDAD Y SALUD EN EL TRABAJO: ELEMENTO CLAVE EN LA COMPETITIVIDAD DE LA PYME](#)

[LAS ESTRUCTURAS Y ESTRATEGIAS DE LAS PYMES EXPORTADORAS DE LA REGIÓN DE VILLA MARÍA \(ARGENTINA\)](#)

[EL EFECTO DE LA IMPLICACIÓN FAMILIAR SOBRE LA EFICIENCIA DE LOS INPUTS DE INNOVACIÓN TECNOLÓGICA: UNA ANÁLISIS DE LAS PEQUEÑAS EMPRESAS INDUSTRIALES ESPAÑOLAS](#)

[MODELOS DE NEGOCIO Y COMPETITIVIDAD DE LA EMPRESA FAMILIAR](#)

[CONFLICT FAMILY AND BUSINESS SYSTEM](#)

Sectores y sistemas

[LA ENTRADA EN UN NUEVO MERCADO INTERNACIONAL A TRAVÉS DE LA COOPERACIÓN EMPRESARIAL: EL CASO DE LA EMPRESA HIDROLUTION-MACROFITAS, S.L.\(MSL\)](#)

[LA COMPETITIVIDAD DE LA INDUSTRIA TEXTIL BRASILEÑA: UNA PROPUESTA PARA EL ANÁLISIS DE LOS INDICADORES SELECCIONADOS](#)

[LA IMPORTANCIA DE LA LIQUIDEZ, RENTABILIDAD, INVERSIÓN Y TOMA DE DECISIONES EN LA GESTIÓN FINANCIERA EMPRESARIAL PARA LA OBTENCIÓN DE RECURSOS EN LA INDUSTRIA DE LA PESCA DE PELÁGICOS MENORES EN ENSENADA, B.C.](#)

[LA REPERCUSSION DEL ROBO HORMIGA EN LAS CADENAS COMERCIALES Y DE SERVICIO. "CASO DE ESTUDIO. EN UNA COMUNIDAD DE MÉXICO".](#)

Area D - CONTABILIDAD Y CONTROL DE GESTIÓN

Contabilidad y control de gestión

[LA PLANIFICACIÓN Y CONTROL EN EL SECTOR DE TRANSPORTE AÉREO: ESTUDIO EXPLORATORIO](#)

[EVALUACIÓN CRÍTICA DE LA PERTINENCIA DEL VALOR RAZONABLE Y EL GOBIERNO CORPORATIVO ANGLOSAJÓN PARA EL CONTROL EN LAS ORGANIZACIONES EN COLOMBIA](#)

[STRATEGIC MANAGEMENT ACCOUNTING: DEFINITIONS AND DIMENSIONS](#)

[AMBIDEXTROUS ORIENTATION AND THE USE OF MANAGEMENT ACCOUNTING SYSTEMS](#)

[RIESGO PERCIBIDO Y MECANISMOS DE CONTROL EX ANTE EN LOS ACUERDOS DE COLABORACIÓN DE PEQUEÑAS EMPRESAS PARA EL DISEÑO Y DESARROLLO DE PRODUCTOS TECNOLÓGICOS](#)

[SISTEMA DE COSTEO EN EMPRESA DEL SECTOR CÁRNICO](#)

Area F - SECTOR PÚBLICO

Entidades locales y sector público

[DIVERSIDADE DE GÊNERO E A PERFORMANCE ECONÔMICA-FINANCEIRA: PERSPECTIVA NO SETOR PÚBLICO BRASILEIRO](#)

[IS TIME REALLY IMPORTANT IN CONTRACTING OUT OF LOCAL PUBLIC SECTOR? THE IMPACT OF FINANCIAL CONDITION AND GREAT RECESSION](#)

[CONVERGENCIA DE LOS SISTEMAS DE INFORMACIÓN PÚBLICA EN EUROPA: LA INCIDENCIA DEL SEC 2010](#)

[INFLUENCIA DEL ENTORNO EN LAS REFORMAS DE LOS SISTEMAS FINANCIEROS GUBERNAMENTALES EN CENTRO AMÉRICA: EL CASO DE PANAMÁ](#)

[IMPACTO DE LA NUEVA INSTRUCCIÓN DE CONTABILIDAD LOCAL EN LAS CUENTAS ANUALES DE LAS ENTIDADES LOCALES](#)

[EL PAPEL DE LA INFORMACIÓN FINANCIERA EN EL PROCESO DE ACCOUNTABILITY: EL CASO DE LOS AYUNTAMIENTOS DE SÃO TOMÉ Y PRÍNCIPE](#)

[IMPLANTACIÓN DE LAS RECOMENDACIONES DE LA AUDITORÍA OPERATIVA EN AMÉRICA LATINA: PERCEPCIÓN DEL IMPACTO EN LAS ENTIDADES AUDITADAS](#)

Area G y I- NUEVAS TECNOLOGIAS Y CONTABILIDAD - COOPERATIVAS

Contabilidad cooperativas y nuevas tecnologías

[LA GESTIÓN EN SEGURIDAD DE LA INFORMACIÓN Y EL IMPACTO EN EL DESEMPEÑO DE LOS CONTROLES: UN ESTUDIO EMPÍRICO EN LAS PYMES COLOMBIANAS](#)

[IMPACTO DE LAS TECNOLOGÍAS DE INFORMACIÓN Y COMUNICACIÓN EN LA DIVERSIFICACIÓN EMPRESARIAL. REVISIÓN DE LA LITERATURA](#)

[INNOVACIÓN E INTERNACIONALIZACIÓN. FACTORES CLAVE DE COMPETITIVIDAD EN COOPERATIVAS AGROALIMENTARIAS](#)

[COMPARISON OF THE FINANCIAL BEHAVIOUR OF AGRI-FOOD COOPERATIVES WITH NON-COOPERATIVES FROM A STATIC AND DYNAMIC PERSPECTIVE: AN EMPIRICAL APPLICATION TO SPANISH COMPANIES](#)

[THE GOVERNANCE OF AGRICULTURAL COOPERATIVES: EVIDENCE FROM SPAIN](#)

Area H - RESPONSABILIDAD SOCIAL CORPORATIVA

RSC y gestión

[THE INFLUENCE OF CORPORATE SOCIAL RESPONSIBILITY PRACTICES ON ORGANIZATIONAL PERFORMANCE: EVIDENCE FROM ECO-RESPONSIBLE SPANISH FIRMS](#)

[INSTRUMENTO DE MEDIDA PARA LA RELACIÓN ENTRE LA RESPONSABILIDAD SOCIAL EMPRESARIAL, LAS PRÁCTICAS FORMATIVAS Y EL DESEMPEÑO EMPRESARIAL](#)

[RESPONSABILIDAD SOCIAL CORPORATIVA Y CAPITAL INTELECTUAL EN LAS ORGANIZACIONES](#)[CORPORATE SOCIAL RESPONSIBILITY AND ITS EFFECT ON ORGANIZATIONAL INNOVATION AND FIRM PERFORMANCE: AN EMPIRICAL RESEARCH IN SMES](#)**Responsabilidad social corporativa sectorial**[¿MEJORES NIVELES DE RESPONSABILIDAD SOCIAL CORPORATIVA EN EMPRESAS COTIZADAS?](#)[STAKEHOLDERS AND FINANCIAL DISTRESS IN SMALL AND MEDIUM ENTERPRISES. AN EMPIRICAL EXAMINATION](#)[ACCOUNTABILITY Y SECTOR VERDE: FACTORES EXPLICATIVOS COMPLEMENTARIOS A NIVEL REGIONAL](#)**Información integrada y no financiera**[ANÁLISIS EMPÍRICO DE LA INFORMACIÓN NO FINANCIERA DESDE UNA PERSPECTIVA INTERNACIONAL: COTIZADAS VERSUS NO COTIZADAS](#)[INFORMACIÓN INTEGRADA Y COSTE DE CAPITAL](#)[ANÁLISIS DE LOS FACTORES DETERMINANTES DE LA RELACIÓN ENTRE EL PERFORMANCE SOSTENIBLE Y LA TRANSPARENCIA EN EL REPORTING SOBRE SOSTENIBILIDAD. UNA AMPLIACIÓN DEL MODELO DE ULLMAN](#)[ANÁLISIS DE LOS INDICADORES DE LA RESPONSABILIDAD SOCIAL EN EMPRESAS DE BAJA CALIFORNIA](#)**Verificación de control de las RSC**[THE CAUSAL LINKS BETWEEN VOLUNTARY CSR DISCLOSURE AND INFORMATION ASYMMETRY. THE MODERATING ROLE OF THE STAKEHOLDER PROTECTION](#)[THE MEDIATING EFFECT OF ETHICAL CODES ON THE LINK BETWEEN FAMILY FIRMS AND THEIR SOCIAL PERFORMANCE](#)[CSR ASSURANCE IN SENSITIVE SECTORS – A WORLDWIDE ANALYSIS OF FINANCIAL SERVICES INDUSTRY](#)[ADOPTION OF SUSTAINABILITY ASSURANCE: TO BE A NON-PROFIT ORGANISATION MATTER?](#)**Area J - ENTIDADES SIN FINES DE LUCRO****Entidades sin fines de lucro**[LA INFORMACIÓN CONTABLE Y SU VINCULACIÓN CON LAS OBLIGACIONES TRIBUTARIAS EN LAS ENTIDADES SIN ÁNIMO DE LUCRO](#)[DETERMINANTES DE LA EFICIENCIA EN LAS FUNDACIONES ESPAÑOLAS](#)[EL SECTOR FUNDACIONAL EN ESPAÑA: LA INFORMACIÓN ESPECÍFICA A SUMINISTRAR EN SUS ESTADOS CONTABLES](#)**Area K - TURISMO****Sector hotelero**[ANÁLISIS DEL APRENDIZAJE ORGANIZACIONAL EN EL SECTOR HOTELERO. UNA APLICACIÓN AL SECTOR HOTELERO VALENCIANO](#)[APRENDIZAJE E INNOVACIÓN COMO FACTORES DETERMINANTES EN LA GESTIÓN DEL CONOCIMIENTO AMBIENTAL EN LAS EMPRESAS HOTELERAS](#)[EL SISTEMA UNIFORME DE CUENTAS PARA LA INDUSTRIA HOTELERA. PRINCIPALES ASPECTOS Y UTILIDADES PARA LA PLANIFICACIÓN Y EL CONTROL](#)**Turismo: sectores y regiones**[MODELAÇÃO DA PROCURA TURÍSTICA EM MOÇAMBIQUE](#)[ÍNDICE DE DESENVOLVIMENTO TURÍSTICO APLICADO À REGIÃO NORTE DE PORTUGAL: UM CONTRIBUTO ESTRATÉGICO](#)[EVOLUCIÓN DE LOS SEGMENTOS DE LAS COMPAÑÍAS AÉREAS Y EL APROVECHAMIENTO DE SU CAPITAL HUMANO EN LA CALIDAD DE SERVICIO COMO VENTAJA COMPETITIVA](#)[FACTORES QUE INHIBEN EL DESARROLLO DE LA INDUSTRIA VINÍCOLA EN EL VALLE DE GUADALUPE, B.C. MÉXICO](#)[UNA PROPUESTA DE BUSINESS MODEL CANVAS PARA EL DESARROLLO DEL TURISMO DE FLAMENCO](#)**OPEN FORUM****Información contable y valoración y finanzas**[A LEASING WITH ABANDONMENT OPTION](#)[COMENTARIOS ACLARATORIOS SOBRE EL NÚMERO 5º DEL APARTADO 2 DEL ARTÍCULO 75 DE LA LECO \(Real Decreto-Ley 11/2014, de 5 de septiembre\)](#)[DIAGNÓSTICO DE LA PLANIFICACION FINANCIERA EN PYMES DEL SECTOR MANUFACTURERO DE DUITAMA](#)[DIAGNÓSTICO DEL CONCURSO DE ACREEDORES ESPAÑOL DESDE LA PERSPECTIVA DEL ADMINISTRADOR CONCURSAL](#)[ANÁLISIS DE LAS MOTIVACIONES DE LOS INVERSORES DE ORIGEN RUSO PARA ENTRAR EN EL MERCADO ESPAÑOL](#)[UMA ANÁLISE DO NÍVEL DE EVIDENCIAÇÃO RELATIVO AO ATIVO INTANGÍVEL NO BRASIL](#)[IMPUESTOS DIFERIDOS: NUEVAS REALIDADES ECONOMICAS Y FINANCIERAS](#)[A CONTABILIDADE E O CONTROLO DE QUALIDADE](#)[CAMBIOS EN LAS INVERSIONES ESTRATÉGICAS DE LOS GRUPOS EMPRESARIALES BAJO NIIF EN COLOMBIA](#)**Dirección y organización**[ESTILOS DE LIDERAZGO EN LA DIRECCIÓN DE MICROEMPRESAS](#)[LA CULTURA ORGANIZACIONAL Y SU IMPACTO EN LA IMPLEMENTACIÓN DE LAS NIIF](#)[FACTORES EMPRESARIALES DE LOS ESTUDIANTES Y DOCENTES UNIVERSITARIOS](#)[LA GERENCIA, EL NEUROMARKETING Y EL MERCHANDISING DE RETAIL DE BAJO PRESUPUESTO UN NUEVO MODELO PARA APLICAR EN PEQUEÑAS Y MEDIANAS SUPERFICIES](#)[INNOVANDO EL EMPRENDIMIENTO](#)[LA CALIDAD EN EL SERVICIO AL CLIENTE COMO FACTOR DE COMPETITIVIDAD EN LAS PYMES](#)[ESTUDIO DE LA SITUACIÓN DE LAS MICROEMPRESAS EN LA REGIÓN DE VILLA MARÍA \(ARGENTINA\)](#)

Dirección y control

[DO TAX CREDITS HELP R&D A BIBLIOMETRIC ANALYSIS OF THE LITERATURE](#)

[LA RESPONSABILIDAD SOCIAL UNIVERSITARIA: AUTODIAGNÓSTICO DE LA EFECTIVIDAD DE LA RELACION UNIVERSIDAD SOCIEDAD EN LA UNIVERSIDAD ESTATAL DE COAHUILA, MÉXICO](#)

[COSTOS AMBIENTALES EN EL POS ACUERDO EN COLOMBIA, IDENTIFICACIÓN DE UN MODELO PARA LA EVALUACIÓN](#)

[CONTROLO DE GESTÃO NAS EMPRESAS EM SITUAÇÃO DE TURNAROUND, COM FOCO NA CONTRIBUIÇÃO DA CONTABILIDADE DE GESTÃO: UMA REVISÃO DA LITERATURA](#)

[SOSTENIBILIDAD Y MEDIO AMBIENTE: APROXIMACIONES INTERDISCIPLINARIAS DEL MANEJO ECONÓMICO, ADMINISTRATIVO Y CONTABLE](#)

[LA METODOLOGÍA DE COSTEO INTEGRAL UNA PROPUESTA DE REFLEXIÓN Y APLICACIÓN PARA EL LABORATORIO CLINICO DEL SERVICIO MEDICO DE LA UNIVERSIDAD DEL VALLE CALI COLOMBIA](#)

Sector público y nuevas tecnologías

[LA RIGIDEZ DEL GASTO CORRIENTE Y OTROS INDICADORES PRESUPUESTARIOS LOCALES DURANTE LA CRISIS ECONÓMICA. ANÁLISIS Y EVOLUCIÓN SEGÚN TRAMOS DE POBLACIÓN](#)

[LA CONTABILIDAD PÚBLICA EN SÃO TOMÉ Y PRÍNCIPE: SITUACIÓN ACTUAL Y PERSPECTIVAS FUTURAS](#)

[ADMINISTRACIÓN PRESUPUESTARIA EN CENTROS INTEGRADOS PÚBLICOS DE FORMACIÓN PROFESIONAL: PROPUESTA PARA UN CENTRO DE LA COMUNIDAD VALENCIANA](#)

[EL ROL DEL SECTOR PÚBLICO EN EL COMPORTAMIENTO INNOVADOR DE LAS PYMES. EL CASO DEL POLO EÓLICO BUENOS AIRES](#)

[RELACIÓN ENTRE SOCIEDADES DE CONTROL Y CONTABILIDAD DESDE LAS NUEVAS TECNOLOGÍAS](#)

[EL E-COMMERCE COMO FACTOR DE INNOVACIÓN E INTERNACIONALIZACIÓN: SITUACIÓN DE LAS MIPYMES EXPORTADORAS COSTARRICENSES](#)

RSC, Turismo y entidades sin fines de lucro

[LA PREVISIÓN SOCIAL COMO UNA ESTRATEGIA EN EL DESARROLLO DEL CAPITAL HUMANO Y SU IMPACTO FISCAL EN LAS ORGANIZACIONES](#)

[FACTORES REITERADOS EN SANCIONES DISCIPLINARIAS APLICADAS A LOS CONTADORES PÚBLICOS DE COLOMBIA](#)

[REVISIÓN TEÓRICA SOBRE TRANSPARENCIA Y RENDICIÓN DE CUENTAS EN EL SECTOR DE LAS ONG](#)

[ESTUDIOS DE LA CALIDAD DE LOS SERVICIOS HOTELEROS Y SU INCIDENCIA EN EL DESARROLLO TURÍSTICO DEL CANTÓN MILAGRO - ECUADOR](#)

[IR ARRIBA](#)

**THE REGULATORY ROLE OF THE EUROPEAN CENTRAL BANK AND THE
EUROPEAN SOVEREIGN DEBT CRISIS: CONSEQUENCES IN PORTUGUESE
COMPANIES FINANCING**

Sandra Teixeira

Polytechnic Institute of Bragança, Portugal

Ana Paula Monte (responsável)

Polytechnic Institute of Bragança, Portugal

Unidade de Investigação Aplicada em Gestão (UNIAG), Portugal; NECE¹ (UBI, Portugal)

Área temática: B) Valoración y Finanzas

Palabras-clave: Banco Central Europeo (BCE); crisis de la deuda soberana; financiación bancaria; Empresas no financieras.

Keywords: European Central Bank (ECB); sovereign debt crisis; bank financing; Non-financial companies.

¹ R & D institution funded by the Foundation for Science and Technology, Ministry of Education and Science of Portugal.

THE REGULATORY ROLE OF THE EUROPEAN CENTRAL BANK AND THE EUROPEAN SOVEREIGN DEBT CRISIS: EFFECT IN THE FINANCING OF PORTUGUESE COMPANIES.

Abstract

Taking into account the impact that the sovereign debt crisis reached within the European Union, the objective of this study was to examine what regulatory role for European Central Bank (ECB) plays and how it can contribute to the control of the sovereign debt Member States. In this sense, a comparative analysis of the role of the ECB and the Federal Reserve (FED) in response to the international financial crisis was made. In the second part of this work we used an econometric model of multiple linear regressions to assess the influence that the sovereign debt crisis has had in lending to Portuguese companies.

Keywords: European Central Bank (ECB); sovereign debt crisis; bank financing; Non-financial companies.

INTRODUCTION

The financial crisis that began in 2007, in the United States, quickly spread to Europe and became the largest economic and financial crisis since the 1930s. The collapse of financial markets revealed the vulnerabilities of the financial system and worsened the fiscal position of some euro zone countries. From the end of 2009 and early 2010, countries such as Greece, Ireland and Portugal, began to have their own debt financing problems and were forced to pay interest rates higher for each investment fund - the sovereign debt crisis.

Central banks, faced with weaknesses in the banking sector, handled a dilemma: choose between the moral hazard of guaranteed redemption and the destabilization of the financial system in general caused by the collapse of major financial institutions of systemic point of view ("too-big-to-fail") (Paulo, 2012). The systemic crisis that affected the euro area has highlighted serious inconsistencies in the governance model, internal organization and the instruments available to the management of the single currency (Costa, 2014). Lock the risk of contagion to other Member States and to preserve the stability of the Eurozone became thus the most urgent objectives of the European Central Bank (ECB) (Lourtier, 2011). The reform of the financial system, which has been implemented in recent years, came thus strengthen the commitment to the establishment of the European Banking Union that will allow a more rigorous supervision of financial markets (Farhi & Tirole, 2014; Praet, 2014). Given the size that the sovereign debt crisis hit and its repercussions in the whole euro area, the objective of this research will be conducted into the regulatory role that the ECB took over during this turbulent period, from December 2007 to December 2013, and how Portuguese companies suffered constraints on bank financing.

The paper is structured in three sections, including this introduction and conclusion. In first section will be held a comparative analysis between the ECB's actions and the actions of the Federal Reserve System (FED), subsequent the recent international crisis. Then a brief analysis of the economic literature on the financing constraints will be done as Portuguese companies seem to experience it in recent years. The third section presents the results of the empirical research conducted, starting with the definition of objectives and research hypotheses, followed by the description of the variables and the base data. Then it is presented the univariate analysis and correlation of these variables and it ends with presentation of the estimated econometric model - multiple linear regression models. Finally we present the most important conclusions of the work and some suggestions for further research.

1. THE EUROPEAN CENTRAL BANK (ECB) AND THE FEDERAL RESERVE SYSTEM (FED) REACTION TO THE RECENT FINANCIAL CRISIS

With the bankruptcy of Lehman Brothers in 2008, whose main effect was the loss of confidence in the financial system and the reluctance of banks to lend money to each other, the primary objective of central banks became unlock the interbank markets, facilitating substantially the access to the financial system. To achieve this goal, central banks (ECB and FED) responded quickly down interest rates and adopting a wide range of conventional and unconventional measures. During the first phase of the crisis (2007-2009), the ECB's policy was similar to the policy adopted by the FED. However, between 2010 and 2012, the perception of risk in financial markets on both continents was different.

In May 2010, when the markets went into panic due to possible insolvency of Greece, the Governing Council decided to intervene and started buying Greek bonds in secondary markets in order to reduce market pressure. In these exceptional circumstances the ECB launched the Securities Market Program (SMP) to restore the proper functioning of the transmission mechanism of monetary policy and in order to maintain price stability in the medium term (BCE, 2010). However, as Gros, Alcidi, and Giovannini (2012) and Bagus (2012) report, the program was not effective in combating the rise in yields of peripheral countries, because it was found that after each SMP intervention there was a slight decrease in yields, followed by an increase of this break. This apparent failure may have been due to the small amounts involved in each operation. Conversely, in the US, as of 2010, the main concern became the recovery of the economy and labor market, although the former seems not to be as robust as expected.

Overall, it can be concluded that the FED's response was faster and there was a large diversity of programs and the type of entities that were supported by this central bank (Gros et al., 2012). The FED changed reference interest rates much faster than the ECB. In 2008, the FED lowered the federal funds rate by 7 times, stabilizing it in a very close range of zero. The ECB, for its part, merely reduced the benchmark interest rate to close to zero in May 2013.

The common purpose of these operations was the unprecedented expansion of central bank balance sheets. The increase was particularly important in the FED in the order of 230% and that the ECB's balance sheet expanded by 170% for the same period. Noticed that the ECB balance sheet expansion was gradual, while the FED's one was much more abrupt. Although the FED has expanded its balance sheet proportionally more than the ECB in 2012, the ECB's balance sheet already accounted for about 30% of the

eurozone's GDP, and the balance of the FED represented only 20% of US GDP (Gros et al., 2012).

However there are two qualitative differences between the ECB and the FED that are more important than the total size of the balance sheet. The FED, under quantitative easing, bought assets almost exclusively risk-free, as the US debt securities, while the ECB bought essentially risky assets, for which the market had little liquidity in the credit enhanced support. In addition, the FED lent very little to banks, while the ECB lent large sums to troubled banks without access to market financing (Gros et al., 2012). Finally, Gros et al. (2012) and Queen (2013) point out that the FED has been more transparent and effective than the ECB with regard to monetary policy changes announcements.

2. CONSTRAINTS TO FINANCE BUSINESS FOLLOWING THE FINANCIAL CRISIS

After the 2008 crisis, which showed the weaknesses of national and European financial regulation, and the outbreak of the sovereign debt crisis in 2010, the climate of confidence was shaken, hampering the smooth functioning of financial markets and jeopardizing the financing of European economies. With the increasing ineffectiveness of interbank and debt markets, the ECB was compelled to reduce Euribor interest rate to historic lows, to intervene in the secondary markets for European sovereign debt and strengthen liquidity facilities (APB, 2014). However, Antunes and Marinho (2012) suggest that access to credit by non-financial companies became more difficult from the beginning of 2009, following the financial crisis, also making sure that from this date the average amount of credit granted began to fall.

The year 2010 was marked by increased turbulence in international financial markets, following a request for financial assistance from Greece. As such, the lending criteria to the non-financial private sector have become considerably more demanding from the third quarter of 2010, regardless of company size (Banco de Portugal, 2010). Bank of Portugal data show that private companies were the most affected with the contraction observed in lending, especially small ones. The widening of spreads due to the increased cost of financing the banking sector, and the application of risk assessment criteria and more demanding lending conditions, difficult access to bank credit for national small and medium enterprises (SME). At the same time there was an increase in bank funding to public companies in detriment of the private sector (Banco de Portugal, 2013a). Only in the second quarter of 2013, the bank gave the first signs of a "slight decrease in tightening" of financing conditions for SME (Banco de Portugal, 2013b). This decrease restrictions, consolidated in the second quarter of 2014 was due to the reduction of

spreads applied to average loans, increased maturity and the amount of loans granted (Banco de Portugal, 2014).

In short, after the 2008 crisis, SME's access to the credit market was one that showed greater restrictions (Costa, 2014; Farinha & Prego, 2013; Ferrão, 2012). However, these companies are crucial to national economic development. Furthermore, Portuguese companies are using more debt in its capital structure, taking into account the average financial autonomy ratio, which gives them huge vulnerability in periods of stagnation or economic downturn (Ferrão, 2012).

3. RECENT FINANCIAL CRISIS INFLUENCE ON THE FINANCING OF PORTUGUESE FIRMS

3.1. Objective and research hypotheses

The objective of this research relates to the sovereign debt crisis in the Member States of the European Union, triggered by any of the ECB control failure, and its consequent impact on lending to the Portuguese business sector. In this sense, and taking into account the theoretical and empirical foundations indicted in recent economic literature, it was defined two research hypotheses. The first hypothesis is associated to the increase in debt and the public deficit during the period of the financial and sovereign debt crisis as its influence on the total value of loans from the financial sector to non-financial corporations in Portugal. Arteta and Hale (2006) conclude that the failure of the public debt has a strong impact on business. Realize that, even when there is renegotiation of sovereign debt, funding for the private sector decreases before and after the new contract public debt. Given this evidence was proposed the following research hypothesis to test:

H1 – The increase in debt and the public deficit causes a reduction in the value of loans.

The second hypothesis relates to the impact of increased government debt and the public deficit on lending to SME. According to Iyer, Lopes, Peydró and Schoar (2013), during the crisis period, between 2007 and 2009, the supply of bank credit to smaller companies decreased. Also Ferrão (2012) concluded that in the period after the memorandum with the TROIKA has seen a deleveraging process of banks and consequently the other private operators, with particular focus on SME. Given this evidence relating to SME, we proposed the following research hypothesis:

H2 – The increase in government debt and the public deficit imply a reduction in lending to SME.

3.2. Description of the database and variables

In this research, we considered time series with quarterly data for the period between December 2007 and December 2013, thus resulting in a total of 25 quarterly observations. Data on "Treasury Bonds Yields - Secondary Market" were provided by the Agência de Gestão da Tesouraria e da Dívida Pública - IGCP. In turn, the data on the Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF) were obtained from the Instituto Nacional de Estatística (INE). All other data were obtained through the Online Statistics from Banco de Portugal. For a better understanding, presented in Table 1 is a description of variables included in the model.

Table 1. Description of variables to be included in the econometric model to estimate.

	Variable	Explanation	Unit	Data Source
Dependent Variable	Emp_Conc	Financial Institutions Loans to Non-financial Companies - Total	Million Euros	Banco de Portugal
Independent Variables	D_Micro	Debt volume of Micro Enterprises	Million Euros	Banco de Portugal
	D_PE	Debt volume of Small Enterprises	Million Euros	Banco de Portugal
	D_ME	Debt volume of Medium Enterprises	Million Euros	Banco de Portugal
	D_GRD	Debt volume of Large Enterprises	Million Euros	Banco de Portugal
	RE_Est	General Government Debt Ratio	%	Banco de Portugal
	RE_Micro	Debt ratio of Micro Enterprises	%	Banco de Portugal
	RE_PE	Debt ratio of Small Enterprises	%	Banco de Portugal
	RE_ME	Debt ratio of Medium Enterprises	%	Banco de Portugal
	RE_GE	Debt ratio of Large Enterprises	%	Banco de Portugal
	D_Pub	General Government Gross Debt	Million Euros	Banco de Portugal
	Def_Pub	Public Deficit (Revenue (+)/Financing needs of public administrations (-))	%	Banco de Portugal
	FBCF	Gross Fixed Capital Formation (annual variation rate)	%	INE
	i_SNF_<1ME	Interest rate (new operations): Loans to non-financial corporations of European Union – to 1 Million euros	%	Banco de Portugal
	i_SNF_>1ME	Interest rate (new operations): Loans to non-financial corporations of European Union – above 1 Million euros	%	Banco de Portugal
	Tx_OT	Return rates of Treasury Bonds - Secondary Market	%	IGCP
PIB	Gross Domestic Product at Constant Prices (rate of change in annual value)	%	INE	

[Source: Own elaboration]

The explained variable, total Financial Institutions Loans to Non-financial Companies, described in Table 1, covers the loans over total resident financial institutions in Portugal including, in addition to monetary financial institutions, non-monetary financial

institutions providing credit, as in the case of financial institutions to credit, financial corporations for credit purchases, leasing and factoring companies, investment companies, mutual guarantee and others (Banco de Portugal, 2014). Was considered the debt of micro, small, medium and large enterprises es, since the size of the company may be a significant variable, as there is an inverse relationship between the size of the company and the interest rate on loans (Santos, 2013). The definition of small and medium enterprises (SME) is settled by the Commission Recommendation 2003/361 (Jornal Oficial da União Europeia, 2003). The main factors that determine whether a company is an SME are the staff headcounter, turnover or balance sheet total. The table 2 below illustrates these thresholds (only for individual companies).

Table 2. Classification of SME.

Enterprises categories	Workers	Turnover	or Balance sheet total
Medium	< 250	≤ 50 Million Euros	≤ 43 Million Euros
Small	< 50	≤ 10 Million Euros	≤ 10 Million Euros
Micro	< 10	≤ 2 Million Euros	≤ 2 Million Euros

[Source: European Commission (2014)]

Relatively to the variable General Government Gross Debt, it should be noted that public authorities include the three sub-sectors: central, regional and local government and social security funds. Public companies are also included in the government. The Public Deficit, in turn, corresponds to the difference between the expenditure of general government and its revenues, compared to the total GDP. A deficit with a positive sign corresponds to a negative balance, that is, there are more expenses than revenues. GDP in turn represents the final result of the production activity of resident producer units (Banco de Portugal, 2014).

It was also made a descriptive analysis of the variables in order to understand their behavior during the period in question. We began by presenting the performance of the loans granted in December 2007 to December 2013 (see Figure 1). Through the analysis of the graph there was a subsequent increase in the value of lending by institutions December 2007 to June 2009, followed by a slight decrease and stagnating until June 2010. Thereafter, there was a successive and abrupt decrease in the value of the loans. Note that the lowest values occurred at the end of year 2013. This decrease in the value of loans from the financial sector to non-financial corporations, from 2010, coincides with the beginning of the sovereign debt crisis, and the year 2010 was marked by the

application for financial assistance from Greece in April, and Ireland's request in November.

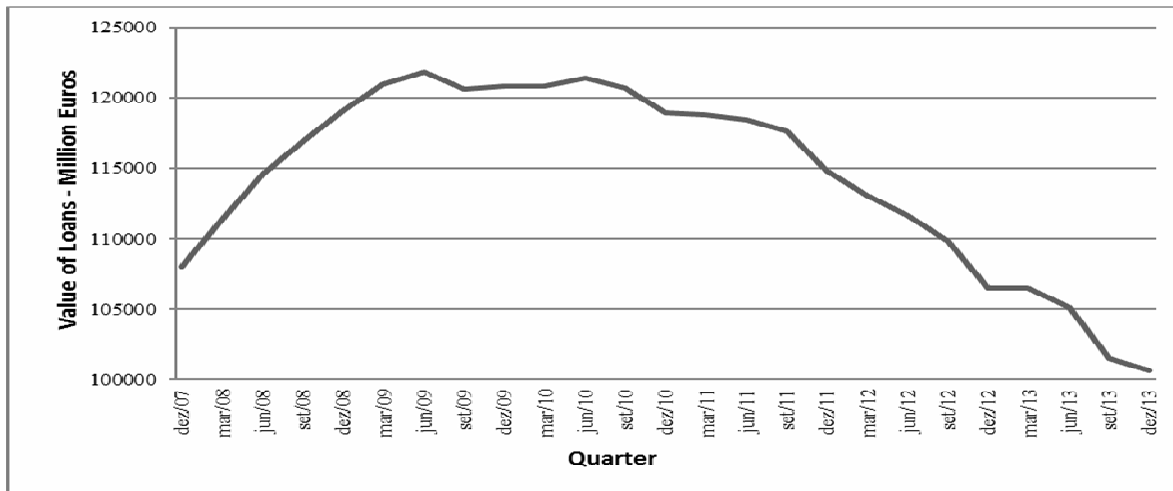


Figure 1. Value of loans, quarterly, in December 2007 to December 2013.
[Source: based on data from Banco de Portugal]

In turn, the graph of Figure 2 shows the evolution of the value of debt in December 2007 to December 2013 for micro, small, medium and large enterprises in Portugal.

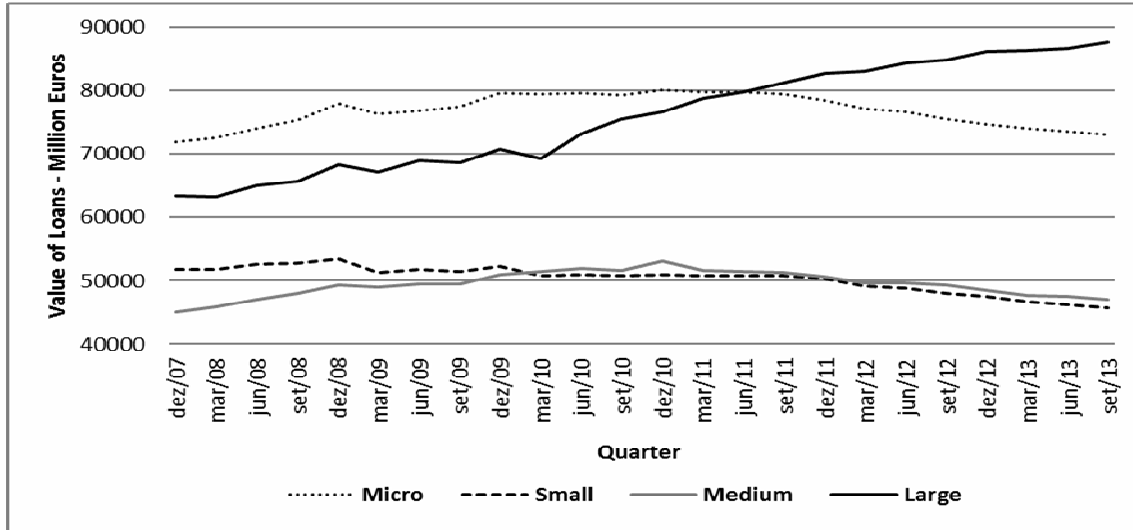


Figure 2. Value of corporate debt, quarterly, December 2007 to December 2013.
[Source: based on data from Banco de Portugal]

Regarding the Figure 2, it is clear that small and medium enterprises are those who have the lowest debt values over the time period under review, the debt curves of these two types of companies are nearby and in both cases checks downward trend at the end of the period. For the micro enterprises it appears that these have debt ranging approximately between 70,000 and 80,000 million euros over the period under appraisal.

As for large enterprises is observed that at the beginning of the survey period was below 70,000 million and remained so until June 2010. Thereafter the debt of large companies increased sequentially, reaching at the end of 2013 its maximum for this period, amounting to 89,686 million euros. This evidence is consistent with what Costa (2014) issued. He expressed concern, because the decrease in loans to focus on the segment of small and medium enterprises, in contrast to large companies and public companies that have increased their level of debt in this period, as they have been replacing credit previously obtained in abroad by loans from resident institutions.

Figure 3 shows the evolution of the equity ratio of small, medium and large enterprises in Portugal, for the period under analysis. It appears that the debt ratio of micro enterprises stood at approximately 45%. Small and medium enterprises debt ratio ranged around 30% and in late 2013 found considerably below 30%. In turn, the equity ratio of large companies at the beginning of the survey period was below 40%, but abruptly increased over time reaching the end of 2013 close to 55%.

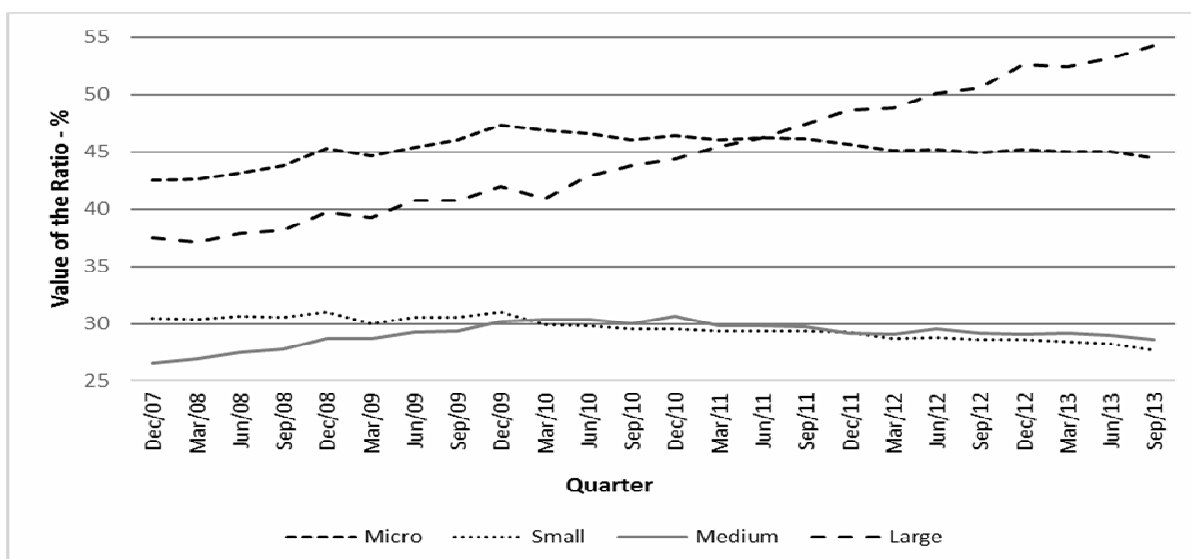


Figure 3. Equity ratio of Portuguese companies between December 2007 and December 2013.

[Source: based on data from Banco de Portugal]

The graph of Figure 4 shows the evolution of the debt of the general government, in a quarterly frequency, from December 2007 to December 2013. As can be seen in Figure 4, the value of debt of public administration increased over the period analyzed and presented a growing trend. In December 2007, the value of public enterprises' debt was 115,786 million euro and increased to 213,631 million euro in December 2013. In others words, within 6 years government debt almost doubled, which corresponded to an increase of approximately 85.63%.

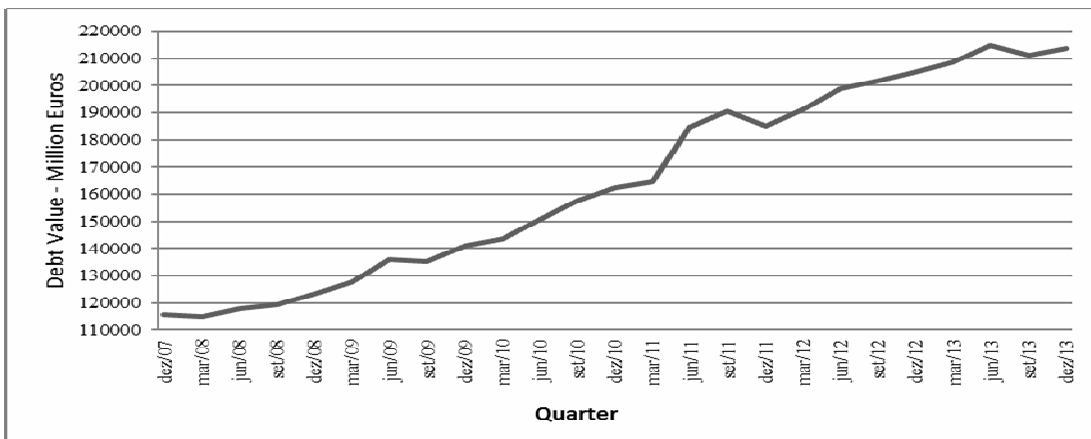


Figure 4. Representation of the quarterly value of government debt between December 2007 and December 2013.

[Source: based on data from Banco de Portugal]

Finally, in Figure 5, shows the evolution of the debt ratio of general government for the same period, noting that the debt ratio of general government throughout the period under study has steadily increased and doubled. In December 2007 was below 80% and at the end of 2013 was above 150%.

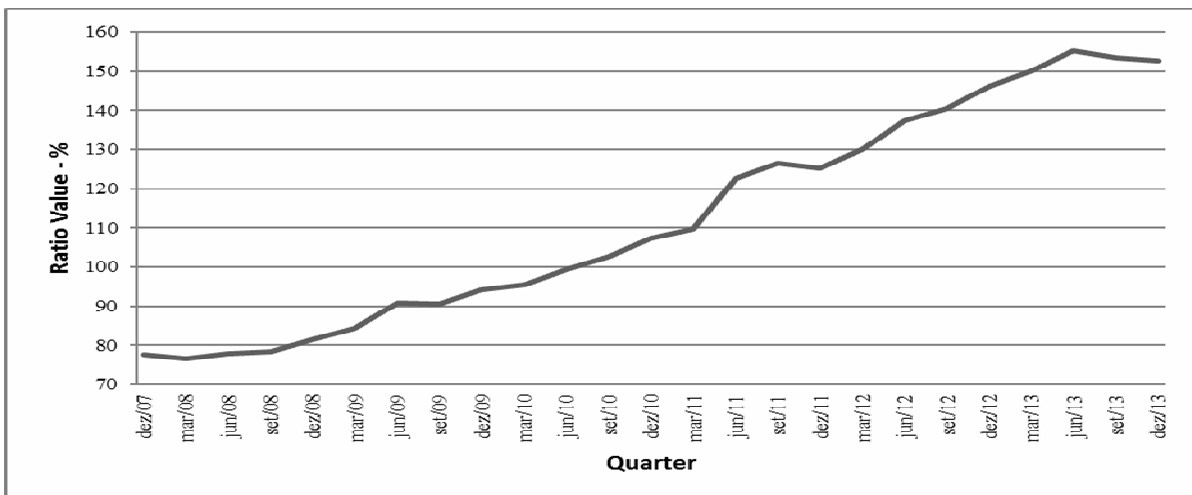


Figure 5. Value of general government's debt ratio, between December 2007 and December 2013.

[Source: based on data from Banco de Portugal]

In table 3 we can observe the annual change for the amount of loan and the value of corporate debt and public administration. According to this table, it appears that the value of total loans only increased in 2008, registering a decrease in the remaining years. Overall the study period, the value of loans granted decreased 9.59%. Regarding the debt

of micro enterprises it appears that only in the years 2011 and 2012 there was a decrease for registration in the remaining years increased. Between baseline and the end there was an increase of 3.65%.

As for small enterprises is observed that in the years 2008 to 2010 there was an increase in debt and in subsequent years there was a decrease. Between the beginning and the end there was a decrease of 14.72% of the debt. For the medium-sized enterprises is observed that these have small annual fluctuations, except for 2008 when there was an increase of 7.65%. Between the beginning and the end there was an increase of 1.55% of the debt. Regarding the debt of large companies and public administration, it appears that every year there was an increase of the amount owed. Between the beginning and the end of the study there was an increase of 41.77% and 85.63% of the debt of large companies and public administration, respectively.

Table 3. Annual and total change of loans and debt of companies and public administration.

Year	Loans	Corporate Debt and Public Administration Debt				
		Micro	Small	Medium	Large	Public Administration
2008	6,95%	7,29%	3,09%	7,65%	7,96%	7,14%
2009	-0,13%	4,35%	1,83%	3,93%	5,31%	10,53%
2010	-1,56%	0,90%	0,51%	3,00%	10,63%	13,21%
2011	-3,38%	-1,58%	-0,85%	-1,92%	4,93%	12,50%
2012	-5,80%	-3,30%	-3,51%	-2,15%	3,65%	7,18%
2013	-5,48%	1,79%	-5,44%	-2,41%	3,85%	2,40%
Total Change	-9,59%	3,65%	-14,72%	1,55%	41,77%	85,63%

Table 4 shows the annual change on the debt ratio of companies and public administration. Analyzing the table, highlights the fact that large companies and public administration showed the largest increase (positive change) in the debt ratio. While the micro and medium enterprises increased equity ratio of 6.34% and 4.09%, respectively, between December 2007 and December 2013, large companies increased their equity ratio in 44.74% and administrations public at 99.09%. In the case of general government corresponds to a doubling of the debt ratio.

Table 4. Annual average rate of debt ratio for companies and public administration.

Year	Equity ratio				Public Administration
	Micro	Small	Medium	Large	
2008	6,34%	1,97%	6,69%	7,01%	6,13%
2009	5,82%	3,33%	5,23%	6,87%	11,49%
2010	-1,07%	-1,34%	0,99%	8,56%	12,68%
2011	-0,65%	-0,34%	-2,01%	6,81%	14,12%
2012	0,22%	-0,35%	0,00%	7,79%	12,46%
2013	0,67%	-7,04%	-4,11%	2,48%	1,80%
Total Change	6,34%	-13,16%	4,09%	44,74%	99,09%

Table 5 shows the characterization of the variables under study through statistical measures: average, minimum, maximum, standard deviation and coefficient of variation. As shown in Table 5, the average value of loans in the period considered was 114,434 million, and the variation around this relatively small amount, about 5.8%. Analyzing the debt according to their companies' size, it appears that the micro enterprises and large companies are those with the highest average. The variation around the mean value was higher (11.4%) for large companies. The average debt of public administration was about 164.616 million euros (S.D. 35624.70 millions of Euros) over the period under analysis and the variation around this mean value was 21.6%. The average debt ratio for micro enterprises was 45.24% (standard deviation 1.22%), 29.48% (1.13%) for small enterprises, 29.07% (1.06%) for medium enterprises, 45.15% (5.69%) for large enterprises and 112.24% (27.61%) for public administration. The greater dispersion values occurred in public administration and in large companies. As for the public deficit has been that this has a mean value of -6.56%, the deviations from the mean value is 57.7%, i.e., the government deficit has a wide dispersion over the period under analysis. Regarding the formation of fixed capital this presents a mean value of -6.59% and high dispersion for the coefficient of variation is 102.4%. Between December 2007 and December 2013 the average value of loan rates up to 1 million euros was 6.56% and above € 1 million was 4.91%. The higher dispersion of rates were observed for more substantial loans. As for the profitability of treasury bonds this had a mean value of 6.66% (2.67%) and the variation coefficient was 40.1%. The GDP showed an average change of -1.88% and a high dispersion relative to the sample average.

Table 5. Characterization of the variables of the econometric model.

Variable	Unit	Average	Minimum	Maximum	Standard deviation	Coefficient variation
Emp_Conc	Million Euros	114434,0 0	100663,0 0	121824,00	6615,61	0,058
D_Micro	Million Euros	76720,40	71916,70	80157,40	2597,48	0,034
D_PE	Million Euros	50063,60	44165,00	53389,10	2400,40	0,048
D_PM	Million Euros	49333,90	45119,60	53010,00	2082,52	0,042
D_GRD	Million Euros	76296,10	63263,30	89686,00	8666,69	0,114
D_Pub	Million Euros	164616,0 0	115086,0 0	214823,00	35624,70	0,216
RE_Est	%	112,24	76,70	155,20	27,61	0,246
RE_Micro	%	45,24	42,50	47,30	1,22	0,027
RE_PE	%	29,48	26,40	31,00	1,13	0,038
RE_ME	%	29,07	26,60	30,70	1,06	0,036
RE_GE	%	45,15	37,10	54,30	5,69	0,126
Def_Pub	%	-6,56	-13,10	2,20	3,79	0,577
FBCF	%	-6,59	-17,30	7,40	6,75	1,024
I_SNF<1ME	%	6,56	5,08	7,84	0,87	0,133
I_SNF_>1ME	%	4,91	3,33	6,32	0,91	0,185
Tx_OT	%	6,66	3,82	12,93	2,67	0,401
PIB	%	-1,88	-7,00	3,27	3,03	1,609

Obs.: **Emp_Conc** – Financial Institutions loans to non-financial corporations - Total; **D_Micro** – Debt volume of Micro Enterprises ; **D_PE** – Debt volume of Small Bussiness; **D_ME** – Debt volume of Medium Enterprises ; **D_GRD** – Debt volume of Large Enterprises ; **RE_Est** –General Government Debt Ratio; **RE_Micro** - Debt ratio of Micro Enterprises ; **RE_PE** – Debt ratio of Small Enterprises ; **RE_ME** – Debt ratio of Medium Enterprises ; **RE_GE** – Debt ratio of Large Enterprises ; **D_Pub** – General Government Gross Debt; **Def_Pub** – Public Deficit; **FBCF** – Gross Fixed Capital Formation; **I_SNF<1ME** – Interest rate: loans to non-financial corporations of European Union – to 1 million euros; **I_SNF_>1ME** – Interest rate: loans to non-financial corporations of European Union – above 1 million euros; **Tx_OT** – Treasury Bonds Yields – Secondary Market; **PIB** – Gross Domestic Product.

3.3. Univariate analysis and correlation matrix between the variables

In Table 6 we present the Pearson correlation coefficients between the variables under study, bold highlights are the coefficients that represent the strongest relationships. The

sample correlation coefficient of Pearson, represented by r , is a measure of the direction and degree to which two quantitative variables are associated linearly. The correlation coefficient r varies between -1 and 1. The value 0 (zero) means that there is no linear relationship, a value of 1 indicates a perfect linear relationship and the value -1 indicates a perfect but also an inverse linear relationship, or when one of the variables increases the other decreases. The closer the coefficient is to 1 or -1, the stronger the linear correlation between the two variables (Murteira, Ribeiro, Silva and Pimenta, 2001).

After analysis of Table 6, it appears that the value of loans is strongly correlated and in the forward direction with micro-enterprises debt, small enterprises and the equity ratio of small enterprises. In turn, the micro enterprises debt is strongly and directly correlated with the medium enterprises debt, and micro and medium enterprises equity ratio. Second, small enterprises debt is strongly and negatively correlated with large enterprises debt and general government gross debt. Medium-sized enterprises debt was strongly correlated and in the forward direction with the leverage ratio of micro enterprises. The large enterprises debt was strongly correlated to equity ratio of small enterprises (reverse) and public debt (forward direction). The government debt ratio was strongly correlated with the small business equity ratio (reverse) and the equity ratio of large companies (forward direction). Furthermore, the equity ratio of micro enterprises was strongly correlated and in the forward direction with the leverage ratio of medium-sized enterprises. The equity ratio of small enterprises is strongly correlated and the other way with the public debt. The equity ratio of large companies is strongly correlated and in the forward direction with the value of debt of public administration. As expected, the debt of each type of enterprises and public administration is strongly correlated and in the forward direction with the respective leverage ratio. Also as expected loan interest rates of up to EUR 1 million and more than 1 million are strongly correlated and in the forward direction. Finally, there is that GDP is strongly correlated with the gross fixed capital formation (forward direction) and government bond yields (reverse).

	Emp_C	D_Mi	D_P	D_P	D_G	RE_	RE_Mi	RE_	RE_	RE_	D_P	Def_P	FBC	I_SNF<1	I_SNF_>	Tx_	PIB
	onc	cro	E	M	RD	Est	cro	PE	ME	GE	ub	ub	F	ME	1ME	OT	
Emp_Conc	1,00	0,76	0,82	0,71	-0,60	-0,68	0,48	0,74	0,50	-0,66	-0,61	-0,45	- 0,05	-0,32	-0,42	- 0,11	0,02
D_Micro		1,00	0,38	0,96	-0,01	-0,14	0,86	0,22	0,83	-0,11	-0,05	-0,42	- 0,26	-0,45	-0,46	0,29	-0,09
D_PE			1,00	0,30	-0,86	-0,91	-0,01	0,96	0,00	-0,90	-0,87	-0,19	0,22	0,09	-0,04	- 0,24	0,06
D_PM				1,00	0,09	-0,03	0,86	0,16	0,92	-0,01	0,06	-0,46	- 0,38	-0,46	-0,47	0,34	-0,19
D_GRD					1,00	0,98	0,29	-0,90	0,31	0,99	0,99	0,16	- 0,54	-0,01	0,12	0,62	-0,40
RE_Est						1,00	0,21	-0,91	0,23	0,99	0,99	0,17	- 0,51	-0,01	0,12	0,54	-0,36
RE_Micro							1,00	-0,07	0,94	0,24	0,27	-0,50	- 0,39	-0,68	-0,64	0,21	-0,04
RE_PE								1,00	-0,06	-0,91	-0,90	-0,23	0,23	0,02	-0,11	- 0,42	0,12
RE_ME									1,00	0,25	0,30	-0,54	- 0,49	-0,64	-0,61	0,27	-0,16
RE_GE										1,00	0,99	0,17	- 0,51	-0,03	0,11	0,53	-0,36
D_Pub											1,00	0,15	-	-0,02	0,11	0,61	-0,40

					0,54	
Def_Pub	1,00	0,14	0,59	0,64	0,31	-0,16
FBCF		1,00	-0,08	-0,09	-	0,83
I_SNF<1ME			1,00	0,98	0,35	-0,50
I_SNF_>1M				1,00	0,40	-0,48
E					1,00	-0,73
Tx_OT						1,00
PIB						1,00

Table 6. Correlation matrix between variables.

Obs.: **Emp_Conc** – Financial Institutions loans to non-financial corporations - Total; **D_Micro** – Debt volume of Micro Enterprise; **D_PE** – Debt volume of Small Business; **D_ME** – Debt volume of Medium Enterprise; **D_GRD** – Debt volume of Large Enterprise; **RE_Est** –General Government Debt Ratio; **RE_Micro** - Debt ratio of Micro Enterprise; **RE_PE** – Debt ratio of Small Business; **RE_ME** – Debt ratio of Medium Business; **RE_GE** – Debt ratio of Large Business; **D_Pub** – General Government Gross Debt; **Def_Pub** – Public Deficit; **FBCF** – Gross Fixed Capital Formation; **I_SNF<1ME** – Interest rate: loans to non-financial corporations of European Union – to 1 million euros; **I_SNF_>1ME** – Interest rate: loans to non-financial corporations of European Union – above 1 million euros; **Tx_OT** – Treasury Bonds Yields – Secondary Market; **PIB** – Gross Domestic Product.

3.4. Multiple linear regression model

It was intended to estimate the influence of the independent variables in the volume of loans to non-financial companies in the period between December 2007 and December 2013. It were selected 13 variables that can positively or negatively influence the granting of loans to non-financial institutions. The expression for the generalized estimate model is given below:

$$\ln_Emp_conc = \beta_0 + \beta_1 \ln_PE + \beta_2 \ln_PM + \beta_3 \ln_GRD + \beta_4 RE_Micro + \beta_5 RE_PE + \beta_6 RE_ME + \beta_7 RE_GE + \beta_8 \ln_D_Pub + \beta_9 Def_Pub + \beta_{10} FBCF + \beta_{11} I_SNF > 1ME + \beta_{12} TX_OT + \beta_{13} PIB + u, \quad (1)$$

Table 7 presents the estimated models, the respective determination coefficients and the significance test for all regressions. It also presents the results of the tests: normality, homoscedasticity, absence of autocorrelation of errors and multicollinearity of independent variables. For each variable is displayed the respective coefficient and its standard deviation that is between brackets. The symbols *, **, *** means that the independent variable is statistically significant at 10%, 5% and 1% significance level, respectively, and henceforth it is a valid estimated model. As the magnitude of the variables involved in the models is very different, there is on the one hand amounts in millions of euros and on the other ratios as a percentage, was therefore necessary *log* transformation the following variables (variables that were in EUR million): D_ME (Debt Volume of Medium Enterprise), D_GRD (Debt Volume of Large Enterprise) e D_Pub (General Government Gross Debt).

Based on Table 7 it was found that all the estimated regression models have statistical significance at 5% significance level. For all models, the determination coefficient is above 95% which means that on average, the change in the value of loans is explained by around 95% by the independent variables included in the models. It is also possible to conclude that in all models estimated the conditions are met: normality, homoscedasticity, absence of autocorrelation of errors and lack of multicollinearity.

Note that the variables not included in Table 7, showed no relevance to the estimated models, their inclusion had sometimes result in the violation of any of the model validation conditions, including multicollinearity. Therefore, given the results it is concluded that the debt to equity ratio of medium-sized enterprises, significantly influence and direct sense the value of the loans. In turn, the debt of large companies and public administration and the public deficit significantly influence and the other way the value of the loans. With regard to gross capital formation, this has a significant influence and the other way in the value of loans. Finally, government bond yields have significant influence and direct sense of the change in

the value of loans. We conclude also that lending interest rates of more than EUR 1 million and GDP have no significant influence on the variation in the value of the loans.

Table 7. Estimation of models by the OLS method.

Variável	M1	M2	M3	M4	M5
Constant	5,2350*** (0,7812)	4,6536*** (1,1767)	11,123*** (0,2972)	11,071*** (0,1694)	10,902*** (0,1579)
LD_ME	1,0121*** (0,0613)	0,8948*** (0,0977)			
LD_GRD	-0,4040*** (0,0276)				
RE_ME			0,0348*** (0,0050)	0,0346*** (0,0051)	0,03258*** (0,0049)
RE_GE			-0,0104*** (0,0006)	-0,0104*** (0,0006)	
LD_Pub		-0,2227*** (0,0169)			
Def_Pub					-0,0022*** (0,00013)
FBCF	-0,0017*** (0,0005)	-0,0020*** (0,0005)	-0,0015** (0,0006)	-0,0017 (0,0011)	-0,0019 (0,0011)
I_SNF_>1ME		-0,0074 (0,0046)	0,0003 (0,0056)	0,0009 (0,0062)	0,0001 (0,0059)
Tx_OT	0,0006 (0,0012)	0,0025 (0,0019)	0,0035** (0,0016)	0,0037* (0,0019)	0,0043** (0,0018)
PIB				0,0007 (0,0028)	0,0009 (0,0026)
R ² adjusted	0,963	0,961	0,954	0,952	0,957
Vp (F)	<0,0001	<0,0001	<0,0001	<0,0001	<0,0001
Vp(normality)	0,5281	0,6428	0,2825	0,3362	0,1819
Vp(homoscedasticity)	0,5714	0,9718	0,6976	0,7701	0,9795
Autocorrelation	Absent	Absent	Inconclusive	Inconclusive ^b	Inconclusive ^c

a

Multicollinearity	Absent	Absent	Absent	Absent	Absent
-------------------	--------	--------	--------	--------	--------

^a - Durbin-Watson test inconclusive, we resorted to the LMF test and obtained Vp 0,480

^b - Durbin-Watson test inconclusive, we resorted to the LMF test and obtained Vp 0,535

^c - Durbin-Watson test inconclusive, we resorted to the LMF test and obtained Vp 0,906

Obs.: Emp_Conc – Financial Institutions loans to non-financial corporations - Total; **D_Micro** – Debt volume of Micro Enterprise; **D_PE** – Debt volume of Small Bussiness; **D_ME** – Debt volume of Medium Enterprise; **D_GRD** – Debt volume of Large Enterprise; **RE_Est** –General Government Debt Ratio; **RE_Micro** - Debt ratio of Micro Enterprise; **RE_PE** – Debt ratio of Small Enterprise; **RE_ME** – Debt ratio of Medium Enterprise; **RE_GE** – Debt ratio of Large Enterprise; **D_Pub** – General Government Gross Debt; **Def_Pub** – Public Deficit; **FBCF** – Gross Fixed Capital Formation; **I_SNF<1ME** – Interest rate: loans to non-financial corporations of European Union – to 1 million euros; **I_SNF_>1ME** – Interest rate: loans to non-financial corporations of European Union – above 1 million euros; **Tx_OT** – Treasury Bonds Yields – Secondary Market; **PIB** – Gross Domestic Product; **Vp** – p-value.

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

This paper aimed to analyse the impact of the regulatory role of the ECB and the sovereign debt crisis of the Member States in providing finance for Portuguese companies, after the financial crisis of 2008. It was found that both the ECB and the FED doubled the value of its assets between 2006 and 2008, given the worsening of the financial crisis (Andrade, 2009). However, the answer given by FED to the crisis has been more rapid, effective, transparent and inclusive, for the ECB's reply (Gros et al, 2012 and Rainha, 2013). However, when comparing the final goal common to both central banks - inflation, the ECB may had more success in controlling inflation and inflation expectations (Araújo, 2013).

According to the econometric analysis carried out it appears that the debt of large companies, government debt and the public deficit influence significantly and in the opposite direction the volume of loans to non-financial companies, thus validating the hypothesis H1. In fact, as the debt of government and, consequently, the public deficit increase, will deteriorated the country's rating and all economic agents will have more difficulties in access to credit and higher interest rates (Ferrão, 2012). As the variables D_Micro (Debt volume of Micro Enterprise) and D_PE (Debt ratio of Small Enterprise) were taken from the five

estimated models, since these variables originated violation of the assumption of the absence of multicollinearity among the independent variables, we could not test the hypothesis H2 and therefore conclude whether the increase in government debt and the public deficit would lead to a reduction of lending to Portuguese SME. However, using the Pearson regression coefficients can be said that the small enterprises debt is strongly correlated in reverse with the debt of government and large business. This means that when you register an increase in the debt of large business, government and the public deficit, lending to small and medium decreases. In fact, at company level, and as found APB (2012), Farinha e Prego (2013), Ferrão (2012), Iyer et al. (2010) and Paulo (2012), credit granted to SME was the one who showed greater reduction after the financial crisis. Finally, we conclude by applying the Chow test for a 5% significance level, the downturn in 2010 (break point) is statistically significant in the models M1, M3 and M4. This result allows, in some way, say that the European sovereign debt crisis had an influence on the behavior of loans, since the year 2010 was marked by the Financial Economic Assistance request from Greece and Ireland.

Despite the validity of the conclusions of this research, it is noteworthy that a limitation relates to the fact that there are only data provided by the Banco de Portugal for the granting of credit to non-financial corporations since December 2007 and not since the creation of the ECB. The use of a larger series would compare the evolution of loans before and after the financial crisis. As for future research suggestion, it is proposed that this analysis be extended to other countries that also have used the assistance programs of the IMF and the ECB. Another issue that needs special attention and can be studied as referred Antunes and Marino (2012), it is whether the regulatory intervention of the ECB may ease the funding problems for the business sector.

REFERENCES

- Andrade, J. (2009). A Política Monetária do BCE. Uma estratégia original para a estabilidade nominal. Faculdade de Economia da Universidade de Coimbra; Estudos do GEMF, 10.
- Araújo, T. (2013). A reação da política monetária à recente crise financeira: o caso BCE e FED. Disponível em [file:///C:/Users/Sandra/Downloads/Dissertacao_-_Tiago_Araujo%20\(5\).pdf](file:///C:/Users/Sandra/Downloads/Dissertacao_-_Tiago_Araujo%20(5).pdf)
- Antunes, A., & Marinho R. (2012). Acesso ao Crédito por Empresas Não Financeiras. Disponível em http://www.bportugal.pt/pt-PT/BdP%20Publicaes%20de%20Investigao/AR201202_p.pdf.

- Arteta, C. & Hale, G. (2006). Sovereign Debt Crises and Credit to the Private Setor. Board of Governors of the Federal Reserve System, International Finance Discussion Papers, 878. Disponível em <http://www.federalreserve.gov/pubs/ifdp/2006/878/ifdp878.pdf>.
- Associação Portuguesa de Bancos [APB] (2012). Intervenção do Governador Carlos da Silva Costa na Conferência da APB “Systemic Risk–too-Important-to-Ignore” – Sessão inaugural. Disponível em http://www.apb.pt/content/files/Carlos_Costa_-_Governador_do_Banco_de_Portugal_2.pdf.
- Associação Portuguesa de Bancos [APB] (2014). Modelo de Supervisão Português. Disponível em http://www.apb.pt/sistema_financeiro/modelo_de_supervisao_portugues.
- Bagus, P. (2012). A Tragédia do Euro. Atual Editora.
- Banco de Portugal (2010). *Inquérito aos Bancos sobre o Mercado de Crédito*. Disponível em http://www.bportugal.pt/pt-PT/EstudosEconomicos/Publicacoes/IBMC/Publicacoes/Results_out10_p.pdf.
- Banco de Portugal (2013a). Relatório Estabilidade Financeira - novembro 2013. Disponível em <http://www.bportugal.pt/pt-PT/EstudosEconomicos/Publicacoes/Paginas/RelatoriodeEstabilidadeFinanceira.aspx>.
- Banco de Portugal (2013b). Inquérito aos Bancos sobre o Mercado de Crédito. Disponível em http://www.bportugal.pt/pt-PT/EstudosEconomicos/Publicacoes/IBMC/Publicacoes/Results_jul13_p.pdf.
- Banco de Portugal (2014). Inquérito aos Bancos sobre o Mercado de Crédito. Disponível em http://www.bportugal.pt/pt-PT/EstudosEconomicos/Publicacoes/IBMC/Publicacoes/Results_Jul04_p.pdf.
- BCE (2010). The ECB’s Response to the Financial Crisis. Monthly Bulletin October 2010 Disponível em https://www.ecb.europa.eu/pub/pdf/other/art1_mb201010en_pp59-74en.pdf.
- Costa, C. (2014). A criação da União Bancária Europeia e o sistema bancário português. Disponível em <http://www.bportugal.pt/pt-PT/OBancoeoEurosistema/Lists/FolderDeListaComLinks/Attachments/246/Intervpub20140428.pdf>.
- Farhi, E. & Tirole, J. (2014). Deadly Embrace: Sovereign and Financial Balance Sheets Doom Loops. Disponível em http://idei.fr/doc/by/tirole/deadly_embrace_041514.pdf.
- Farinha, L. & Prego, P. (2013). Investimento e situação financeira das empresas: evidência recente. Disponível em http://www.bportugal.pt/pt-PT/BdP%20Publicaes%20de%20Investigao/AR201302_p.pdf.
- Ferrão, J. (2012). O Endividamento das Empresas e das Famílias Portuguesas. Disponível em <http://repositorio.ipl.pt/handle/10400.21/2306>.
- Gros, D., Alcidi, C. & Giovannini, A. (2012). Central Banks in Times of Crisis: The FED vs. the ECB. CEPS Policy Brief, n. 276, 11 July 2012.

- Iyer, R., Lopes, S., Peydró, J. & Schoar A. (2013). Interbank Liquidity Crunch and the firm credit crunch: evidence from the 2007-2009 crisis. Disponível em http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2263025.
- Jornal Oficial da União Europeia (2003). Recomendação da Comissão de 6 de Maio de 2003 relativa à definição de micro, pequenas e médias empresas (2003/361/CE). Disponível em http://www.iapmei.pt/resources/download/r_2003_361_ce.pdf.
- Lourtier, P. (2011). Portugal no contexto da crise do euro. Relações Internacionais, dezembro 2011.
- Murteira, B., Ribeiro, C., Silva, A & Pimenta, C. (2001). Introdução à Estatística. Lisboa: McGraw-Hill.
- Paulo, S. (2012). A Europa e a Crise Financeira Mundial – Balanço da resposta política da EU. Fundação Robert Schuman. Disponível em http://ec.europa.eu/portugal/pdf/informa/publicacoes/resposta_crise_ue_pt.pdf.
- Praet, P. (2014). Reformas e crescimento da área do euro. Intervenção no painel “Fixing finance”, Cimeira de Lisboa da revista The Economist. Disponível em <http://www.bportugal.pt/pt-PT/OBancoeoEurosistema/IntervencoesPublicas/Lists/FolderDeListaComLinks/Attachments/246/Intervpub20140428.pdf>.
- Rainha, D. (2013). Política Monetária sob “Zero Lower Bound”: O Caso da Política de Comunicação do BCE. Master dissertation of Faculdade de Economia da Universidade do Porto.
- Santos, C. (2013). Taxas de juro bancárias sobre novas operações de empréstimos concedidos a sociedades não financeiras - uma primeira apreciação de um novo conjunto de informação macroeconómica. Disponível em http://www.bportugal.pt/pt-PT/BdP%20Publicaes%20de%20Investigao/AR201303_p.pdf.