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The architecture of supervision

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2 December 2019, Vienna

Workshop organised by the Oesterreichische Nationalbank (OeNB)

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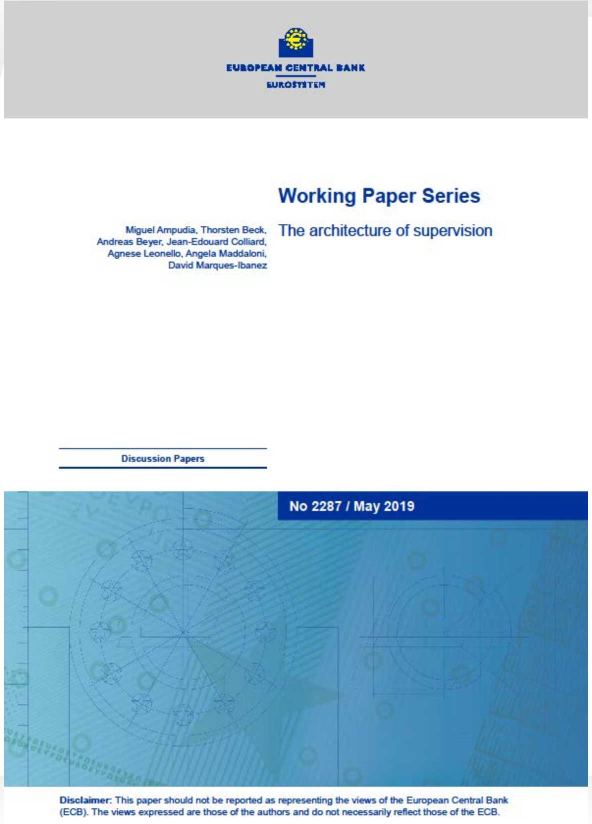
ECB Discussion paper No 2287, May 2019, VoxEu article, September 2019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Working Paper Series

Miguel Ampudia, Thorsten Beck, Andreas Beyer, Jean-Edouard Colliard, Agnese Leonello, Angela Maddaloni, David Marques-Ibanez

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Discussion Papers

No 2287 / May 2019

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The new supervisory architecture in Europe

Miguel Ampudia, Thorsten Beck, Andreas Beyer, Jean-Edouard Colliard, Agnese Leonello, Angela Maddaloni, David Marques-Ibanez 20 September 2019

The decade since the Global Crisis has seen notable changes in the architecture of supervision, with separation of responsibility for monetary and financial stability having been reversed in many countries on the one hand, and a move towards more cross-border cooperation between supervisors on the other. This column discusses these two trends in Europe, where responsibility for supervision of the largest banks is housed in the same authority with responsibility for monetary policy, the ECB. It argues that the Single Supervisory Mechanism is a good reflection of the subtle economics of supervisory architecture and the many trade-offs that have to be taken into account.

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Overview

1 Central banking and supervision: integration or separation?

2 Centralised and decentralised supervision

Overview

1 Central banking and supervision: integration or separation?

2 Centralised and decentralised supervision

The current setup in the euro area: integration and centralisation

- Is the euro area a model of ***common and integrated supervision***?
  - The model is not fully integrated. To prevent conflict of interest between the monetary policy and supervisory responsibilities, legislators introduced a *separation principle*, which translate in certain legal and administrative barriers (*separation of objectives, decision-making and tasks*) and strict separation of Governing Council's meetings

- There is a unique model of supervision for significant and less significant institutions
  - Direct centralised supervision of significant institutions
  - Indirect supervision of less significant institutions based on a common rule book

Important interactions between monetary and prudential policy

- Monetary policy does impact financial stability, it affects the value and composition of the assets and liabilities of financial intermediaries and interact with the regulations in place
  - see forthcoming ECB Technical Paper **Monetary policy and bank stability: The analytical toolbox reviewed**

- The overall impact on financial stability depends on concurrent conditions (e.g. financial development) and the ability of banks to manage capital and liquidity actively in response to changes in interest rates

- Financial stability affects the effectiveness of transmission of monetary policy

Reputation and independence in an integrated structure

- Advantages
  - Supervisors can benefit from the independence and reputation of the central bank, limiting risks for political and regulatory capture (efficiency gains linked to political independence)
  - In the euro area these advantages may be significant because of the monetary union setup

- Risks
  - Reputation of the two functions are more strictly linked
  - Bad reputation of supervisors due to a bank failure can transfer to the central banking function, affecting its credibility and effectiveness
  - Supervisory processes can be more contested than monetary policy process

Not clear that a separated structure would prevent from this risk (e.g. Northern Rock) especially in crisis times since the central bank is in charge of LOLR

Optimal policy conduct in an integrated structure

- Advantages
  - Consolidating responsibilities can help avoid coordination failure and account for the interdependencies of the two policies
  - Central bank and supervisory authority residing in different institutions may not fully internalize the spillovers existing between their own policies and objectives (*push-me/pull-you* conduct)
  - The resulting non-cooperative allocation entails a welfare loss

- Risks
  - Price stability and financial stability may be conflicting objectives
  - There could be distortions in decision making such as deviating from the optimal conduct of monetary policy in an attempt to preserve the stability of the financial institutions (*Financial dominance*). Central banks in charge of monetary policy and supervision may have an inflation bias [Di Noia and Di Giorgio (1999); Copelovitch and Singer (2008)]
  - Reduction in effectiveness of supervision (***excessive forbearance***) also to reduce possible losses to central banks

Transfer of information

- Easier transfer of information is beneficial for supervisors and monetary policy makers
  - Central banks can benefit from supervisory information when assessing monetary policy decisions. Better knowledge of the banking sector improves information on financial conditions
  - Supervisors benefit from central banking knowledge of the economic and financial environment
  - LOLR interventions are more effective and conducive to financial stability

Transfer of information

- There is evidence that monetary policy can benefit from access to ***aggregate supervisory information***, including soft information (supervisory assessment)

  – US evidence:
    - ✓ Having supervisors in the same institutions implies lower frictions in transferring information. Aggregate index calculated using individual supervisory information (including supervisory assessment) ***improve the forecasting of inflation and unemployment*** [Peek, Rosengren and Tootell (1999)]
    - ✓ Similar information ***significantly improves the fit of a policy rule explaining short term rates*** [Peek, Rosengren and Tootell (2016)]

  – Euro area:
    - ✓ A Financial Stress Indicator (FSI) constructed aggregating supervisory information helps to improve the statistical and out-of-sample forecast properties of a Taylor rule, compared with an estimated benchmark rule (see Box 1 of the Discussion Paper)

Complementarities and conflicts of interest

Empirical evidence based on cross-country comparisons

- Is an integrated model of a central bank in charge of monetary policy and supervision more conducive to ***price and financial instability***?

  — Empirical analysis using data from 98 countries worldwide during the period 1999-2012

  — Investigate the link between the institutional structure of supervision and
  - ✓ Economic growth and inflation
  - ✓ The likelihood that a credit boom turns into a crisis.

$$GDPgrowth_{it} = \alpha_1 + \beta_1 Integrated_{it} + \delta_1 X_{it} + \varepsilon_{it}$$

$$|\pi_{it} - \pi_{it}^{\;target}| = \alpha_2 + \beta_2 Integrated_{it} + \delta_2 X_{it} + \eta_{it}$$

Complementarities and conflicts of interest

Empirical evidence based on cross-country comparisons

- Based on different fixed and random effects models, we do not find evidence that GDP growth is lower in countries and years where bank supervision is integrated into the central bank
  - GDP growth is higher (with different specifications)
  - No significant negative coefficients

Control variables included: corruption control index, log(GDP/capita), time fixed effects.

Robustness checks:

- Control for lagged GDP growth.
- Control for lagged GDP growth instrumented by its own lag (Arellano-Bond).
- Exclude euro area countries.

No evidence that an integrated structure is related to a worse growth performance

Complementarities and conflicts of interest

Empirical evidence based on cross-country comparisons

- In countries with an integrated structure for central bank and bank supervision functions, we find no evidence of higher deviations from the inflation target
  - Deviations from inflation target are lower
  - No significant positive coefficient (no evidence of inflation bias)

  Control variables included: corruption control index, log(GDP/capita), time fixed effects.

  Robustness checks:
  - Control for lagged GDP growth.
  - Control for lagged GDP growth instrumented by its own lag (Arellano-Bond).
  - Exclude euro area countries.

No evidence that an integrated structure is associated to an ***inflation bias***

Complementarities and conflicts of interest

Empirical evidence based on cross-country comparisons

- In countries where bank supervision is outside the central bank we find a higher probability of a credit boom turning into a banking crisis

- In countries and years where bank supervision is in the central bank, there is a higher likelihood that loan-to-value ratios are used as macroprudential tools during credit booms and that credit booms are less likely to turn into a crisis

No evidence that an integrated structure is associated to more ***financial instability or inaction bias***

Complementarities and conflicts of interest

Empirical evidence based on cross-country comparisons

- Suggestive cross-country evidence is not consistent with arguments against unifying responsibilities for monetary and financial stability into one institution

- Evidence is mostly inconclusive on the *optimal structure*, but it suggests that monetary policy and supervision integrated in the same structure may result in benefits arising from better information flow and policy coordination, which could result in potential financial stability gains

Integrated versus separated model

- The choice whether to separate bank supervision and central banking functions involves a complicated trade-off between different objectives

- The design chosen in the euro area is a compromise between separation and integration. The SSM is part of the ECB, but a strict separation principle applies

- In an integrated structure the information may be channelled in a more efficient and transparent way. In the euro area setting, much of this information can be collected while respecting the separation principle

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Why are local and central supervisors different?

- Information (cost/advantage)

  — Local supervisors have an informational advantage (specialisation) and cultural closeness. Better knowledge of specificities of local credit markets

  — Empirical evidence supports the importance of resources (# of visits etc..) but also the importance of ***geographical proximity*** [Delis and Staikouras (2011); Quintyn and Taylor (2002); Gopalan, Kalda, and Manela (2017)]

  — There are important economies of scale in supervision, bringing to efficiency gains. Central supervisors have more resources, have a better macro view on the state of the financial sector and can use more ***peer comparisons***

Why are local and central supervisors different?

- Incentives (responsibilities/objectives)
  - Centralised supervisors face lower costs in taking an intervention and liquidation decision (Repullo 2018). However, removing decision power from the local supervisors may lead to worse information collection and possibly more leniency (Carletti et al. 2016)
  - Supranational supervision aligns incentives of supervisors vis-à-vis domestic and foreign shareholders and creditors, overall resulting in tougher supervision (remove bias against foreign creditors)
  - Supervisory institutions entirely financed with fees may induce distorted incentives. Centralisation of supervision limits this incentives distortion

Centralised versus decentralised supervision: The euro area setup

- Viewing the design of the SSM through the lenses of the recent literature, the chosen architecture seems efficient under the assumption that information acquisition for supervising large banks entails only a small cost advantage for a local supervisor relative to a central supervisor, while the risk of being exposed to regulatory capture is potentially very large

- Under this framework the chosen architecture of the SSM seems efficient
  - The SSM is responsible for the supervision of significant banks in cooperation with local supervisors through the JST
  - Less significant banks are directly supervised only by local supervisors

- Some initial evidence linked to the establishment of the SSM seems consistent with the expected impact on the behaviour of banks and related efficiency gains

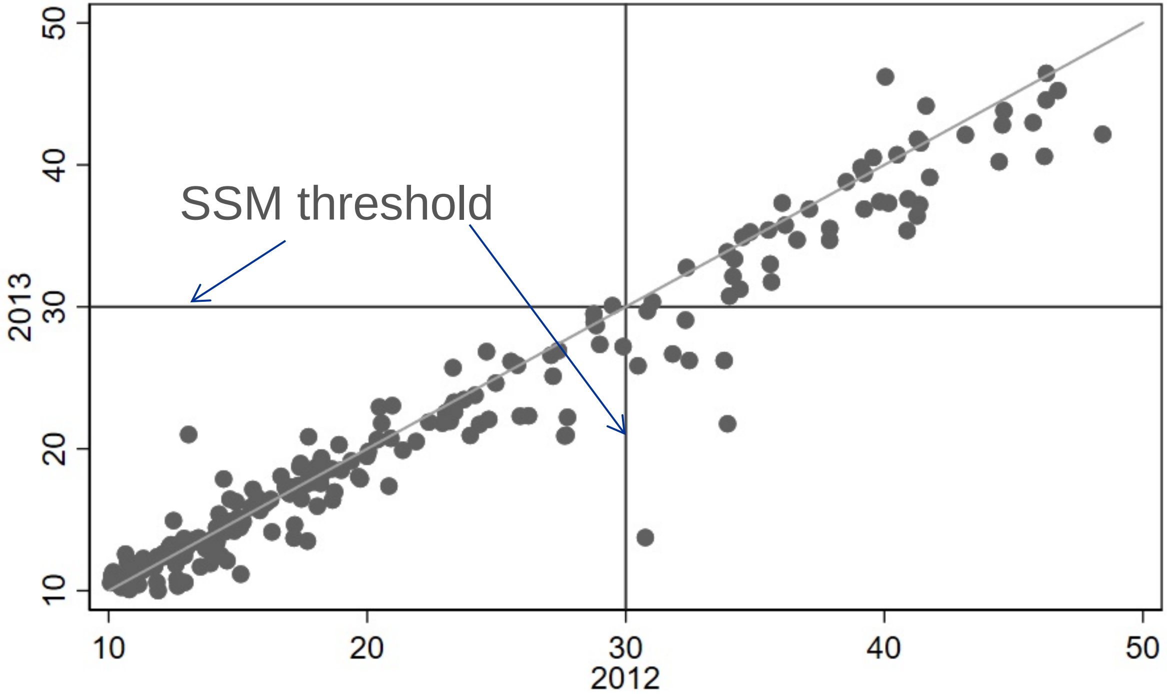
Moving towards centralised supervision

What is the reaction of banks?

- Banks expect the central supervisor to be tougher
  - Empirical evidence for the US (federal versus state supervisors) [Agarwal, Lucca, Seru and Trebbi, 2014]
  - Evidence for the euro area. Banks expected the SSM’s supervision to be tougher than national competent authorities
    - ✓ In the run-up to the SSM the most significant banks reduced their lending activities and increased their capital ratios in comparison with less significant banks [Fiordelisi, Ricci and Stentella Lopes, 2016]
    - ✓ SSM banks also reduced their asset size and reliance on wholesale debt [Eber and Minoiu, 2016]
    - ✓ Banks under SSM surveillance report higher risk weights, higher probability of default and lower collateral to loan ratios for exposures to the same firm as compared to banks under national supervision [Haselmann et al. 2019]

Moving towards centralised supervision

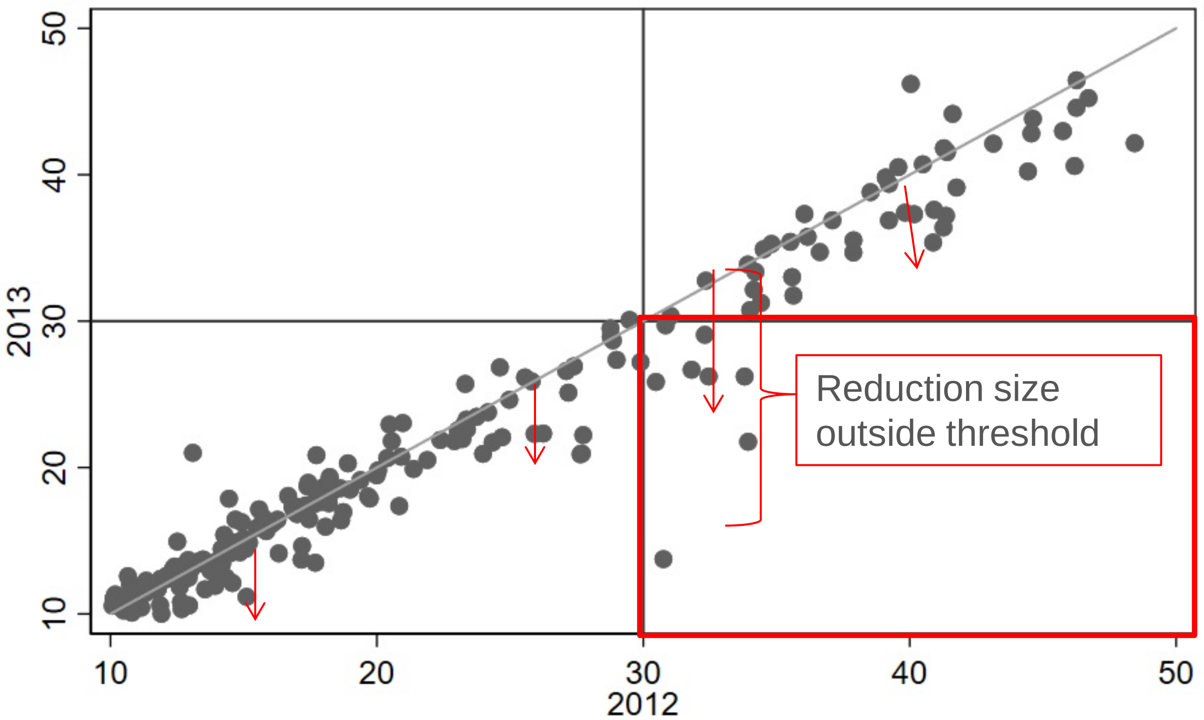
Strategic behaviour of banks



The Burden of Bank Supervision, Ben-David, Cerulli, Fiordelisi, Marques-Ibanez

Moving towards centralised supervision

Strategic behaviour of banks



The Burden of Bank Supervision, Ben-David, Cerulli, Fiordelisi, Marques-Ibanez

Moving towards centralised supervision

Strategic behaviour of banks

- Around 30% of the banks around the threshold strategically reduced size to avoid SSM supervision*:*

  - Compared to peers, banks with strategic behaviour had worse asset quality and liquidity position

Moving towards centralised supervision

What is the reaction of banks?

- The central supervisor is less nationally oriented
  - — Centralised supervision removes the bias against foreign creditors and therefore may allow banks to borrow more easily and at lower rates internationally. Central supervision would, as a result, indirectly contribute to financial integration
    - ✓ Banks supervised by the SSM pay lower deposit rates to their customers – both households and non-financial corporations [Barbiero, Colliard, Popov, 2017]
  - — Banks that are supervised by a central supervisor may enjoy a positive signalling effect which overall lower their cost of funding
    - ✓ Banks supervised by the SSM also changed the composition of their liabilities, reducing reliance on deposits and increasing securities issuance, which is consistent with positive market signalling effect arising from the SSM “certification” [Barbiero, Colliard, Popov, 2017]

Moving towards centralised supervision

What is the reaction of banks?

- Central supervision can have additional effects on financial integration through the structure of multinational banks (MNBs), which have subsidiaries and branches in different countries

  — A supranational supervisor would optimally exert more monitoring than a local supervisor to foreign unit (subsidiaries) of a bank (monitoring externality)

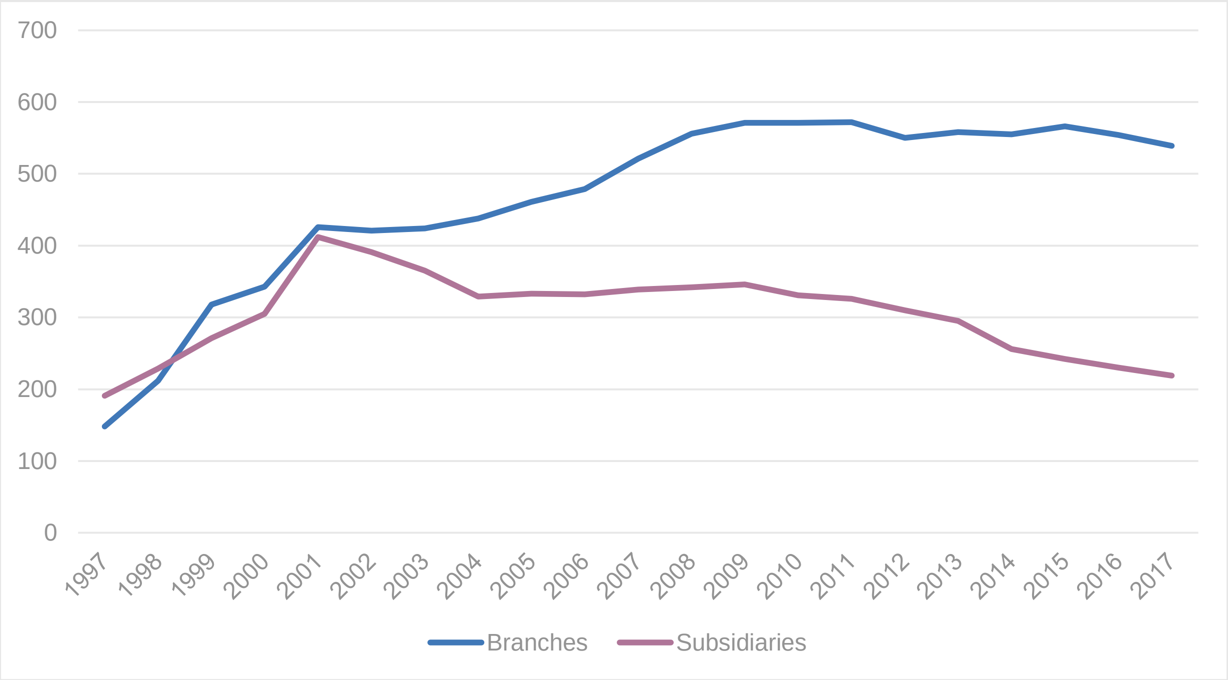
  — Centralisation of supervision may create incentives to expand abroad through cross-border branches

  — The shift from subsidiaries to branches increases the burden on the deposit insurance fund of countries that host more headquarters

Moving towards centralised supervision

Strategic behaviour of banks

Cross-border branches and subsidiaries in the euro area



Source: ECB, Banking Structural Financial Indicators

Conclusions

- The introduction of the SSM is the largest change in recent years in supervisory architecture in developed countries

- The current setup reflects, at least to some extent, the economics of supervisory architecture and the many trade-offs that have to be taken into account

- It reflects a middle ground between
  - Integration versus separation of bank supervision and monetary policy
  - Local versus central supervision
  - Centralisation versus delegation of information collection versus decision-making and rule-setting