The IPAF International Conference

Safeguarding Macroeconomic and Financial Stability through Regional Cooperation and Integration

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The views expressed are those of their authors and not necessarily the views of the BIS or Deutsche Bundesbank.

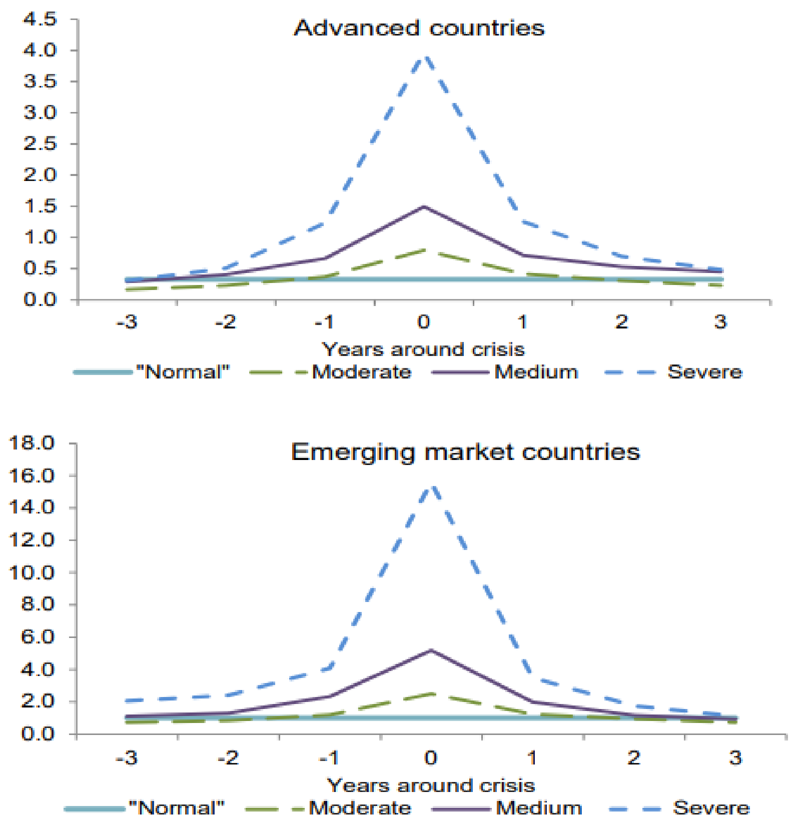
Developing an Online Nonperforming Loan Trading Platform

- Covid and earlier financial crises have shown importance of monitoring and managing NPLs
  - Financial system distress can be anticipated
  - Can intervene earlier eg better, more targeted support, better resolution
  - Covid turned out a special case with low NPLs given the large fiscal support
- Higher interest rates and expected global slowdown likely to lead to increase in NPLs
  - Should not expect Covid experience to repeat, as fiscal headroom smaller and losses more concentrated => getting ready important
- A NPLs trading platform can greatly help
  - Greater transparency, standardisation
  - More diversification, wider pool of investors
- Important to reflect various NPL concepts and build on existing and new data

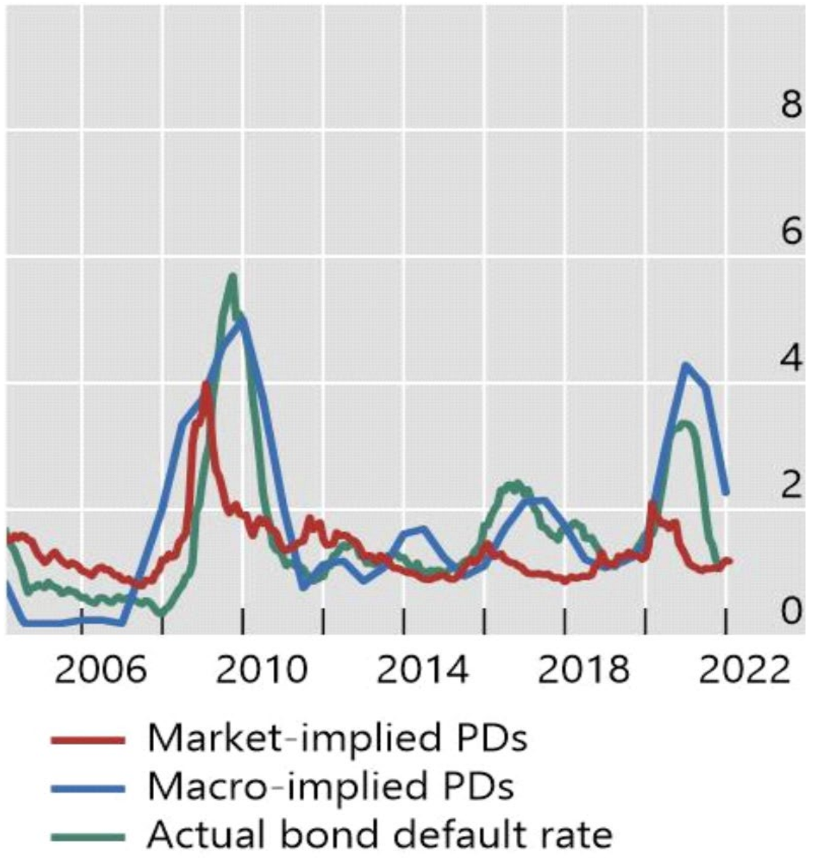
Explaining and predicting NPLs

- Hardy and Schmieder (2011) document that there is a common behaviour of credit losses stress around crisis.

Figure 5. Typical Evolution of Credit Loss Rates under Stress
(median loss rate by stress severity, percent of credit outstanding)



- And there are means to anticipate stress, although this is not straightforward



Non-performing loans (NPLs): the concepts

- Economic concept: failure of borrower to pay back lenders credit => non-performing
- Regulatory concept: default and probability of default
  - Default concept: more than 90 days past due (180 days for retail and public borrowers), or other circumstances suggesting borrower is „unlikely to pay“
  - Probability of default: likelihood that borrower will default within one year
- Accounting concept: impairment
  - Traditional scheme: impairments based on incurred loss method (IAS / US GAAP)
  - Replaced by expected loss concept (IFRS / CECL) in many jurisdictions
- Overview: FSI brief no. 7 by Baudino et al (2018)

The challenge to measure NPLs

- Measuring NPLs is complex and requires comprehensive data, which:
  - Might not be available
  - Is often backward-looking
- Some helpful concepts (eg Schmieder et al, 2011, IMF working paper):
  - Forward-looking: market-based PDs, Basel III PDs, anticipated IFRS / CECL impairments
  - Nowcasting: booked impairments (P&L), realised losses
  - Backward-looking: NPL stocks
- Forward-looking or nowcasting preferable over backward-looking concepts
- Still, NPL stock concept remains common

Availability of NPL-data in the public domain is limited

- Forward- and nowcast information sources:
    - Pillar 3 data: not available in single database (yet)
    - Vendor data: expensive and mostly for listed financial companies
    - IMF: publishes NPL stocks by country (IMF Financial Soundness Indicators)
- Related, not straightforward to monitor potential losses during the pandemic
    - → *see next slide*

Availability of NPL-data in the public domain is limited (cont.)

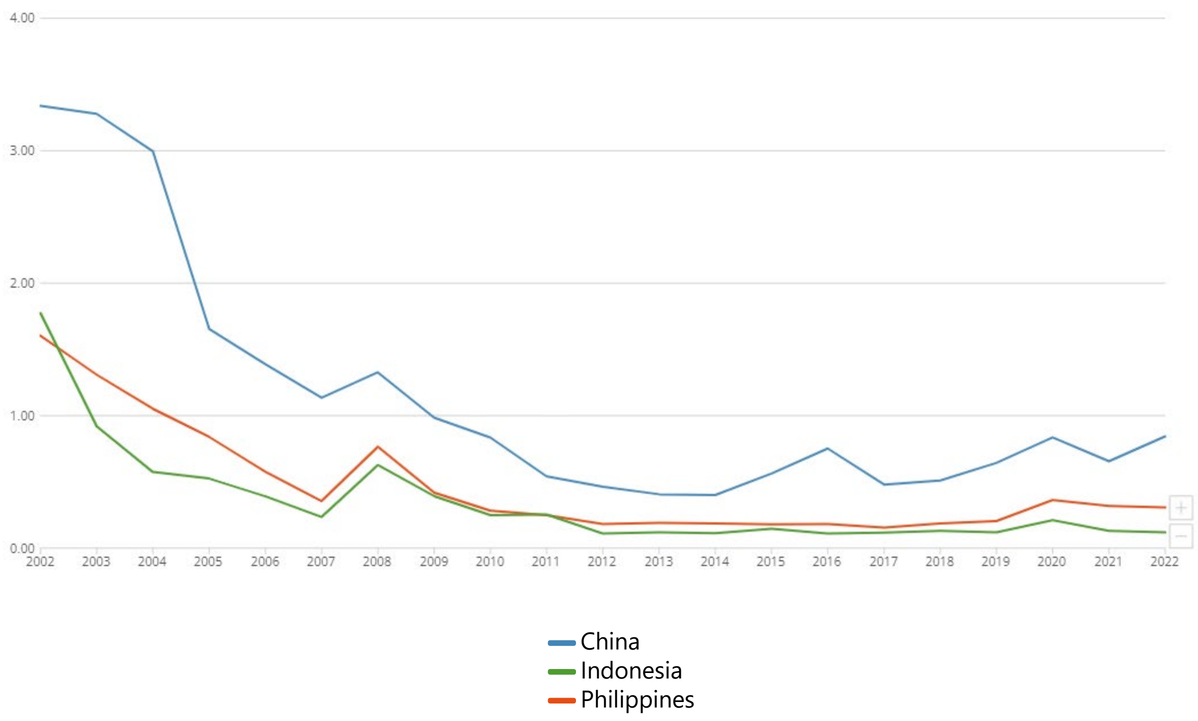
- BIS studies projecting credit losses during the pandemic
  - Banerjee et al (2021): From liquidity to solvency
  - Mojon, Rees, Schmieder (2021): Simulation of potential sectoral credit losses
  - Juselius / Tarashev (2021): Forward-looking expected loss concept
  - Banerjee et al (2022): Debt service ratio concept
- Other relevant work on estimating credit losses
  - Moody's (2004): Analyzing historical credit loss rates on North American loans vs. bonds
  - Hardy / Schmieder (2020): Developing rules of thumb for estimating credit losses
  - Juselius / Tarashev (2020): Forecasting expected and unexpected losses
  - Ashbaugh (Sageworks): Selecting the appropriate measure of loan losses

Regional cooperation to establish credit risk data at the country level

- Forthcoming joint work ASEAN+3 Macroeconomic Research Office (AMRO) & BIS staff on loss rates around the world (Ong / Schmieder / Wei)
- Objective: Make country level credit loss series available for as many countries as possible:
  - Forward-looking data: market-based weighted average corporate PDs, GDP-implied impairment rates
  - Nowcasting data: realised impairment rates by banks
  - Backward-looking data: implied credit losses from NPL stock data (bank reports and IMF FSI)
- Depending on the country at hand
  - Data available for all three types of metrics
  - Data „only“ available for backward-looking data

Illustration of preliminary estimates from AMRO-BIS staff project

Selected ASEAN+3: Market-Implied Loss Rates
(Percent)



Philippines: Credit Loss Rates
(Percent)