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PhD Thesis

Government interventions and macroprudential policies. The role of cultural and political institutions

(Summary)

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Introduction

In the aftermath of the 2008 Global Financial crisis, the European governments provided banking institutions with significant financial packages to re-establish financial stability to avoid the spread of negative spillovers within the economy caused by the financial crisis. The execution of government interventions was slower and different in comparison with the US interventions in terms of conditions, costs, and behavioral commitments of banks (Pisani-Ferry and Sapir, 2010). Moreover, the instruments used by European governments to intervene in the banking sector were either part of a country-wide support program (i.e., Austria, Italy) or bank-specific standalone actions (European Commission, 2013). The pricing of the instruments varied greatly across countries, between 8 to 15 percent of the government interventions per annum (Berger et al., 2022). Some governments practiced complex schemes to favor early repayment of financial support or imposed dividend bans or other behavioral restrictions (European Commission, 2014).

Further, the governments implemented fiscal measures in an unprecedented manner across major economies in 2020 as a response to the COVID-19 pandemic when rating agencies provided the highest number of downgrades in the last twenty years (Fitch Ratings, 2020).

However, government interventions across the economy imply high costs. Therefore, policymakers actively employ simultaneously macroprudential policy tools to preserve financial stability and limit systemic risk in the aftermath of the Global Financial Crisis (GFC) and Covid-19 crisis in developed countries, as well as in emergent countries (Akinci and Olmstead-Rumsey, 2018; Belkhir et al., 2022; Igan et al., 2023). In contrast with microprudential regulation which focuses on the prudent behavior of financial institutions, macroprudential policy accounts for potential financial vulnerabilities and contagion that might threaten the entire financial system.

Although government interventions, and macroprudential policy tools are highly relevant for the health of the economy, scant attention has been paid to the relation between culture and government interventions in the banking sector. Most of the literature focuses on the effects of cultural values on bank failures (Berger et al., 2021), risk-taking (Mourouzidou-Damtsa et al., 2019), or performance (Bitar et al., 2020; Berger et al., 2020; Bitar, and Tarazi, 2022), neglecting thus the impact on interventions. Further, there are only a few studies that focus on the political drivers of macroprudential tools. The macroprudential policies are less independent from the

politicians' incentives even if the central banks control the decisions as the macroprudential policies have immediate political effects (Tucker, 2016).

Through the thesis, I provide a novel angle and demonstrate that, among bank-specific and macroeconomic conditions, national cultural characteristics have an important role in determining the likelihood of government interventions in the banking sector, size of the financial assistance packages across countries, the size of fiscal policy measures, as well as on the macroprudential policy tightening. Moreover, the political dimension is a significant driver of macroprudential policy tightening.

My main research questions are as follows: 1) Why the likelihood of government interventions in the banking sector is different across countries, and why the size of the financial packages has appreciable variation; 2) Does the national culture influence the fiscal packages within the economy and which are the possible channels that might mitigate the relationship between national culture and fiscal measures?, and 3) What drives regulators' behavior to tighten macroprudential policy? Are there any cultural, or political significant drivers of macroprudential policy tools' tightening?

Chapter 1. The impact of culture on government interventions in the banking sector (based on **Fărcaș, I. G**., & Nistor, S. (2023). The impact of culture on government interventions in the banking sector. Economic Modelling, 129, 106518)

Why the likelihood of government interventions in the banking sector is different across countries, and why the size of the financial packages has appreciable variation, are important policy questions. Through this chapter, I provide a novel angle and demonstrate that, among bank-specific and macroeconomic conditions, national cultural characteristics have an important role in determining the likelihood of government interventions in the banking sector, as well as the size of the financial assistance packages across countries. Specifically, I employ the cultural dimensions pioneered by Hofstede (2001) and then extended by Schwartz (2007), to explore whether cross-country variation in cultural values can explain the government intervention process across European states. I argue that national cultural values affect the decision of regulators to

intervene with financial aid packages across the banking sector and demonstrate empirically that this relation is channeled by banking sector characteristics, institutional factors, and supervisory framework.

The European data yield a great sample to investigate the behavior of governments towards bailing out banks, considering the dissimilarities of the bailout process, as well as the national cultural differences. During the period 2008-2020, the size of the government interventions in the EU's banking sector was about € 2.1 trillion and took the form of guarantees for bank liabilities, recapitalizations, impaired asset measures, and other liquidity measures (European Commission, 2014). The most used intervention method was represented by the guarantees offered by the government in case a bank failed to repay its debts (i.e., 76.2% of the total government interventions), followed by recapitalizations which imply the restructuring of the bank's equity (i.e., 12.8% of the total government interventions), and then by the removal of "toxic" assets. The impaired asset measures usually implied the implementation of a "bad bank" scheme, with the highest volume being registered in Germany. To a lesser extent, governments offered liquidity support packages, especially in the United Kingdom and the Netherlands. Sometimes, the government applied a mix of these measures, and in several rounds, when a single-time measure was not sufficient to restore confidence within the financial system (Panetta et al., 2009).

To assess my research questions, I employ a sample of 28 European countries (EU countries and the United Kingdom). Although each intervention by the government had to be approved by the European Commission, every state could decide the bailing out method and the size of the government interventions (European Commission, 2014). This allows us to analyse the behavior of European governments considering the differences among their national cultural values. The analysed period is 2008-2020, covering the two main events that generated the occurrence of significant government interventions in Europe, the Global Financial Crisis (GFC) and the European Sovereign Debt Crisis (ESDC). In my empirical estimations, first, I use a Logit model to estimate the impact of cultural values on the probability of government interventions for the banking sector within a country. Second, I employ a Tobit model to examine the link between culture and the size of government interventions as a share of GDP. Further, I investigate the effects of banking sector characteristics, institutional factors, and supervisory framework on the relation between national culture and government interventions. All models control for an array of banking

market features, and macroeconomic conditions, as well as for the political and institutional environment.

My empirical results depict an economically significant relation between several cultural traits and the likelihood of government intervention with financial assistance packages in the banking sector. The findings suggest that power distance, masculinity, and hierarchy are negatively associated with the probability of providing government interventions, while the level of affective autonomy influences positively the government's decision to intervene. The size of the financial aid packages is likewise influenced by these cultural traits. Furthermore, I find that banking sector characteristics, institutional factors, and supervisory framework are important channels through which culture affects government interventions. The negative effect of masculinity on government interventions is mitigated in countries where the banking sector has better capitalization and lower default risk. Additionally, a better quality of institutions like control of corruption, government effectiveness, rule of law, or voice and accountability, mitigates the negative impact of power distance and masculinity on the likelihood of interventions. Also, when the supervisory duties are delegated to more independent authorities and the political rights of the population are more respected, the negative effects of power distance and masculinity on interventions are attenuated. Results are robust to different estimation strategies, like instrumental variables analysis, alternative empirical models, and additional control variables, as well as across different subsamples.

My paper relates to the extant literature on government interventions. Previous research finds that the likelihood of banks being recapitalized is determined by the fiscal capacity of the government (Acharya et al., 2021). Lower revenues decrease the capacity to intervene (Stavrakeva, 2020), and can even generate sovereign shocks (Manzo and Picca, 2020). At the same time, too many weak banks in the banking sector delay the authorities' interventions (Brown and Dinç, 2011). Politically connected banks are more likely to be saved (Duchin, and Sosyura, 2014; Berger, and Roman, 2017; Chavaz, and Rose, 2019), although the long-run performance of these financial institutions is worse compared with their counterparts (Bian et al., 2020), and they take on more risk (Kostovetsky, 2015).[1] A higher likelihood of government intervention is linked to a

[1] There is also an extant literature on the effects of interventions, showing that intervened banks are likely to increase their risk profile, invest in risky securities or issue riskier loans (Duchin, and Sosyura, 2014). In turn, evidence on TARP funds show that interventions can have a positive impact on credit supply (Li, 2013).

considerable level of credit risk (Dam and Koetter, 2012), greater bank size (Panageas, 2009; Gerhardt, and Vennet, 2016), or higher liquidity risk (Fernandes, 2016). Analysing the TARP program (Troubled Assets Relief Program), Bayazitova, and Shivdasani (2012) bring evidence that the approved banks have a better quality of assets and greater systemic risk in comparison with the non-recipients. In the Eurozone, banks reacted contracyclical after Troika's interventions, reducing their risk-taking during economic expansions (Bouhenia, and Hasnaoui, 2017).

My paper is also related to the literature on national culture and bank stability. For example, banks in individualistic countries have riskier portfolios, due to overconfidence and overoptimism (Damtsa, 2018), but this impacts positively the bank money creation (Boubakri et al., 2022). In masculine societies, where the dominant value is competitiveness, the probability of bank failure is increased because governments are less likely to recapitalize weak banks (Berger et al., 2021). Zheng et al., (2013) studied the fraudulent behavior which can occur as a cause of collectivism, showing that there is a higher likelihood of bribes among bank officers and bank customers in collectivist societies. The level of deposits is positively associated with the level of trust and hierarchy, and negatively associated with the level of individualism (Mourouzidou-Damtsa et al., 2019). Besides, banks tend to lend smaller loans, at a higher interest rate, in culturally distant societies (Giannetti, and Yafeh, 2012). Conservatism and mastery, influence significantly corporate dividend payouts (Shao et al., 2010), while national culture identified by individualism and uncertainty captures 90% of the country's fixed effects (Griffin et al., 2017). Banks from countries characterized by a higher level of individualism and power distance, and a lower level of uncertainty avoidance, are more inclined to report smoother earnings (Kanagaretnam et al., 2011). Nevertheless, in countries with higher power distance, collectivism, long-term orientation, and societal trust the effects of the Covid-19 pandemic on systemic risk were diminished (Chun et al. 2021).

Considering these particularities, I aim through this paper to expand the literature on the determinants of government interventions in two ways. First, I assess the effects of national culture on the likelihood of government interventions in the banking sector, and on the size of the financial aid packages across countries. I employ the cultural dimensions of Hofstede (2001) and Schwartz (2007) to examine the cross-country intervention decisions that target the European banking sectors. By analysing this group of countries with heterogenous cultural dimensions I show that cultural values can explain the likelihood of government interventions, as well as the variation in

their size across Europe. Second, I bring new insights by investigating possible channels that influence the relation between national cultural values and government interventions. Specifically, I examine the effects of banking sector characteristics like size, capitalization, default risk, and business model orientation, as well as the role of institutional, supervisory, and political factors. I complement the findings of Berger et al., (2021) who employ bank-level data and show that individualism and masculinity have a positive effect on bank failure. In comparison with their approach, I conduct a cross-country analysis and investigate the impact of culture on government interventions in the banking sector. My main dependent variable is different as I focus on the government's probability of providing financial assistance to the banking sector. In Europe, many bailout packages were provided to healthy financial institutions (i.e., with capital ratios above a certain threshold which varied across countries) to strengthen the banking sector, or to avoid distorting competition from bailed-out financial institutions from other countries (European Commission, 2013). I also assess the effects of culture on the relative size of the financial aid. As previous literature documented, the size of the government interventions is important and should be large enough to stimulate lending and investments (Giannetti, and Simonov, 2013). Moreover, my findings indicate additional cultural dimensions that influence government interventions, like power distance, hierarchy, and affective autonomy.

My paper has important policy implications, suggesting that regulatory authorities should consider the impact of national culture on governments' interventions when saving financial institutions. Complementary to existing policy tools, an examination of national cultural values can offer new insights for designing bailout schemes that effectively address financial stability.

Chapter 2. Is national culture a significant driver of fiscal measures?

The negative impact of the COVID-19 pandemic was reflected in March 2020, especially by the highest number of downgrades provided by rating agencies in the last twenty years (Fitch Ratings, 2020). To mitigate the negative spillovers within the economy, governments intervene in an unprecedented manner across major economies. The fiscal measures turned drastically to

counter-cyclical behavior post-crisis, while the main tendency prior-crisis was to intervene pro-cyclical/ a-cyclical (Bökemeier, and Wolski, 2020).

What determines the volume of fiscal packages besides the macroeconomic environment, and why the fiscal measures vary across countries, are important policy questions. To the best of my knowledge, this is the first thesis that examines the correlation between national culture and fiscal support within the economy. Previous studies focus on the impact of fiscal capacity (Alberola et al., 2021), board banking independence (Fernandez et al., 2016), or bank size (Dávila, & Walther, 2020) on government interventions. Moreover, Aggarwal, and Goodell (2014) and Nadler, and Breuer (2019) bring evidence that the national culture is a significant missing link in finance.

To examine my research questions, I include individualism, and uncertainty avoidance indices which are two cultural variables developed by Hofstede (2001), to explore whether the national culture might explain the variation of fiscal packages within countries. Recent studies show that uncertainty avoidance is considered to be the most important cultural driver for financial sector outcomes (Kwok , and Tadesse, 2006). The analysed period is from March until December 2020 when the spread of the COVID-19 pandemic was at the highest peak, covering a worldwide sample of 48 countries. The estimation sample includes advanced economies, as well as emerging economies located in all continents. In my empirical models, first, I employ a random-effects generalized least squares (GLS) model to estimate the impact of national culture on fiscal packages. Second, I investigate which are the possible channels that might mitigate the influence of national culture on fiscal measures by employing different institutional controls. All models examine also to which extent the macroeconomic environment influences fiscal aid within the economy.

My empirical findings suggest that individualism, as well as uncertainty avoidance, have a significant positive impact on fiscal measures which might explain the variation of fiscal packages within countries. Moreover, the positive effects of uncertainty avoidance are even intensified in the presence of better-performing authorities identified by higher government effectiveness, regulatory quality, respectively control of corruption indices.

Considering these particularities, the aim of the thesis is twofold. First, this paper aims to extend the literature on the determinants of fiscal measures and to bring new insights concerning

the relationship between cultural dimension and fiscal measures. Second, this thesis implies policy recommendations. An investigation of cultural factors can improve significantly the governments' fiscal interventions to address effectively the financial instabilities within the economy. To mitigate the negative effects of the COVID-19 crisis on the economy (Eichenbaum et al., 2020), the OECD (2020) and IMF (2020) express their recommendations to all countries to implement fiscal policy tools such as direct government cash transfers to the most affected households and businesses, freezing government financial obligations for a certain period, the providence of loans, and government subsidies, etc. By analysing a worldwide sample of 170 countries, Chen et al. (2021) show that the most popular instruments were direct government spending on goods and services, direct government cash payment to the most affected economic actors, and tax policies.

Concerning further measures during the pandemic, the monetary policies consist mostly of liquidity support to banks (International Monetary Fund, 2020), while high-income economies prefer to deploy nonconventional monetary policy tools such as restrictions on dividend payments.

The volume of the fiscal support packages varies significantly across countries. IMF's fiscal policy tracker (2020) brings evidence that economies such as the US and Japan introduced massive fiscal measures to impede the negative spillovers within the economy, while some other countries (e.g. Cameroon, Cambodia, Venezuela) were less incentivized to implement a high volume of fiscal policies. The fiscal capacity of advanced economies can explain this behavior (Alberola et al., 2021), as well as their facile access to external funding (Benmelech, and Tzur-Ilan, 2020). The world's largest economies were the most affected by the COVID-19 pandemic (Baldwin, and Weder di Mauro, 2020). Moreover, the high-income countries announced higher fiscal packages than low-income economies due to their pre-crisis sovereign credit rating (Bianchi et al., 2019; Benmelech, and Tzur-Ilan, 2020).

The volume of fiscal measures is also positively influenced by the level of uncertainty caused by the panemic (measured by the World Pandemic Uncertainty Indices) due to the government's action to stabilize the economic outcomes (Li, and Liang, 2021). Nevertheless, several social factors, such as health indicators (number of hospitals, health care expenditures), and the strength of the social safety nets are significant determinants of fiscal packages (Alberola et al., 2021; Siddik, 2021).

National culture can have a significant impact on economic outcomes (Williamson, 2000; Guiso et al., 2006) and economic decisions (Wang et al., 2016; Falk et al., 2018). Namely, prior research brings evidence that the individualism index may affect dividends policy (Shao et al., 2010), stock price developments (Eun et al., 2015), and the tolerance to risk (Dang et al., 2019).

Individualism is a negative driver of bank regulatory capital ratios as it promotes self-orientation, and overconfidence (Bitar, and Tarazi, 2022). Therefore, individualistic cultures are more likely to be involved in riskier activities while keeping low regulatory capital ratios. These results are similar with the findings of Berger et al. (2021) which show that individualism and masculinity positively affect bank failures. On the other hand, individualistic cultures tend also to be identified by better governance as the policies are guided by objective purposes (Tanzi, 1994).

Further, Boubakri et al. (2017) bring evidence that financial institutions located in countries identified by the cultural dimensions pioneered by Hofstede (2001), namely uncertainty avoidance, power distance, and collectivism, were more profitable over the Global Financial crisis period. Analysing 43 countries, Ashraf (2021) also finds that uncertainty avoidance mitigates the impact of negative stock markets' reaction to the COVID-19 pandemic. Nevertheless, uncertainty avoidance influences the level of trust in financial system (Ahunov, and Hove, 2020) and central bank independence (Fang, 2022).

I provide global evidence that national culture could impact significantly the fiscal packages within economy by employing a worldwide sample (48 countries). I examine to which extent the cultural variables of Hofstede (2001), individualism, and uncertainty avoidance, can determine the governments interventions, analysing the COVID-19 crisis period (2020). The empirical findings indicate that individualism, as well as uncertainty avoidance are positively related to fiscal support. Further, I investigate which are the institutional channels that can mitigate the impact of national culture on the fiscal measures. My results show that better performing institutions identified by sound policies and a lower level of corruption can even intensify the impact of uncertainty avoidance on the fiscal aid packages.

Chapter 3. Does national culture affect macroprudential policy? An international investigation of regulatory behavior on macroprudential interventions (based on Nistor, S., & Farcas, I. (2024). Does National Culture Affect Macroprudential Policy? An International Investigation of Regulatory Behavior on Macroprudential Interventions)

Policymakers actively employ macroprudential policy tools to preserve financial stability and limit systemic risk, and such practices have intensified worldwide in the aftermath of the Global Financial Crisis (GFC) and Covid-19 crisis in developed countries, as well as in emergent countries (Akinci, and Olmstead-Rumsey, 2018; Belkhir et al., 2022; Igan et al., 2023). In contrast with microprudential regulation which focuses on the prudent behavior of financial institutions, macroprudential policy accounts for potential financial vulnerabilities and contagion that might threaten the entire financial system. A large strand of the literature investigates the effects of macroprudential interventions on financial stability (Claessens et al., 2013; Mayordomo, and Rodriguez-Moreno, 2021; Ghosh, and Kumar, 2022), lending (Cerutti et al., 2017; Mirzaei et al., 2021; Takáts, and Temesvary, 2021), monetary policy spillovers (Coman, and Lloyd, 2022), credit growth (Drehmann, and Gambacorta, 2012), house pricing (Kuttner, and Shim, 2016; Akinci, and Olmstead-Rumsey, 2018), or consumption (Alam et al., 2019).

I adopt a different approach and examine what drives regulators' behavior to tighten macroprudential policy. With a few exceptions (Lim et al., 2013; Boar et al., 2017; Kim, and Mehrotra, 2022; Sever, and Yücel, 2022),[2] the literature is silent on the drivers of macroprudential interventions. In addition, the influence of informal institutions like culture on regulators' incentives to implement or change macroprudential policies has so far been ignored, despite the acknowledgment of the relationship between national culture and banks' risk (Conduct, 2015). Most of the literature focuses on the effects of cultural norms on lending (Giannetti, and Yafeh, 2012), banks' risk-taking (Illiashenko, 2019; Mourouzidou-Damtsa et al., 2019), or retail deposits (Jin et al., 2020). National culture has also recently been acknowledged as an influential factor in banks' failure (Berger et al., 2021), systemic risk (Andries, and Balutel, 2022), and government interventions (Farcas, and Nistor, 2023).

[2] Prior studies show that macroprudential interventions are determined by the monetary policy (Lim, et al., 2013; Boar, et al., 2017) or electoral cycles (Sever, and Yücel, 2022).

To the best of my knowledge, this thesis is the first to attempt to empirically examine the influence of national culture on regulatory behavior toward using macroprudential interventions. National culture represents an informal set of institutions consisting of norms, values, and beliefs strongly rooted in a society (Hofstede, and Bond, 1988). These values are persistent over time but vary significantly across countries (Hofstede et al., 2010). Recent studies from the finance literature, for example, demonstrate that cross-country cultural differences explain the variation of banking sector risk strategies across nations (Duan et al., 2021).

I expect a significant impact of culture on macroprudential policy actions by regulators for several reasons. First, national cultural traits influence economic outcomes (Williamson, 2000; Guiso et al., 2006), as well as corporate culture (House et al., 2004), and formal institutions (Guiso et al., 2015). Second, national cultural characteristics are important drivers of financial stability. Banks' contribution to systemic risk is higher in countries that value individualism or masculinity (Andries, and Balutel, 2022), as well as their failure probability (Berger et al., 2021). Other cultural dimensions like uncertainty avoidance affect trust in banks (Ahunov and Hove, 2020) and central bank independence (Fang, 2023). Hierarchy is associated with bank deposits (Mourouzidou-Damtsa et al., 2023), while power distance is related to bank performance (Baubakri et al., 2017) and liquidity creation (Baubakri et al., 2017). Third, previous studies bring evidence that regulators use an extended set of macroprudential tools to influence financial stability (Claessens et al., 2013; Mayordomo, and Rodriguez-Moreno, 2021; Ghosh, and Kumar, 2022). Measures such as countercyclical capital buffers decrease the level of loans during booms, and respectively, attenuate the credit contraction within recession periods (Drehmann, and Gambacorta, 2012). Borrower-based instruments reduce the riskiness of banks' lending portfolios and thus contribute to the financial system's resilience (Ampudia et al., 2021). A tighter macroprudential policy can also reduce banks' risk (Andries et al., 2017), and stimulate credit growth (Akinci, and Olmstead-Rumsey, 2018). I therefore assume that national culture can influence regulators' behavior to tighten or loosen the macroprudential policy concerning the financial stability objectives.

From a policy perspective, it is also relevant to identify the channels that affect the relationship between culture and macroprudential strategy. I argue that formal institutions like supervisory agencies might influence regulatory behavior by tightening or loosening the macroprudential policies across countries with different cultural values. First, prudential supervision is a key pillar of financial stability. An effective supervisory mechanism reduces

systemic risk (Barth et al., 2004) and controls financial institutions' risk incentives (Delis, and Staikouras, 2011), while weaknesses in supervision can increase the probability of financial crisis (Herrera et al., 2020). Second, supervision could indirectly affect banks' risk practices through political interferences (Beck et al., 2006), as more independent supervisors are more likely to use harsher practices than less politically independent agencies. Third, powerful supervisors can influence banks to use specific accounting rules and reduce income smoothing (Osma et al., 2019), with direct consequences on financial transparency and the banking sector's soundness.

Focusing on these dynamics, I aim to contribute to the policy debate on macroprudential policy and provide novel evidence that national cultural traits significantly impact regulatory behavior on macroprudential policies. To test my predictions, I employ an international sample of 57 countries that used macroprudential policies from 2000 to 2020, covering the two main events that generated the occurrence of significant regulatory interventions across the globe, the Global Financial Crisis (GFC) and the Sovereign Debt Crisis (SDC). I use the cultural dimensions pioneered by Hofstede (2001) to examine whether national values and beliefs can influence the level of harshness of macroprudential policy, and respectively the behavior of decision-makers worldwide. To address the potential endogeneity issues that can occur because of the omitted variables that impact the harshness of policies, I implement an instrument variable analysis by re-estimating the cultural traits with the help of a set of instruments previously employed in the literature (Guiso et al., 2009; Zheng et al., 2013; El Ghoul et al., 2016). I also consider their interplay with cross-country supervisory arrangements, to test if the relationship between culture and regulatory behavior is influenced by banking sector supervision. Due to a large cross-sectional variation of the national cultural traits, as well as of the supervisory practices, my international dataset is a great laboratory for investigating the link of these informal and formal institutional arrangements with macroprudential policy interventions.

My findings show that power distance, individualism, and masculinity are negatively linked with the likelihood of decision-makers tightening macroprudential policies. These results are consistent with the hypothesis that regulators in countries with high power distance are more reluctant to change regulatory policies, as a greater tolerance for power imbalances is associated with authoritarian leadership and a centralized organizational structure. In highly individualistic societies, which value autonomy and overconfidence, policymakers may be more optimistic towards bank failure and contagion spillovers, while in masculine-oriented cultures, regulators

may also be more relaxed towards financial vulnerabilities, as these societies value assertiveness and performance. In turn, I find strong support that uncertainty avoidance and long-term orientation increase the likelihood of regulators tightening macroprudential policies, as these types of cultures prefer a more predictable environment and a long-term planning strategy regarding financial stability. My findings are not only statistically significant but also economically relevant. A one-unit increase in the standard deviation of the uncertainty avoidance and long-term orientation indices is linked, on average, with an 85 percent, and 62 percent, respectively, increase in the standard deviation of the macroprudential tightness index.

I further investigate the channels that might influence the impact of national culture on macroprudential policies, by including in my specifications the interaction between culture and several dimensions of the supervisory framework. My empirical findings indicate that the positive effect of uncertainty avoidance on macroprudential policy tightening is intensified in countries where supervisors are more independent, or multiple. In addition, when supervisors possess less forbearance discretion, they are more prone to provide harsher treatment and tighten the macroprudential policy in uncertainty-avoiding cultures. Results are robust to different estimation strategies, like additional control variables, alternative indices of macroprudential policy instruments, as well as alternative measures of national culture.

My results relate to the extant literature on regulators' behavior regarding macroprudential policy interventions. One of the main determinants of macroprudential interventions are monetary policy (Boar et al., 2017) and electoral cycles (Sever, and Yücel, 2022). Macroprudential policy response time is positively correlated with changes in the policy interest rate (Lim et al., 2013), while the loosening of macroprudential policy is more likely in the pre-election years (Sever, and Yücel, 2022). Analysing the macroprudential policy actions during the COVID-19 pandemic, Bergant and Forbes (2023) show that regulators are more likely to harshen the policy measures in countries where such measures were applied more frequently in the past. Especially emerging economies implement macroprudential policies to influence the volume of lending (Cerutti et al., 2017; Mirzaei et al., 2021). Also, the emerging countries were four times more inclined than advanced economies to use macroprudential policies before the crisis, and three times more likely to implement such measures after the crisis, as they were more exposed to external shocks (Claessens et al., 2013). Another significant driver of regulatory behavior is the quality of institutions. Regulators are more prone to implement harsher macroprudential policy instruments

in countries identified by transparent institutions (Bengtsson, 2020).

My paper is also linked to the literature assessing the impact of national culture on financial stability. The cultures identified by a high level of power distance, collectivism, long-term orientation, and societal trust were less affected by the COVID-19 pandemic due to the micro and macroprudential measures implemented to reduce systemic risk (Duan et al., 2021). The likelihood of bank failures is higher in more masculine-oriented societies because regulators are less inclined to save troubled banks in such cultures (Berger et al., 2021). At the same time, banks in individualistic cultures tend to be more involved in risky activities, due to the higher level of overconfidence and overoptimism (Damtsa, 2018). More individualism and power distance lead banks to report smoother earnings (Kanagaretnam et al., 2011). Individualism is also negatively associated with the volume of deposits, while trust and hierarchy positively influence banks' deposit attraction (Mourouzidou-Damtsa et al., 2019). Cultural values impact lending, as well. Collectivist-orientated cultures are characterized by fraudulent behavior due to a higher probability of bribes being offered to bank officers by their customers (Zheng et al., 2013). Moreover, banks are more inclined to lend money at lower interest rates in less culturally distant societies (Giannetti, and Yafeh, 2012).

With my findings, I extend the literature on financial stability. Firstly, I document that national culture is a new dimension that explains regulatory behavior on using the macroprudential toolkit, by bringing international evidence that cultural values can explain the likelihood of policymakers to tighten the macroprudential policies. Second, I provide novel insights by investigating possible channels that influence the relationship between culture and regulatory behavior. Specifically, I document that supervisory independence, integration, and forbearance can impact the culture-macroprudential policy nexus.

Chapter 4: The effects of political institutions on macroprudential policy tightening

The macroprudential policy tightening increased significantly in the aftermath of the Global financial crisis (GFC), as they aimed to impede the spread of external shocks (Allen, & Wood, 2006). Specifically, the main goals of macroprudential actions are considered to be as follows: a) to increase the resilience of the financial sector; b) to regulate the credit growth; c) to

address the vulnerabilities concerning exchanges rated and asset pricing; and d) to implement adequate liquidity requirements (International Monetary Fund, 2013). Based on this, the macroprudential measures are considered one of the most used tools to establish financial stability. Therefore, it is highly relevant to investigate the main determinants of the macroprudential toolkit.

To the best of my knowledge, there are only a few studies that focus on the political drivers of macroprudential tools, although not only the central banks are responsible for financial regulation. There are many countries such as Germany or Turkey where different authorities, including the government, cooperate to establish the macroprudential policies (IMF-FSB-BIS., 2016). For instance, Sever, and Yücel (2022) bring evidence that a loosening of macroprudential actions is more likely in the pre-election year by analysing a sample of 80 countries over the period 1990-2016. Similar results were found by Müller (2023) who also shows that this phenomenon is even stronger when the election outcome is not certain. This can lead to a financial crisis, especially in emerging countries where the government encourages credit booms to increase their popularity (Herrera et al., 2020). Moreover, politicians have a higher preference for low interest rates as their actions are influenced by political economy goals, and they give less importance to inflation (Ehrmann, and Fratzschner, 2011). A mitigating factor of political interference in monetary policy is given by the central bank independence (Crowe, and Meade), 2007). However, the macroprudential policies are less independent from the politicians' incentives even if the central banks control the decisions as the macroprudential policies have immediate political effects (Tucker, 2016).

By employing an international sample of 79 countries over the period 2000-2020, I examine whether there are additional political factors that might affect the macroprudential tools, namely political stability identified by three variables from the database developed by Cruz et al., (2021). I obtain that political stability significantly negatively impacts the tightening of the macroprudential toolkit which leads to policy implications. The policymakers should consider the quality of political institutions when a loosening of measures is suggested.

Conclusions

My thesis has important policy implications, suggesting that regulatory authorities should consider the impact of national culture on governments' interventions when saving financial institutions or providing fiscal measures within the economy. Complementary to existing policy tools, an examination of national cultural values can offer new insights for designing bailout schemes, and fiscal packages that effectively address financial stability. From a policy perspective, it is also relevant to identify the channels that affect the relationship between culture and macroprudential strategy. I argue that formal institutions like supervisory agencies might influence regulatory behavior by tightening or loosening the macroprudential policies across countries with different cultural values. First, prudential supervision is a key pillar of financial stability. An effective supervisory mechanism reduces systemic risk (Barth et al., 2004) and controls financial institutions' risk incentives (Delis, and Staikouras, 2011), while weaknesses in supervision can increase the probability of financial crisis (Herrera et al., 2020). Second, supervision could indirectly affect banks' risk practices through political interferences (Beck et al., 2006), as more independent supervisors are more likely to use harsher practices than less politically independent agencies. Third, powerful supervisors can influence banks to use specific accounting rules and reduce income smoothing (Osma et al., 2019), with direct consequences on financial transparency and the banking sector's soundness.

A constraint of the thesis regarding bank bailouts is the focus on European countries, due to limited data availability for government interventions. An international sample can convey more generalized results across countries and regions. Future research may extend the issues explored in my framework, by investigating other government interventions in the banking sectors across the world, as well as bank-level data on government interventions.

Concerning the impact of political dimension on macroprudential policy' tightening, future studies may examine which are the possible channels that might mitigate the effects of political institutions on macroprudential policy' tightening. Namely, an efficient institutional setup might be found in terms of transparency.

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