BANCO DE ESPAÑA
Eurosistema

FALL 2016

RESEARCH UPDATE

CONTENTS: Features / Publications / News and Events / People / Announcements

Welcome to the Banco de España RESEARCH UPDATE

As members of the Research Committee at the Banco de España, we are pleased to announce the Fall 2016 issue of our *Research Update,* which aims to inform both academic and policy-oriented economists and financial specialists about publications, conferences, and other research activities at the Banco de España.

As usual, this issue includes several feature articles summarizing notable recent Banco de España research projects. First, an article by Manuel García-Santana, Josep Pijoan-Mas, Enrique Moral-Benito and Roberto Ramos presents evidence on the root causes of poor productivity growth in Spain prior to the Great Recession. Second, Bing Xu, Adrian van Rixtel, and Honglin Wang discuss data from China which suggest that informational advantages or market power may enable banks to demand more collateral from their borrowers. Finally, Henrique Basso and James Costain discuss possible institutional reforms to enhance fiscal sustainability in Europe, on the basis of a dynamic game-theoretic model.

In addition to these featured articles, this issue also includes an interview with Aitor Lacuesta, who was recently appointed to head the Structural Analysis Division, regarding trends in labor markets and competitiveness in Spain. This issue also profiles nine newly hired researchers who are joining the staff of several Banco de España units.

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.

Óscar Arce
Ángel Estrada
Juan Francisco Jimeno
Jesús Saurina

Research Committee,
Banco de España

GROWING LIKE SPAIN: 1995-2007

MANUEL GARCÍA-SANTANA, ENRIQUE MORAL-BENITO,
JOSEP PIJOAN-MAS AND ROBERTO RAMOS

WORKING PAPER Nº 1609

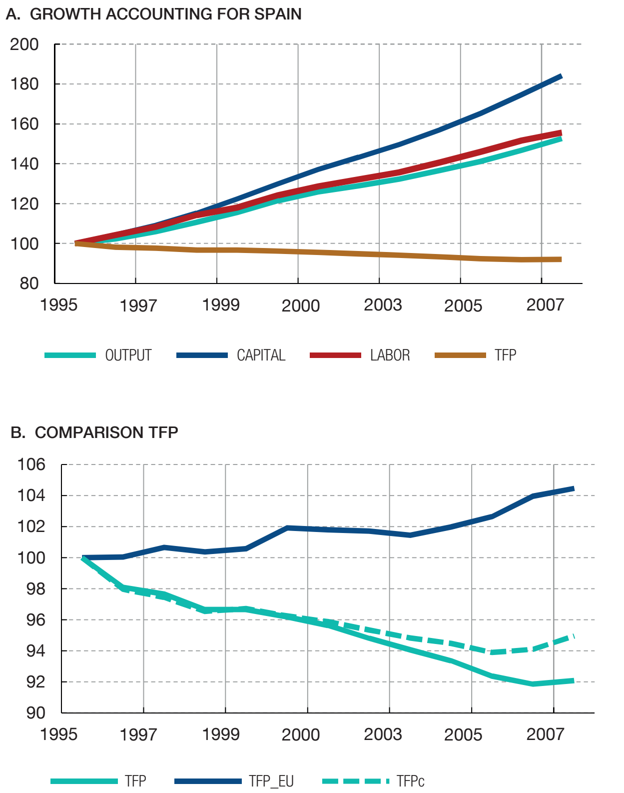
The Spanish 1995-2007 growth experience

From 1995 to 2007, Spanish GDP grew at an average of 3.5% per annum, considerably above the EU average for the same period (2.2%). Despite this economic performance, annual total factor productivity (TFP) growth was -0.7%, which is low in comparison to that of the US (+0.6%) and the EU (+0.4%) over the same period. A standard growth accounting exercise reveals that this GDP growth was a consequence of factor accumulation (labor and capital), as is evidenced in Panel (a) of Figure 1 below.

Why did productivity behave so poorly in Spain during the boom years? One potential explanation for the decline in TFP could be the movement of resources from high productivity sectors to low productivity sectors, for example construction. The empirical evidence, however, suggests that this is not the main story. Panel (b) of Figure 1 plots a counterfactual TFP measure, calculated by keeping the shares of the 5 largest sectors constant, equal to their values in 1995, alongside the evolution of the actual aggregate TFP measures in Spain and in the EU. While this counterfactual TFP measure (labeled TFPc in the graph) falls slightly more slowly than actual TFP, it still falls at an annual average rate of 0.4%, much closer to the actual 0.7% fall in Spain than to the positive 0.4% average growth rate of TFP in the EU.

THE SPANISH GROWTH EXPERIENCE - MACRO EVIDENCE

FIGURE 1



NOTE: Panel (A) shows the evolution of labor, capital, output and TFP during the period 1995-2007. Panel (B) shows the actual evolution of TFP in Spain (solid turquoise line) and the EU (solid blue line), and the counterfactual evolution of TFP in Spain if sectoral shares had remained constant to their values in 1995 (dashed turquoise line). The source for all the series is EU-KLEMS.

Misallocation of factors and productivity from firm-level data

Given that reallocation of resources across sectors accounts only for a small portion of the TFP decline during 1995-2007, we are left with the hypothesis of a worsening in the allocation of resources across firms within sectors. To investigate this, we use firm-level administrative data (Central Balance Sheet Data or *Central de Balances Integrada* (CBI) in Spanish) on around 350,000 firms per year in manufacturing, construction, trade, and services for the period 1995-2007. Slicing the data into 518 four-digit industries, we document two patterns.

First, the within-sector dispersion of productivities across firms increased sharply during the expansion. In a frictionless economy we should observe no dispersion in firm-level revenue productivities within each industry

– higher productivity firms should expand, attracting more capital and workers, which in turn would diminish their revenue productivity (either because of decreasing returns to scale or because of downward-sloping demand curves). Hence, dispersion of revenue productivities across firms is a symptom of a poor allocation of resources across firms. This is the idea behind the methodology of Hsieh and Klenow (2009), who estimate the disparity in efficiency levels between India, China, and the US, using firm-level data.

Our evidence implies that, had misallocation remained at its level in 1995, Spanish TFP would have grown by 0.8% per year. This result means that technological progress did not come to a halt in Spain, but capital and labour were not assigned efficiently to the best projects within each sector.

Second, firms' growth during this period was inversely related to initial productivity. That is, during the boom years, low productivity firms were assigned more capital and labour than high productivity firms. As a result, the former outgrew the latter. Figure 2 displays this surprising pattern for a selection of six industries, but this result is widespread across most industries. Following Foster et al. (2006), industry productivity growth can be decomposed into four parts: (i) firms' productivity growth weighted by size; (ii) firms' size growth weighted by productivity; (iii) a cross-term capturing the interaction between firms' productivity growth and size growth; and (iv) two extra terms capturing entry and exit.

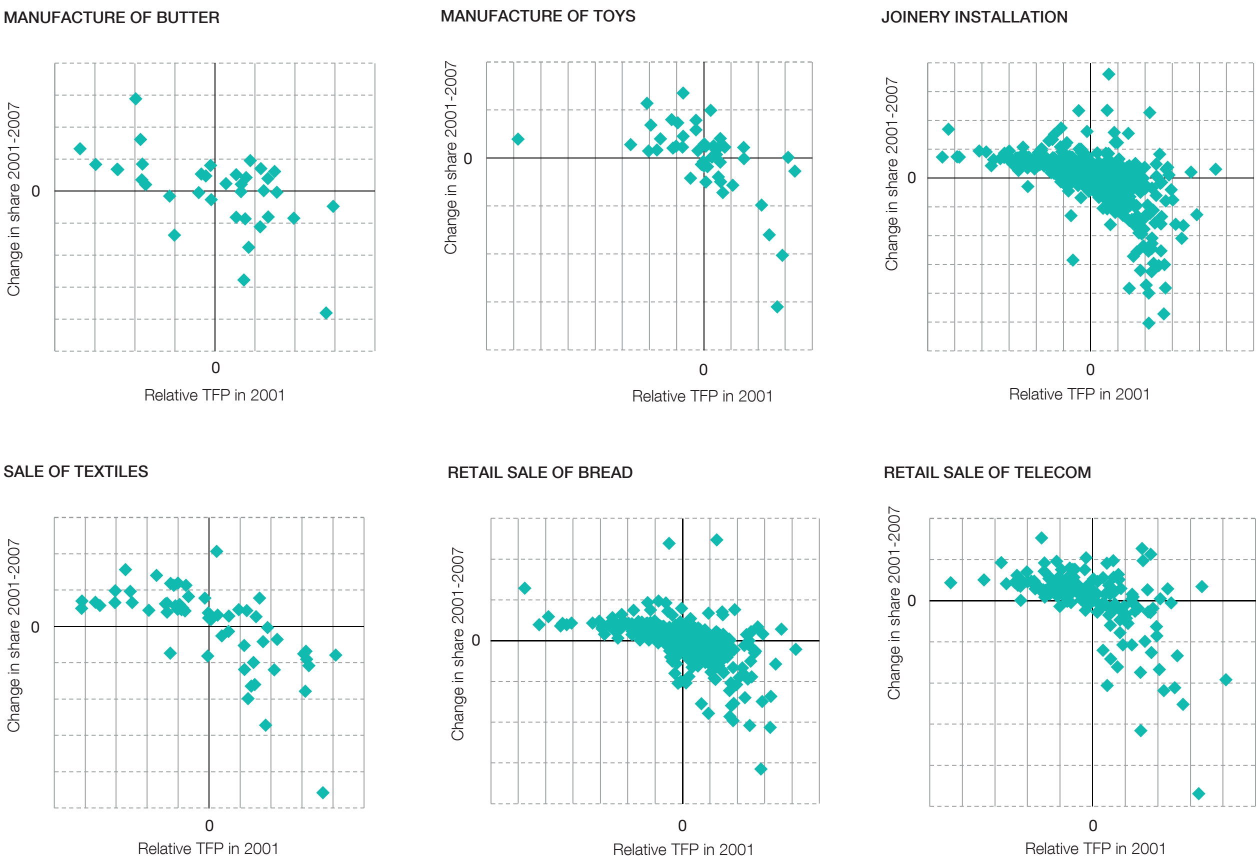
The pattern documented in Figure 2 illustrates the second component of this decomposition, which turns out to explain the whole fall in industry productivity.

The deterioration of resource allocation across firms was pervasive across all industries, but there was substantial variation among them. We exploit this variation to shed some light on the possible factors behind the increase in misallocation.

We find that sectoral differences in financial dependence, in the ratio of equipment and structures in physical capital, in skill intensity, in tradability, and

THE SPANISH GROWTH EXPERIENCE - MICRO EVIDENCE

FIGURE 2



NOTE: Relative TFP refers to the logarithm of firm-specific TFP relative to the industry average. Change in share refers to the difference in firm-specific market share measured in terms of value added.

in innovative content were unrelated to changes in allocative efficiency. Likewise, we find that the decline in allocative efficiency was present across all regions, and that regional differences in wage growth and house price growth were uncorrelated with the increase in distortions. These results undermine potential explanations by usual suspects such as financial frictions, dual labour markets, and lack of competition.

On the other hand, we find that industries in which the incidence of regulations is greater present productivity losses twice as large as those in the remaining sectors.[1] To be more concrete, we define two groups of industries according to the extent of public sector influence, either high or low. On aggregate, had the whole economy behaved like the low-incidence sectors, the overall TFP would have increased an extra 0.3% per year during 1995-2007.

[1] While the largest deterioration of allocative efficiency corresponds to the construction sector (see Figure 3 in the paper), aggregate TFP losses from misallocation remain sizable even when construction firms are excluded from the sample.

Conclusion

Spanish growth between 1994 and 2007 was based on the accumulation of capital and labor inputs that occurred despite an average annual decrease in productivity (as measured by TFP). This paper argues that the mentioned decline stems primarily from within-sector misallocation of production factors across firms. Furthermore, there is evidence that the industries that experienced more severe misallocation were those in which public sector influence is most crucial for business development. Specifying the channels through which public sector influence might contribute to resource misallocation is yet to be addressed.

REFERENCES

FOSTER, L., J. HALTIWANGER and C. KRIZAN (2006) “Market selection, reallocation, and restructuring in the US retail trade sector in the 1990s”, *The Review of Economics and Statistics,* 88(4): 748-758.

HSIEH, C.T. and P.J. KLENOW (2009) “Misallocation and manufacturing TFP in China and India”, *Quarterly Journal of Economics,* 124(4): 1403-1448.

DO BANKS EXTRACT INFORMATIONAL RENTS THROUGH COLLATERAL?

BING XU, ADRIAN VAN RIXTEL AND HONGLIN WANG

WORKING PAPER Nº 1616

While collateral is one of the defining characteristics of loan contracts, loan collateralization is more common in relationship lending than it is in loans to borrowers with whom the bank has no prior relationship. This paper argues that this finding may be evidence of informational rent extraction. Moreover, concentrated market structures may also facilitate rent extraction, as they promote asymmetries in firm-specific information among banks. Using unique loan-level data for China, we show that the positive association of relationship lending and bank market concentration with loan collateralization is less prevalent after firms' equity IPOs, consistent with the idea that IPOs reduce informational asymmetries. Our results complement previous findings that banks extract informational rents by charging higher interest rates in relationship lending.

Introduction

Loan contracts are often backed by collateral, as a mechanism to guarantee full or partial repayment. Intuitively, then, one might expect banks to demand collateral more often in loans to new borrowers with whom they have no previous relationship. In this paper we show that, surprisingly, the opposite is true in the data. We find that the likelihood that loans are collateralized is positively associated with the strength of the relationship between the bank and the borrowing firm. This result suggests an alternative view of loan collateralization: it may be explained, at least partly, by informational rent extraction (Schenone, 2010). That is, we argue that there is an informational asymmetry between "inside banks" (those banks that are already lending to a firm) and "outside banks" (those which currently are not lending to a firm). As banks accumulate proprietary information about the borrowers with whom they have long-term lending relationships, they may use these informational advantages to "hold up" their borrowers (Sharpe, 1990; Rajan, 1992). While outside banks are constrained by market pressures to offer more attractive loan conditions, inside banks may be able to demand more collateral, or exploit their informational advantages in other ways.

Besides relationship lending, the structure of bank lending markets may also create an asymmetric distribution of firm-specific information among lenders. The relevant literature suggests that information is more asymmetrically distributed in concentrated banking markets (Hauswald and Marquez, 2006; Dell'Ariccia et al., 2001). Hence, this paper examines whether inside information obtained through relationship lending, as well as informational advantages derived from concentrated market structures, allows banks to extract informational rents through collateral.

Using a unique dataset of loan-specific information including data on collateral for a large group of Chinese banks, we find that more intense lending relationships, and more concentrated markets, are both associated with a higher probability of collateral incidence. To the best of our knowledge, we are the first to investigate collateral incidence in Chinese bank lending markets with loan-level data. We then go on to present further evidence in favor of the informational rent extraction hypothesis. One key piece of evidence is that collateral incidence decreases after firms' initial public offerings of equity (IPOs). While other papers have offered empirical evidence of informational rent extraction through lending rates (e.g. Hale and Santos, 2009; Schenone, 2010), our paper is the first to investigate rent extraction operating through collateral.

Identification strategy

The informational rent extraction hypothesis depends crucially on the existence of information asymmetries between inside and outside lenders. This suggests an intuitive way of testing the hypothesis: if inside banks extract informational rents through collateral, their ability to do so should be moderated after a shock that reduces information asymmetries existing between inside and outside banks. To this end, we follow Schenone (2010) and regard the equity IPO of borrowing firms as an information-releasing shock. In the course of the public offering and after being listed, previously private information about the firm will be released through compulsory listing requirements and subsequent regular financial reporting, public auditing, financial analysts' research and stock price movements. As this new information becomes public, the informational monopoly position of inside banks is eroded and the adverse selection problem facing outside banks is alleviated, reducing the likelihood of rent extraction for loans granted after the IPO relative to loans granted before the IPO.

A crucial methodological concern is to control for changes in firm risk around the time of the IPO, and for differences in risk between listed and non-listed firms, so that changes in collateral incidence before and after the IPO can be attributed to changes in information asymmetries, rather than differences in firm risk. We control for this by incorporating firm risk characteristics from both before and after the IPO in our regressions, and we conduct additional robustness tests. To the best of our knowledge, our paper is the first to apply equity IPOs as an identification strategy to test whether banks charge informational rents through collateral.

Methodology

Our main analysis consists of four steps. First, we investigate whether the likelihood of collateral incidence increases with relationship lending and market concentration, after controlling for many other firm and loan-specific determinants. Hence, we estimate the following Probit model as a first step:

$$P(Collateral_{il}) = F(\beta_0 + \beta_1 Sizeconcen_{il} + \beta_2 ACR4_{il} + \rho IPO_{il} + \sum_j \alpha_j Controls_{il}) \quad (1)$$

where *i* indexes for the firm and *l* for the loan number, and *F(.)* is the cumulative distribution function of the standard normal distribution. The dependent variable $Collateral_{il}$ is a binary variable that equals one if loan *l* extended to firm *i* is collateralized, and is zero otherwise. The strength of bank-firm relationships is measured by $Sizeconcen_{il}$, which is defined as the total amount that firm *i* previously borrowed from its current lender as a proportion of the total amount borrowed by the firm prior to the current loan. Market structure is measured by the concentration ratio $ACR4_{il}$, defined as the share of total assets of the four largest banks as a percentage of the total assets of all banks in each province. We would expect a positive correlation of relationship intensity ($Sizeconcen_{il}$) and market structure ($ACR4_{il}$) with collateral: if β_1 and β_2 are positive, this supports the idea that relationship lending and concentrated markets (respectively) facilitate informational rent extraction. IPO_{il} is a dummy that equals one if a loan is issued after the borrower's IPO and zero otherwise. $Controls_{il}$ include additional features of relationship lending, firm and loan characteristics, monetary policy and regional macro-economic factors, and various fixed effects.

As a next step, we investigate whether the likelihood of rent extraction through collateral, related to relationship lending and market concentration, is at least partially related to the informational "hold up" problem. To this end, we test if the effects of relationship lending and market concentration on collateral incidence are less pronounced for more transparent firms, about which all lenders have good information. Specifically, we test the following equation:

$$P(Collateral_{il}) = F(\beta_0 + \beta_1 Sizeconcen_{il} + \beta_2 ACR4_{il} + \beta_3 Sizeconcen_{il} * Infor_{il} + \beta_4 ACR4_{il} * Infor_{il} + \omega Infor_{il} + \rho IPO_{il} + \sum_j \alpha_j Controls_{il}) \quad (2)$$

where an informational transparency measure $Infor_{il}$ (higher value representing higher firm transparency) is interacted with $Sizeconcen_{il}$ and $ACR4_{il}$. If $\beta_1 > 0$ and $\beta_3 < 0$, (or respectively $\beta_2 > 0$ and $\beta_4 < 0$), this would support the idea that relationship lending (respectively market concentration) facilitates informational rent extraction, and that rent extraction becomes more difficult when borrowers are transparent. We use two sets of transparency measures ($Infor_{il}$): transparency based on firm characteristics, and transparency linked to information generated by the stock market. The first set of transparency measures includes variables showing whether a firm is listed at the main board of the stock exchange, whether it is state-owned or is relatively large (e.g. all these firms should be more transparent). For the second group of stock-market-related transparency variables, we postulate that firm transparency increases with the number of financial analysts following the firm and the percentage of shares held by non-bank institutional investors.

Subsequently, in step three we consider the possibility that equity IPOs act as information equalization shocks between inside and outside banks, in order to identify informational rent extraction. This motivates the following hypotheses. First, if relationship lenders extract informational rents through collateral, this will be more likely for loans originated before the equity IPO and less likely for those originated afterwards. Second, the positive correlation of market concentration with collateral should be mitigated by the informational shock of an equity IPO.

To test these hypotheses, we interact the relationship intensity and market structure variables with the dummy variable IPO from equation (1), which yields:

$$P(Collateral_{il}) = F(\beta_0 + \beta_1 Sizeconcen_{il} + \beta_2 ACR4_{il} + \beta_3 Sizeconcen_{il} * IPO_{il} + \beta_4 ACR4_{il} * IPO_{il} + \rho IPO_{il} + \sum_j \alpha_j Controls_{il}) \quad (3)$$

Informational rent extraction by relationship lenders is identified if $\beta_1 > 0$ and $\beta_3 < 0$. Similarly, market concentration facilitates informational rent extraction if $\beta_2 > 0$ and $\beta_4 < 0$. If $\beta_3 < 0$ or $\beta_4 < 0$ is rejected, the positive coefficients of β_1 and β_2 should be explained by other theories.

Finally, in step four we test more explicitly whether differences in firm risk may explain our results. Rajan (1992) suggested that inside banks can charge informational rents more easily from riskier borrowers than from safer ones, because outside banks will be less inclined to lend once the borrower is revealed as risky. This view suggests that when information asymmetries between inside and outside banks are reduced, rent extraction will decline for safer firms but not for risky ones. We test whether this prediction applies to collateral as well. We propose a novel measure of firm risk: $Multiapp_{il}$, which equals one if the first IPO application of a firm was rejected by the Chinese markets regulator (the China Securities Regulatory Commission, CSRC) and is zero otherwise. A firm's listing request can be rejected by the CSRC on many grounds, such as cash-flow problems, uncertain or weak profitability perspectives, vague corporate governance structures or suspicious earnings, all of which suggest the potential existence of risk factors. In a way, this measure is similar to a credit rating (see Hale and Santos, 2009), though it is issued by a government body instead of a private rating company. To test these hypotheses, we expand (3) to include three-way interaction terms between informational rent variables ($Sizeconcen_{il}$ and $ACR4_{il}$), IPO_{il}, and the firm risk proxy $Multiapp_{il}$.

Results and robustness tests

Our main results can be summarized as follows. First, high relationship intensity and concentrated markets both imply that loans are more likely to be collateralized: β_1 and β_2 are significantly positive in equation (1). Second, these effects are less pronounced for transparent firms: β_3 and β_4 are negative in (2).

Third, when applying equity IPOs as an informational shock, we find that for loans originated prior to the IPO, the likelihood of collateralization increases with relationship intensity, while this effect is greatly moderated for post-IPO loans: $\beta_1>0$ and $\beta_3<0$ in equation (3). In some specifications, relationship intensity is no longer significant in predicting collateral incidence for loans originated after the IPO. Fourth, the likelihood of collateral incidence increases with the degree of market concentration both before and after the equity IPO, but the effect is moderated for post-IPO loans: $\beta_2>0$ and $\beta_4<0$ in equation (3). This finding supports the hypothesis that concentrated markets facilitate information asymmetries among lenders and hence are associated with a higher likelihood of rent extraction through collateral. Fifth, using the firm risk measure $Multiapp_{il}$, we find that once information about firm risk is made public after the IPO, rent extraction through collateral is moderated for safe firms but intensified for risky firms. This result is in line with the theoretical prediction of Rajan (1992) that informed banks are more able to extract rents from risky firms than from safer ones, and complements Hale and Santos (2009), who report similar results for lending rates. Finally, we find that riskier firms are more likely to pledge collateral, a result consistent with the "observed-risk" hypothesis (e.g. Boot et al., 1991; Boot and Thakor, 1994). Furthermore, our evidence shows that private firms are much more likely to pledge collateral than state-owned firms, which complements previous findings that private firms in China are charged with higher lending rates in a state-dominant banking system (Cull and Xu, 2003; Allen et al., 2005).

Overall, our findings are largely consistent with the informational rent extraction hypothesis. In the paper, we discuss whether our results might be biased by endogeneity of key explanatory variables, or whether other theories might explain our findings, but we do not find evidence to support either of these concerns.

Future research

Our study opens up several avenues for future research. A cross-country investigation on rent extraction through collateral could be fruitful. Rent extraction through collateral could be more likely to occur in less developed markets where banks lack sufficient tools to price credit risks in comparison to more advanced markets. Another interesting question is whether banks choose different methods to charge rents (either through lending rates or collateral) depending on the degree of price regulation or the stance of monetary policy. A third avenue is to investigate how rent extraction through collateral could vary with the legal and institutional environment. We leave these questions for future work.

REFERENCES

ALLEN, F., QIAN, J., and QIAN, M., 2005. Law, finance, and economic growth in China, *Journal of Financial Economics,* 77(1), 57-116.

BOOT, A., and THAKOR, A., 1994. Moral hazard and secured lending in an infinitely repeated credit market game, *International Economic Review,* 35(4), 899-920.

BOOT, A., THAKOR, A., and UDELL, G., 1991. Secured

lending and default risk: Equilibrium analysis, policy implications and empirical results, *Economic Journal,* 101(406), 458-472.
CULL, R., and XU, L., 2003. Who gets credit? The behavior of bureaucrats and state banks in allocating credit to Chinese state-owned enterprises, *Journal of Development Economics,* 71(2), 533-559.
DELL'ARICCIA, G., 2001. Asymmetric information and the structure of banking industry, *European Economic Review,* 45(10), 1957-1980.
HALE, G., and SANTOS, J., 2009. Do banks price their informational monopoly?, *Journal of Financial Economics,* 93(2), 185-206.
HAUSWALD, R., and MARQUEZ, R., 2006. Competition and strategic information acquisition in credit markets, *Review of Financial Studies,* 19(3), 967-1000.
JIMENEZ, G., SALAS, V., and SAURINA, J., 2006. Determinants of collateral, *Journal of Financial Economics,* 81(2), 255-281.
RAJAN, R., 1992. Insiders and outsiders: The choice between informed and arm's-length debt, *Journal of Finance,* 47(4), 1367-400.
SANTOS, J. and WINTON, A., 2008. Bank loans, bonds, and information monopolies across the business cycle, *Journal of Finance,* 63(3), 1315–1359.
SCHENONE, C., 2010. Lending relationships and information rents: Do banks exploit their information advantages?, *The Review of Financial Studies,* 23(3), 1149-1199.
SHARPE, S., 1990. Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships, *Journal of Finance,* 45(4), 1069-87.

FISCAL POLICY DELEGATION IN THE EUROPEAN CONTEXT

HENRIQUE S. BASSO AND JAMES COSTAIN

European economies urgently need better mechanisms to ensure sustainability of their high and volatile sovereign debt. This article discusses recent research pointing to a possible reform of European fiscal architecture— delegating some fiscal instruments to an independent institution— that might help restrain debt levels while maintaining scope for stabilization of economic and financial shocks.

Fiscal sustainability remains a pressing concern in the Eurozone. To a macroeconomist, this is unsurprising, because when a country joins a monetary union, several forces converge to increase both the level and the volatility of its sovereign debt. From Mundell (1961) to Obstfeld (2013), economists have observed that member states of a monetary union react more strongly to demand shocks and to cross-country financial flows; lacking an independent monetary policy, their fiscal policy is left to play a more prominent role in stabilizing the economy. Moreover, Beetsma and Bovenberg (1999) and Chari and Kehoe (2007) have argued that joining a monetary union creates fiscal free-riding problems that increase deficit bias, causing debt to trend upwards over time.

Delegating fiscal instruments

Going forward, several institutional alternatives are commonly recognized for Europe. Quoting Tirole (2015),

> *Oversimplifying, there are three strategies for the Eurozone: … return to national currencies … the current approach based on the Maastricht treaty … and, finally, the more ambitious version of federalism. My own clear preference is for the federalist version but I'm not at all convinced that Europeans are ready to make it work successfully.*

Our research explores a fourth alternative: the delegation of one or more fiscal instruments to an independent authority mandated to maintain long-run budget balance, just as modern democracies have delegated control of monetary policy instruments to independent central banks. Obviously, fiscal policy is complex and multidimensional, and most fiscal decisions, especially normative and redistributive ones, should remain under the control of the government itself. But since maintaining long-run budget balance could in principle be structured as a technical and quantitative task, this aspect of fiscal policy might be better handled by an agency independent of the government. This could eliminate the "deficit bias" that comes from democratic politics, just as central bank independence has reined in "inflation bias".

The idea of delegating some fiscal decisions to an institution independent of government is not new; Blinder (1997) and Wyplosz (2005) outline two contrasting perspectives. Part of the job of an independent fiscal authority would be monitoring budget trends and advising the government about the sustainability of its policies. But its job could be extended by granting it control over some across-the-board fiscal shift variable. For example (following Gruen, 1997), the government might define a baseline income tax code, specifying the types of income to be taxed, the types of exemptions and deductions, and a set of baseline tax rates applicable at different income brackets. But the tax code could also include a shift factor X, which would multiply all the baseline rates, and could mandate that the value of X should be set by an independent budget agency. Setting $X = 1$ would tax all income at the baseline rates, but the agency would be mandated to raise or lower X as necessary to keep debt trending towards a long-run target. A broad shift parameter of this type would be a powerful lever to maintain fiscal sustainability, in a transparent way, while minimizing the distributional consequences of the fiscal authority's decisions.

A dynamic game between policy institutions

While various policy proposals have advocated delegating fiscal instruments, our work provides the first formal, theoretical comparison of delegation, relative to other fiscal regimes. To understand delegation, we compare games in which different sets of institutions, controlling different sets of instruments, interact in the policy-making process, against the backdrop of a reduced-form macroeconomic model. We make just two simple assumptions about institutional behavior, distilling consensus findings from the political economy literature.[1] First, we assume that

[1] Lacking a clear practical definition of what "commitment" means, in institutional terms, we don't assume "rules" are followed. We think it makes more sense to model different types of institutions by imposing systematic differences in their preferences, and then studying discretionary equilibria.

elected policy-makers are less patient than society, reflecting the pressures of representative democracy. Second, reflecting the experience of inflation-averse independent central banks, we assume that an institution mandated to achieve a clearly defined, quantitative goal will prefer that goal more strongly than society does.

In a recent paper (Basso and Costain 2016A), we analyze the long-run, steady-state implications of fiscal policy delegation in a monetary union where each member government must respect its own intertemporal budget constraint. Imposing the institutional preference assumptions mentioned above, we compare discretionary policy games representing the following scenarios:

- P: first-best social planner
- I: a single economy with its own independent central bank
- M: a monetary union with a single independent central bank
- Fj: a monetary union with a single independent central bank and an independent fiscal authority in each member state
- F: a monetary union with a single independent central bank and a single independent fiscal authority

We identify three distinct channels by which delegation of long-run budget balancing responsibilities to an independent fiscal authority tends to reduce debt, relative to scenario M. The first channel is the debt aversion induced by the fiscal authority's mandate; the second is its greater patience, compared to an elected government. Third, a fiscal authority established at the union-wide level will internalize common pool problems. Thus, making a few natural parameter assumptions, we can rank steady-state debt levels d^S and inflation rates π^S analytically across scenarios S, as follows:

$$d^P < d^I < d^M \qquad \pi^P < \pi^I < \pi^M$$

$$d^P < d^{Fj} < d^M \qquad \pi^P < \pi^{Fj} < \pi^M$$

$$d^F < d^{Fj} \qquad \pi^F < \pi^{Fj}$$

Steady-state social welfare follows the opposite ranking of debt and inflation. Hence society is unambiguously better off in scenario Fj, relative to scenario M. Moving to scenario F, with a single union-wide fiscal authority, may bring additional welfare gains, though we cannot exclude the possibility that the authority might actually go too far, driving debt and inflation even lower than a social planner would prefer.

Dynamic results

However, these steady-state results beg a number of questions that can only be addressed in a fully dynamic analysis. In ongoing work (Basso and Costain, 2016B), we study a dynamic, stochastic version of our policy game in order to address the initial transition costs of delegating fiscal instruments, the stabilization of fiscal shocks in the delegation scenarios, and the implications of different assumptions about the precise nature and timing of fiscal decisions.[2] Our quantitative example is based on the pessimistic but not unreasonable assumption that Eurozone debt has not yet reached its long-run steady-state. We assume, for illustrative purposes, that steady-state debt in the monetary union is two times annual private output (roughly 160% of GDP), accompanied by 10% annual inflation.[3] Table 1 compares institutional scenarios in our numerical example.

Compared with the planner's solution, government impatience implies excessive debt in scenario *I* (71% of private-sector output, compared with 0% in scenario P). Inflation is also too high, because without commitment the central bank is tempted to stimulate output and to inflate away the excessive public debt. In scenario M, these biases are reinforced by free-riding problems: member state governments fail to internalize the impact of their debt on the interest rate r(d) and on the central bank's incentives, so debt almost triples compared with scenario I. Debt and inflation decline strongly if national fiscal authorities are established (scenario Fj), because these authorities are patient and because they dislike debt accumulation more than the governments do.

2 Calculating the welfare effects of permanent institutional changes and of shocks in the same model requires a fully nonlinear, global solution. We find the policies that satisfy policy-makers' Euler equations, approximating the policy functions as fourth-order Chebyshev polynomials. Given the policies we then iterate backwards to calculate value functions too.

3 We calibrate a high steady-state inflation rate because, as Leeper (2010) argues, unsustainable fiscal policy can cause monetary policy to eventually lose control of inflation. In reality, high debt may be more likely to lead to default, rather than sustained inflation. But since our model abstracts from default, steady-state inflation stands in here for all the long-run costs of debt.

COMPARING INSTITUTIONAL SCENARIOS **TABLE 1**

Scenario	Steady state results			Dynamic results	
	Debt (a)	Inflation	Welfare (b)	Transition gain (b)	Crisis cost (b)
	d^S	π^S	$W^S(d^S,0)$	$W^S(d^M,0)-W^M(d^M,0)$	$W^S(d^S,e_0)-W^S(d^S,0)$
P	0.1%	2.0%	+19.4%	+14.8%	-0.75%
I	71.4%	7.0%	+15.3%	+12.2%	-0.78%
M	199.7%	10.0%	0	0	-0.90%
Fj	17.9%	5.8%	+18.4%	+14.1%	-0.75%
F	8.7%	5.6%	+18.7%	+14.2%	-0.75%

a Debt expressed as a fraction of annual private sector output.
b Welfare differences expressed as equivalent variations of steady-state private sector output.

Debt falls further towards the planner's preferred level in scenario F, because a single European fiscal authority would internalize debt-related common pool problems.

We write intertemporal social welfare W^S in scenario S as a function of public debt d and the public sector demand shock e. Welfare differences across regimes (stated as equivalent variations of private output) are large: inhabitants of the monetary union would value jumping to the steady state of the planner's solution just as much as a permanent 19.4% increase in private sector output. Likewise, the fiscal delegation scenarios imply much higher steady-state welfare than the status quo (equivalent to an 18.4% or 18.7% output increase), almost matching the gains from the social planner's solution.

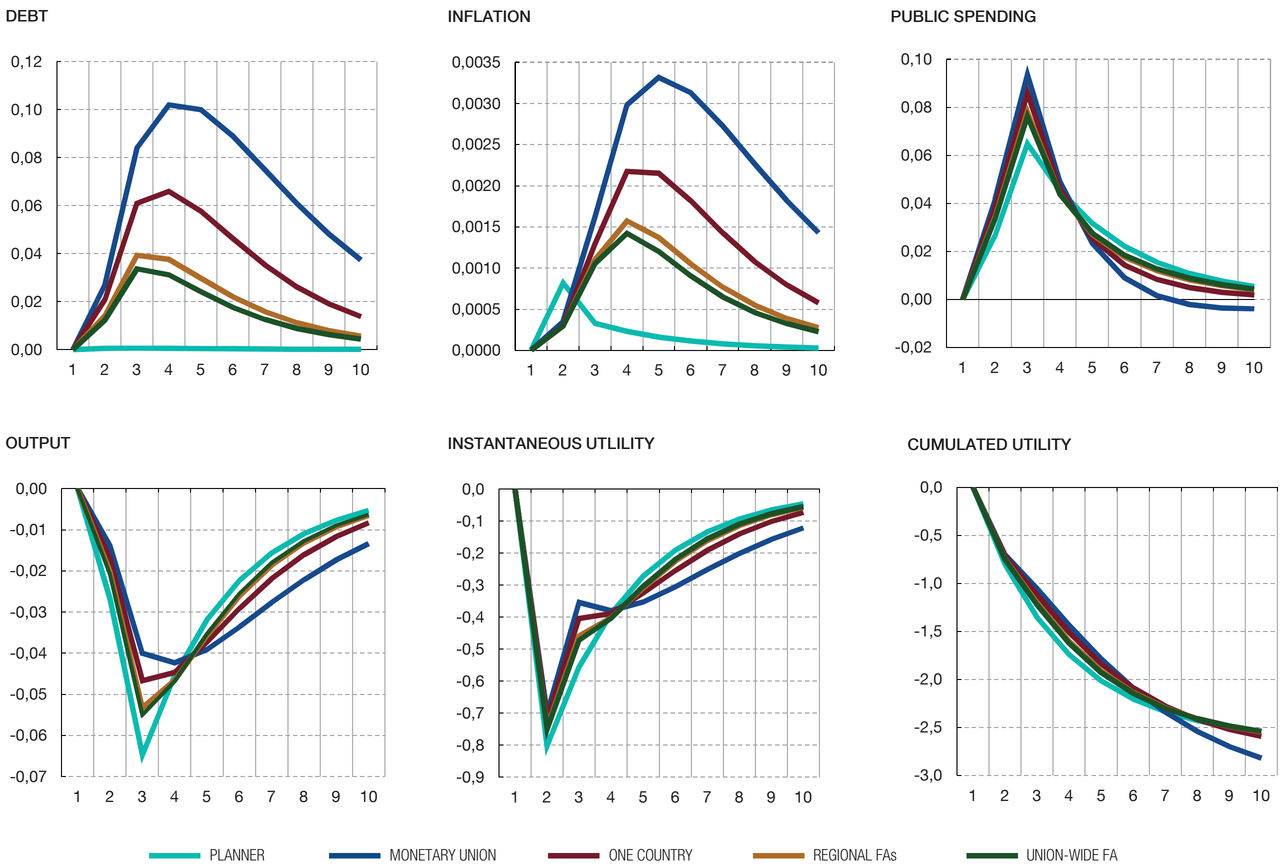
Considering the reduced-form nature of our model, these numbers should be taken as a qualitative illustration of the effects of fiscal delegation, rather than a serious quantitative assessment of those effects. Nonetheless, the finding that these welfare gains are orders of magnitude larger than Lucas' (1987) estimate of the cost of business cycles is not surprising, because interest payments on sovereign debt are subtracted off of national income, directly affecting consumption. Hence, the welfare difference between scenarios M and S (expressed in consumption units) is at least as large as the steady state change in the interest burden, $r(d^M)d^M - r(d^S)d^S$. And besides the change in interest payments, moving from scenario M to any of the other scenarios implies a large decrease in tax distortions and inflation.

Of course, inhabitants of the monetary union might not be willing to pay down their initial debt to realize these potential long-term gains. But the fourth column of the table shows that delegating fiscal instruments is preferred, even from an *ex ante* perspective. We report $W^S(d^M,0) - W^M(d^M,0)$, the gains from replacing regime M by another regime S, starting from the steady state debt of the monetary union. In our simulation, the gains from implementing regimes Fj or F are roughly equivalent to a permanent 14% increase in private sector output. Comparing columns three and four, the initial austerity cost is large (around 4% of permanent output), but the efficiency gains overwhelm these costs, so the net benefit is large and positive. In the paper we also demonstrate that our welfare rankings are robust to changes in our assumptions about the precise sequence of fiscal decisions.

An important concern about delegating budget balancing responsibilities is the possible tradeoff with macroeconomic stabilization. Since stabilization policy requires fiscal deficits from time to time, a regime that avoids debt accumulation might be expected to suffer more from economic fluctuations. In the fifth column of the table, we compare the effects of a large, mean-reverting increase in the demand for public spending (a shock $e_0>0$ that might reflect, for example, the fiscal costs of cleaning up a financial crisis) across regimes S. Strikingly, the total welfare loss $W^S(d^S,e_0) - W^S(d^S,0)$ caused by this shock is largest in the monetary union, and smallest in the fiscal delegation regimes Fj and F. To understand this result, Figure 1 graphs the implied impulse responses. As expected, the monetary union smoothes this shock through deficit financing; in the first three periods of impact private output and contemporaneous utility fall less in regime M than in any other regime. But this drives up debt substantially, increasing inflation incentives; so from the fourth period onwards, private output, public spending, and instantaneous utility are all lowest in scenario M. The last panel of the figure shows that the cumulated utility loss is largest in scenario M, consistent with column five of Table 1. Intuitively, coming closer to the commitment solution can decrease the intertemporal welfare impact of shocks in the fiscal delegation regimes, in spite of greater "austerity" at the moment the shock hits.

IMPULSE RESPONSES TO A PUBLIC SPENDING DEMAND SHOCK

FIGURE 1



Implications for Europe

Our simulations suggest that the gains from delegating budget balancing instruments are plausibly large, and contrary to our initial expectations, we find no tradeoff against stabilization policy. While one might naively hope to see delegation undertaken unilaterally, it is more relevant to ask how fiscal delegation could fit into a politically viable solution to ongoing instability in Europe. Current debt levels leave many Eurozone members, both "peripheral" states and major economies such as France and Italy, vulnerable to a rise in risk premia or renewed banking instability that could make their sovereign burdens unsustainable. These economies remain dependent on pledges and asset purchases by the ECB, but fiscally stronger members fear that any ECB protection creates moral hazard, encouraging weaker members to postpone reforms and budget cuts.

This dilemma points to a mutually beneficial agreement between core and periphery: voluntarily delegating budget balancing instruments to a European institution could be a prerequisite for joining European mechanisms to protect against sovereign or financial risk (for example, a Eurobond scheme, or a shared European deposit insurance system). Recent institutional reforms have already laid much of the groundwork for delegation: all EU members have created independent national fiscal monitoring agencies, and following the "Five Presidents' Report" (Juncker et al., 2015) the Commission is setting up a European Fiscal Board (by 2017) to further oversee national budget trends. Thus, both member states and the EU have or are developing the forecasting infrastructure necessary to control a delegated fiscal instrument. While long run national budget balance could be guaranteed by a national authority, delegation to a European authority seems more likely to credibly support a quid pro quo between core and periphery. Note also that when a state voluntarily delegates budget balance lever(s) to Europe, it could tailor this instrument to its own preferences. While a shift parameter could be defined in the tax code, it could alternatively be defined on the spending side (Costain and de Blas, 2012).

Europe has responded to recent crises by adding further layers of complex fiscal rules with complex escape clauses. While offering an appearance of greater budget credibility, this may be an illusion. Defining broad-based fiscal shift parameters, and delegating their control to a European authority, could guarantee budget balance in a simpler, more transparent, and hence more credible way, which might lay the foundations of a deeper Fiscal Union.

REFERENCES

H.S. BASSO and J. COSTAIN (2016A), "Fiscal delegation in a monetary union with decentralized public spending." *CESifo Economic Studies* 62(2), 256-268.

H.S. BASSO and J. COSTAIN (2016B), "Fiscal delegation in a monetary union: Instrument assignment and stabilization properties." Mimeo, Banco de España.

R.M.W.J. BEETSMA and A.L. BOVENBERG (1999), "Does monetary unification lead to excessive debt accumulation?" *Journal of Public Economics* 74(3), 299-325.

A. BLINDER (1997), "Is government too political?" (1997), *Foreign Affairs* 76(6), 115-126.

V.V. CHARI and P. KEHOE (2007), "On the need for fiscal constraints in a monetary union." *Journal of Monetary Economics* 54(8), 2399-2408.

J. COSTAIN and B. DE BLAS (2012), "Smoothing shocks and balancing budgets in a currency union." *Moneda y Crédito* 234, 37-91.

N. GRUEN (1997), "Making fiscal policy flexibly independent of government." *Agenda* 4(3), 297-307.

J.C. JUNCKER, D. TUSK, J. DIJSSELBLOEM, M. DRAGHI and M. SCHULZ (2015), "Completing Europe's Economic and Monetary Union." European Commission.

E. LEEPER (2010), "Monetary science, fiscal alchemy." NBER Working Paper 16510.

R. LUCAS (1987), *Models of Business Cycles.* Wiley-Blackwell.

R. MUNDELL (1961), "A theory of optimum currency areas." *American Economic Review* 51(4), 657-665.

M. OBSTFELD (2013), "Finance at center stage: some lessons of the Euro crisis." European Economy Economic Papers 493, European Commission.

J. TIROLE (2015), "Europe's future is federal." Available at: http://socialeurope.eu/2015/07/europes-future-federal/

C. WYPLOSZ (2005), "Fiscal policy: institutions versus rules." *National Institute Economic Review* 191(1), 64-78.

PUBLICATIONS

RECENT WORKING PAPERS

LINK TO WORKING PAPERS PAGE

THE EFFECTS OF US UNCONVENTIONAL MONETARY POLICIES IN LATIN AMERICA

FRUCTUOSO BORRALLO, IGNACIO HERNANDO AND JAVIER VALLÉS

WORKING PAPER Nº 1606

This paper offers an empirical analysis of the way in which US unconventional monetary policy has affected Latin American countries. First, we estimate the effects of US monetary policy announcements on sovereign bond interest rates, exchange rates and stock market indices for a set of emerging countries, including five Latin American economies. We find that QE announcements in 2008/2009 and the "tapering talk" in 2013 generated sizable sovereign yield and exchange rate fluctuations. We further find some excess response of Latam asset prices that disappear once we take into account their country characteristics. In the second part of the paper we estimate a simple model that measures the influence of country-specific macroeconomic fundamentals on the transmission of US financial disturbances. An estimated model including the inflation rate, the CDS spread, the ratio of official reserves and market capitalisation explains some of the observed cross-country heterogeneity of spillovers from US monetary policy announcements. Under this model, a greater impact from the normalisation of US monetary policy can be expected in Latin America relative to other emerging economies.

DO THE RICH (REALLY) CONSUME HIGHER-QUALITY GOODS? EVIDENCE FROM INTERNATIONAL TRADE DATA

VINCENZO MERELLA AND DANIEL SANTABÁRBARA

WORKING PAPER Nº 1607

Using average import prices (unit values) as proxies for quality, a large body of the international trade literature finds both theoretical and empirical support for the positive relationship between importer income and quality of imports. Several authors, however, argue that the empirical evidence of the link between income and product quality might be spurious, since import prices could be affected by other factors than product quality. This paper takes into account this issue with a new theoretical and empirical approach. Building on Khandelwal's (2010) discrete choice model approach, where quality is inferred by quantitative market shares as well as unit values, we develop a model that allows for willingness to pay for quality to vary with income. We empirically validate the theoretical relationship between importer income and product quality by using the Eurostat's COMEXT database, which collects customs data reported by EU countries at 8-digit disaggregation. Our estimations support the positive link between consumer income and product quality, which is also robust across sectors.

MEASURING MARKET LIQUIDITY IN US FIXED INCOME MARKETS: A NEW SYNTHETIC INDICATOR

CARMEN BROTO AND MATÍAS LAMAS

WORKING PAPER Nº 1608

We propose a new synthetic liquidity indicator that summarises the data on a broad set of market liquidity measures both for sovereign and corporate fixed income markets in the US. Our index is based on 17 variables that cover the main dimensions of market liquidity. The methodology used to calculate the index consists of two steps. First, a transformation of the individual liquidity measures is made, based on the methodology proposed by Holló et al. (2012) for the CISS (Composite Indicator of Systemic Stress). The transformed variables are then weighted using a principal component analysis. The indicator shows that liquidity in US fixed income markets has been impaired after the global financial crisis, mainly as a result of weaker liquidity conditions in US Treasury markets, whereas those in the corporate debt market remained stable.

GROWING LIKE SPAIN: 1995-2007

MANUEL GARCÍA-SANTANA, ENRIQUE MORAL-BENITO, JOSEP PIJOAN-MAS AND ROBERTO RAMOS

WORKING PAPER Nº 1609

See Features section.

LAS REFORMAS DE LA LEY CONCURSAL DURANTE LA GRAN RECESIÓN

MIGUEL GARCÍA-POSADA AND RAQUEL VEGAS

WORKING PAPER Nº 1610

Traditionally, bankruptcy procedures in Spain have been lengthy and costly processes that have nearly always (95%) resulted in the liquidation of the insolvent firm. These dysfunctions became apparent with the large increase in bankruptcy filings during the crisis that started in 2008 and the ensuing congestion of the courts. In order to resolve these and other problems, the Bankruptcy Law has been reformed several times. The goal of this research is to analyse the impact of these reforms on two facets: the length of bankruptcy procedures and the probability of achieving a successful reorganisation, hence avoiding the firm's liquidation. Our findings show that two of the four reforms analysed increased the percentage of reorganisations and decreased bankruptcy duration through improving the quality of insolvency administrators and by fostering out-of-court workouts for large corporations.

THE DRIVERS OF EUROPEAN BANKS' US DOLLAR DEBT ISSUANCE: OPPORTUNISTIC FUNDING IN TIMES OF CRISIS?

LUNA AZAHARA ROMO GONZÁLEZ

WORKING PAPER Nº 1611

This paper provides a comprehensive investigation of the determinants of US dollar denominated long-term debt issuance by European banks. The database used allows the drivers of foreign-currency issuance identified in the literature, including variables at the individual firm (e.g. bank) level, to be explored. The analysis covers overall US dollar issuance as well as Yankee debt issuance, which is defined in this paper as bonds denominated in US dollars issued in domestic US markets by non-US issuers. In addition, issuance determinants are investigated during both crisis and non-crisis periods. The main findings are the following. European banks issue US dollar debt to naturally hedge their US dollar assets (with US dollar exposures obtained from BIS international banking statistics), but they also make extensive use of deviations in covered interest parity and even in uncovered interest parity, particularly after the crisis. There is also evidence that banks issue in US dollars for strategic reasons and that heightened volatility has a negative impact on US dollar issuance. Bank-specific variables are also relevant drivers of US dollar debt issuance: banks with higher asset growth, with a banking subsidiary in the United States and with a high credit rating are more likely to issue in US dollars than others. Bank-specific structures, as captured by deposit and loan ratios, also have a relevant impact on US dollar funding activity in some cases. The results are robust to alternative econometric specifications and to different definitions of covered and uncovered cost savings.

MODELLING INTEREST PAYMENTS FOR MACROECONOMIC ASSESSMENT

CELESTINO GIRÓN, MARTA MORANO, ENRIQUE M. QUILIS, DANIEL SANTABÁRBARA AND CARLOS TORREGROSA

WORKING PAPER Nº 1612

In this paper we present a methodology designed to estimate the future path of the interest payments of central government. The basic idea is to represent in a compact way the joint dynamics of debt liabilities and interest payments as a function of four elements: the initial outstanding amounts of debt, the expected primary funding needs, the expected yield curves and the expected issuance strategy to be followed by the government. The procedure is amenable to scenario-based simulation and produces a detailed representation of the debt term structure. We provide results for the period 2015-2025.

GROWING BY LEARNING: FIRM-LEVEL EVIDENCE ON THE SIZE-PRODUCTIVITY NEXUS

ENRIQUE MORAL-BENITO

WORKING PAPER Nº 1613

It is a well-known empirical regularity that small firms are less productive than large firms. However, does size cause productivity or vice versa? Using matching methods, I find that productivity shocks are followed by significant increases in size defined by employment. In contrast, size shocks are not followed by productivity gains at the firm level. This finding casts doubt on the conventional wisdom that aggregate productivity in Spain is driven by a firm size distribution biased towards small firms in comparison with other developed countries. According to my findings, low firm-level productivity might play a crucial role in shaping the Spanish firm size distribution.

BREAKING DOWN WORLD TRADE ELASTICITIES: A PANEL ECM APPROACH

JAIME MARTÍNEZ-MARTÍN

WORKING PAPER Nº 1614

This paper exhaustively analyses the recent decline of international trade elasticities to output growth. We extend an empirical model of import demand functions to account not only for transitory factors, such as relative prices and import intensity-adjusted measures of demand (I-O Tables), but also for habitually neglected permanent factors such as protectionism, vertical integration (i.e. Global Value Chains) and foreign direct investment (FDI). Dealing with a non-stationary heteregenous panel of 27 countries, we estimate a panel Error Correction Model from 1960 to 2015 in order to break down world trade elasticities. Our main findings evidence: i) the presence of panel (cointegrating) structural changes in the trade-to-GDP relationship in 2000 and 2009, private consumption being a source of disruption; ii) although investment and exports are the most sensitive, import-intensive components of demand, this is far from being transitory, which is clearly weighing on the current slowdown; iii) the relevant contribution of GVCs shows a procyclical pattern, questioning the permanent nature of the current levelling-off of vertical integration processes. The lack of progress in reducing import tariffs and the usual discarded, complementary relationship between FDI and imports have a residual role. All in all, our results have substantial policy implications, as they reinforce the idea of a historical break towards a new 'normal' trading phase.

STRUCTURAL TRANSFORMATION, SERVICES DEEPENING, AND THE TRANSMISSION OF MONETARY POLICY

ALESSANDRO GALESI AND OMAR RACHEDI

WORKING PAPER Nº 1615

Advanced economies are undergoing a structural transformation from manufacturing to services. We document that structural change comes with a process of services deepening: over time, both services and manufacturing become more intensive in service inputs. We argue that structural transformation and services deepening affect the transmission of monetary policy by increasing the relative importance of services, which have stickier prices than manufacturing. We study the implications of the U.S. sectoral reallocation with a New Keynesian model with two sectors connected by an input-output matrix, which varies endogenously over time. The rise of services dampens the responses of aggregate and sectoral inflation rates to a monetary policy shock. The changes in the responses of sectoral inflation rates are entirely driven by services deepening.

DO BANKS EXTRACT INFORMATIONAL RENTS THROUGH COLLATERAL?

BING XU, ADRIAN VAN RIXTEL AND HONGLIN WANG

WORKING PAPER Nº 1616

See Features section.

CREDIT CONTRACTIONS AND UNEMPLOYMENT

MIHÁLY TAMÁS BORSI

WORKING PAPER Nº 1617

This paper investigates the impact of private credit contractions on labor market performance. Impulse responses for total, youth, and long-term unemployment are estimated using local projections for a panel of 20 OECD countries over the period 1980-2013. The empirical findings suggest that a decline in private credit can generate sizable and statistically significant increases in all three unemployment measures. On average, credit contractions in the sample increase total unemployment rates by nearly 1 percentage point at the peak. This effect is even stronger for youth unemployment. The persistent impact on long-term unemployment emphasizes the sluggish recovery of labor markets following a credit downturn. The results also reveal that increases in joblessness depend heavily on the scale of the build-up in financial leverage prior to the onset of a contraction. Specifically, excessive credit booms tend to be followed by a signifi cantly larger rise in unemployment in the subsequent bust phase. Moreover, credit contractions associated with rigid labor market institutions lead to disproportionately greater increases in unemployment. These findings underline the important relationship between disruptions in the credit market and unemployment fluctuations.

FISCAL MULTIPLIERS ACROSS THE CREDIT CYCLE

MIHÁLY TAMÁS BORSI

WORKING PAPER Nº 1618

This paper studies the differences between fiscal multipliers in OECD economies across the credit cycle. Impulse responses are obtained using a state-dependent model with direct projections, in which multipliers depend on the state of credit markets. Identification of the effects of fiscal stimulus and austerity measures is achieved by distinguishing between unanticipated increases and decreases in government spending. The empirical results imply that the financial environment matters. Expansionary fiscal policies are associated with large multipliers during credit crunch episodes, and spending increases likewise foster economic growth in periods of rapid credit expansion, albeit to a lesser extent. In contrast, the output effect of contractionary fiscal policies is never statistically different from zero. Regime-specific multipliers of the individual components of GDP and the unemployment rate suggest that reductions in public expenditure should help constrain the economy during unsustainable credit booms, whereas spending increases in financial recessions should facilitate the repair of private sector balance sheets in order to revive market confidence and boost economic recovery.

FINANCIAL STABILITY JOURNAL

The Financial Stability Journal (Revista de Estabilidad Financiera) is a half-yearly journal published by the Banco de España that aims to act as a platform for communication and dialogue regarding issues related to financial stability, with a particular focus on prudential regulation and supervision. Its board of editors comprises internal and external professionals. All articles appearing in the journal, which may be authored by Banco de España staff or researchers from other institutions, are refereed by at least one member of the board of editors.

PAYMENT SYSTEMS IN THE US AND EUROPE: EFFICIENCY, SOUNDNESS AND CHALLENGES

SANTIAGO CARBÓ-VALVERDE AND CHARLES M. KAHN

ESTABILIDAD FINANCIERA 30, MAY 2016, 9-33

This paper examines the recent changes in, and future outlook for, wholesale and retail payment systems in Europe and in the United States. While some convergence in payment institutions and patterns of use is observed, the differences between United States and Europe persist, especially in the retail market. A possible explanation for the divergences is the different regulatory structure in the two areas, and looking ahead it is worth enquiring whether such differences may have consequences in terms of recent innovations in the payments area, in the so-called "fintech" revolution. The article concludes that the regulatory challenge in the field of payment institutions is to find a suitable balance in terms of innovation and security between the interests of the traditional payment service providers and those of the new players.

SPANISH BOOM-BUST AND MACROPRUDENTIAL POLICY

ÁNGEL ESTRADA AND JESÚS SAURINA

ESTABILIDAD FINANCIERA 30, MAY 2016, 35-61

This article reviews the experience of the Spanish economy over the past 15 years to draw some conclusions on macroprudential policy implementation. The Spanish experience, mainly through the establishment of countercyclical provisioning, demonstrates that there are macroprudential instruments particularly suited to countries within a single monetary area such as the euro area. Further, the current situation with countries inside and outside the Monetary Union applying different macroprudential policies, offers unique opportunities to test whether or not these policies should be the same in all the member countries and at all times.

PAGOS INMEDIATOS: ¿EVOLUCIÓN O REVOLUCIÓN?

ANA FERNÁNDEZ AND SERGIO GORJÓN

ESTABILIDAD FINANCIERA 30, MAY 2016, 63-90

The authors analyse the operation of retail payment services and, in particular, of instant payments, with a special focus on the transformative effect on the way in which financial institutions relate to their customers in a context of increasingly digital services. The article emphasises that, within the Single Euro Payments Area (SEPA), efforts and initiatives are focused on avoiding reintroducing market fragmentation through digitalisation. This requires cooperation in drawing up common rules and developing a pan-European interoperability framework. The present roadmap envisages that instant payments will be a reality in Europe by the end of next year. The Spanish financial industry foresees that its operations will be fully consistent with the rules defined for SEPA and covering the whole of the European Union by that same date.

LOS BONOS GARANTIZADOS Y LAS TITULIZACIONES: SITUACIÓN ACTUAL, MARCO GLOBAL Y PERSPECTIVAS FUTURAS

ASUNCIÓN ALONSO VENTAS AND JOSÉ MANUEL MARQUÉS SEVILLANO

ESTABILIDAD FINANCIERA 30, MAY 2016, 91-106

The authors analyse the recent behaviour of and developments in the covered bond and securitisation markets. In the case of the covered bond market, which has better withstood the effects of the financial crisis, important design innovations are discerned, including the incorporation as collateral of new types of assets, and structures that improve liquidity management. In the securitisation market, which has been more affected by the crisis, structures are being promoted that are simpler and more transparent than those normally used in the past. The future of these markets will depend upon the regulations eventually established, and thus the paper reviews the current debates and initiatives regarding such regulations in the European and global context.

RECENT PUBLICATIONS IN REFEREED JOURNALS

HOUSEHOLD DEBT AND UNCERTAINTY: PRIVATE CONSUMPTION AFTER THE GREAT RECESSION

A. ESTRADA, D. GARROTE, E. VALDEOLIVAS AND J. VALLÉS

MONETARIA, 3,
JANUARY-JUNE 2015, 71-109

FISCAL MULTIPLIERS AND BEYOND

P. HERNÁNDEZ DE COS, T. WARMEDINGER AND C. CHECHERITA-WESTPHAL

HACIENDA PÚBLICA ESPAÑOLA/REVISTA DE ECONOMÍA PÚBLICA 215 (4),
DECEMBER 2015, 139-168

EL EMPLEO Y LOS SALARIOS PÚBLICOS DURANTE LA CRISIS: ANÁLISIS DESDE UNA PERSPECTIVA INTERNACIONAL Y REGIONAL

PABLO HERNÁNDEZ DE COS, ENRIQUE MORAL-BENITO AND JAVIER J. PÉREZ

PAPELES DE ECONOMÍA ESPAÑOLA Nº 147,
FEBRUARY 2016

EFFICIENT ESTIMATION OF UNCONDITIONAL CAPITAL BY MONTE CARLO SIMULATION

A. FERRER, J. CASALS AND S. SOTOCA

FINANCE RESEARCH LETTERS 16,
FEBRUARY 2016, 75-84

EL IMPACTO ECONÓMICO DE LA ACTIVIDAD NORMATIVA. LOS RIESGOS DE LA «GRAN CONVERGENCIA»

J. S. MORA-SANGUINETTI AND S. SALVADOR

REVISTA DE ECONOMÍA INDUSTRIAL 398,
2015, 117-128

PROTECCIÓN DEL EMPLEO Y FLUJOS DEL MERCADO DE TRABAJO EN ESPAÑA: EFECTOS DE LAS REFORMAS DE 2010 Y 2012

A. L. GÓMEZ JIMÉNEZ

REVISTA DE ECONOMÍA LABORAL 13 (1),
MARCH 2016, 34-62

THE RESPONSE OF HOUSEHOLD WEALTH TO THE RISK OF JOB LOSS: EVIDENCE FROM DIFFERENCES IN SEVERANCE PAYMENTS

C. BARCELÓ AND E. VILLANUEVA

LABOUR ECONOMICS 39,
APRIL 2016, 35–54

GROWTH EMPIRICS IN PANEL DATA MODELS UNDER MODEL UNCERTAINTY AND WEAK EXOGENEITY

E. MORAL-BENITO

JOURNAL OF APPLIED ECONOMETRICS 31 (3),
APRIL/MAY 2016, 584-602

NETWORKS AND THE DYNAMICS OF FIRMS' EXPORT PORTFOLIO: EVIDENCE FOR MEXICO

J. DE LUCIO, R. MÍNGUEZ, A. MINONDO AND F. REQUENA

THE WORLD ECONOMY 39 (5),
MAY 2016, 708–736

SPAIN: FROM MASSIVE IMMIGRATION TO VAST EMIGRATION?

M. IZQUIERDO, J.F. JIMENO AND A. LACUESTA

IZA JOURNAL OF MIGRATION 5 (10),
MAY 2016

MEASURING MARKET LIQUIDITY IN US FIXED INCOME MARKETS: A NEW SYNTHETIC INDICATOR

C. BROTO AND M. LAMAS

SPANISH REVIEW OF FINANCIAL ECONOMICS 14 (1),
JANUARY-JUNE 2016, 15-22

FISCAL MULTIPLIERS IN TURBULENT TIMES: THE CASE OF SPAIN

P. HERNÁNDEZ DE COS AND E. MORAL-BENITO

EMPIRICAL ECONOMICS 50 (4),
JUNE 2016, 1589-1625

FISCAL DELEGATION IN A MONETARY UNION WITH DECENTRALIZED PUBLIC SPENDING

H. S. BASSO AND J. COSTAIN

CESIFO ECONOMIC STUDIES 62 (2),
JUNE 2016, 256-288

THE DISTRIBUTION OF DEBT ACROSS EURO AREA COUNTRIES: THE ROLE OF INDIVIDUAL CHARACTERISTICS, INSTITUTIONS AND CREDIT CONDITIONS

O. BOVER, J.M. CASADO, S. COSTA, P. DU CAJU, Y. MCCARTHY, E. SIERMINSKA, P. TZAMOURANI, E. VILLANUEVA AND T. ZAVADIL

INTERNATIONAL JOURNAL OF CENTRAL BANKING 12 (2),
JUNE 2016, 71-129

LEARNING FROM THE GREAT DIVERGENCE IN UNEMPLOYMENT IN EUROPE DURING THE CRISIS

T. BOERI AND J. F. JIMENO

LABOUR ECONOMICS 41,
AUGUST 2016, 32-46

ENVY AND HABITS: PANEL DATA ESTIMATES OF INTERDEPENDENT PREFERENCES

F. ÁLVAREZ-CUADRADO, J. M. CASADO AND J. M. LABEAGA

OXFORD BULLETIN OF ECONOMICS AND STATISTICS 78 (4),
AUGUST 2016, 443–469

POLICY SPILLOVERS AND SYNERGIES IN A MONETARY UNION

O. ARCE, SAMUEL HURTADO AND CARLOS THOMAS

INTERNATIONAL JOURNAL OF CENTRAL BANKING 12 (3),
SEPTEMBER 2016, 219-278

THE BANK LENDING CHANNEL OF UNCONVENTIONAL MONETARY POLICY: THE IMPACT OF THE VLTROS ON CREDIT SUPPLY IN SPAIN

M. GARCÍA-POSADA AND MARCOS MARCHETTI

ECONOMIC MODELLING 58,
NOVEMBER 2016, 427-441

FORTHCOMING ARTICLES IN REFEREED JOURNALS

LAS REFORMAS DE LA LEY CONCURSAL DURANTE LA GRAN RECESIÓN

M. GARCÍA-POSADA AND RAQUEL VEGAS

CUADERNOS DE ECONOMÍA ESPAÑOLA

CREDIT, CRISIS AND CONTRACT ENFORCEMENT: EVIDENCE FROM THE SPANISH LOAN MARKET

J. S. MORA-SANGUINETTI, M. MARTÍNEZ-MATUTE
AND M. GARCÍA-POSADA

EUROPEAN JOURNAL OF LAW AND ECONOMICS

THE CYCLE OF EARNINGS INEQUALITY: EVIDENCE FROM SPANISH SOCIAL SECURITY DATA

S. BONHOMME AND L. HOSPIDO

ECONOMIC JOURNAL

THE IMPACT OF THE 2011 SHORT-SALE BAN ON FINANCIAL STABILITY: EVIDENCE FROM THE SPANISH STOCK MARKET

O. ARCE AND S. MAYORDOMO

EUROPEAN FINANCIAL MANAGEMENT

NEWS AND EVENTS

NEWS

DEPUTY GOVERNOR FERNANDO RESTOY APPOINTED CHAIR OF THE FINANCIAL STABILITY INSTITUTE AT THE BIS

The Banco de España congratulates its Deputy Governor, Fernando Restoy, who has been appointed as Chair of the Financial Stability Institute (FSI) of the Bank for International Settlements (BIS) in Basel. Mr. Restoy will assume this new position on January 1, 2017, replacing Czech central banker Josef Tosovsky.

Mr. Restoy's new appointment continues a distinguished career in financial research, supervision and regulation. He is a graduate in Economics and Business Studies from the Universidad Complutense de Madrid, an MSC in Econometrics and Mathematical Economics from the LSE, and an MA and PhD in Economics from Harvard University. In 1991, he joined the Department of Monetary and Financial Studies of the Banco de España, eventually heading the Financial Studies Unit, and then directing the department from 2001 until 2007. During these years he published numerous academic and policy-oriented studies, in journals such as *Journal of Finance, Review of Finance,* and *European Economic Review.*

In 2007 he joined the Board of the Comisión Nacional del Mercado de Valores (the Spanish National Securities Market Commission), becoming Vice Chairman of this institution in 2008. In that position he played a leading role in several European and international bodies concerned with securities regulation and accounting standards, including the European Securities and Markets Authority (ESMA) and the International Organization of Securities Commissions (IOSCO). In 2012 he was appointed Deputy Governor of the Banco de España and since January 2014 he has been a member of the Supervisory Board of the ECB's Single Supervisory Mechanism. Among other recent duties as Deputy Governor, from 2012 to 2015 Mr. Restoy chaired the FROB, the Spanish Fund for the Orderly Restructuring of the Banking Sector. He is currently Vice-Chairman of the Governing Committee of this Fund.

About the FSI and the BIS

The Financial Stability Institute was established in 1999 in Basel under the aegis of the BIS, with the objective of supporting supervisors globally in their task of improving and strengthening financial systems. The FSI pursues this objective by promoting best supervisory standards and practices, assisting in their proper implementation, and disseminating relevant information and analyses on products, practices and techniques to help supervisors adapt to rapid innovations in finance.

The Bank for International Settlements, founded in 1930, is the world's oldest international financial organization. Headquartered in Basel, Switzerland, the BIS sustains and supports central banks' efforts to achieve monetary and financial stability, promoting cooperation among monetary authorities and financial supervisors from all continents. To this end, it hosts many international financial regulatory committees, such as the Basel Committee on Banking Supervision (BCBS), the Committee on the Global Financial System (CGFS) and the Committee on Payments and Market Infrastructures (CPMI). The BIS also hosts independent organizations such as the Financial Stability Board (FSB), the International Association of Insurance Supervisors (IAIS), and the International Association of Deposit Insurers (IADI).

Profile of deputy governor Fernando Restoy

RECENT CONFERENCES

LINK TO CONFERENCES PAGE

JOINT BANCO DE ESPAÑA / BARCELONA GSE POLICY WEEK. FISCAL SUSTAINABILITY: XXI CENTURY

MADRID, 6-8 JUNE 2016; BARCELONA, 9-10 JUNE 2016

In June, the Banco de España and the Barcelona Graduate School of Economics jointly organized a pair of conferences under the title "Fiscal Sustainability: XXI Century". Ensuring fiscal sustainability is a central challenge in the context of reforming the macroeconomic policy framework in Europe. The Joint Policy Week brought together researchers from academia and from policy institutions to address topics including the measurement of fiscal sustainability, fiscal rules and other mechanisms for enforcing long-run budget balance, and the interaction of monetary, fiscal, and financial stability policies in macroeconomic models, with special attention to the European context.

The first event, at the Banco de España in Madrid, focused especially on applied policy questions. Speakers on Monday, June 6 addressed the impact of fiscal consolidation and the stabilization properties of different fiscal instruments; finally Prof. Athanasios Orphanides (Massachussetts Institute fo Technology) delivered a keynote address on the fiscal implications of unconventional monetary policies. The second day's presentations on political economy aspects of fiscal discipline, and the potential costs of default and breakup, complemented a panel discussion between five senior European policy makers: Agnes Benassy (Council of Economic Advisers, France), Robert Chote (Office of Budget Responsibility, UK), Jean-Pierre Vidal (Advisor to President Donald Tusk), Torsten Arnswald (Ministry of Finance, Germany), and Juan Rojas (European Stability Mechanism). On Wednesday, after sessions on monetary and fiscal policy interactions and sovereign risk premia, the closing address by Prof. Enrique Mendoza (Univ. of Pennsylvania) reviewed different theoretical definitions of fiscal sustainability, and assessed current prospects for sustainability in the US and Europe.

The second event, at the Univ. Pompeu Fabra in Barcelona on 9-10 June, had a more academic perspective. This workshop, which formed part of the Barcelona GSE Summer Forum, featured sixteen presentations of recent theoretical work on monetary and fiscal policy interactions.

Conference webpage: Madrid
Conference programme: Barcelona

4TH WORLD BANK – BANCO DE ESPAÑA RESEARCH CONFERENCE. LABOR MARKETS: GROWTH, PRODUCTIVITY AND INEQUALITY

MADRID, 16-17 JUNE 2016

On June 16-17, the Banco de España hosted the conference "Labor Markets: Growth, Productivity and Inequality", which it organized jointly with the World Bank. The conference consisted of five sessions, as well as a policy panel and a keynote speech by Professor David Card (Univ. of California, Berkeley). The presentation by Prof. Card emphasized the need to take account of differences in firms' characteristics in order to understand outcomes in the labor market. The five sessions addressed various aspects of the labor market. The first considered the macroeconomic implications of changes such as increases in the minimum wage and the automation of production processes; the second evaluated the effects of regulations and inefficiencies on labor market outcomes. The third session was devoted to human capital, and to different forms of insurance for workers. The last two sessions studied the implications of trade globalization and migration flows, and the impact of various government programs to improve job quality. At the policy panel, the four speakers presented their views on the issues in labor markets requiring further research.

FIRST JOINT RESEARCH WORKSHOP

MADRID, 5 OCTOBER 2016

On the morning of October 5, 2016, the Banco de España and the Centro de Estudios Monetarios y Financieros (CEMFI) celebrated their first Joint Research Workshop. Two economists from each institution presented their recent research to an audience drawn from the two institutions and from the local economics community. The Banco de España and CEMFI anticipate that workshops of this type will be repeated regularly in the future, in order to strengthen ties and promote joint projects between the institutions.

2nd SEMINAR IN ECONOMIC HISTORY

MADRID, 06 OCTOBER 2016

On 6th October the Banco de España held the second edition of its Economic History workshop. The workshop aims to bring together academics and central bankers in order to discuss some recent research on economic history. This year, the workshop included a presentation by María Loreto de Inclán about the Archives of the Banco de España, and a plenary talk by Nicholas Crafts.

The first session was devoted to the two research projects carried out by the most recent holders of the Banco de España's economic history research grants. These studies analyzed money demand in Spain during the period 1883-1998, and the sovereign debt crisis of the Habsburg monarchs in the period 1557-1647. The second session covered two research papers by economists from the Banque de France (BdF) analyzing the role of the BdF as a lender of last resort in 19th Century France, and the monetary operations of the Bank of England during the Napoleonic Wars. Finally, the third session included two works by academics about the comparative welfare of post-dictatorship Ibero-American countries, and an analysis of the links between health and welfare in Western Europe over the period 1900-1950.

The plenary talk by Professor Crafts, from the University of Warwick, was entitled "The Great Depression: lessons for policy today" and it analyzed some of the key elements of the Great Depression in the United States and the United Kingdom, including the role of the Federal Reserve as a lender of last resort, the impact of monetary policy, and the effects of the New Deal programs. At the end of the workshop participants were invited to visit the archives.

14TH EMERGING MARKETS WORKSHOP: SPILLOVERS AND SPILLBACKS FROM MAJOR TRANSITIONS IN THE GLOBAL ECONOMY

MADRID, 17-18 NOVEMBER, 2016

The Emerging Markets Workshop (EMW), organized alternatingly by several Eurosystem Central Banks, has been running for more than a decade. Since its creation in 2003, this workshop series has served as a platform for debate for central bank researchers working on macroeconomic and financial issues related to emerging market economies. In this occasion it took place on 17-18 November 2016 in Madrid, Spain, at the Banco de España headquarters. This year's edition addressed the evolving nature of the interconnections between advanced and emerging markets economies, in the light of a number of major economic transitions that are taking place in the global economy (China's transition to a new growth model, the end of the commodities supercycle, or the slow normalization of monetary policy in the US). It focused, in particular, on how emerging market economies could influence developed markets, a new global feature arising from the last financial crisis.

RECENT ECONOMIC RESEARCH SEMINARS

LINK TO SEMINARS PAGE

EFFECTS OF DIFFERENTIATED SCHOOL VOUCHERS: EVIDENCE FROM A POLICY CHANGE AND DATE OF BIRTH CUTOFFS

PATRICIA NAVARRO

COLUMBIA UNIVERSITY,

13 JAN 2016

DIRECT DEMOCRACY AND GOVERNMENT SIZE: EVIDENCE FROM SPAIN

CARLOS SANZ ALONSO

PRINCETON UNIVERSITY

14 JAN 2016

ESTIMATING VOLATILITY SHOCKS

CARLOS MONTES

COLUMBIA UNIVERSITY,

15 JAN 2016

FROM HYPERINFLATION TO STABLE PRICES: ARGENTINA'S EVIDENCE ON MENU COST MODELS

ANDRÉS NEUMEYER

UNIV. TORCUATO DI TELLA,

15 JAN 2016

THE MARGINS OF GLOBAL SOURCING: THEORY AND EVIDENCE FROM U.S. FIRMS

POL ANTRAS

HARVARD UNIVERSITY,

18 JAN 2016

HOUSING, DEBT AND GROWTH

VALERIO SCALONE

LUISS,

19 JAN 2016

THE IMPACT OF TAXES ON INCOME MOBILITY

MARIO ALLOZA FRUTOS

UNIVERSITY COLLEGE LONDON,

21 JAN 2016

MONETARY POLICY, PRIVATE DEBT AND FINANCIAL STABILITY RISK

ELEONORA GRANZIERA

UNIV. OF SOUTHERN CALIFORNIA,

22 JAN 2016

CREDIT SUPPLY SHOCKS, CONSUMER BORROWING AND BANK COMPETITIVE RESPONSE: EVIDENCE FROM CREDIT CARD MARKETS

SERGIO CORREIA

DUKE UNIVERSITY,

25 JAN 2016

HEALTH POLICIES AND INTERGENERATIONAL MOBILITY

YULIYA KULIKOVA

UNIV. AUTÓNOMA DE BARCELONA ,

25 JAN 2016

DEALING WITH DEALERS: SOVEREIGN CDS COMOVEMENTS

SERGIO MAYORDOMO

UNIV. OF NAVARRA

26 JAN 2016

FOLLOWING THE TREND: TRACKING GDP WHEN LONG-RUN GROWTH IS UNCERTAIN

IVAN PETRELLA

UNIV. OF CAMBRIDGE,

27 JAN 2016

VIOLATING THE LAW OF ONE PRICE: THE ROLE OF NON-CONVENTIONAL MONETARY POLICY

MARÍA RODRÍGUEZ

UNIV. OF NAVARRA,

29 JAN 2016

SEARCH AND MULTIPLE JOBHOLDING

NELLIE ZHAO

CORNELL UNIVERSITY,

01 FEB 2016

AN EXORBITANT PRIVILEGE IN THE FIRST AGE OF INTERNATIONAL FINANCIAL INTEGRATION

CARLOS VAN HOMBEECK

UNIV. OF MARYLAND,

01 FEB 2016

LIQUIDITY PROVISION: LESSONS FROM A NATURAL EXPERIMENT

VICENTE BERMEJO

UNIV. CARLOS III,

02 FEB 2016

DODGING ROBIN HOOD: RESPONSES TO FRANCE AND ITALY'S FINANCIAL TRANSACTION TAXES

MARIA COELHO

UNIV. OF CALIFORNIA, BERKELEY,

03 FEB 2016

ARE DEVALUATIONS EXPANSIONARY? FIRM-LEVEL EVIDENCE FROM ESTONIA

CHRISTIAN PRÖBSTING

UNIV. OF MICHIGAN,

08 FEB 2016

EXPECTATIONS FORMATION AND INVESTMENT DURING RECESSIONS

LUIS ROJAS

EUROPEAN UNIVERSITY INSTITUTE,

09 FEB 2016

MACROECONOMIC EFFECTS OF COMMODITY BOOMS AND BUSTS: THE ROLE OF FINANCIAL FRICTIONS

SAMER SHOUSHA

COLUMBIA UNIVERSITY,

10 FEB 2016

BANKRUPTCY REFORMS WHEN WORKERS EXTRACT RENTS

ALESSANDRO PERI

UNIV. CARLOS III,

12 FEB 2016

CREDIT CONTRACTIONS AND UNEMPLOYMENT

MIHALY BORSI

UNIV. OF ALICANTE,

12 FEB 2016

HOW DOES ACCESS TO THE UNSECURED DEBT MARKET AFFECT INVESTMENT?

KIZKITZA BIGURI

UNIV. AUTÓNOMA DE BARCELONA,

15 FEB 2016

MONETARY POLICY AND THE ASSET RISK-TAKING CHANNEL
DOMINIK THALER
EUROPEAN UNIVERSITY INSTITUTE,
16 FEB 2016

DENSITY FORECAST EVALUATION IN UNSTABLE ENVIRONMENTS
GLORIA GONZÁLEZ-RIVERA
UNIV. OF CALIFORNIA, RIVERSIDE,
22 FEB 2016

REDISTRIBUTION AND STABILIZATION OF INCOME PER CAPITA OF HOUSEHOLDS BY REGIONS
JOSE MARÍN
AIREF,
29 FEB 2016

DO HIGHER CORPORATE TAXES REDUCE WAGES? MICRO EVIDENCE FROM GERMANY
SEBASTIAN SIEGLOCH
UNIV. OF MANNHEIM,
02 MARCH 2016

DYNAMIC DEBT DELEVERAGING AND OPTIMAL MONETARY POLICY
PIERPAOLO BENIGNO
LUISS,
09 MARCH 2016

FISCAL CONSOLIDATION UNDER IMPERFECT CREDIBILITY
JESPER LINDE
SVERIGES RIKSBANK,
11 MARCH 2016

EFFECTIVENESS AND TRANSMISSION OF THE ECB'S BALANCE SHEET POLICIES
JEF BOECKX
NATIONAL BANK OF BELGIUM,
16 MARCH 2016

THE CREDIT SCORING CHANNEL IN THE SUBPRIME CONDUIT MORTGAGE MARKET
JAIME LUQUE
UNIV. OF WISCONSIN, MADISON,
18 MARCH 2016

THE SAFETY TRAP
EMMANUEL FAHRI
HARVARD UNIVERSITY,
05 APRIL 2016

BAD TIMES, GOOD CREDIT
BO BECKER
STOCKHOLM SCHOOL OF ECONOMICS,
06 APRIL 2016

STAGNATION TRAPS
LUCA FORNARO
CREI,
13 APRIL 2016

CAPITAL ALLOCATION AND PRODUCTIVITY IN SOUTH EUROPE
CAROLINA VILLEGAS
ESADE,
21 APRIL 2016

MORE ON THE TAXATION OF CAPITAL
PEDRO TELES
BANK OF PORTUGAL AND CATOLICA LISBON SBE,
27 APRIL 2016

MONETARY POLICY PASS-THROUGH AND HETEROGENEOUS BANK LENDING
MATTEO CICCARELLI
EUROPEAN CENTRAL BANK,
04 MAY 2016

THE ROLE OF LEARNING FOR STOCK PRICES AND BUSINESS CYCLES
FABIAN WINKLER
FEDERAL RESERVE BOARD,
11 MAY 2016

HOW EXCESSIVE IS BANKS' MATURITY TRANSFORMATION?
ANATOLI SEGURA
BANCA D'ITALIA,
17 MAY 2016

HOW FIRMS ACCUMULATE INPUTS: EVIDENCE FROM IMPORT SWITCHING
ASIER MARISCAL
UNIV. OF ALICANTE,
18 MAY 2016

THE ILLUSION OF SCHOOL CHOICE: EMPIRICAL EVIDENCE FROM BARCELONA

CATERINA CALSAMIGLIA

CEMFI,

25 MAY 2016

THE EFFECT OF STATE TAXES ON THE GEOGRAPHICAL LOCATION OF TOP EARNERS: EVIDENCE FROM STAR SCIENTISTS

ENRICO MORETTI

UNIV. OF CALIFORNIA, BERKELEY,

31 MAY 2016

MACROECONOMIC CO-MOVEMENT, SINGULARITY, AND (MIS) SPECIFICATION OF ECONOMIC MODELS

MICHAL ANDRLE

INTERNATIONAL MONETARY FUND,

03 JUNE 2016

DEBTOR PROTECTION, CREDIT REDISTRIBUTION, AND INCOME INEQUALITY

GERALDO CERQUEIRO

CATÓLICA LISBON,

09 JUNE 2016

RISK DIVERSIFICATION AND THE LARGE-SMALL BANK DICHOTOMY IN MONEY MARKETS

HUGO RODRÍGUEZ

INSTITUTO DE ANÁLISIS ECONÓMICO, MOVE,

15 JUNE 2016

THE FORWARD GUIDANCE PUZZLE

MARCO DEL NEGRO

FEDERAL RESERVE BANK OF NEW YORK,

28 JUNE 2016

DYNAMICS OF GLOBAL BUSINESS CYCLES INTERDEPENDENCE

DANILO LEIVA

BANCO CENTRAL DE CHILE,

29 JUNE 2016

PROFILES

AITOR LACUESTA

Division Head
Structural Analysis Division
DG Economics, Statistics and Research

Aitor Lacuesta was recently appointed as Head of the Structural Analysis Division at the Banco de España. Aitor is a microeconomist and labor economist, holding a Licenciatura in economics from the Univ. Autónoma de Barcelona, a Master's from CEMFI, and a Ph.D. from the Univ. of Chicago. His research has addressed issues such as immigration, brain drain, wages and inequality in Spain and elsewhere.

RU: Tell us about your background, and about the career path that led to your appointment to lead the Structural Analysis Division.

It was during my studies at CEMFI that I found I enjoyed research, and I felt that I could succeed at it, so I applied for the Ph.D. program at the University of Chicago. I spent five years there, where I specialized in labor economics and microeconometric techniques, under the supervision of Casey Mulligan, Steven Levitt, and Robert Lalonde. My dissertation was on migration, which was a hot topic at the time because Spain was experiencing a mass immigration inflow. So the Banco de España was interested in my work, and I joined the Labor Markets Unit in the Economic Analysis and Forecasting Department, a place where I could combine good research with interesting policy and forecasting work.

RU: The recent restructuring regrouped that unit to create the new Structural Analysis Division. Could you tell us about the new division?

The new Structural Analysis Division seeks to address the relation between labor costs, margins and competitiveness, so it combines the Labor Market Unit with the Competitiveness Unit that monitors product markets and studies the external sector. Labor markets and product markets together affect the competitiveness of the economy, so there is a natural relation to the external sector.

So that's the division I am in charge of now. We basically report on three important aspects of the economy. We play a role in the forecasting exercise, by providing inputs on labor market conditions and on the external sector. And we also provide input when the Banco de España takes positions on structural issues and structural reforms in the Spanish economy.

RU: Your first main research topic was immigration, which has been really dramatic in the Spanish economy in recent years. Could you tell us about migration trends, both before the crisis and what's happened since then?

Traditionally, of course, Spain was a source of emigrants. In the 1960s we exported labor to the rest of Europe, and to South America. As income levels grew in Spain, most of those flows stopped. From the 1990s we began to attract immigrants, which was a new phenomenon. The flows were amazing: around 2005 Spain attracted more people, in absolute numbers, even than the United States. We saw annual inflows of seven to nine hundred thousand people, which was incredible in for a country so much smaller than the US.

That immigration was fueled by the types of work available here in Spain, where many low-skilled jobs were available, related both to construction and to service sectors such as tourism and also household help as Spanish women's labor force participation grew. There were plenty of jobs for immigrants, though simultaneously some migrants with more skills were settling for low-skilled jobs in those sectors. But that boom came to a halt with the crisis.

RU: How much of that immigration flow has been reversed since the Great Recession?

In 2009-2010, the first flows out of Spain were mostly recent immigrants. There was a vigorous reverse flow almost immediately. But an important observation right now is that immigration trends are persistent. Once you start to attract immigrants, those trends will remain for some time, because the inflow creates a network of friends and relatives who help provide opportunities for new immigrants from the same sources. Even in 2011-2012 we still saw inflows of three hundred thousand or more, even while jobs were being destroyed in the Spanish economy. But by that time the net flow was already large and negative, with more emigration than immigration, especially towards South American countries like Ecuador and Colombia, where conditions were improving.

RU: So in spite of the prominent media coverage of Spanish emigration, quantitatively most of the action has been on the side of recent immigrants?

Initially the outflow of native Spaniards was tiny. In terms of nationality, we began to see emigration of Spanish citizens, but many of them were in fact recent Latin American immigrants who had received Spanish passports on the basis of their ancestry. Many Spanish citizens at that point had been born elsewhere, and some of them left because they still had ties and opportunities outside Spain.

But the nationals born in Spain have only begun to emigrate very slowly. Flows are still low, forty to fifty thousand emigrants per year. But we are beginning to worry that this flow seems to be increasing. Even though job prospects are now improving in Spain, emigration of native-born Spaniards is still increasing, now that overseas networks have been established.

RU: Besides migration, you have also studied Spanish wage trends in detail, pre- and post-crisis. Tell us what you have learned.

Labor market trends illustrate a key problem with our labor market institutions, and the way the market adjusts. Unfortunately, we observe that nominal wages often don't respond at all to shocks, and therefore all the adjustment ends up being on the quantity of employment.

For example, it was astonishing in 2008 and 2009, at the beginning of the crisis, with massive job destruction, wages were still growing at a 3% annual rate. That's a sign of a labor market that is sick, that's not working the way a market should. Obviously if firms' costs are increasing right when their demand plummets, they will be forced to fire more people. And that's what we observed.

RU: It is often argued that Spanish wages are sticky, and it is also argued that Spain has high wage inequality. Is there any inconsistency between those two claims?

The Spanish income distribution has traditionally been more dispersed than other countries. What our data show is that this is not caused by firms offering variable wage structures. Instead, it's because worker and job characteristics are very dispersed. In terms of education it is clear, we have a very polarized distribution of educational attainment.

Likewise, there is the question of labor market duality— we are one of the most segmented countries in the world. There is huge wage differentiation between temporary and permanent contracts, so that duality is reflected in a dispersed wage distribution.

The same with productivity variance and other measures of product market inefficiency. Productivity is highly variable across firms, and this translates into wage dispersion. So there are many job characteristics, probably often related to regulatory distortions, that make the populations of workers and firms in Spain especially heterogeneous, which is then reflected in the distribution of wages. As a consequence, movements of inequality have been traditionally explained by changes in the composition of those who work and are unemployed.

On the other hand, within the population of employees the bargaining system is very rigid, so it is hard for firms to create a wage structure that differentiates across people depending on their effort or pays differently from other firms. Indeed when we survey firms and ask about the fraction of variable compensation that they offer, the percentage is tiny by international standards.

RU: How has inequality evolved, during and after the crisis?

Inequality is growing more in the income distribution than in the wage distribution. Again, it reflects changes in workforce composition. Above all, as people have fallen into unemployment, this increases income inequality in the middle and lower part of the distribution. That's the most important factor. And potential cushions against those shocks, such as other household members entering the labor market, or public subsidies or other forms of insurance, besides emigration which would also be a way of self-insuring, haven't compensated this huge unemployment shock.

But also, wage inequality is accentuated by labor market duality— wages have fallen more for workers on temporary contracts than for those with permanent contracts. We are thinking of including a chapter in our next Annual Report to try to disentangle the quantitative importance of different factors driving increasing inequality.

RU: When temporary contracts were first introduced, they seemed like a useful way to address labor market rigidities, don't you think? In the 1990s, they helped reduce unemployment.

We should not forget that the labor market situation today reflects previous policy decisions. Temporary contracts were introduced in the 1980s and liberalized in the 1990s in response to periods of extreme youth unemployment. And many young people entered the labor market for the first time when those contracts became available.

But what looked like a solution at that time now generates many other problems. In particular, many people are trapped in rotation between temporary jobs, without a chance to move up into a permanent contract, and any adjustment to shocks falls on their shoulders. That is also a practical problem in terms of productivity, because neither workers nor firms have incentives to invest in relationships they both expect will be temporary, thus giving rise to a very inefficient system. And while wages were already quite rigid, the new dual labor market made firms rely even more on adjusting labor quantities rather than adjusting nominal wages in response to shocks.

RU: You did a study on the effects of the latest labor market reform, in 2012. From an economic perspective, what do you think were the main innovations in that reform, and are those changes actually having an impact?

The latest reform tried to tackle both the big interrelated problems we have been discussing: high wage rigidity, and a highly segmented system of contracts. According to our research, I would say that the reform had bigger effects on wage flexibility than on duality. But still, at the current juncture, wage differences do not fully offset productivity differentials across firms.

RU: The reform was intended to allow firm-specific bargaining, no?

In principle, yes. A firm-specific bargain now has legal priority over the sectoral bargain. But in practice we have not seen much change in the percentage of firms signing firm-specific agreements.

As best we can tell, this shows that reaching a firm-specific agreement is costly. It is costly to take some workers out of their regular jobs to spend time bargaining with the firm, and to provide them with all the information they need to begin bargaining. So firms may prefer to adopt the sector agreement instead of facing those costs. But it remains a big question mark, why we haven't observed more firm-specific bargains.

RU: And what about the effects on duality?

In terms of duality, the reform clarified the distinction between "economic" dismissals, which come with a lower severance payment, and "noneconomic" dismissals. Also, the severance payment was reduced from 45 days' pay per year worked, to 33 days, in the "noneconomic" case. Still there is an important gap. Dismissals cost 12 days of compensation, per year worked, in the temporary contract, versus 20 days per year worked for "economic" separation of a permanent contract, going up to 33 days per year worked if a permanent contract separates for other reasons.

RU: We have talked a lot about labor markets, but your division also monitors productivity, both at the firm level and in the aggregate. Productivity dispersion across firms is surprisingly high in Spain, and it's been increasing over time. Do you have some hypotheses about the causes?

Yes, that is something we have been studying closely in the division. When we started looking at the drivers of low aggregate productivity growth in Spain, we found that the main factor was a worsening of the allocation of resources across firms. Between 1995 and 2007, the firms that were experiencing the fastest sales growth were the ones with lowest productivity.

That's really a counterintuitive finding. In quantitative terms, this misallocation of resources was draining 0.7 percentage points from annual productivity growth rates.

We are struggling to understand that trend in misallocation. One observation is that financing, prior to the crisis, was not going to very productive firms. Since the recession, that has changed. But prior to the crisis there was no correlation between productivity and the probability of getting credit. Some research conducted at the Banco de España sheds light on these issues, focusing on the role of regulatory barriers to perfect competition or that of fixed costs associated with particular intermediate inputs such as electricity or the judicial system. Right now we are trying to figure out which of those effects is quantitatively the most important, and whether they might be related.

RU: Given these challenges for the Spanish economy, what do you see as the research agenda for your division, both on the labor markets side, and on the product market side? What projects do you have in mind?

On the labor side, there are two important questions to study now relating to unemployment. One technical question that matters for us as central bankers, is how to measure the degree of slack in the economy. Do we only focus on unemployment? Or should we also keep track of activity indicators, or changing population trends? This is important in practical terms— recently we updated our unemployment forecast because we finally incorporated more demographic factors into our model, taking account of rapid population ageing. That affects how much slack there is, how many workers may eventually find jobs again. And that alters the relation between employment and inflation, so it is core business for our division.

A second issue is how to recover the huge stock of unemployed workers as active participants in the economy. We often debate the effects of active versus passive labor market policies, but we don't really have enough empirical evidence about this. Is training really achieving anything? Are subsidies to social security contributions actually achieving anything?

On the product market side we need to monitor competition indicators in order to assess whether Spain has a general problem of product competition across sectors or it is concentrated in particular sectors. Moreover, we need to understand how these problems are associated with the weak average firm level productivity observed in Spain. Finally, we must explore demand side factors affecting investment at the firm level, given the weak of investment rates in the Euro Area in spite of lax financing conditions.

RU: In terms of competitiveness, Spanish exports have done extremely well recently. Which sectors are prospering, besides tourism of course?

Well, tourism is obviously huge in the Spanish economy, but actually the improvement is pretty general. Right now, Spain is gaining export share in many sectors, even those facing competition from some emerging regions. We have also been exploring which product quality levels are growing. As in other European countries, most of our exports are in medium and high quality segments. But currently Spain is even expanding in low quality segments, where there is fierce overseas competition.

And likewise we are gaining market share in most regions. We attribute that both to decreasing labor costs and lower financial costs, which have induced many new firms to start exporting. Of course, exporting is also a response to weak internal demand. But the good thing is that once you get started, there is a lot of persistence. It is much easier to continue once your exports get a foothold in other markets. So we expect the strong export trends to continue for some years.

RU: So what is the division's research agenda on competitiveness?

Now, on the competitiveness side, our main question is whether recent improvements in the current account are structural or cyclical. And there are several projects now on that side, studying firms' reaction to demand shocks and other types of shocks, and whether firms are switching between imported and domestic intermediate goods.

Also with a long run view, we are analyzing the way the sectoral specialization of Spain favors our country's external position with respect to developments of global value chains, offshoring processes and more generally world demand changes due to ageing and other global trends.

RESEARCH PAGE:
http://www.bde.es/investigador/en/menu/research_staff_a/Lacuesta_Gabarain__Aitor.html

NEW FACES

SILVIA ALBRIZIO

International Economics Division
ADG International Affairs

SILVIA ALBRIZIO joined the International Affairs Department of the Banco de España in August 2016, after three years of experience at the Structural Policy Analysis Division of the OECD Economics Department, first in their Young Professionals Programme and then as a staff economist. She holds a Ph.D. in Economics from the European University Institute (Florence), an M.Sc. in Economics from Univ. Pompeu Fabra and an M.Sc. from Univ. Bocconi. She worked at the European Central Bank from 2006 to 2008 (Fiscal Policy Division, Financial Stability Division, and Financial Institutions and Market Statistics Division) as well as at the Asian Development Bank.

Silvia's research interests range from fiscal policies to structural policies and macro-finance. The main chapter of her PhD thesis focuses on the effect of tax adjustments on firms' planned investment, using a 40-year narrative of legislated tax changes in Germany. At the OECD she studied the effects of structural and environmental policies on firm and industry productivity, while at the ECB she wrote a special feature for the ECB Financial Stability Review on investors' time-varying risk appetite.

Her current research projects focus on (i) fiscal multipliers and firm investment behavior, (ii) fiscal sustainability and (iii) the effects of unconventional monetary policy on investors' expectations and portfolios (for the case of Japan).

RESEARCH PAGE:
https://sites.google.com/site/silviaalbrizio/home

MARIO ALLOZA

Conjuctural Analysis Division
DG Economics, Statistics and Research

MARIO ALLOZA joined the Conjunctural Analysis Division at the ADG Economics and Research in September 2016, after obtaining his PhD in Economics from University College London. He attended the universities of Burgos and Valladolid as an undergraduate student, and holds an MSc degree in Economics from Universitat Pompeu Fabra and a Master's degree in Financial Economics from Universidad Complutense. Prior to joining the Banco de España, Mario worked as a research analyst at FEDEA, as a research assistant at IESE Business School and as an intern at the Research Department of BBVA. During his PhD studies, he has also worked as a research and teaching assistant, obtaining several teaching awards.

Mario is an applied macroeconomist. His research revolves around the effects of fiscal policy, and makes use of both micro and macro data. Mario has investigated the effects of government spending in the US during times of uncertainty and recessions, and in particular how fiscal multipliers change at these times. In his job market paper, he analyses the effects of taxes on households' mobility across the income distribution, finding that increases in marginal tax rates reduce the probability that households move up or down to different income positions. In a recent project, Mario explores to what extent fiscal policy can affect the transmission of income status between generations.

RESEARCH PAGE:
http://www.ucl.ac.uk/~uctp041/Home.html

RODOLFO CAMPOS

International Economics Division
ADG International Affairs

Rodolfo Campos joined the International Economics Division of the Banco de España in May 2016. Prior to joining the Banco de España, he was an Assistant Professor at IESE Business School, and spent six months as a visiting professor at CEMFI. Rodolfo obtained is Ph.D. in Economics from the University of California, Los Angeles (UCLA). He holds an M.A. in Economics from UCLA, a postgraduate degree in Economics from Universidad Torcuato di Tella (Argentina) and an undergraduate degree in Economics from UCA (Argentina). Rodolfo has taught economics courses at the graduate and undergraduate levels in the subjects of game theory, microeconomics, macroeconomics, and international economics at various universities. He has also taught MBA courses and executive education courses on macroeconomics.

Rodolfo's research centers primarily on applied economic theory, macroeconomics, and financial economics. He is particularly interested in combining economic theory with empirical methods in order to conduct policy-relevant research. His current projects include research on consumption, prices, and unemployment. In one of his ongoing projects, he studies how the fact that the unemployed pay lower prices affects optimal unemployment insurance. In another project, he studies how to empirically separate the liquidity and moral hazard effects of unemployment insurance, and what this separation implies for the optimal degree of unemployment insurance in an environment where unemployment benefits vary over time, as is the case in Spain.

RESEARCH PAGE:
https://sites.google.com/site/rodolfogcampos/Home

YULIYA KULIKOVA

Microeconomi Analysis Divison
DG Economics, Statistics and Research

YULIYA KULIKOVA joined the Microeconomic Analysis Division of the Banco de España in September 2016. She obtained her PhD degree from the International Doctorate in Economic Analysis of the Universitat Autònoma de Barcelona (UAB) in June 2016. Before starting her doctoral degree, she worked for three years at a financial company in Russia and was a short-term consultant for the Europe and Central Asia Human Development Unit of the World Bank. During her studies she spent one semester at the W.P. Carey School of Business, Arizona State University, USA. She was also a teaching assistant in the UAB for macroeconomics, labor economics and econometrics, and a tutor in the Barcelona Graduate School of Economics, teaching basics of programming, econometrics, and mathematics and statistics reinforcement classes.

Yuliya's interests lie within the fields of labor economics, family economics and health economics. One of her ongoing projects, "Marriage and Health: Selection, Protection, and Assortative Mating" was reviewed by The Economist and received attention in the Spanish media. In the project, she compares two possible explanations for the fact that married people are substantially healthier than non-married people: selection of healthier individuals into marriage, or the "protective" effect of marriage on one's health. She finds that both effects are present, and that health differentials for the young are mostly explained by selection, while for older individuals the "protective" effect of marriage is important.

Another direction of Yuliya's research is the labor market dynamics of married couples. She finds evidence of coordination between spouses, and quantifies the role of the added-worker effect for unemployment in the U.S. Finally, she is interested in issues related to inequality and the role of health in the transmission of inequality across generations. To study the role of health policies for intergenerational income persistence in the U.S., she has developed and estimated a human-capital based overlapping generations model of household decisions that takes into account multidimensionality and the dynamic nature of human capital investments. She finds that health policies are important for the human capital accumulation of children and as a result, for intergenerational mobility, especially for the poorest families. Furthermore, Yuliya finds interactions between the effects of health and educational policies.

RESEARCH PAGE:
https://sites.google.com/site/yuliyakulikova/

SERGIO MAYORDOMO
Financial Analysis Division
DG Economics, Statistics and Research

SERGIO MAYORDOMO joined the Financial Analysis Division of the ADG Economics and Research in July 2016. Sergio obtained his Ph.D. in Finance from Universidad Carlos III de Madrid. He also holds an M.Sc. degree in Economics and Finance from CEMFI. Before joining the Banco de España, Sergio was an Associate Professor at the Universidad de Navarra, and a research economist at the Spanish Securities Markets Commission (CNMV). Sergio has also held some visiting positions at the European Central Bank, the Univ. of Zurich, UCLA, and Columbia Business School.

Sergio's lines of research include credit risk, credit derivatives, systemic risk, household finance, financial stability, and mutual funds. His most recent papers address topics such as firms' access to finance, its cost, and the use of guarantees in loan contracts. His papers have been published in journals such as the *Journal of Banking and Finance, Journal of Financial Stability, Journal of Empirical Finance, and Journal of International Money and Finance,* among others. Among the grants and prizes Sergio has received is the 2012 Best Doctoral Thesis Award from the UCEIF Foundation, the 2014 FEF Antonio Dionis Soler Research Prize, the V Prize UAM – Accenture, and the Best Paper Award of the AEFIN at the 2011 Edition of the Finance Forum, among others.

RESEARCH PAGE:
https://sergiomayordomo.wordpress.com/

MARÍA RODRÍGUEZ MORENO

Macroprudential Policy Division
DG Financial Stability And Resolution

MARÍA RODRÍGUEZ MORENO joined the Financial Stability Department of the Banco de España in July 2016. María obtained her Ph.D. in Finance from Universidad Carlos III de Madrid in April 2013. She also holds a M.Sc. degree in Business Economics and Quantitative Methods and a B.Sc. degree in Economics from Univ. Carlos III. Before joining the Banco de España, she worked for three years as an Assistant Professor at the Universidad de Navarra. During her Ph.D. studies, she was involved in a one-year research program at the European Central Bank.

María's research focuses on systemic risk, banking, credit derivatives, bond markets, housing and portfolio choice. Her current work studies the impact of unconventional monetary policy on European sovereign bonds; the use and consequences of collateral requirements in firms' financing; and the impact of the SME Supporting Factor introduced by the European Banking Authority on small and medium enterprises' access to credit.

María has published research papers in the *Journal of Banking and Finance, Journal of Financial Stability, International Review of Economics & Finance* and *Quantitative Finance.* Among the grants and prizes she has received are the José Castillejo Grant for Young Ph.D.s in 2015, the 2014 Best Doctoral Thesis Award from the UCEIF Foundation, the 2014 FEF Antonio Dionis Soler Research Prize, the V Prize UAM – Accenture, the Ph.D. Extraordinary Prize at Univ. Carlos III, and the Best Paper on Derivatives BME Award at the 2012 edition of the Finance Forum.

RESEARCH PAGE:
https://mariarodriguezmoreno.wordpress.com/

LUNA ROMO GONZÁLEZ

International Financial Markets Division
ADG International Affairs

LUNA ROMO GONZÁLEZ joined the staff of the International Financial Markets Division of the Banco de España in May 2016 after working for several years in the same division as a Research Analyst and Research Assistant. Luna holds an MSc in Economics (International Economics and Finance track) from the University of Tilburg (The Netherlands), and BSc degrees in Economics and Law from the Universidad Carlos III (Madrid). During her formative years, she was the holder of the scholarship "Fundación Ramón Areces" for postgraduate studies abroad in social sciences, and was awarded several times with the Scholarship "Excelente de la Comunidad Autónoma de Madrid" for top grades in undergraduate studies. In 2013, she worked as a visiting Research Analyst in the Monetary and Economic Department of the Bank for International Settlements in Basel.

Luna's research activity focuses on global capital markets and bank funding, concentrating in particular on foreign-currency funding by banks and covered bond markets. In her latest paper, she finds that European banks issued US dollar-denominated debt opportunistically in order to reduce funding costs by taking advantage of deviations from interest rate parity. In another paper, Luna and her co-authors investigate the determinants of overall bond issuance by European banks before and during recent financial crises. They find that banks sought to take advantage of low interest rates prior to the crisis, but that country-risk characteristics became the main drivers of bond issuance thereafter. Luna is currently investigating yield differences between bonds issued by banks considered "too big to fail" and other banks.

RESEARCH PAGE:
http://www.bde.es/investigador/en/menu/research_staff_a/Romo_Gonzalez__Luna.html

CARLOS SANZ
Microeconomic Analysis Division
DG Economics, Statistics and Research

CARLOS SANZ joined the Applied Microeconomics Division of the Banco de España in September 2016. Carlos holds a Ph.D. in Economics from Princeton University (May 2016) and undergraduate degrees in Economics and Law from Universidad Carlos III de Madrid (June 2011). His research interests are in public finance, political economy and applied microeconomics.

In his paper "The effect of electoral systems on voter turnout: Evidence from a natural experiment", forthcoming in *Political Science Research and Methods,* he uses a regression discontinuity design and data from Spanish local elections to compare turnout under closed-list proportional representation and under an open-list, plurality-at-large system in which voters can vote for individual candidates from the same or different party-lists. He finds that the open-list system increases turnout by between 1 and 2 percentage points, which suggests that introducing competition across and within parties leads to more voter turnout.

In another project, Carlos compares economic policy in direct and representative democracy. Using data from the budgets of the municipal governments, he finds that direct democracy in the form of open town meetings leads to a smaller government, reducing public spending and revenues by around 8%.

Carlos is currently studying how the electoral system affects the process of legislative bargaining and government formation. In this and future research, he intends to provide more evidence to better understand how the political framework shapes economic policy and public finances.

RESEARCH PAGE:
https://sites.google.com/site/carlossanzecon/

DOMINIK THALER
Monetary Policy Division
DG Economics, Statistics and Research

DOMINIK THALER joined the Monetary Policy Unit within the ADG Economics and Research of the Banco de España in September 2016. Dominik obtained his Ph.D. in Economics from the European University Institute (EUI) in Florence in October 2016. He also holds an M.Res. in Economics from the EUI and a Diplom in Economics from the University of Freiburg. During his Ph.D. studies he spent several months at the European Central Bank, at the National Bank of Belgium, and at the University of Pennsylvania.

Dominik's research combines macroeconomic and financial theory with computational and empirical methods to address policy-relevant research questions. In one of his projects, Dominik explores the implications of the sovereign-bank nexus for debt sustainability. He shows that the exposure of credit-constrained domestic banks to sovereign debt can explain the output losses and the sovereign debt market shutdown associated with sovereign default. He argues that these costs generate the commitment necessary to sustain sovereign debt, and that regulation aiming at reducing banks' exposure to domestic sovereign debt might thus erode a country's debt sustainability. To solve this model with nonlinear methods, he developed a state space reduction technique, which he discusses in a separate technical note. His job market paper analyzes how frictions in the financial sector can generate a link between monetary policy and risk-taking by banks. Furthermore, it shows how this link gives rise to a new and quantitatively significant trade-off for the monetary policy maker, which reduces the desirability of inflation stabilization. Dominik is currently working on a project to capture the notion of systemic financial sector risk in the context of a non-linear dynamic macro model.

RESEARCH PAGE:
https://sites.google.com/site/dominikthaler/

REGULAR VISITING SCHOLARS

In addition to its regular staff and fixed-term visiting fellows, the Banco de España also maintains a program of regular visits by prestigious academic economists who participate actively in its research work, by collaborating in its research projects and its policy work as advisors and/or as co-authors. Currently, the following academics are regular visitors.

- **JAVIER ANDRÉS** (Univ. de Valencia),
  macroeconomics, monetary policy
- **JESÚS GONZALO** (Univ. Carlos III de Madrid),
  time series econometrics
- **NEZIH GUNER** (CEMFI),
  macroeconomics, demography
- **JOSE MARÍA LABEAGA** (Univ. Nacional de Educación a Distancia),
  applied econometrics
- **SARA OTAL** (Univ. de Alcalá),
  accounting
- **JOSÉ LUIS PEYDRÓ** (Univ. Pompeu Fabra),
  applied financial economics

ANNOUNCEMENTS

RESEARCH JOB VACANCIES

LINK TO JOB OPENINGS PAGE

JOB OPENINGS FOR PH.D. ECONOMISTS

The Banco de España, the Spanish central bank, is interested in hiring experienced or newly qualified Ph.D.s in economics or related fields for its headquarters in Madrid. The areas of interest include monetary policy, international economics and macro-finance, banking and finance, industrial organisation, and applied micro- and macroeconomics. The main tasks of the potential candidates would be to conduct high-quality policy-oriented research, to produce reports for the Bank's senior management and to write for the Bank's publications. Applicants would be expected to travel and participate in meetings organised by international institutions. Permanent or fixed-term full-time contracts could be offered. A sound command of written and spoken Spanish will be highly valued. The Banco de España provides an excellent working and research environment. Salary and benefits are competitive.

Applicants should e-mail a CV, a sample of recent research and at least three references to the Head of the Training and Recruitment Division by 28 November 2016. The actual letters of reference may be posted by ordinary mail.

- E-mail for information and applications: rho.investigacion-becas@bde.es.
- View our announcement at Job Openings for Economists.
- View our announcement at Econ Job Market.

RESEARCH FELLOWSHIPS IN ECONOMICS

In keeping with its commitment to grounding its policy work with state-of-the-art analysis, and its commitment to supporting economic research in Spain, the Banco de España will again in 2017 announce fixed-term positions for Resident Visiting Scholars. These contracts will support temporary visiting positions at the Banco de España, starting in September 2017 or thereafter for up to one year, to undertake research projects in applied economics. Fields of particular interest include macroeconomics; monetary policy; finance, banking and macroprudential policy; labor markets; international economics; and econometric analysis.

The competition for these fellowships will be announced in early 2017 (typically in February) on the webpage of the Human Resources Department of the Banco de España, which will evaluate proposals submitted by interested economists.

Research vacancies page

UPCOMING CONFERENCES

LINK TO CONFERENCES PAGE

HOW MUCH OF A FISCAL UNION FOR THE EMU?

MAY 18-19, 2017

A central question in the development of Europe is how much of a Fiscal Union is needed to have a stable and resilient Euro Area and EU. This has been a recurrent question through the euro crisis, where the ECB has played a major role, like that played by the Fed during the financial crisis, although the latter could count on the backing of the US Treasury. Brexit and the current developments in the global economy (migration crisis, US elections, etc.) have exacerbated the need to address this question and find viable solutions for the EMU institutional framework.

On Wednesday and Thursday, May 18-19, 2017, the Banco de España will host a conference organized by the Horizon 2020 Project ADEMU - “A Dynamic Economic and Monetary Union”, focusing on this question, as well as on how it should be structured. The aim of the conference is to present and discuss current research on the topic and debate policy experiences and proposals. The conference will also discuss how the recent political events and current trends may affect the EMU fiscal and monetary framework.

More detailed information regarding the call for papers and the relevant deadlines will be released soon in the ADEMU website (http://ademu-project.eu/) and also disseminated through the ADEMU newsletter.

25TH CEPR EUROPEAN SUMMER SYMPOSIUM IN INTERNATIONAL MACROECONOMICS (ESSIM)

RODA DE BARÁ, TARRAGONA, 23-26 MAY 2017

The 25th CEPR European Summer Symposium in International Macroeconomics (ESSIM) will take place from Tuesday to Friday, May 23-26, 2017, at the Banco de España facilities in Tarragona, Spain.

ESSIM is an annual meeting that brings together about 75 economists from across Europe and key researchers from outside the region to focus on international economics and other areas of macroeconomics. It provides a unique opportunity for macroeconomists from different institutions and countries to discuss research, and for young researchers to meet and discuss their work with senior economists, combining workshop sessions with time for collaboration and consultation.

Sessions on Tuesday and Wednesday, May 23-24, will focus on the CEPR programme area of Monetary Economics and Fluctuations. Thursday and Friday, May 25-26, will feature parallel sessions on the areas of International Money and Finance, and Macroeconomics and Growth. Confirmed speakers include Gianluca Violante (NYU), Emmanuel Farhi (Harvard) and Chang-tai Hsieh (Chicago). The Banco de España residence will be open from Monday, May 22 until Saturday, May 27, enabling participants to be present all day on the dates when they are taking part.

The organizers of the conference will be Philippe Bacchetta (University of Lausanne and CEPR), Francesco Caselli (LSE and CEPR), Wouter den Haan (LSE and CEPR), and James Costain (Banco de España). The Call for Papers will be available soon at the CEPR website.

Link to CEPR events page

FIRST CONFERENCE ON FINANCIAL STABILITY. BANCO DE ESPAÑA – CEMFI

MADRID, 24-25 MAY 2017

The Banco de España, together with the Centro de Estudios Monetarios y Financieros (CEMFI), is starting a series of biennial conferences to promote research and discussion on topics related to financial stability among academics, practitioners, and policy-makers.

The first conference will be held at the Banco de España's headquarters in Madrid on 24-25 May 2017. Governor Luis M. Linde will open the conference and President Mario Draghi will be the keynote speaker. The conference will include a panel session on the topic "Spanish dynamic provisions in retrospect".

Submissions of theoretical or empirical papers related to financial stability are invited. Papers with a focus on the appropriate analytical frameworks and tools for macro-prudential policies to address systemic risk are especially welcome. Specific examples of relevant topics include analytical frameworks for macro-prudential policy, impact analysis of macro-prudential tools, interactions between micro- and macro-prudential tools, macro-prudential policy beyond banking, governance aspects of macro-prudential policy and digital banking and financial stability. The deadline for submissions is 28 February 2017. A call for papers will be distributed soon.

NEW FACES IN MACRO: MADRID WORKSHOP IN QUANTITATIVE MACROECONOMICS

MADRID, 29-30 MAY, 2017

The goal of this workshop is to provide a forum for junior economists based in Europe with a special interest in quantitative macroeconomics, and to establish an academic network among this group.

The workshop will be jointly organized by the Banco de España and the Universidad Carlos III de Madrid. A call for papers will be distributed soon.

FIRST ANNUAL RESEARCH CONFERENCE: POLICY CHALLENGES IN A LOW NOMINAL GROWTH ENVIRONMENT

MADRID, AUGUST 31 – SEPTEMBER 1, 2017

On August 31st and September 1st 2017, the Banco de España will host its **First Annual Research Conference** at its Madrid headquarters. The topic of the conference will be *"Policy challenges in a low nominal growth environment".*

In much of the industrialized world, including the euro area, the macroeconomic landscape is characterized by sluggish growth, inflation persistently below target, low interest rates (including short-term nominal rates close to their effective lower bounds), and increasing risks to financial stability. Against this background, economic policy-makers, including fiscal, monetary and macroprudential authorities, face the formidable challenge of promoting a faster economic recovery and the return of inflation to its target level, while ensuring financial stability. The aim of the conference is to bring together world-leading scholars and policy-makers in order to discuss the causes of these macroeconomic developments and the policy measures to address them. Emmanuel Farhi, Jordi Galí, Gauti Eggertsson, Stephanie Schmitt-Grohé, Viral Acharya and Tano Santos have already confirmed their participation.

More generally, our Annual Research Conference is intended to become the Banco de España's flagship research conference, and aims to reaffirm the Banco de España's commitment to research as an indispensable tool for improving economic policy-making.

In addition, on August 30, 2017, the Banco de España will host a Day Ahead Conference providing a forum for research by central bank macroeconomists. A Call for Papers will be distributed soon.

The Banco de España *Research Update* is edited by the **Directorate General Economics, Statistics and Research** of the Banco de España.

To subscribe to or unsubscribe from the Research Update email distribution list, contact researchupdate@bde.es.

EDITOR: James Costain (Modelling and Macro Analysis Div.)
ADDRESS: Banco de España, Calle Alcalá 48. 28014 Madrid
PHONE: +34 91 338 50 00
EMAIL: investigacion@bde.es
MAIN WEBPAGE: http://www.bde.es
RESEARCH WEBPAGE: http://www.bde.es/investigador/home.htm