Welcome to the Banco de España Research Update

The Banco de España is pleased to announce the release of the Spring 2022 issue of its Research Update. The Update aims to inform both academic and policy-oriented economists and financial specialists about publications, conferences, and other research activities at the Banco de España, during the semester from October 2021 to April 2022.

As usual, this issue includes several feature articles summarizing policy-relevant findings from recent Banco de España projects in diverse areas of research. First, J. Galán, M. Lamas and R. Vegas use loan-level data from the Spanish Credit Register complemented with data on securitized mortgages to disentangle the effect of rootedness from other confounding factors in explaining differences in immigrants’ outcomes in the mortgage market. They find that rootedness explains differential loan conditions at origination as well as default behavior. Second, E. Gutierrez, A. Lacuesta and C. Martin-Machuca quantify the fraction of Spanish trade that was diverted to alternative markets after the U.K. referendum, in the case of those firms with a high exposure to such country. They find that trade diversion was higher for exports (than for imports) and to/from EU countries. Third, B. González, G. Nuño, D. Thaler and S. Albrizio ask whether expansionary monetary policy fosters capital misallocation. They show theoretically and empirically, that an unexpected monetary policy easing lowers capital misallocation, increasing aggregate productivity; this has important implications for the optimal conduct of monetary policy. Fourth, I. Alonso, P. Serrano and A. Vaello-Sebastiá analyze the impact of the unconventional monetary policies of four major central banks (the Federal Reserve, the European Central Bank, the Bank of England and the Bank of Japan) on the probability of future market crashes. They find that the announcement of unconventional policies reduces the risk-neutral probability of extreme events across various horizons and thresholds. Finally, A. Banal-Estahol, E. Moral-Benito, D. Khametshin and J. Wei document that over-collateralization of banks’ secured liabilities is positively associated with the risk premium on their unsecured funding. They rationalize this finding in a theoretical model and find that the model’s predictions are consistent with estimations from a novel dataset on asset encumbrance of European banks.

In addition, the Update reports on recent conferences and publications, including the Financial Stability Review, a journal published twice a year by the Banco de España. This issue also includes an interview with Laura Hospido, Head of the Microeconomic Analysis Unit covering topics such as the work done by her team, the positioning of the Bank as a leader in the development of household surveys, and her research on earnings and gender inequality. Finally, this issue presents the profile of María Alejandra Amado, a newly hired researcher who joined in December 2021.

We highlight these and other research developments at the Banco de España in hopes that they will interest the broader research community in Spain and internationally, and thereby contribute to an improved understanding of economic policy.

Olympia Bover
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Research Committee,
Banco de España
Roots and Recourse Mortgages: 
Handing back the keys

JORGE E. GALÁN, MATÍAS LAMAS 
AND RAQUEL VEGAS

Summary of Banco de España Working Paper no. 2203

Rootedness, defined as the integration and attachment of citizens in a society, has been identified to reduce the gaps between native- and foreign-born residents in host countries in terms of financial vulnerability, labor conditions, education level, economic stability and credit scores (Clark and Blue, 2004; Osili and Xie, 2009). Although these factors are very likely to be related to default risk and mortgage pricing, rootedness has been ignored in previous studies identifying differences in the mortgage conditions faced by immigrants among other minorities (Cheng et al., 2015; Bayer et al., 2016, 2018). This leads some authors to interpret any difference in mortgage terms between foreign- and native-born borrowers as discrimination (Bartlett et al., 2019; Diaz-Serrano and Raya, 2014).

Against this background, we identify that mortgage pricing and default propensity are not the same among groups of foreign debtors that are only different in terms of their roots to the host country. To investigate how rootedness affects mortgage pricing, we use loan-level data from the Spanish Credit Register (CIR) covering a complete financial cycle between 2004 and 2019. The CIR contains information on the nationality of borrowers, their residence status, and whether or not a foreign-born borrower has been granted with the citizenship or have co-signed a mortgage with a national citizen. These aspects allow us to differentiate the strength of borrowers’ roots and to identify how it affects mortgage conditions. In order to explore the effect of roots on the incentives to go into default we use data from a large repository of securitized mortgages (the European DataWarehouse –EDW–). This is because the CIR lacks of information on the loan-to-value at origination for mortgages originated before 2016, which is key to study defaults and incentives related to negative equity situations (i.e. when the value of the house drops below the mortgage balance).

Our results suggest that roots are a key determinant of the differences in mortgage pricing between foreign- and native-born borrowers, and more importantly, that the strength of roots is a key factor that explain these differences among immigrants. In particular, using CIR, we find that well-settled...
foreign borrowers pay lower rates at origination than similar debtors with feebler roots to the country. In Figure 1 we show that mortgages of non-resident foreigners, who are less attached to the country than resident foreigners, are charged with the highest spread with respect to natives. Moreover, foreign-born borrowers granted with the citizenship or that have co-signed a mortgage with a national citizen, which are clear signs of deeper roots, are charged with the lowest spread against natives. We obtain these results after controlling for a rich set of mortgage and borrower characteristics including their country of birth, which embeds unobservable information that can be associated to discrimination such as ethnicity, race and language skills.

We also present evidence that roots affect default rates using the EDW. Although this dataset does not contain information on the specific groups defined in Figure 1, we can still distinguish foreign borrowers, who have, on average, weaker roots than nationals. In particular, we find that foreigners are more prone to default than nationals, and more interestingly, that negative equity is a key trigger for defaults in high-income foreign borrowers (see Figure 2).

Certainly, this specific group of borrowers may share socioeconomic characteristics typically associated with strategic defaults, such as lower mobility costs, lower utility from home ownership, and less concerns about social stigma and about losing access to bank credit in the future (Ghent and Kudlyak, 2011; Bhutta et al., 2017). We also document that defaults in high-income foreigners are only triggered when negative equity reaches certain levels, which is consistent with findings in previous studies (see Foote et al., 2008). Finally, defaults for this group of borrowers are higher in provinces where the share of non-resident foreigners is larger, which fits in well with the idea that roots play a role in strategic defaults. On the other hand, we show that borrowers may internalize the degree of effectiveness of banks’ recourse, and that they adjust their default decisions accordingly. On the lenders side, this result may also explain the higher costs of mortgages charged to foreigners, even to those wealthier.

Overall, our findings have relevant implications for policy and financial stability. First, enhancing immigrants’ rootedness could reduce credit risk in this segment of borrowers. This would help to close the gap with respect to natives in terms of mortgage conditions and to increase their accessibility to credit, while improving the stability of the financial system. Second, we find evidence suggesting that weak roots may lead to strategic default behavior even in a recourse mortgage regime, where usually the incidence of this type of defaults is much lower (Moody’s, 2013). This
could have implications for the effectiveness of macroprudential policy, especially for borrower-based tools such as loan-to-value limits, which may work differently for distinct types of borrowers on the basis of their roots. Relatedly, our results shed light on the implications of moving away from recourse regimes and adopting features of non-recourse frameworks. Since we find that wealthy borrowers with feeble roots are more prone to default strategically, the adoption of a non-recourse regime may extend this behavior to other debtors by lowering default costs. This in turn may lead to higher rates at mortgage origination, should this behavior be internalized by lenders, a conclusion aligned with some previous studies (Ghent and Kudlyak, 2011; Li and Oswald, 2019). Finally, our paper warns on the risk of misinterpreting the informational content of the spread of foreigners against nationals, which cannot be mechanically associated just with discrimination.

REFERENCES


Brexit: Trade diversion due to trade policy uncertainty

EDUARDO GUTIÉRREZ, AITOR LACUESTA AND CÉSAR MARTÍN-MACHUCA

Summary of Banco de España Working Paper no. 2140

The unexpected vote of the United Kingdom (UK) electorate to leave the European Union (EU) initiated a negotiation period in which uncertainty about trade relations between these regions was very high. Protracted uncertainty could affect trade patterns of firms. For example, firms could partially replace the British market for alternative ones, what is known as “trade diversion”. In our recent paper (Gutiérrez et al., 2021), we explore the effect of uncertainty on bilateral trade and the firm’s ability to divert trade away from UK to other markets, using Brexit as a quasi-natural experiment and Spanish firm level data.

Our results indicate that Brexit had significant trade diversion effects. Indeed, it was higher for i) those firms highly exposed to trade with the UK before the referendum (above 10% of foreign sales and purchases); ii) for exports (than for imports); iii) and to/from EU countries.

DATA AND FRAMEWORK

We employ three different data sources to assess trade diversion patterns. First, we use customs agency information on monthly declared exports and imports between Spain and the UK, the EU (excluding the UK) and Rest of the World per each operator exposed to the UK between 2015 and 2018. Second, an annual firm level database including their sector of activity, turnover, and number of employees coming from the Central Business Register (National Statistics Institute - INE). Third, we construct sectoral tariffs by exploiting World Trade Organization (WTO) data on Most Favored Nation tariffs. These are the tariffs that would apply in the absence of a trade deal between the EU and the UK.

With respect to the analytical framework, first we estimate the effect of uncertainty on the intensive margin (change in trade flows of those firms already trading) of bilateral trade with the UK. Firm level uncertainty is measured as the interaction between its relative trade exposure to the UK before the referendum – the share of British flows in total flows on 2015 – and potential sectoral tariffs that would apply between the EU and the UK in the absence of a trade deal.

Figure 1

HIGHER SALES TO OR ACQUISITIONS FROM OTHER MARKETS AFTER A €100 DECLINE IN TRADE WITH THE UK

<table>
<thead>
<tr>
<th></th>
<th>Exports</th>
<th>Imports</th>
<th>Total</th>
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<tbody>
<tr>
<td>Euros</td>
<td>160</td>
<td>140</td>
<td>120</td>
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<tr>
<td></td>
<td>100</td>
<td>80</td>
<td>60</td>
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<tr>
<td>EU</td>
<td>50</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Imports</td>
<td>10</td>
<td>20</td>
<td>15</td>
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FUENTE: Banco de España.
trade deal. In the second step, we quantify trade diversion patterns, by regressing changes in Spanish trade with non-UK countries on the changes of Spanish exports to and imports from UK predicted in the first stage. This strategy is called difference in difference since we exploit the trade diversion changes of firms with different characteristics (in our case different degrees of uncertainty to Brexit). Those firms which would face higher tariffs in case of no trade deal might have reduced their trade with the UK more intensely and replaced, at least partially, the British market with other alternative destinations. Additionally, a higher firm’s relative exposure to the UK increases the risks associated with Brexit, which could lead in turn to a higher trade diversion.

TRADE DESTRUCTION AND DIVERSION PATTERNS

In the case of exporters highly exposed to the UK, bilateral trade declined as a consequence of increased uncertainty during Brexit negotiations. In particular, our estimations suggest that the growth rate of sales to the UK for those exporters decreases by 2.6pp in response to a 1% potential tariff hike. In the case of importers, this reduction reaches 3.6pp.

These results are used in the second step in order to quantify trade diversion patterns. Our results indicate that trade diversion is significant: for highly exposed firms, a drop of 100 euros in their exports to the UK due to uncertainty would lead to an increase in exports to other markets between 92 and 151 euros (see Figure 1). This means a close to full diversion of exports. Trade diversion is lower for imports. In particular, a decrease of 100 euros in imports from UK would lead to between 64 and 100 euros increase in imports from other markets. The EU is the region benefiting the most from this trade diversion. Indeed, the EU is Spain’s main market, accounting for around 60 % of Spanish goods exports in 2019. Potential explanations are the significant percentage of firms that has stable trade relationships with the EU, and its level of development and demand preferences, similar to those of the UK.

To sum up, the uncertainty around the future of trade relations between the EU and the UK generated by the Brexit referendum could have affected bilateral trade flows. Indeed, a no trade deal, would have implied the introduction of high bilateral tariffs. Using Spanish firm data, our paper shows that those firms very exposed to the UK, and therefore facing high potential losses, have reduced their trade with the UK and diverted trade to other markets. This diversion has been more pronounced for exports than for imports.

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Firm Heterogeneity, Capital Misallocation and Optimal Monetary Policy

BEATRIZ GONZÁLEZ, GALO NUÑO, DOMINIK THALER AND SILVIA ALBRIZIO

Summary of Banco de España Working Paper no. 2145

Firms’ investment decisions are one of the key transmission channels of monetary policy. However, financial constraints may limit firms’ investment, thus preventing capital from being efficiently allocated. This opens the door to the possibility of monetary policy affecting productivity by influencing the allocation of capital through the investment decisions of individual firms. This interaction raises important questions. First, what are the channels through which monetary policy affects capital misallocation and endogenous TFP? Second, which are the implications for the optimal conduct of monetary policy? To answer these questions, in González et al. 2021 we introduce a framework that combines the workhorse model of monetary policy – the New Keynesian model – with a tractable model of firm heterogeneity, in which capital misallocation arises from financial frictions.

MECHANISMS

In our model, a reduction in real rates – holding everything else constant – crowds in low productivity firms by reducing their financing costs, thus increasing misallocation. This result, however, provides an incomplete picture of the effect of monetary policy on misallocation: in general equilibrium the rest of prices (wages, capital prices, pieces of intermediate goods) also change in response to monetary policy, and, in turn, these changes affect capital misallocation. When accounting for the net effect of all price changes in response to a surprise reduction in interest rates, we find that high-productivity firms’ profits increase relative to those of low-productivity firms. This allows high-productivity firms to invest and grow faster, and thus gain market share. As a result, misallocation decreases and aggregate productivity increases.

Using firm-level data for the quasi-universe of Spanish firms, we test this theoretical mechanism empirically. In a reduced-form estimation, we assess whether high productivity firms increase their investment relatively more than low-productivity ones, following an expansionary monetary policy shock. Using firms’ marginal revenue product of...
capital as proxy for productivity, we find that firms whose marginal revenue product of capital is one standard deviation above average, increase their investment rate by an additional 29pp in response to a 1pp surprise decrease in interest rates. This confirms our models predictions.

OPTIMAL MONETARY POLICY

Which are the implications for monetary policy design? We first analyze optimal monetary policy, assuming that the interest rate is the only policy instrument and that the central bank can commit to a future policy path. If the central bank is not bound by any past promises, the optimal strategy is to tolerate a temporary increase in inflation in order to achieve a persistent rise in productivity, brought about by a more efficient allocation of capital. This contrasts with the prescriptions of the textbook New Keynesian model with subsidies that correct for distortions due to monopolistic competition, which recommend price stability in this situation.

We then turn to the more interesting case where the central bank is bound by a commitment to an optimal policy rule. In this case we study the optimal response to inflationary pressures due to a cost-push shock (see Figure 1). The prescription in the standard New Keynesian model is that the central bank should “lean against the wind” (Gali, 2008), by tightening the monetary policy stance but tolerating some inflation to minimize the reduction in the output gap (see dashed red line in panels a and b). Once financial frictions are incorporated, the central bank should instead “lean with the wind”: it should loosen monetary policy despite the rise in inflation (solid blue line, panel a), as the increase in demand boosts high-productivity firms’ investment and thus increases TFP (solid blue line, panel c), amplifying the expansionary demand effect on output (solid blue line, panel b).

CONCLUSION

Summing up, we find that expansionary monetary policy, through a range of general equilibrium effects, boosts highly productive firms’ investment. The resulting increase in aggregate productivity have important implication for the design of optimal monetary policy: central banks should “lean with the wind” in response to cost-push shocks in order to maximize the expansionary demand effect on output.

REFERENCES


The impact of heterogeneous unconventional monetary policies on the expectations of markets crashes

IRMA ALONSO, PEDRO SERRANO AND ANTONI VAELLO-SEBASTIÀ
Summary of Banco de España Working Paper no. 2127

In periods of crisis, financial markets experience bouts of high volatility during which economic agents’ perceptions of the probability of extremely adverse macro-financial events increases significantly. During these episodes, this substantial uncertainty may lead to adverse feedback loops between the financial sector and the real economy, and result in the materialisation of these extreme events (“tail risks”).

Our paper explores the effectiveness of the broadly used unconventional monetary policies (UMPs) of the four major central banks— the Federal Reserve (Fed), European Central Bank (ECB), Bank of England (BOE) and Bank of Japan (BoJ)—in mitigating ex-ante tail risk perceptions. These anticipated probabilities of extreme events are measured through the information contained in the risk-neutral densities (RNDs) of option prices from the most liquid stock market indexes.1 When investors take positions in the stock index options market at different time horizons (maturities), they reveal their expectations about the probabilities they assign to the future states of the underlying asset and their degree of risk aversion. These states also reflect the view about the future economic situation (and, more specifically, about future developments in the valuations of listed companies) which underlies the reference stock market indices. We extract daily risk-neutral densities that incorporate the subjective probability of all the states of the underlying variable, including those states associated with extreme macro-financial events.

As an example, figure 1 displays complete risk-neutral densities and shows how they behave on specific dates around UMP announcements. The different lines represent

1 S&P500 (US), EuroStoxx50 (Eurozone), FTSE100 (UK) and Nikkei225 (Japan).
the RNDs for the day of the announcement (in red), a day before (in blue) and a day after (in yellow) for two events: the Security Market Programme (SMP) announcement by the ECB in May 2010 and Fed’s announcement of an additional $600 billion purchase of longer term Treasuries (LSAP2) on November 3, 2010. Both decisions were associated with a reduction in the left-hand tail mass of the distribution (where negative events are concentrated). In economic terms, these changes in the densities around the monetary policy announcement reflect lower demand for hedging by investors against extreme movements in asset portfolio valuations.

THE EFFECT OF UNCONVENTIONAL MEASURES ON PERCEPTIONS OF TAIL RISK

In order to assess the effect of UMPs on the expectations of market crashes, we rely on different quantitative tools. First, we develop a daily “event study” for each area from January 2007 to end-2016 to assess the impact of the announcements of UMPs (captured through a dummy) on changes in perceptions of tail risks. According to this analysis, UMP announcements mitigate the probability of (expected) sharp market declines for various thresholds of a given loss and across different horizons in the four areas analysed. For instance, between 7% (BoJ), 9% (the ECB), and 14% (the Fed) of the fall observed in the ex-ante probabilities of a decline of 10% or more in the stock market index over the horizon of one month can be attributed to unconventional monetary policy. In addition, monetary policy announcements seem to have affected extreme risks to a greater degree (the 10th percentile versus the 5th percentile). Finally, the impact on tail risks is higher for shorter term horizons (one month as opposed to three months). This suggests that UMP constitutes a

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2 More than 160 events have been identified, mostly including announcements on press conferences, press releases and statements of the four central banks.

3 This approach assumes that, in a very small window of time around these announcements (one day), financial assets will only respond to these monetary policy announcements. Additionally, we control for the publication of relevant macroeconomic data and other central banks’ announcements of monetary measures.
significant signalling mechanism for mitigating current tail risks, but its effects are diluted as time passes.\(^4\)

Second, in order to capture the dynamics of UMPs on risk perceptions, we rely on a Bayesian structural VAR model estimated with monthly data from January 2007 to December 2016 for each area. This model is based on four variables: real monthly GDP, the CPI, the shadow rate of Wu and Xia (2016), which approximates the monetary policy stance, and perceptions of extreme events identified by the probability of at least a 10% decline in the corresponding stock market index over a one-month horizon. The structural shocks are identified following a sign restrictions framework, which differentiates between supply, demand, UMP and financial uncertainty shocks. Specifically, an unconventional monetary shock is determined by a contemporaneous reduction in shadow rates and a positive reaction of inflation and GDP with a one-month lag in both cases.\(^5\)

This alternative approach confirms that UMP temporarily mitigates financial markets’ perceptions of tail risks. According to the findings of this model, a one standard deviation unconventional monetary shock reduces perceptions of extreme events by approximately 2 percentage points (pp) at the time of impact in the four areas under study (see figure 2 for the US and the euro area). However, this effect is temporary and disappears within a year.

In a nutshell, unconventional monetary policies of the four major central banks (the Fed, the ECB, BOE and BOJ) have contributed to significantly reducing market perceptions of the probability of extreme macro-financial events, such as during the global financial crisis. These measures have served to mitigate the materialisation of extremely unfavourable events through the feedback loop between the financial sector and the real economy and to ensure adequate monetary policy transmission.

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\(^4\) This analysis is extended in two ways. First, when comparing between different types of UMPs, liquidity and forward guidance measures systematically seem to have a stronger impact in mitigating tail risks. Second, foreign UMP actions also prove to be significant variables affecting domestic tail risks, mainly at longer horizons.

\(^5\) Other identifications are considered such as sign identification with balance sheet expansion or through the Cholesky decomposition, among others.

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REFERENCES


Asset Encumbrance and Bank Risk: Theory and First Evidence from Public Disclosures in Europe

ALBERT BANAL-ESTAÑOL, ENRIQUE BENITO, DMITRY KHAMETSHIN AND JIANXING WEI

Summary of Banco de España Working Paper no. 2131

We document that overcollateralisation of banks’ secured liabilities is positively associated with the risk premium on their unsecured funding. We rationalize this finding in a theoretical model in which costs of asset encumbrance increase collateral haircuts and the endogenous risk of a liquidity-driven bank run. We then test the model’s predictions using a novel dataset on asset encumbrance of the European banks. Our empirical analysis demonstrates that banks with more costly asset encumbrance have higher rates of overcollateralisation and rely less on secured debt. Consistent with theory, the effects are stronger for banks that are likely to face higher fire-sales discounts. This evidence acts in favour of the hypothesis that asset encumbrance increases bank risk, although this relationship is rather heterogeneous.

Asset encumbrance refers to the existence of bank balance sheet assets being subject to arrangements that restrict the bank’s ability to transfer or realise them. Assets become encumbered when they are used as collateral to raise secured funding or in other collateralised transactions such as asset-backed securitisations, covered bonds, or derivatives. In stressed situations, high levels of asset encumbrance can impede obtaining funding and affect the liquidity and solvency of a bank. Since bank failures can have substantial negative externalities, understanding the effects of asset encumbrance on bank default risk is crucial for financial stability. The unprecedented level of liquidity support seen after the Covid-19 crisis is likely to increase asset encumbrance levels in the coming years, and therefore it is important that the trade-offs involved in constraining banks’ asset encumbrance levels are better understood.

Asset encumbrance is the product of the level of secured funding chosen by the bank and its overcollateralisation. In a bank’s private decision, optimising asset encumbrance involves a trade-off between a bank’s ex-post ability to withstand liquidity shocks and lower ex-ante funding costs associated with secured finance. Thus, higher levels of asset encumbrance reduce both the amount of unencumbered assets that the bank can use to meet sudden liquidity demands and the pool of assets that become available to unsecured creditors under insolvency, an effect coined as structural subordination. But by encumbering assets, a bank may also reduce its overall cost of funds and liquidity risks because posting collateral brings in cheaper and more stable secured funding – this is the stable funding effect of asset encumbrance. This paper presents a theoretical model exploring this trade-off and provides empirical evidence on the determinants of asset encumbrance and its relation to the bank risk premium.

The figure below illustrates a positive relationship between CDS premia on subordinated debt of European banks in 2015 against overcollateralisation levels of their secured liabilities.1 The figure documents that banks with higher levels of overcollateralisation of their secured liabilities tend to face higher cost of unsecured funding.

We rationalize the relationship observed in the above Figure in a theoretical model in which encumbered assets have higher liquidation costs.2 These costs may represent value destruction stemming from weaker monitoring incentives of secured investors or higher price impact in fire-sales of collateral. Additionally, encumbrance costs may also include legal costs and transaction costs of “unencumbering” collateral or transferring assets to the secured creditors in case of default. The costs of asset encumbrance determine

1 To ensure that the quality of banks’ assets and their capital do not drive this relationship, we orthogonalise both the overcollateralisation levels and CDS premia with respect to banks’ credit ratings and leverage.
2 Our paper contributes to a growing literature on bank asset encumbrance and its implications for financial stability (Anhert et al. (2019), Gai et al. (2013) and Eisenbach et al. (2014)). Empirical analysis of banks’ asset encumbrance is scarce. Garcia-Appendini et al. (2017) document a positive relationship between the costs of unsecured debt and asset encumbrance in the context of covered bonds issuers. Finally, we contribute to the literature on law and finance (see, for instance, Beck et al. (2003)) by analysing bank creditor rights protection and financial stability linked by banks’ choice of secured financing.
which of its effects – the structural subordination or stable funding – dominates and, consequently, whether bank risk increases or decreases with the level of secured financing. Hence, we show that, when a bank faces high encumbrance costs, the negative structural subordination effect dominates the positive impact of a run-prone secured debt, and the relationship between encumbrance and bank risk premium can be positive.

To provide additional insights into which case is empirically relevant, we test model’s predictions in a cross-section of European banks spanning more than three hundred institutions from nineteen countries. To do this, we build a novel dataset using the information provided in the asset encumbrance disclosures published in 2015 by European banks, following a set of harmonised definitions provided by the EBA. We interpret encumbrance costs from the moral hazard perspective postulating that more opaque banks acting in an environment with weaker creditor rights protection are likely to have higher encumbrance costs.

We show empirically that the encumbrance costs affect the level of secured funding both directly and via collateral haircuts. Hence, more opaque banks or banks headquartered in countries that limit creditors’ rights for bankruptcy filing tend to face higher rates of overcollateralisation. Accordingly, these banks tend to rely less on secured funding in their capital structure. Furthermore, encumbrance costs affect the chosen level of secured financing directly, including when conditioning on collateral haircuts. This evidence acts in favour of the hypothesis that asset encumbrance increases bank risk. Finally, consistent with the theory, we show that the direct effect of encumbrance costs is stronger for banks that face potentially higher fire-sales discounts. This empirical fact implies that the impact of encumbrance costs on bank risk is rather heterogeneous.

The analysis suggests that a state-contingent regulation of banks’ encumbrance ratios may be necessary to minimise liquidity risks.

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### Recent Working Papers

**Link to Working Papers page**

**OPTIMAL MONETARY POLICY WITH THE RISK-TAKING CHANNEL**  
ANGELA ABBATE AND DOMINIK THALER  
Working Paper no. 2137

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MARTA BÁNBURA, DANilo LEIVA-LEÓN AND JAN-OLIVER MENZ  
Working Paper no. 2138

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MÁXIMO CAMACHO, MARÍA DOLORES GADEA AND ANA GÓMEZ LOSCOS  
Working Paper no. 2139

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EDUARDO GUTIÉRREZ, AITOR LACUESTA AND CÉSAR MARTIN MACHUCA  
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JULIO A. CREGO AND JULIO GÁLVEZ  
Working Paper no. 2141

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Working Paper no. 2143

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Working Paper no. 2144

**FIRM HETEROGENEITY, CAPITAL MISALLOCATION AND OPTIMAL MONETARY POLICY**  
BEATRIZ GONZÁLEZ, GALO NUÑO, DOMINIK THALER AND SILVIA ALBRIZIO  
Working Paper no. 2145

**DAMPENING THE FINANCIAL ACCELERATOR? DIRECT LENDERS AND MONETARY POLICY**  
RYAN BANERJEE AND JOSÉ-MARÍA SERENA  
Working Paper no. 2201

**LA REGULACIÓN SECTORIAL EN ESPAÑA. RESULTADOS CUANTITATIVOS**  
JUAN S. MORA-SANGUINETTI AND ISABEL SOLER  
Working Paper no. 2202

**ROOTS AND RECURGSE MORTGAGES: HANDING BACK THE KEYS**  
JORGE E. GALÁN, MATÍAS LAMAS AND RAQUEL VEGAS  
Working Paper no. 2203

**INEQUALITY AND PSYCHOLOGICAL WELL-BEING IN TIMES OF COVID-19: EVIDENCE FROM SPAIN**  
MONICA MARTÍNEZ-BRAVO AND CARLOS SANZ  
Working Paper no. 2204

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CORINNA GHIRELLI, DANilo LEIVA-LEÓN AND ALBERTO URTASUN  
Working Paper no. 2205

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Working Paper no. 2206
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Working Paper no. 2210

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JOSE GARCIA-LOUZAO, LAURA HOSPIDO AND ALESSANDRO RUGGIERI
Working Paper no. 2211

UNCERTAINTY, NON-LINEAR CONTAGION AND THE CREDIT QUALITY CHANNEL: AN APPLICATION TO THE SPANISH INTERBANK MARKET
ADRIÁN CARRO AND PATRICIA STUPARIU
Working Paper no. 2212

THE PROPAGATION OF WORLDWIDE SECTOR-SPECIFIC SHOCKS
MARIO IZQUIERDO, ENRIQUE MORAL-BENITO, ELVIRA PRADES AND JAVIER QUINTANA
Working Paper no. 2213

APPLICATION OF MACHINE LEARNING MODELS AND INTERPRETABILITY TECHNIQUES TO IDENTIFY THE DETERMINANTS OF THE PRICE OF BITCOIN
JOSÉ MANUEL CARBÓ AND SERGIO GORJÓN
Working Paper no. 2215

MARKETS, FINANCIAL INSTITUTIONS AND CENTRAL BANKS IN THE FACE OF CLIMATE CHANGE: CHALLENGES AND OPPORTUNITIES
CLARA I. GONZÁLEZ AND SOLEDAD NÚÑEZ
Occasional Paper no. 2126

THE INTERNATIONAL MONETARY FUND’S VIEW OF SOCIAL EQUITY THROUGHOUT ITS 75 YEARS OF EXISTENCE
ISABEL GARRIDO
Occasional Paper no. 2127

EUROPEAN CENTRAL BANK AND BANCO DE ESPAÑA MEASURES AGAINST THE EFFECTS OF COVID-19 ON THE MONETARY POLICY COLLATERAL FRAMEWORK, AND THEIR IMPACT ON SPANISH COUNTERPARTIES
JORGE ESCOLAR AND JOSÉ RAMÓN YRIBARREN
Occasional Paper no. 2128

2021 SURVEY OF SMALL ENTERPRISES’ FINANCIAL LITERACY: MAIN RESULTS
BRINDUSA ANGHEL, AITOR LACUESTA AND FEDERICO TAGLIATI
Occasional Paper no. 2129

TESTIMONY BEFORE THE CONGRESS OF DEPUTIES BUDGET COMMITTEE ON 25 OCTOBER 2021 AND BEFORE THE SENATE BUDGET COMMITTEE ON 30 NOVEMBER 2021 IN RELATION TO THE DRAFT STATE BUDGET FOR 2022
PABLO HERNÁNDEZ DE COS
Occasional Paper no. 2130
OVERVIEW OF CENTRAL BANKS’ IN-HOUSE CREDIT ASSESSMENT SYSTEMS IN THE EURO AREA
LAURA AURIA, MARKUS BINGMER, CARLOS MATEO CAICEDO GRACIANO, CLÉMENCE CHARAVEL, SERGIO GAVILÁ, ALESSANDRA IANNAMORELLI, AVIRAM LEVY, ALFREDO MALDONADO, FLORIAN RESCH, ANNA MARIA ROSSI AND STEPHAN SAUER
Occasional Paper no. 2131

CREWS: A CAMELS-BASED EARLY WARNING SYSTEM OF SYSTEMIC RISK IN THE BANKING SECTOR
JORGE E. GALÁN
Occasional Paper no.2132

A SECTORAL ANALYSIS OF THE FUTURE CHALLENGES FACING THE SPANISH ECONOMY
ALEJANDRO FERNÁNDEZ CEREZO AND JOSÉ MANUEL MONTERO
Occasional Paper no. 2133

NEW ALLOCATION OF SPECIAL DRAWING RIGHTS
MANUEL A. PÉREZ ÁLVAREZ
Occasional Paper no. 2201

ANALYSIS OF LABOR FLOWS AND CONSUMPTION IN SPAIN DURING COVID-19
PILUCA ALVARGÓNZÁLEZ, MARINA GÓMEZ, CARMEN MARTÍNEZ-CARRASCAL, MYROSLAV PIDKUYKO AND ERNESTO VILLANUEVA
Occasional Paper no. 2202

DESIGNING A PRICE INDEX FOR THE SPANISH COMMERCIAL REAL ESTATE MARKET
MATÍAS LAMAS AND SARA ROMANIEGA
Occasional Paper no. 2203

ANALYSIS OF ESG DISCLOSURES IN PILLAR 3 REPORTS. A TEXT MINING APPROACH
ÁNGEL IVÁN MORENO BERNAL AND TERESA CAMINERO GARCÍA
Occasional Paper no. 2204

HOUSEHOLD INDEBTEDNESS ACCORDING TO THE SPANISH SURVEY OF HOUSEHOLD FINANCES AND THE CENTRAL CREDIT REGISTER: A COMPARATIVE ANALYSIS
OLYMPIA BOVER, LAURA CRESPO AND SANDRA GARCÍA-URIBE
Occasional Paper no. 2205

DINÁMICAS DE POBLACIÓN DURANTE EL COVID-19
EDUARDO GUTIÉRREZ, ENRIQUE MORAL-BENITO AND ROBERTO RAMOS
Occasional Paper no. 2206

Financial Stability Review

The Financial Stability Review is a half-yearly journal published by the Banco de España that aims to act as a platform for communication and dialogue on issues related to financial stability, with a focus on macroprudential policy, regulation and supervision. Its editorial board comprises internal and external professionals. All articles appearing in the Review, which may be authored by Banco de España staff or researchers from other institutions, is subject to an anonymous refereeing process. The Autumn 2021 Issue of the Financial Stability Review contains the following articles:

CENTRAL BANK DIGITAL CURRENCIES AND FINANCIAL STABILITY
JEAN-PIERRE LANDAU
Financial Stability Review, autumn 2021, 9 – 20

AN INITIAL ANALYSIS OF ENERGY TRANSITION RISKS USING THE BANCO DE ESPAÑA’S FLESB STRESS-TESTING FRAMEWORK
ALEJANDRO FERRER, JAVIER GARCÍA VILLASUR, NADIA LAVÍN, IRENE PABLOS NUEVO AND CARLOS PÉREZ MONTES
Financial Stability Review, autumn 2021, 21 – 44
Recent publications in refereed journals

THE IMPACT OF THE ECB’S TARGETED LONG-TERM REFINANCING OPERATIONS ON BANKS’ LENDING POLICIES: THE ROLE OF COMPETITION
DESISLAVA C. ANDREEVA AND MIGUEL GARCÍA-POSADA GÓMEZ
Journal of Banking & Finance
Volume 122, Art 105992, January 2021
Related DT: 1903. Accepted: 25 Oct 2020

MARKUP DYNAMICS AND FINANCIAL FRICTIONS: THE SPANISH CASE
JOSE MANUEL MONTERO AND ALBERTO URTASUN
International Review of Economics and Finance
Volume 71, pp 316-341, January 2021
Related DT: 1407. Accepted: 08 Aug 2020

HOW DOES REGULATORY COMPLEXITY AFFECT BUSINESS DEMOGRAPHY? EVIDENCE FROM SPAIN
JUAN S. MORA-SANGUINETTI AND RICARDO PÉREZ-VALLS
European Journal of Law & Economics
Volume 51, Issue 3, pp 203-242, April 2021
Related DT: 2002. Accepted: 08 April 2020

AN ESTIMATED DSGE MODEL WITH LEARNING BASED ON TERM STRUCTURE INFORMATION
PABLO AGUILAR AND JESÚS VÁZQUEZ
Macroeconomic Dynamics
Volume 25, Issue 7, pp. 1635–1665, October 2021
Accepted: 8 Aug 2019
DOI: 10.1017/S1365100519000816

CONFIDENCE INTERVALS FOR BIAS AND SIZE DISTORTION IN IV AND LOCAL PROJECTIONS–IV MODELS
GERGELY GANICS, ATSUSHI INOUE AND BARBARA ROSSI
Journal of Business & Economic Statistics
Volume 39, Issue 1, pp 307-324, 2021
Published online: 11 Oct 2019.
ARE WE MOVING TOWARDS AN ENERGY-EFFICIENT LOW-CARBON ECONOMY? AN INPUT-OUTPUT LMDI DECOMPOSITION OF CO2 EMISSIONS FOR SPAIN AND THE EU28
DARÍO SERRANO-PUENTE
SERIES - Journal of the Spanish Economic Association
Volume 12, Issue: 2 (Special issue on “The economics of the energy transition”), pp 151-229, February 2021
Related DT: 2104. Accepted: 24 Dec 2020

SHOULD THE ECB ADJUST ITS STRATEGY IN THE FACE OF A LOWER R★?
PHILIPPE ANDRADE, JORDI GALÍ, HERVÉ LE BIHAN AND JULIEN MATHERON
Journal of Economic Dynamics and Control
Volume 132, Art 104207, November 2021
Accepted and published online: 10 Sept 2021

BAYESIAN VAR FORECASTS, SURVEY INFORMATION, AND STRUCTURAL CHANGE IN THE EURO AREA
GERGELY GANICS AND FLORENS ODENDAHL
International Journal of Forecasting
Volume 37, Issue 2, pp 971-999, April–June 2021
Accepted: 2 Nov 2020

VENTING OUT: EXPORTS DURING A DOMESTIC SLUMP
MIGUEL ALMUNIA, POL ANTRÀS, DAVID LÓPEZ-RODRÍGUEZ AND EDUARDO MORALES
American Economic Review
Volume 111, Issue 11, pp 3611-62, November 2021
Related DT: 1844. Accepted: Nov 2021

THE IMPACT OF TAXES ON INCOME MOBILITY
MARIO ALLOZA
International Tax and Public Finance
Volume 28, Issue 4, pp 794-854, August 2021
Related DT: 1725. Accepted: 1 Sept 2020

MODEL-BASED INDICATORS FOR THE IDENTIFICATION OF CYClical SYSTEMIC RISK
JORGE GALÁN AND JAVIER MENCÍA
Empirical Economics
Volume 61, pp 3179-3211, December 2021
Related DT: 1825. Accepted: 15 Nov 2020
Published online: 3 Jan 2021

HENRIQUE S. BASSO AND OMAR RACHEDI
American Economic Journal: Macroeconomics
Volume 13, Issue 4, pp 110-141, October 2021
Related DT: 1837. Accepted: 13 July 2020

INEQUALITY AND PSYCHOLOGICAL WELL-BEING IN TIMES OF COVID-19: EVIDENCE FROM SPAIN
MÓNICA MARTÍNEZ-BRAVO AND CARLOS SANZ
SERIEs-Journal of the Spanish Economic Association
Volume 12, pp 489–548, December 2021
Accepted: 14 Oct 2021. Published online: 9 Nov 2021

THE CHILD PENALTY: EVIDENCE FROM SPAIN
ALICIA DE QUINTO, LAURA HOSPIDO AND CARLOS SANZ
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Volume 12, pp 585–606, December 2021
Accepted: 14 Jul 2021. Published online: 27 Jul 2021

STRUCTURAL GRAVITY AND TRADE AGREEMENTS: DOES THE MEASUREMENT OF DOMESTIC TRADE MATTER?
RODOLFO CAMPOS, JACOPO TIMINI AND ELENA VIDAL
Economics Letters
Volume 208, Art 110080, November 2021
Related DT: 2117. Accepted: 23 March 2021
Published online: 16 Sept 2021

MARKUPS AND COST STRUCTURE: SMALL SPANISH FIRMS DURING THE GREAT RECESSION
PILAR GARCÍA-PEREA, AITOR LACUESTA AND PAU ROLDÁN-BLANCO
Journal of Economic Behavior & Organization
Volume 154, Art 102753, January 2022
Related DT: 2033. Accepted: 5 Oct 2021
A NEW APPROACH TO DATING THE REFERENCE CYCLE
MÁXIMO CAMACHO, M. DOLORES GADEA AND ANA GÓMEZ LOSCOS
Journal of Business and Economic Statistics
Volume 154, Art 102753, January 2022
Related DT: 2033. Accepted: 5 Oct 2021

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LORENZO DUCTOR AND DANILO LEIVA-LEÓN
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Volume 120, Art 102533, February 2022
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ISABEL ARGIMÓN AND MARÍA RODRÍGUEZ-MORENO
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Related DT: 2132. Accepted: 24 Dec 2020

FLATTENING OF THE PHILLIPS CURVE WITH STATE-DEPENDENT PRICES AND WAGES
JAMES COSTAIN, ANTON NAKOV AND BORJA PETIT
Economic Journal
Related DT: 1910. Accepted: 07 Apr 2021
Published online: 31 Jul 2021

ROBUST LIKELIHOOD ESTIMATION OF DYNAMIC PANEL DATA MODELS
FRANCISCO JAVIER ALVAREZ DE PEDRO AND MANUEL ARELLANO
Journal of Econometrics
Volume 226, Issue 1, pp 21-61, January 2022
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EXCHANGE RATE SHOCKS AND INFLATION CO-MOVEMENT IN THE EURO AREA
DANILO LEIVA-LEON, JAIME MARTINEZ-MARTIN AND EVA ORTEGA
International Journal of Central Banking
Volume 18, Issue 1, pp 239-275, March 2022
Related DT: 1934. Accepted: 22 Dic 2020

WELFARE EFFECTS OF AN IN-KIND TRANSFER PROGRAM: EVIDENCE FROM MEXICO
FEDERICO TAGLIATI
Journal of Development Economics
Volume 154, Art 102753, January 2022
Related DT: 1850. Accepted: 28 Sept 2021

STRATEGIC INTERACTIONS AND PRICE DYNAMICS IN THE GLOBAL OIL MARKET
IRMA ALONSO, VIRGINIA DI NINO AND FABRIZIO VENDITTI
The Energy Journal
Volume 107, Art 105739, March 2022
Related DT: 2006. Accepted: 24 Nov 2021

Forthcoming articles in refereed journals

THE DECLINE IN PUBLIC INVESTMENT: "SOCIAL DOMINANCE" OR TOO-RIGID FISCAL RULES?
MAR DELGADO-TÉLLEZ, ESTHER GORDO, IVÁN KATARYNIUK AND JAVIER J. PÉREZ
Applied Economics
Volume 54, Issue 10, pp 1123–1136, February 2022
Related DT: 2025. Accepted: 5 Oct 2021
Published online: 11 Jan 2022

THE NARRATIVE ABOUT THE ECONOMY AS A SHADOW FORECAST: AN ANALYSIS USING BANK OF SPAIN QUARTERLY REPORTS
NELIDA DIAZ SOBRINO, CORINNA GHIRELLI, SAMUEL HURTADO, JAVIER J. PEREZ, ALBERTO URTASUN
Applied Economics
Related DT: 2042. Accepted: 25 Oct 2021
LOAN TYPES AND THE BANK LENDING CHANNEL
M VICTORIA IASHINA, LUC LAEVEN AND ENRIQUE MORAL-BENITO
Journal of Monetary Economics
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INCENTIVE COMPATIBLE RELATIONSHIP BETWEEN THE ERM II AND CLOSE COOPERATION IN THE BANKING UNION: THE CASES OF BULGARIA AND CROATIA
MARIA J NIETO AND DALVINDER SINGH
European Law Review
Related DO: 2117. Accepted: 4 Nov 2021

UNCERTAINTY AND FIRMS’ LABOUR DECISIONS. EVIDENCE FROM EUROPEAN COUNTRIES
MARTA MARTÍNEZ MATUTE AND ALBERTO URTASUN
Journal of Applied Economics
Related DT: 1821. Accepted: 13 Nov 2021

TRACKING WEEKLY STATE-LEVEL ECONOMIC CONDITIONS
CHRISTIANE BAUMEISTER, DANILO LEIVA-LEÓN AND ERIC SIMS
The Review of Economics and Statistics
Related DT: 2134. Accepted: 22 Nov 2021

THE CAUSAL IMPACT OF REMOVING CHILDREN FROM ABUSIVE AND NEGLECTFUL HOMES
ANTHONY BALD, ERIC CHYN, JUSTINE HASTINGS AND MARGARITA MACHELETT
Journal of Political Economy
Related DT: 2126. Accepted: 23 Nov 2021

DRAFTING “BETTER REGULATION”: THE ECONOMIC COST OF REGULATORY COMPLEXITY
JUAN DE LUCIO AND JUAN S. MORA-SANGUINETTI
Journal of Policy Modeling
Related DT: 2107. Accepted: 2 Dic 2021

HETEROGENEOUS SWITCHING IN FAVAR MODELS
PIERRE GUÉRIN AND DANILO LEIVA-LEÓN
Advances in Econometrics
Related DT: 1731. Accepted: 8 Dic 2021

A RAISE FOR GRANDMA: PENSIONS AND HOUSEHOLD EXPENDITURE
SUSANA PARRAGA RODRÍGUEZ
Economic Journal
Accepted: 30 Dic 2021

IS FISCAL POLICY MORE EFFECTIVE DURING RECESSIONS?
MARIO ALLOZA
International Economic Review
Related DT: 1730. Accepted: 15 Jan 2022
Published online: 21 Jan 2022

THE HETEROGENEOUS EFFECTS OF TRADE AGREEMENTS WITH LABOUR PROVISIONS
JACOPO TIMINI, NICOLA CORTINOVIS AND FERNANDO LOPEZ VICENTE
The World Economy
Related DT: 2017. Accepted: 17 Jan 2022
Published online: 02 Feb 2022

BEYOND THE LTV RATIO: LENDING STANDARDS, REGULATORY ARBITRAGE AND MORTGAGE DEFAULT
JORGE GALÁN AND MATÍAS LAMAS
Journal of Money, Credit and Banking
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INTERNATIONAL BANK CREDIT, NONBANK LENDERS, AND ACCESS TO EXTERNAL FINANCING
JOSÉ Mª SERENA, SERAFEIM TSOUKAS AND MARINA ELIZA SPALIARA
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Accepted: 21 Jan 2022

A HIGHWAY ACROSS THE ATLANTIC? TRADE AND WELFARE EFFECTS OF THE EU-MERCOSUR AGREEMENT
JACOPO TIMINI AND FRANCESCA VIANI
International Economics
Volume 169, pp 291-308, May 2022
Related DT: 2023. Accepted: 09 Feb 2022
UNEQUAL TRADE, UNEQUAL GAINS: THE HETEROGENEOUS IMPACT OF MERCOSUR
RODOLFO CAMPOS AND JACOPO TIMINI
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TRACKING THE STRUCTURAL SOURCES OF MACROECONOMIC TAIL RISKS
CARLOS MONTES-GALDÓN AND EVA ORTEGA
Advances in Econometrics
Related DT: 2208. Accepted: 23 Feb 2022

CORPORATE ECONOMIC PROFITS IN THE EURO AREA: THE RELEVANCE OF COST COMPETITIVE ADVANTAGE
JAVIER VALLÉS, VICENTE SALAS FUMÁS AND LUCIO SAN JUAN
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Volume 80, pp 569-585, July 2022
Accepted: 23 Feb 2022

EMPLOYMENT AND WAGE EFFECTS OF EXTENDING COLLECTIVE BARGAINING AGREEMENTS
EFFROSYNI ADAMOPOULOU AND ERNESTO VILLANUEVA
IZA World of Labor
Related DT: 1431. Accepted: 25 Feb 2022

THE IMPLICIT COST OF CARBON ABATEMENT DURING THE COVID-19 PANDEMIC
NATALIA FABRA, AITOR LACUESTA AND MATEUS SOUZA
European Economic Review
Accepted: 2 Mar 2022

WAGE DETERMINATION AND THE BITE OF COLLECTIVE CONTRACTS: EVIDENCE FROM ITALY AND SPAIN
EFFROSYNI ADAMOPOULOU AND ERNESTO VILLANUEVA
Labour Economics
Related DT: 2036. Accepted: 6 Mar 2022

ASSET HOLDINGS, INFORMATION AGGREGATION IN SECONDARY MARKETS AND CREDIT CYCLES
HENRIQUE S. BASSO
Journal of Economic Dynamics and Control
Related DT: 2214. Accepted: 13 Mar 2022
Published online: 14 Mar 2022

MARKOV SWITCHING RATIONALITY
FLORENS ODENDAHL, BARBARA ROSSI AND TATEVIK SEKHPOSYAN
Advances in Econometrics
Accepted: 24 Mar 2022

MONETARY POLICY AND SOVEREIGN DEBT SUSTAINABILITY
SAMUEL HURTADO, GALO NUÑO AND CARLOS THOMAS
Journal of the European Economic Association
Related DT: 1517. Accepted: May 2022

OPTIMAL REDISTRIBUTIVE INFLATION
GALO NUÑO AND CARLOS THOMAS
Annals of Economics and Statistics (special issue on “Advances in Heterogeneous Agents Models”)
Related DT: 1624. Accepted: May 2022

Laura, you lead an important team within the Bank of Spain: the Microeconomic Analysis Unit. Outsiders might not, however, associate this unit with their perceptions about the traditional role of a Central Bank. Could you briefly describe the main tasks your team is involved with?

Broadly speaking, the main task of the Microeconomic Analysis Unit is conducting research and analysis, with deliverables oriented towards the academia but of course also to the regular publications of the BdE and for internal use. Currently, we are a group of 8 researchers (that get amplified very fast if we include coauthors and regular collaborators) and we cover a very diverse set of topics from household finance, to labor economics, public economics, political economy, gender economics, family economics, education, environmental economics, policy evaluation, etc.; and the set keeping increasing over time. The bottom line that all these areas has in common is the microeconomic analysis of the decisions made by individuals, households and firms, and the distributional impacts of macroeconomic policies.

Also, as part of the Microeconomic Studies Division, we provide technical collaboration in the BdE’s own initiatives on Financial Competences and those of the Financial Education Plan. In particular, we have carried out the evaluation of a Financial Education Program (in the short, medium and long term) conducted in more than 70 Spanish High Schools and we are now ending the fieldwork of the new wave of the Survey of Financial Competences (ECF by its Spanish name).

Finally, we also contribute to several internal and external networks and research groups such as – to cite the most recent – the agreement signed between CEMFI, J-Pal and the Ministry of Inclusion for the evaluation of the inclusion pathways projects funded with the Recovery, Transformation and Resilience Plan.

The Structural Analysis and Microeconomic Studies Department to which your unit is ascribed has been, for nearly two decades, at the forefront of the development of household surveys. These are a key input for different research and policy analyses carried out at modern Central Banks, including the Bank of Spain. What do you think is the main opportunity for growth in this direction?

Running surveys during the pandemic has been an incredible challenge for our department, as well as for other institutions conducting this big scale studies, face to face and with very comprehensive questionnaire. But it was very important for us to keep doing them because it is the only way to reach certain population groups and because there are key concepts, such as, individual perceptions and expectations, that can only be measured by directly asking people. In my view, the main opportunity for growth is the ability to merge survey responses with administrative sources at the micro level. The international experience demonstrates that in the modern digital society this can be done in safe conditions.

You have done both methodological as well as empirical research on earnings dynamics and wage inequality exploiting the characteristics of administrative and survey data, such as social security information, tax record, and detail household finances. How has this shaped your approach to policy work?

I must admit that the most challenging part for me as an economist is moving from the descriptive measurement side, where I can provide a quantification of some important moments of the data and the precision associated to the exercise and where I feel more comfortable, to engage with the details of policy making. I see myself as one of those providers of empirical inputs and contributions for the policy decision process, as Manuel Arellano mentioned in his recent speech at the award ceremony for the “Premio de Economía Rey de España”. As such, I aspire to bring to the table many relevant insights, while at the same time being aware that, these will complement but not substitute the other components of the policy process. I’m convinced that the possibilities of providing evidence-based inputs for policy increase substantially if we – as researchers – have more and better access to microdata and to methodological developments at the frontier. As a society, we must convince ourselves that the benefits of this secure access to information for better understanding our economy, are enormous.

You have also contributed significantly to the debate on gender inequality within environments such as the labor market and the academic profession. Are we there yet? What has been the impact of the pandemic in this dynamic?

Although the Banco de España has experienced a substantial and sustained improvement in terms of gender balance among its employees in the last two decades, mainly thanks to the inflow of more women than men at entry levels, the reality is that at the managerial level women are still under-represented, the gap being more remarkable in senior positions. The good news is that the BdE is aware of this, has made the anonymized microdata available for research and evaluation purposes, and has implemented some targeted actions. Some examples of these are: (i) creating a group of Ambassadors - coordinated by Human Resources - representing all the business areas and sponsored by the Deputy Governor to
enhance diversity and inclusion consciousness and help to step up measures among the organization; (ii) launching leadership and mentoring programs to encourage women to apply for management positions; (iii) gender equitable panels in manager recruitment processes; (iv) training in unconscious bias, etc.

For the academic profession in the field of Economics there has been a surge of papers and surveys describing the still existent gender gaps or - more in general - the lack of diversity and the climate in the departments, conferences, seminars, teaching evaluations, etc. Of course there have been improvements over time, but not at the rate we would expect given how the presence of women in economics has progressed at the undergraduate level or at the earlier stages of the career. And the pandemic, with school closures, has probably only exacerbated those differences. Although I must admit that the overall picture is sometimes a bit depressing, I like to think that there is always a bright side to things. For me, the relevance that this topic has acquired lately in our own institution, as well as other similar ones, is a good sign of that. I see a change in attitudes among colleagues (both male and female) and that will translate in a change in social norms of the profession. I consider the evidence that we continue to disseminate is the best defense to keep asking for the actions not to stop.

The situation in terms of gender balance in the labor market more in general does not look as promising. The increase in the female labor supply in Spain has been a very remarkable phenomenon but gender differences in terms of labor market conditions are quite persistent. To end on a positive note, I hope that also in Spain the parental leave for both men and women ends up being the most equalizer in the workplace, as it has been in other countries.

Effectively communicating policy decisions and research output is key, but non-trivial. New technologies such as social media, personal webpages and blogs have become useful tools. What has been your experience on this front?

My experience so far has been positive, but I am concerned about how to respect privacy and provide credibility in social media, while at the same time promote integrity and collaboration in spaces welcoming for everyone. I have been using Twitter because it is a large community, with massive reach, reliable and with a professional interface. However, given that it was not designed specifically for researchers and academics, one can sometimes encounter lots of noise, with “too much” content circulating very fast, which ends up being time consuming. This is an issue which we have recently been debating together with a group of researchers in Economics, Statistics and Computer Science. Our hope is that this ‘discussion group’ will eventually become a broader online forum designed for and by economists; a non-profit, open source, and independent initiative that would democratize access to knowledge by lowering entry costs.

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MARÍA ALEJANDRA AMADO joined the International Economics Division at the Banco de España in December 2021. She holds a Ph.D. in Economics from the University of California, at Los Angeles (June 2021). She also holds a Master’s in Economics from Universidad del Pacífico (Peru) and an undergraduate degree in Economics from the same institution. During her studies at UCLA, Maria Alejandra was a teaching assistant of Macroeconomics, Microeconomics and Finance at the undergraduate and graduate levels. In 2018, she was also part of the Fund Internship Program at the International Monetary Fund (IMF) where she worked on topics related to trade policy.

Her research interests focus on International Economics, Macroeconomics and Finance. In her job market paper “Macroprudential FX Regulations: Sacrificing Small Firms for Stability?”, she shows that policies taxing bank dollar lending may increase financing disparities between small and large firms. She proposes a theoretical mechanism in which currency mismatch acts as a means for relaxing small firms’ borrowing constraints.

Under this framework, a tax on dollar lending negatively affects the total borrowing of constrained (small) firms, while they only have compositional effects on the total credit to unconstrained (large) firms. To verify this mechanism empirically, she studies the implementation of a macroprudential FX tax by the Central Bank of Peru. She constructs a novel firm-level dataset that combines confidential data on the universe of loans given by Peruvian banks to nontradable firms. Exploiting the heterogeneity in the strictness of the tax across banks, she provides evidence of the heterogeneous effects of this tax on firms of different sizes. In particular, she finds that a 10% increase in bank exposure to the tax significantly increases disparities in the growth of total loans between small and large firms by 1.5 percentage points. When accounting for firms switching to soles financing from different banks, the effect on large firms financing is only compositional.

Maria Alejandra’s current research focuses on understanding the role of production networks and sectoral linkages in amplifying balance sheet effects in small open economies.
On January 26, 2022, the Banco de España hosted the conference on “The demographic challenge, rural depopulation and data” (El reto demográfico, la despoblación rural y los datos). The conference was organized by the Spanish Ministry for the Ecological Transition and the Demographic Challenge (MITECO) and the Banco de España. Oscar Árce, at the time Director General of Economics and Statistics at the Bank of España, opened the conference which counted with participants from the MITECO, the European Commission, the OECD, the INE, the CSIC, the press, the private sector as well as academics from several universities.

**Conference program**

**FINANCING CORPORATES: LESSONS FROM THE COVID-19 CRISIS AND CHALLENGES AHEAD**

April 4, 2022

The Banco de España, the Banco de Portugal and the European Investment Bank (EIB) organized a Conference on “Financing Corporates: Lessons from the COVID-19 Crisis and Challenges Ahead” at the Banco de España in Madrid. Elisa Ferreira, European Commissioner for Cohesion and Reforms, gave a keynote speech. Further, the program included a high-level policy panel discussion of Pablo Hernández de Cos, Governor of the Banco de España; Mário Centeno, Governor of the Banco de Portugal; and Ricardo Mourinho Félix, Vice President of the European Investment Bank. Moreover, the conference featured various presentations from economists of the Banco de España, the Banco de Portugal, and the European Investment Bank.

**PATHWAYS TO GENDER EQUALITY IN CENTRAL BANKS**

Webinar, 18-19 May 2022

The International Economic Association (IEA), the Banco de la República de Colombia (Central Bank of Colombia), and the Banco de España are organizing a webinar, “Pathways to Gender Equality in Central Banks,” to be held in May 18 and 19, 2022. This Webinar aims to promote diversity and inclusion in the profession of economics, specifically in central banks. The conference will be held online. This event provides an opportunity for researchers from central banks to showcase their ongoing research on diversity and inclusion and for academics worldwide, outside Central Banks, to present their papers understanding disparities in central banking and highlighting the effects of practical steps to increase diversity. This event will count with Sebnem Kalemli-Ozcan (University of Maryland) as the Keynote Speaker.
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing Business Dynamism and Productivity: Shocks Versus Responsiveness</td>
<td>Javier Miranda (IWH)</td>
<td>10/11/2021</td>
</tr>
<tr>
<td>How Do Parents Choose Schools?</td>
<td>Matthew Wiswall (Wisconsin-Madison)</td>
<td>17/11/2021</td>
</tr>
<tr>
<td>La Política Económica Post-Pandemia</td>
<td>Ángel Ubide (CITADEL)</td>
<td>18/11/2021</td>
</tr>
<tr>
<td>Financial Returns to Household Inventory Management</td>
<td>Stephanie Johnson (Rice University)</td>
<td>01/12/2021</td>
</tr>
<tr>
<td>Credit Fire Sales: Captive Lending as Liquidity in Distress</td>
<td>Matteo Benetton (Berkeley)</td>
<td>09/12/2021</td>
</tr>
<tr>
<td>Do Trade Agreements Contribute to Technology Internationalization?</td>
<td>Inmaculada Martínez-Zarzoso (Göttingen)</td>
<td>23/02/2022</td>
</tr>
<tr>
<td>Inequality and Mobility in Lifetime Incomes in France</td>
<td>Cecilia García-Peñalosa (Aix Marseille School of Economics)</td>
<td>02/03/2022</td>
</tr>
<tr>
<td>Euro Area Sovereign Bond Risk Premia During the Covid-19 Pandemic</td>
<td>Stefano Corradin (ECB)</td>
<td>09/03/2022</td>
</tr>
<tr>
<td>Optimal Policy Rules in HANK (With Alisdair McKay)</td>
<td>Christian Wolf (MIT)</td>
<td>16/03/2022</td>
</tr>
<tr>
<td>Changing Gender Norms Across Generations: Evidence from a Paternity Leave Reform</td>
<td>Lidia Farré (Universidad de Barcelona)</td>
<td>23/03/2022</td>
</tr>
<tr>
<td>Bond Market Stimulus: Firm-Level Evidence from 2020-21 (With Kerry Siani, Columbia Business School)</td>
<td>Olivier Darmouni (Columbia Business School)</td>
<td>30/03/2022</td>
</tr>
<tr>
<td>Financial Frictions: Micro vs Macro Volatility</td>
<td>Morten O. Ravn (UCL)</td>
<td>04/04/2022</td>
</tr>
<tr>
<td>Zombie Lending and Policy Traps</td>
<td>Simone Lenzu (NYU)</td>
<td>19/04/2022</td>
</tr>
<tr>
<td>Deposit Insurance and Depositor Behavior: Evidence from Colombia</td>
<td>Nicola Limodio (Bocconi) and Nicolas de Roux (Universidad de Los Andes)</td>
<td>20/04/2022</td>
</tr>
<tr>
<td>Gender Differences in Peer Recognition by Economists</td>
<td>Nagore Iriberrí (University of the Basque Country)</td>
<td>29/04/2022</td>
</tr>
<tr>
<td>The Evolution of the Earnings Distribution in a Volatile Economy: Evidence from Argentina</td>
<td>Chris Moser (Columbia)</td>
<td>04/05/2022</td>
</tr>
</tbody>
</table>
THE CROSS-BORDER EFFECTS OF BANK CAPITAL REGULATION
SALEEM BAHAJ AND FREDERIC MALHERBE (UCL)
11/05/2022

THE DISTRIBUTIONAL IMPACT OF THE MINIMUM WAGE
THOMAS WINBERRY (UPENN)
18/05/2022
Upcoming conferences

CONFERENCE ON ECONOMETRIC METHODS AND EMPIRICAL ANALYSIS OF MICRO DATA IN HONOR OF MANUEL ARELLANO
Banco de España, 11 - 12 July 2022

Banco de España and CEMFI organize a Conference on econometric methods and empirical analysis of micro data in honor of Manuel Arellano that will take place at Banco de España's premises, in Madrid, on 11-12 July 2022. The program includes presentations that reflect Manuel Arellano’s far-ranging interests, covering topics in econometrics, labor economics and causal inference. In particular, it features research studies that leverage on unexploited microdata and new econometric methods, therefore reinforcing the importance of data availability (measurement, access, etc.).

The conference will feature presentations from distinguished researchers: Victor Aguirregabiria, Martín Almuzara, Orazio Attanasio, Richard Blundell, Stephen Bond, Stéphane Bonhomme, Jesús Carro, Jinyoung Hahn, Bo Honoré, Laura Hospido, Joan Llull, Costas Meghir, Enrique Moral-Benito, Lucciano Villacorta, Martin Weidner, and Gema Zamarro. Pablo Hernández de Cos, Governor of the Banco de España, will open up the conference.

Registration will be open till 6 June.

Program and registration

I BANCO DE ESPAÑA CONFERENCE ON SPANISH ECONOMY
Madrid, 7 – 8 July 2022

The Banco de España is launching the first of a series of academic conferences on the Spanish economy, to be held on 7 and 8 July 2022 at the Banco de España’s headquarters in Madrid. This new conference series aims at bringing together top researchers to present their recent work on topics that are of critical importance for the Spanish economy, as well as distinguished policy-makers to discuss their views on these topics. This first conference will include academic sessions on the labour market, on the link between productivity and finance, on inflation, and on energy and climate change. It will also feature an opening speech by Pablo Hernández de Cos, Governor of the Banco de España, and a closing panel discussion on “Public finances: fiscal reform and sustainability”. Please note that attendance is by invitation only.

Program

2022 ANNUAL MEETING OF THE CENTRAL BANK RESEARCH ASSOCIATION (CEBRA) CO-ORGANISED BY BANCO DE ESPAÑA, THE BARCELONA SCHOOL OF ECONOMICS (BSE) AND THE LEIBNIZ INSTITUTE FOR FINANCIAL RESEARCH “SUSTAINABLE ARCHITECTURE FOR FINANCE IN EUROPE” (SAFE)
Ciutadella Campus, UPF Barcelona, Spain
Monday 29 to Wednesday 31 August, 2022

The annual meeting will commence on Monday 29th with welcoming remarks followed by the six parallel sessions which feature 35 contributed sessions covering a wide variety of policy relevant topics. On Monday afternoon, it will take place a stimulating high-level discussion comprising several eminent economists including Jordi Galí (CREI/UPF/BSE), who will chair the session. The main conference will continue on Tuesday with additional three parallel sessions, the CEBRA annual assembly and closing reception hosted by the Banco de España and featuring a keynote address by Deputy Governor Margarita Delgado.

A special topic day on “Central Banking and the Green Transition” complements the program on Wednesday morning. This special day will begin with a networking session followed by a keynote address by John Hassler (IIES- Institute for International Economic Studies) and a panel discussion on central banking and the green transition featuring Banco de España Deputy Governor Margarita Delgado, among other speakers.

Program