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Macroprudential policies – rationale, taxonomy and relationships

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Prudential policies: some language

- Microprudential policies:
  - Seek to ensure safety and soundness of **individual institutions**

- Macroprudential orientation:
  - Takes a **system view**
    - system may be unstable even if all individual institutions are sound

Prudential policies: some clarifications

- Macroprudential policy
  - **cannot target the system**.
    - must work at the level of individual institutions to be effective.
  - **cannot** be pursued **in isolation** from microprudential policies.
  - needs to care about soundness of individual institutions, especially those that are **systemically important**

Prudential policies – two objectives

- "Microprudential": **Investor (consumer) protection**
  - Safety and soundness of institution is **means** to ensure protection of those who have claims on financial institutions
    - e.g. depositors, bondholders, holders of insurance claims and pensions
    - Rationale is asymmetric information between issuers and buyers of such claims.
- "Macroprudential": **Mitigation of systemic risk**

Systemic risk - a definition

- Risk of disruption to the provision of financial services that
  - results from an impairment of the financial sector
  - risks having a material adverse effect on the real economy
  - (IMF, 2009)

Systemic risk – two dimensions

- Time dimension (pro-cyclicality)
- (= macro-systemic risk)

- Cross-sectional dimension
- (=micro-systemic risk)

Systemic risk: time-dimension

- Macro-systemic risk: Leveraged exposures to aggregate (correlated) risks
- Aggregate risks often manifest in changes in asset prices
    - stock prices (e.g. U.S. Great Depression)
    - real estate, (e.g. Japan's Lost Decade, 2007/8 U.S. crisis)
    - exchange rates (e.g. carry trades in Iceland and Eastern Europe)
- Crystallization of risks (reversal of prices)
  - leads to defaults and fire-sales
  - weakens providers of leverage
  - leads to curtailment of credit to the economy at large.

Systemic risk: cross-sectional dimension

- Micro-systemic risk: risk of impairment of the financial sector from failure of **individual institution**, through
  - **Lack of substitutes** for services provided (e.g. credit or payment services)
  - **Direct linkages** (exposures between institutions)
  - **Fire-sale of assets**
  - **Informational contagion** (in the presence of fragile funding structures)

Macro and micro-systemic risk

- Realization of macro-systemic risk increases micro-systemic risk
  - Crystallization of aggregate risk
    - increases risk of individual failure
    - weakens all financial firms

    ➢ increases the potency of interlinkages in creating knock-on defaults (see Nier et al 2007)
      - further weakening the system
  - Example: Lehman

Systemic risk externalities

- Private agents likely to underinsure against systemic risk
  - creating a **rationale** for **intervention**
- Private risk management is
  - unlikely to internalize **macro-systemic externalities** (from aggregate weakness)
    - exacerbated by expectations of public support (**too many to fail**)
  - unlikely to internalize **micro-systemic externalities** (from individual failure)
    - exacerbated by expectations of public support (**too important to fail**)

Relationships: investor protection and systemic risk mitigation

- Two objectives often complementary
- But: systemic risk mitigation may call for changes in the design, calibration and application of (prudential) tools.
- Example:
  - deposit insurance
    - needed for investor protection
    - useful to reduce systemic risk
      - reduces chance of generalized run
  - when funded ex-post can become procyclical and weaken the financial sector.

Relationships: other tools to mitigate systemic risk

- Monetary policy
- Oversight
  - of payment, settlement and clearing arrangements
- Resolution tools
  - including deposit insurance, special resolution tools

Prudential policy needs to play a **supporting** role and be **mindful of limitations** of other policies

Relationships: monetary policy

- Prudential regulation is needed (alongside monetary policy) to more directly affect macro-systemic risk
  - **Capital buffers** can cushion the effect of unwinding (asset price reversals) on providers of leverage
    - to reduce the impact on the economy
  - **Capital requirements** can penalize exposure to particular aggregate risks
    - to reduce the probability of a build-up
      - E.g. prohibitive requirements for foreign currency mortgages

Relationships: oversight

- Impact of individual failure depends on the robustness of the **clearing and payments** landscape
  - Crisis has shown up weakness in OTC derivatives markets
- **Oversight** of existing systems is insufficient to encourage the development and use of robust systems.
- **Prudential regulation** of system users (banks) needs to reflect counterparty credit risks arising from insufficiently robust systems
  - E.g. high **capital requirements** for
    - trades lacking a central counterparty,
    - for foreign exchange transactions settled outside of CLS

Relationships: resolution

- The failure of some institutions may not be credibly resolved without implicating **public funds.**
  - Even if all financial trading was centrally cleared and all potentially systemic institutions were subject to special resolution regimes
- **Prudential regulation** is needed to reduce the **probability of failure.**
    - Capital (and liquidity) requirements need to be increasing in the systemic risk posed by any given institution
    - Unlike under Basel II, where the same solvency standard applies to all banking institutions.

Relationships: resolution

- Strength of **prudential control** needs to increase in the **systemic risk** posed by an individual institution.
- **Systemic risk** a function of
  - **characteristics of the firm**
    - Size, interconnectedness and lack of substitutability
  - **environment (legal infrastructure)**
    - robustness of clearing and settlement
    - ease of application of special resolution tools

In sum: prudential regulation and systemic risk

- Prudential regulation needs to
  - reduce probability and impact of macro-systemic risk (capital requirements and buffers)
    - Complementing monetary policy
  - reduce impact of individual failure by discouraging counterparty credit risk (e.g. from insufficiently robust clearing in OTC markets)
    - Complementing oversight
  - reduce probability of individual failure by being sensitive to systemic risk posed by an individual institution
    - Complementing resolution tools

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