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Macroprudential database[1]

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[1] This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

Macroprudential Database

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Abstract

The paper presents the new Macroprudential Database (MPDB), as a part of the European Central Bank's Statistical Data Warehouse, and incentivises its use among external users. The MPDB is a statistical endeavour supporting the macroprudential analysis conducted by the European System of Central Banks and covers European Systemic Risk Board data needs as well. This paper explains the rationale for creating the MPDB and how it can contribute to fulfil the macroprudential data needs within the countries of the Single Supervisory Mechanism and also of the whole Europe Union. The structure of the database and a broad overview of indicators are presented, also dealing with data confidentiality protection. Finally the paper discusses remaining data gaps and expected future enhancements of the MPDB.

Contents

1. Introduction

The financial crisis and its aftermath confirmed the need for system-wide surveillance and led to the establishment of macroprudential policy as a new key policy area with the objective of an early detection of systemic risk and, in case of materialisation, promoting actions to limit its contagion effects. The literature has identified three broad sources of systemic risk: (i) macroeconomic shocks that are significant enough to cause distress in the financial system, (ii) the unwinding of imbalances in the financial system generated by excessive leverage, and (iii) contagion risk, created by increasing interconnectedness and herd behaviour. Whatever the origin, the primary role of macroprudential authorities is to identify as early as possible, steadily measure and minimise impact of systemic risk.

An input partially missing in the macroprudential field was the availability of a strong and comprehensive statistical basis to support and stimulate research and consequently be used for conducting macroprudential policy by the ECB and national authorities, with the European Systemic Risk Board (ESRB) being in charge of the macroprudential oversight of the EU financial system. A comprehensive and unique Macroprudential Database (MPDB) was thereby essential for analytical and policy oriented work flowing into internal and external reports, and for a consistent cross-country analysis of systemic risk.

The MPDB went live in October 2015 and it is accessible through the ECB's Statistical Data Warehouse (SDW).[1] In its current state, it comprises more than 470 relevant country level variables and indicators grouped into seven main domains (macroeconomic and financial market variables, debt and credit variables, residential real estate variables, commercial real estate variables, bank sector variables, non-bank variables and interconnectedness variables). In order to meet continuously evolving user needs, regular reviews of the MPDB are already taking place, making it a live and easily adjustable product. The majority of variables are also publically available, allowing further research outside the ESCB/ESRB community.

This paper is structured as follows: section 2 explains the motivation for the set-up of the MPDB and increasing user needs that triggered the project; section 3 describes the structure and key features of the database; section 4 points out ideas for future enhancements of the database; and finally, section 5 includes key concluding remarks.

2. Motivation for the set-up of the MPDB and user needs

Macroprudential policies address the emergence of possible systemic risks in the financial system, and thus aim at preserving financial stability.[2] Originally,

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1   The MPDB can be accessed in the public SDW via this link: http://sdw.ecb.europa.eu/browse.do?node=9689391

2   Macroprudential policy has several dimensions: (1) The financial cycle should be smoothened by avoiding an excessive build-up of risk. (2) The resilience of the financial sector should be

macroprudential powers in the European Union were established primarily at the national level[3], reflecting the need for a more tailored approach, given that financial cycles and business cycles are not perfectly synchronised in the European Union. Along with the harmonisation of microprudential supervision, the Single Supervisory Mechanism (SSM) Regulation also strengthens consistency of macroprudential policy. Hence, the Eurosystem is able to strengthen coordination and to address potential cross-country spill-overs of macroprudential policies at the national level.[4]

In particular, the SSM Regulation[5] confers upon the ECB and National Competent Authorities (supervisory authorities) or National Designated Authorities specific powers and responsibilities in the field of macroprudential policy.

The role of the ECB in this area is twofold. First, the ECB is involved in the decision making process of macroprudential policy in SSM countries. National authorities are required to notify the ECB before implementing or changing a national measure foreseen in EU laws.[6] The ECB is then required to assess the envisaged macroprudential measure and, if necessary, raise objections, which must be considered by the national authorities.

Second, the ECB has the right to apply more stringent measures at the national level for the instruments included in the EU laws. For example, the ECB may apply higher capital buffer requirements[7] compared to the level set by national authorities.

These decisions are taken jointly with other central banks of the Eurosystem and need to be based on a detailed analysis for which comprehensive and consistent data are a key prerequisite.

The shared responsibilities of national authorities and the ECB for macroprudential policies triggered the need to establish a common ground for macroprudential analysis. A comprehensive and unique database was essential for analytical and policy oriented work flowing into internal and external reports, and for a consistent cross-country analysis of systemic risk. Following the institutional set-up of the decision processes, a key priority became the setting up of a comprehensive and harmonised database - the Macroprudential Database (MPDB).

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strengthened to limit the contagion of risks. (3) Influence incentives for market participants, also via the consideration of the system-wide perspective in financial regulation.

[3]   This is for example reflected in the ESRB Recommendation ESRB/2011/3 on National Macroprudential Mandates:

http://www.esrb.europa.eu/pub/pdf/ESRB_Recommendation_on_National_Macroprudential_Mandat es.pdf?87d545ebc9fe76b76b6c545b6bad218c

[4]   ECB Macroprudential Bulletin, Issue 1, 2016, https://www.ecb.europa.eu/pub/pdf/other/ecbmpbu201603.en.pdf

[5]   Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

[6]   Capital Requirements Directive (CRD) IV (Directive 2013/36/EU) and Capital Requirements Regulation (CRR) (Regulation No 575/2013)

[7]   Countercyclical capital buffer, systemic risk buffer, capital buffers for Global Systemically Important Institutions (G-SII) and Other Systemically Important Institutions (O-SII).

A wide range of indicators is needed to identify vulnerabilities, assess the resilience of the financial system and capture both the cyclical and the structural developments. Naturally, banking sector variables play a key role for macroprudential policy, together with debt and credit variables. In addition, the macroeconomic environments as well as the developments of relevant financial markets need to be taken into account. For instance, as real estate boom-and-bust has been the trigger of many financial crises, indicators reflecting developments of the housing market as well as the commercial real estate market are essential inputs. However, poor data availability and quality in this field often hamper the analysis.

To ensure that the MPDB would not only support the ECB's macroprudential functions at the euro area level but have a wider application, the ESRB joined the MPDB development work.[8] As responsible for the macroprudential oversight of the EU financial system and the prevention and mitigation of systemic risks,[9] the ESRB has a broad remit, covering banks, insurers, asset managers, non-banks intermediaries (the so-called shadow banking), financial market infrastructures and other financial institutions and markets.

By extending the relevant indicators to cover non-bank financial intermediaries and covering the EU to the extent possible, the new database also covers the broader perspective of the ESRB.

The MPDB should also stimulate macroprudential analysis and research both within and outside the European System of Central Banks, and should prove relevant for market-participants and academics (see Box 1 for confidentiality issues).

3. Structure and key features of the database

The MPDB provides a comprehensive set of harmonised, relevant and fit-for-use indicators to analyse the build-up of both cyclical and structural systemic risks.

The development of the database started with the compilation of a list of potential indicators to be included in the database — casting the net relatively wide — based on relevant experience on macroprudential analyses and on the relevant

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[8]   The MPDB is the result of collaboration between ECB's DG Statistics, ECB's DG Macroprudential Policy and Financial Stability, the ESRB Secretariat, the Secretariats of the ESRB Advisory Technical Committee, of the ESCB/SSM Statistics Committee and of the ESCB/SSM Financial Stability Committee, EU National Central Banks and National Competent Authorities. Members of the FSC MPAG Workstream in charge of setting up the MPDB are listed in Annex 2.

[9]   According to the ESRB regulation, the ESRB shall be responsible for the macroprudential oversight of the financial system within the Union in order to contribute to the prevention or mitigation of systemic risks to financial stability in the Union that arise from developments within the financial system and taking into account macro-economic developments, so as to avoid periods of widespread financial distress. It shall contribute to the smooth functioning of the internal market and thereby ensure a sustainable contribution of the financial sector to economic growth. See ESRB Regulation: Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24/11/2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (the 'ESRB Regulation'): https://www.esrb.europa.eu/shared/pdf/ESRB-en.pdf?cefc86fb4362bd6d4510948235beb079

academic literature. The list also included the indicators selected for the ESRB's quantitative risk analysis tools, such as the ESRB risk dashboard. Following the compilation of this list, the second and longest phase of the work consisted in an extensive inventory exercise. The desired indicators were to allow cross-country comparability (harmonisation), large cross-country availability and, to the extent possible, a long history. This inventory exercise showed that many of the "best available" time series for the desired indicators were already available in datasets included in the ECB's Statistical Data Warehouse (SDW) or in databases of other international institutions (BIS, OECD, Eurostat, IMF) or in commercial data providers (Bloomberg, Thomson Reuters, Datastream, iBoxx, etc.).

A relatively large number of indicators were ultimately integrated in the MPDB. Those indicators cover user needs for macroprudential analyses, while taking into consideration the outcome of the data quality assessment. The resulting database is structured around the following seven domains:[10]

- Macroeconomic and financial market variables

- Debt and credit variables

- Residential real estate variables

- Commercial real estate variables

- Bank sector variables

- Non-bank variables

- Interconnectedness variables

Considering that the MPDB comprise more than 470 variables, grouped along the aforementioned seven domains, a catalogue encompassing all indicators together with underlying SDW codes and indicators calculations is available for download in the SDW. In addition, the catalogues are also available at domain level. These catalogues also include references to few time series that cannot be shown in the SDW, but are available in the other data sources.

The following sections present a summary of the main features of the various MPDB domains.

3.1 Macroeconomic and financial market variables

This first domain covers a very wide range of macroeconomic and financial market variables that can be used to measure the build-up of cyclical and structural systemic risks in the financial system or in the real economy, both on a national and European level (i.e. euro area as well as the EU). As the indicators included in this domain aim to cover financial stability risks stemming from macroeconomic developments (inflation, growth) and imbalances (current account, competitiveness), from household, corporate and public sector debt or from financial markets (equity, bond, foreign exchange), they thus include time series related to :

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[10]   See Annex 1 for an overview of the full MPDB structure.

- Macroeconomic aggregates (monetary and real variables)

- Financial market variables

- Risk and uncertainty variables

- Financial condition indicators for the main economic sectors (government sector, households, non-financial corporations)

- Borrowing and lending conditions

3.2 Debt and credit variables

According to the Basel Committee on Banking Supervision (BCBS, 2010) an important goal of macroprudential policy relates to the prevention of periods of excess aggregate credit growth that have often been associated with the build-up of system-wide risk. Along this line, it is also well documented that variables related to credit are among the best performing indicators in signalling (banking) crises in a broad set of countries, in particular during the upswing of the economic cycle.[11]

The debt and credit domain considers a wide range of variables aimed to timely detect the build-up of periods of excessive credit growth or the possible emergence of credit bubbles in the economy. Complementing the financial condition indicators of the first domain, this second domain provides time series covering various aggregates and breakdowns of:

- Total credit (loans plus debt securities) granted to households, non-financial corporations and (private) non-financial sector;

- Bank credit (loans) to various types of counterparties;

- Cross-border exposures;

- Information on credit exposures in banks' balance sheet (data from the consolidated prudential COREP and FINREP reports);

- Bank Lending Survey indicators related to the bank's practices and expectations regarding credit standards and lending conditions[12].

3.3 Residential real estate variables

Imbalances in residential real estate markets (RRE) have played a significant role in many of the past financial crises. Often, housing booms coincided with (broad-based) credit booms, as a result of strong feedback effects between the rising house prices and the increased ability of borrowers to lend against the rising value of the residential real estate collateral. As documented in Crowe, Dell'Ariccia, Igan and Rabanal (2013), almost all the countries that experienced a "twin boom" in real estate and credit markets ended up suffering a financial crisis or a severe contraction of GDP.

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[11]   For further details see Borio and Lowe (2002, 2004), Borio and Drehmann (2009), Behn et al (2013) and Drehmann and Juselius (2014), BCBS (2010) and Dekten et al. (2014), Alessi and Detken (2014).

[12] See also https://www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html

The potentially important role of RRE markets in the build-up of financial vulnerabilities also helps explain why several macroprudential instruments target specifically the loans secured by RRE, which include instruments that target banks (e.g. sectoral capital requirements) and borrowers (e.g. loan-to-value (LTV), loan-to-income (LTI) and debt-service-to-income (DSTI) caps). The MPDB therefore includes times series on variables that have been identified as potential leading indicators for RRE crises and/or that are the basis for the above-mentioned macroprudential instruments. Some of these areas are however still characterised by important gaps in the availability of comprehensive and comparable data for various countries (see Section 4).[13]

Against this background, the MPDB has identified a broad set of indicators for the RRE domain:

- A first set of indicators looks at the domestic household sector's balance sheet and its mortgage liabilities.

- The second set of indicators covers time series that provide information on mortgage loans' key features, such as the interest rate cost of these loans. In the future, these should be complemented with comprehensive and comparable data on mortgage loan maturities and LTV, DSTI or LTI ratios.

- A third group of indicators focuses on time series providing information on house prices and house price valuation.

- The fourth group of indicators relates to time series that provide information on the supply side of the residential real estate market.

3.4 Commercial real estate variables

The information on commercial property should reflect the risk profile of the asset class considered, rather than the ultimate purpose of the property. Therefore, the residential segment of commercial property should be distinguished from residential property owned and occupied by households. This is because commercial property is more often bought as a speculative investment by professional investors than residential property.

The MPDB covers a limited number of commercial real estate (CRE)-related variables, covering mainly available CRE price indicators and some available data on CRE-related exposures in the financial sector (even if these exposures may only be considered to be broad proxies of what would fall under a more precise definition of CRE). For other indicators that were envisaged, no comprehensive and comparable data for various countries could yet be included, due to data gaps related to the different features of the national CRE markets as well as - but to a lesser extent - the financial system's exposures.[14]

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[13] See for example ESRB (2015), Report on residential real estate and financial stability in the EU, December.

[14] See for example ESRB (2015), Report on commercial real estate and financial stability in the EU, December.

3.5 Bank sector variables

The indicators used to measure banking sector structure, performance and vulnerabilities in the different EU countries and at the EU and euro area level are regrouped under the following categories:

- Banking structure: This set of indicators shows the degree of financial intermediation and banking concentration to support the identification of structural risks.

- Main elements of the income statement: In this section basic components of the profit and loss account are shown.

- Profitability: Based on the main elements of the income statement this section includes various ratios for profitability and efficiency.

- Main elements of the balance sheet: The section on elements of the balance sheet covers the structure of assets and liabilities on a detailed basis.

- Liquidity and funding: These indicators aim at assessing the resilience of banks' liquidity position, the diversification of funding sources and maturity mismatches between assets and liabilities so as to reduce liquidity risk and cover any unforeseen funding requirements.

- Lending and leverage: Indicators in this category evaluate different types of risk concentrations from lending to the real economy — like the risks from lending in foreign currency, variable rate loans, large exposures and loan concentration per sector — as well as an indicator measuring the leverage ratio of the balance sheet.

- Capital: This category assesses the capacity of the financial sector to absorb losses. Capital adequacy can be viewed as a measure of financial soundness since lenders need to have sufficient capital to absorb shocks on both asset and liability sides of their balance sheets. Indicators cover the main regulatory capital ratios, the quality of regulatory capital as well as the composition of the risk-weighted assets.

- Asset quality: The indicators assess the credit quality of the loan portfolio and banks' related provisioning.

- Locational funding indicators: This section complements indicators provided in other sections.

3.6 Non-bank variables

As systemic risks can also emerge outside the banking sector, other parts of the financial system also warrant monitoring. This is even more relevant given the ongoing evolution of the financial system, including the shift to market-based financing or to more lightly regulated intermediaries. Identifying the build-up of systemic risk in the so called "shadow banking" sector ranks high on the agenda of the international community, as it has been illustrated by the work of the Financial

Stability Board.[15] The MPDB accordingly includes a domain containing variables to assess risks to financial stability originating from non-banking financial sector. The indicators deal for example with structural features of insurance corporations and pensions funds and their exposures to sovereigns. It also covers information on financial vehicle corporations.

3.7 Interconnectedness variables

This domain includes variables that capture interconnectedness within the financial system, and includes for that purpose indicators that have been selected for the ESRB's quantitative risk analysis tools. The Financial Stability Board for instance developed a common data template to be reported by global systemically important banks (G-SIBs). In the MPDB, the indicators deal with total bank assets relative to GDP, banks' interbank liabilities (in addition to their interbank assets) and positions in derivatives, among others.

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[15] See for instance the last FSB Global Shadow Banking Monitoring Report, http://www.fsb.org/2015/11/global-shadow-banking-monitoring-report-2015/

Box: Confidentiality protection and the three layers of MPDB

The MPDB follows the dissemination policy in place for the datasets already available in the ECB SDW, thereby being fully compliant with the confidentiality features of the underlying data.

In this regard, the MPDB has three different layers, which differ in the data availability:

- ECB internal MPDB

- ESCB layer of MPDB

- Public MPDB

ECB internal MPDB

ECB users can access the entire content of the MPDB, including data sourced from commercial data providers. In some cases, authorisation to access particular datasets is based on the principle of business-related "need to know", so as to ensure that information system resources are only accessed by authorised individuals who need these resources in order to undertake their work.

ESCB layer of MPDB

Data are visible to the European System of Central Banks and also associated institutions for which a memorandum of understanding is in place: the European Banking Authority (EBA), the European Commission, the European Insurance and Occupational Pensions Authority (EIOPA), the European Securities and Markets Authority (ESMA), the European Stability Mechanism (ESM), the European Systemic Risk Board (ESRB) and the Bank of International Settlements (BIS). In this layer, some of the data from commercial data providers are not available to the users, as the contracts forbid to share these data outside of the ECB. However, it is allowed to share tickers for specific variables. In case the information is not visible to the users directly, the tickers are included in the MPDB catalogues, available in the node descriptions. If the variables coming from third institutions (e.g. OECD and BIS) are not available in this layer, the MPDB catalogues gives clear instructions on where and how to obtain this data.

Public MPDB

Since the start of the project much effort has been put in making as much data as possible available to a wider audience, being it the ESCB or general public. A review took place to reassess the confidentiality classification of selected time series. In this context, around 100 additional variables previously available in the ECB internal or ESCB layer are now included in the public MPDB.

Admittedly, the coverage of the MPDB available for the general public is limited compared to the ECB or even the ESCB layer, as a significant amount of data reported to the ECB from national authorities, is flagged as non-publishable and thereby can only be shared within the ESCB.

Nevertheless, the public layer of the MPDB is expected to be a useful reference, providing as much information as possible presented in one place. As in the ESCB layer, the MPDB catalogues provides clear instructions where and how to obtain certain time series from commercial providers or third institutions (e.g. OECD and BIS).

4. Future enhancements

4.1 Regular reviews and closing of data gaps

The creation of the MPDB was also accompanied by a macroprudential data gap analysis, which confirmed important data gaps. Some of these data gaps were classified as "possible to be addressed" by collecting information available by national authorities.

Other data gaps are more fundamental in nature, in particular in the area of residential and commercial real estate. These data gaps are difficult to bridge in a satisfactory fashion through "ad hoc" surveys. A good and comparable dataset on very important parameters for the macro-prudential analysis of RRE (such as LTV ratios) will require moves towards "common definitions" and "co-ordinated" collections of data that are at least "representative" for the domestic mortgage and housing markets.

Apart from the already foreseen expansions and enhancements, the MPDB will be regularly reviewed to ensure that it is keeping up with evolving user needs. It is fair to add that such developments may bear costs for the compiling institutions as well as may lead to additional reporting from industry. The ESCB and ESRB will take a cost-conscious and effective approach prior to any significant increase in coverage, and the more so the more costly such extensions may be.

4.2 Further expanding coverage in the area of non-banks

In its current state, the MPDB gives prominence to the banking sector in line with the focus of the ECB's role in macroprudential policy. While many systemic crises are characterised by bank failures or bail-outs, experience shows that financial instability is not always caused or triggered by traditional banking intermediation. As the Regulation that establishes the ESRB provides it with a mandate to oversee systemic risk in the financial system as a whole, a further development of the MPDB to allow for the monitoring of financial stability from outside the banking sector would support the ESRB in its tasks.

Non-bank entities and activities contributed to the propagation of the global financial crisis. The securitisation of mortgages prior to the crisis increased vulnerabilities and lead to over-borrowing. Money market funds following the failure of Lehman Brothers played an amplifying role in the global financial crisis. So too did the near-failure of AIG, an insurer which had become 'too big to fail'. These examples from recent events show that institutions other than traditional banks can contribute to financial instability – both in their own right and through interconnectedness with banks.

Identifying and addressing such risks and assessing the resilience of the financial system is becoming ever more important with the recent growth of the non-bank financial system in the EU.

In addition, the drive toward greater market financing – a key goal of the European capital markets union (CMU) – will likely spark further growth among non-banks.

4.3 Type of indicators

The materialisation of systemic risks emanating from non-banks can be understood in similar terms to those from banking. The impact, sources and transmission channels, however, may vary substantially across sectors.

4.3.1   Credit growth and leverage

By providing services to the real economy some financial firms may take on leverage and undertake maturity transformation. Excessive leverage amplifies the financial cycle, allowing more borrowing to take place, and may lead to a reduction in the resilience of market players. In addition, reliance on short-term and unstable funding may lead to fire sales, market illiquidity and contagion as firms seek to meet withdrawals.

4.3.2   Interconnectedness

Links between financial institutions can help manage risk and distribute funds to where they can be deployed more effectively. Interlinkages between entities may also reduce the system's ability to withstand stress given direct and indirect contagion channels. Risks may materialize also when banks provide financial support to non-bank financial entities beyond contractual obligation.

4.3.3   Too big to fail

Non-bank entities can be systemically important. Mandatory clearing of standard derivatives through CCPs has the potential to increase transparency and the stability of the network. But it also creates new networks and concentrates risks at CCPs. Due to their central position in the network; CCPs may themselves become systemically important.

5. Conclusions

A suitable statistical basis for macroprudential analyses and policies comprises a comprehensive and high-quality set of data and indicators. As systemic risk can originate from different parts of the financial system and from imbalances in the macro-economic environment, a wide set of statistics on macroeconomic variables, financial and real estate markets, credit, debt and funding patterns are needed. Moreover, in order to detect possible contagion risks, created by increasing interconnectedness and herd behaviour, also interconnectedness variables have to be monitored.

This paper describes a major move taken by the E(S)CB, in cooperation with the ESRB, to build such a statistical repository with the creation of the new Macroprudential Database (MPDB). The rationales for setting up the MPDB are put forward, together with the structure of the database and a broad overview of its indicators. Relevant confidentiality issues are dealt with.

En passant, the design and implementation of the MPDB showed how cooperation and mutual involvement of financial stability experts and statisticians can create relevant synergies and value added in terms of conceptual analysis, technical infrastructures, collection and compilation of data.

With the creation of the MPDB a first important step was taken, but more has to be done. Data gaps are still there, especially in some domains of the MPDB and they will have to be filled, always keeping an eye on the burden to data compilers and matching merits and costs of additional data. Data gaps appear to be relevant for instance in the area of residential and commercial real estate. A further important challenge will be expanding the coverage in the area of non-banks credit intermediation, given the growing relevance of the so-called "shadow-banking". Progresses in the EU dossier of the Capital Market Union will make this area even more relevant. More in general, the MPDB will be regularly reviewed to ensure a robust and harmonised data system capable of satisfying the information needs of macroprudential analyses and policies.

Annex 1 - MPDB structure

The database consists of seven domains with various sub-domains and has the following structure:

Macroeconomic and financial market variables

- Monetary indicators
- Macroeconomic indicators
- GDP indicators
- Foreign exchange indicators
- Financial market indicators
- Risk and uncertainty indicators
- Financial condition indicators
- Borrowing and lending indicators

Debt and credit variables

- Total credit and debt service indicators
- Bank credit indicators
- Financial sector credit by sub-sector (whom-to-whom accounts)
- Cross border / currency / securities exposures
- Credit exposure of banks (FINREP data)
- Credit exposure of banks (COREP data)
- Credit conditions according to bank lending survey

Residential real estate variables

- Mortgage debt and household balance sheet
- Mortgage loan features / credit standards
- House price and house price valuation indicators
- Housing transactions and supply side

Commercial real estate variables

- CRE market: risk indicators
- Financial sector exposure to CRE

Bank sector variables

- Banking structure
- Main elements of the P&L

- Profitability

- Main elements of the balance sheet

- Liquidity and funding

- Lending and leverage

- Capital

- Asset quality

Non-bank variables

- Insurance companies and pension funds

- Other financial institutions

Interconnectedness variables

- Interconnectedness variables

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Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24/11/2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board

Irving Fisher Committee on
Central Bank Statistics

BANK FOR INTERNATIONAL SETTLEMENTS

Features of the new macroprudential database[1]

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Monetary and Financial Statistics Division

Features of the new Macroprudential Database

IFC Biennial Basel Conference

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Disclaimer: The views expressed in the paper presentation are those of the authors and do not necessarily reflect those of the European Central Bank.

Overview

1	Introduction
2	Structure and key features
3	Demonstration
4	Future enhancements

Introduction

- **Aim: Developing and running a statistical database** for

  - conducting macroprudential policy in the Single Supervisory Mechanism and to cover also ESRB data needs for macroprudential policy
    => as these needs are very much aligned

  - facilitating access to relevant data by national central banks and public at large

- The MPDB with a first large set of variables went *live in October 2015* and can be consulted in the ECB's *Statistical Data Warehouse* (SDW)

- The MPDB includes datasets already available in SDW

  respecting confidentiality protection of underlying data, where appropriate

- The variables are grouped in *7 domains*:

  - ➢ *Macroeconomic and financial market variables*

  - ➢ *Debt and credit variables*

  - ➢ *Residential real estate variables*

  - ➢ *Commercial real estate variables*

  - ➢ *Bank sector variables*

  - ➢ *Non-bank variables* **[new domain available since March 2016]**

  - ➢ *Interconnectedness variables*

- Data currently available in the MPDB covers more than *470 variables*, of which around *85 are new indicators* derived specifically for the MPDB

- A regular review of the MPDB to *meet evolving user needs*

- *Macroeconomic and financial market variables* covering financial stability risks stemming from

    - macroeconomic developments and imbalances,

    - household, corporate and public sector debt, and

    - financial markets

- *Debt and credit variables* aimed at a timely detection of the building-up of credit bubbles in the economy, e.g. in periods of excessive credit growth

- *Residential real estate (RRE) variables* including times series on variables that have been identified as potential leading indicators for RRE crises

- *Commercial real estate (CRE) variables* covering CRE price indicators and available data on CRE-related exposures in the financial sector

- *Bank sector variables* measuring banking sector structure, performance and vulnerabilities in the different EU countries

- *Non-bank variables* on risks to financial stability from the non-banking financial sector, e.g. structural features on

    - insurance corporations and pensions funds, or

    - securitisation vehicles

- *Interconnectedness variables* within the financial system, including indicators selected for the ESRB's quantitative risk analysis tools

MPDB demo

Future enhancements

- *Regular reviews of the MPDB* to meet evolving user needs

- *Data gaps* in the area of residential and commercial real estate

  - to be filled in, being cost-conscious: matching merits and costs of new data

- *Expanding the coverage in the area of non-bank credit intermediation*, given the growing relevance of the so-called "shadow-banking"

Thank you for your attention!