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Financial Safety Nets: Key design considerations

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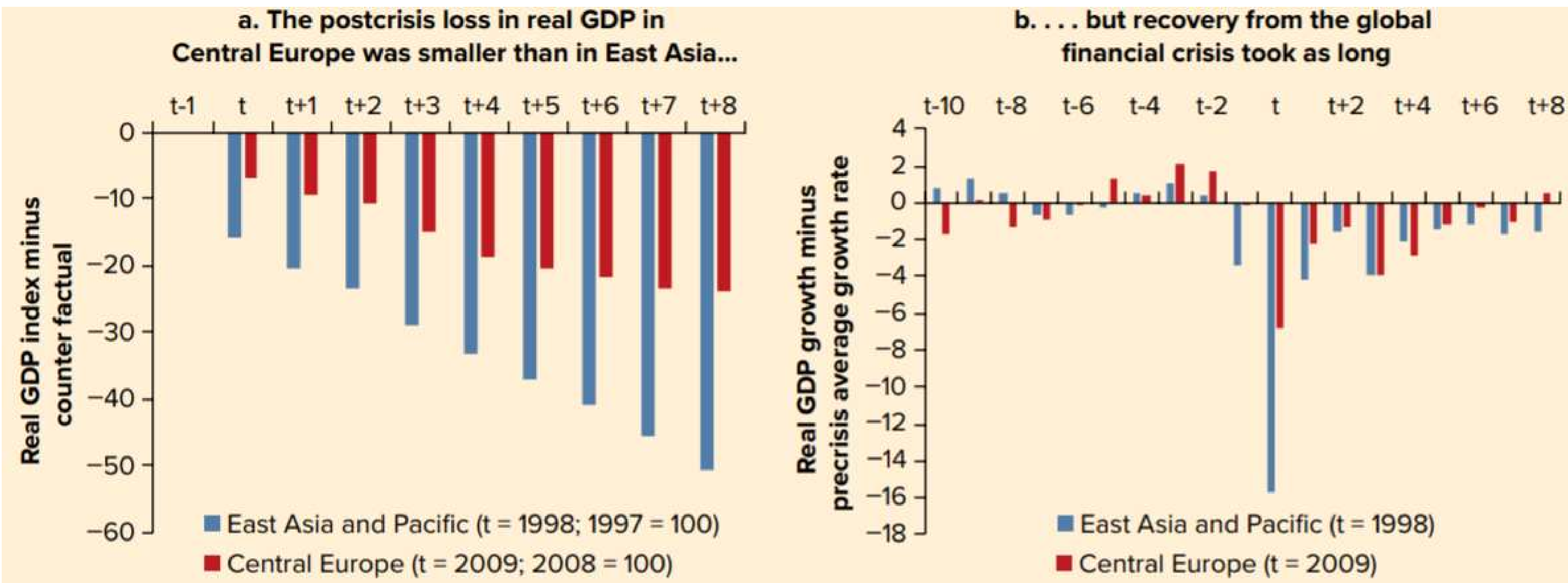
Asian financial crisis → attention on Financial Safety Nets

GFC → Reinforced need for financial safety nets

Recovery from the more recent GFC has been even longer



Source: Data from World Development Indicators and Eurostat.
Note: The postcrisis counterfactual real GDP series were constructed assuming that annual GDP growth remained at the precrisis average growth rates. East Asia and Pacific includes Indonesia, Lao PDR, Malaysia, the Philippines, Thailand, and Vietnam.

Source: World Bank, ECA Economic Update May 2018

What is a Financial Safety Net?

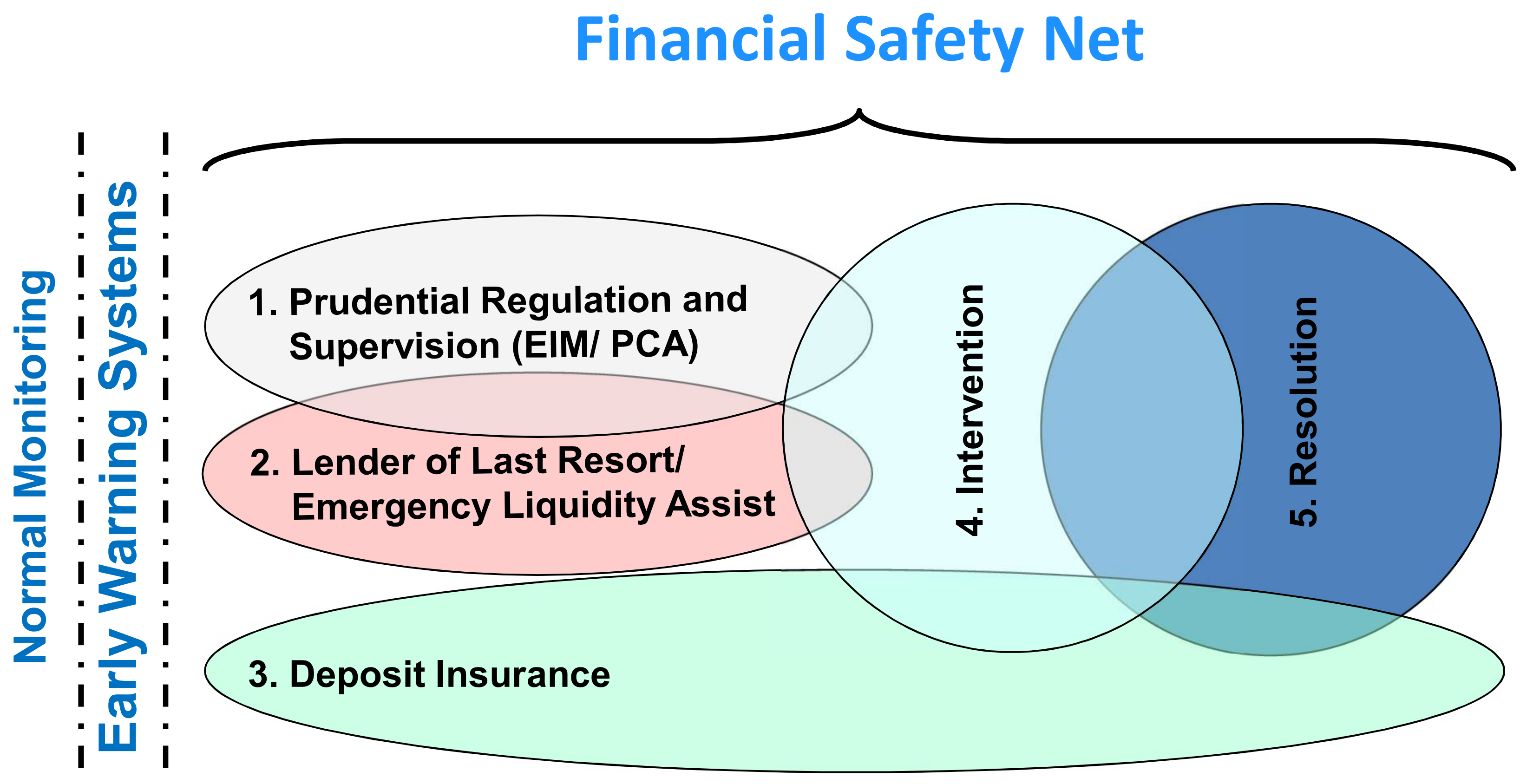
- A financial safety net is a collection of institutions that can relieve the strains of financial distress in banks and non banks.
- ‘Financial safety net’ covers various institutions, rules and procedures that protect the safety and soundness of the system of financial intermediation.
- Today, financial safety nets have become a central pillar of modern financial architectures → FSNs are important to preserve financial stability, which is a prerequisite for economic growth and sustainable poverty reduction.

Types of financial safety nets

- Domestic Level
- Global and Regional Level

Domestic Financial Safety Nets

Financial Safety Net – Key Components



Better preparedness → faster response, shorter+lesser disruption, lower cost

Source: adapted from de la Torre (2006), WB

1. Prudential Regulation and Supervision

(Early Intervention Measures/ Prompt Corrective Action)

- A **strong prudential regime** is always the first line of defense
- Prudential authorities conduct **early interventions** with the aim of prompting banks to address their weaknesses in a timely way
  - The first formal early intervention regime was **Prompt Corrective Action** (PCA) introduced by the United States in 1991.
  - The most recent is the European Union's **Early Intervention Measures** (EIM), introduced in 2014.
- Formal early intervention regimes differ across jurisdictions
  - The main differences relate to the indicators used to trigger early interventions, any categories or steps within the formal early intervention regime, and the range of powers and the degree of discretion allowed to supervisors when deciding to activate the early intervention regime.
    - For example, PCA relies solely on capital triggers whereas the EIM regime considers composite indicators, such as supervisory ratings and events deemed significant by the supervisory authority.
    - PCA mandates intervention once the triggers are breached and prescribes the measures to be taken, whereas the EIM only obliges supervisors to take an explicit decision on whether to intervene and gives them considerable flexibility in selecting intervention tools.

Triggers for Early Intervention – Country examples

Countries	United States	Peru	Japan	Philippines	India	European Union
Date (last revisions)	1991 (2013)	1996 (2009)	1998 (2012)	1998 (2006)	2002 (2017)	2014
Capital triggers	TCAR, Tier 1 R, CET1 R, Lev ratio, tangible equity ratio, SLR	Total capital ratio, < min cap amount, loss>40% of regulatory capital	TCAR, Tier 1 R, CET1 R	Minimum capital requirements TCAR, Tier 1 R, CET1 R, Lev Ratio	TCAR and CET1 R	Yes through anomalies in indicators and breach of thresholds
Asset quality-based triggers	No	No	No	No	Yes, net non-performing advances ratios (NNPA)	No
Ratings-based	No	No	No	Yes, composite CAMELS less than 3 or management component less than 3	No	Yes, composite SREP = 4 or combinations (composite 3, component 4)
Other triggers	No	Breaches violations of law, non-cooperative or fraudulent practices	No	Serious supervisory concern (higher than normal risk of failure)	Tier 1 leverage ratio and negative return on assets for two, three or four consecutive years	Material changes, anomalies in indicators, significant events

Source: Early intervention regimes for weak banks, Jean-Philippe Svoronos, FSI Insights on policy implementation, No 6, April 2018

Discretionary and rules-based formal interventions

Countries	United States	Peru	Japan	Philippines	India	European Union
Classifications (based on triggers)	Yes, 5 levels	No	Yes, 5 levels	Classification based on risk profiles (upper medium, moderately high, high, very high)	Yes, 3 thresholds	No
Activation if trigger hit	Automatic	Automatic	Automatic	Consider activating	Consider activating based on financial results and supervisory assessment	Obligation to formally consider if conditions are met to activate
Prescribed measures	Yes, for all undercapitalised levels depending upon classifications	Yes, related to determining bank's needs & raising fresh capital	Yes, business improvement and/or recap. plans	Yes, for capital restoration plans (CRPs); selection of appropriate enforcement action	Yes, mandatory measures based on risk thresholds	No, selection from listed EIM
Discretionary measures	Yes, for significantly undercapitalised	Yes, related to CRP	Yes, for and within each category	Yes, selection of appropriate enforcement action	Yes, measures drawn from menu common to all thresholds	Yes, selection from list of EIM

Source: Early intervention regimes for weak banks, Jean-Philippe Svoronos, FSI Insights on policy implementation, No 6, April 2018

2. Lender of Last Resort/ Emergency Liquidity Assistance

Lender of last resort/ ELA

- A resource banks can turn to when they urgently need funds for their operations and have exhausted all other options.

Why is it important?

- ***Preempt solvent bank from going bankrupt*** (unable to meet short term demands of its customers/creditors → customers could cause bank run)

- ***Protect jobs/business*** (bank goes bankrupt, lending to businesses stops abruptly – wages and operational payments disrupted → loss of business/jobs).

- ***Avoid contagion effect*** (since banks are interconnected, problems at one bank can spread to others and impact whole economy).

Rules for Emergency Liquidity Assistance

→Not all banks that are short on funds get emergency liquidity assistance

→There are strict rules in place to prevent banks from deciding to take greater risks

Case of Europe (ECB)

3. Deposit Insurance

Deposit insurance - a core element of a financial safety net

- **It provides protection to depositors from loss**
- **Gives customers prompt access to their deposits up to a defined limit in case of bank failure**
- **Helps reduce the risk of depositor runs when the banking system is fragile.**
- **May help reduce the risk of government bailouts of banks (as it gives protection to most vulnerable parties)**

→ ***Helps maintain/restore confidence in financial system***

Deposit Insurance – Mandate

- **The Core Principles for Effective Deposit Insurance Systems (DIS Core Principles) issued by the International Association of Deposit Insurers (IADI) outline the roles and responsibilities of the deposit insurer**

- **Depending on the design of the institutional and regulatory framework in a jurisdiction, the mandates of deposit insurers may differ. The specific mandate of the deposit insurer determines its role in the FSN.**

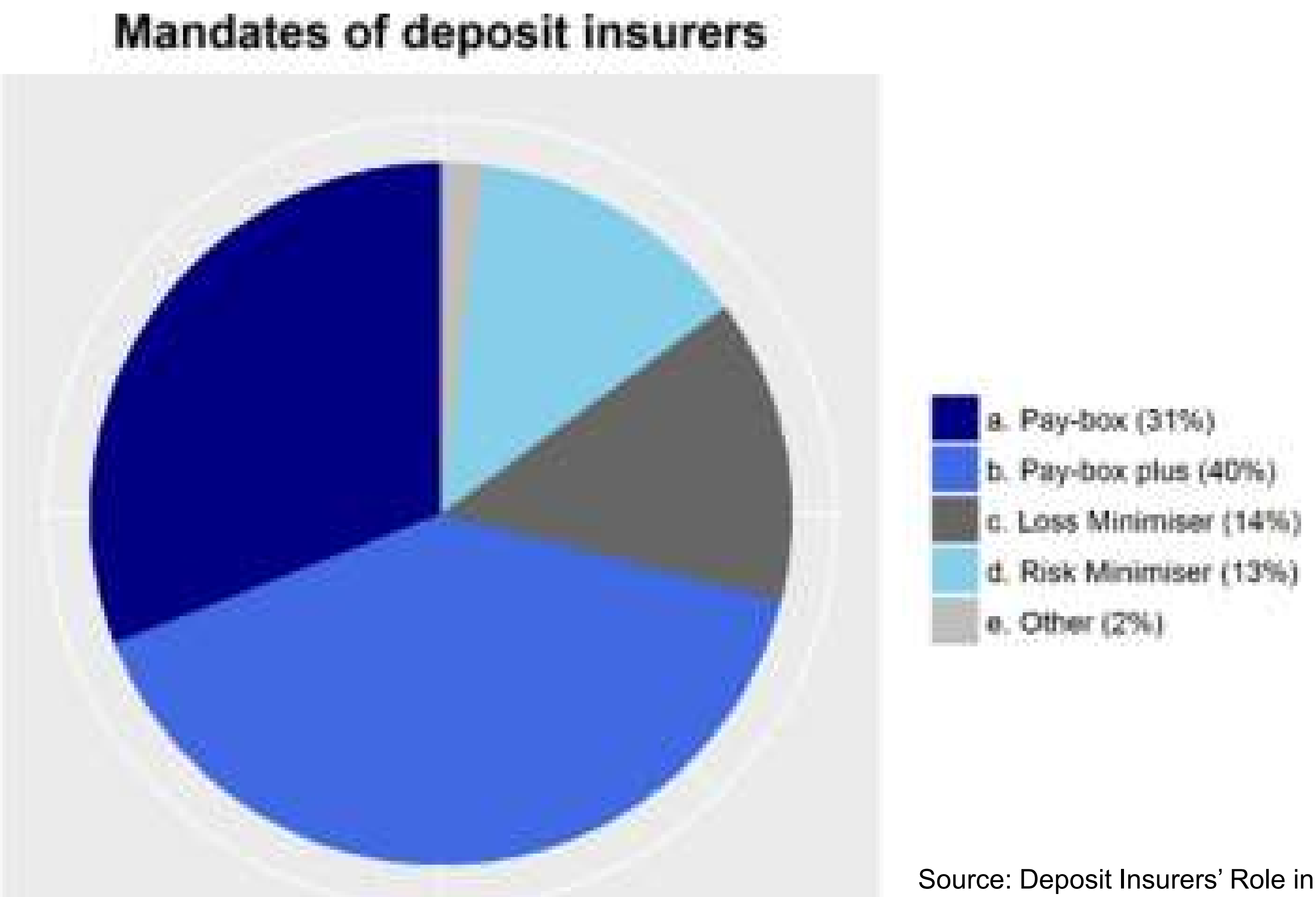
    - ***Mandates can range from narrow "pay box" systems to those with extensive responsibilities (from preventive action to loss or risk minimization /management)***

    - ***The majority of DIS are legislated and administered by the public sector, although around one quarter are privately administered***

    - ***Majority of DIS are funded by ex ante contributions from their member institutions***

Deposit Insurance – Mandate (2)

- **There is a predominance of members with pay box or pay box plus systems**



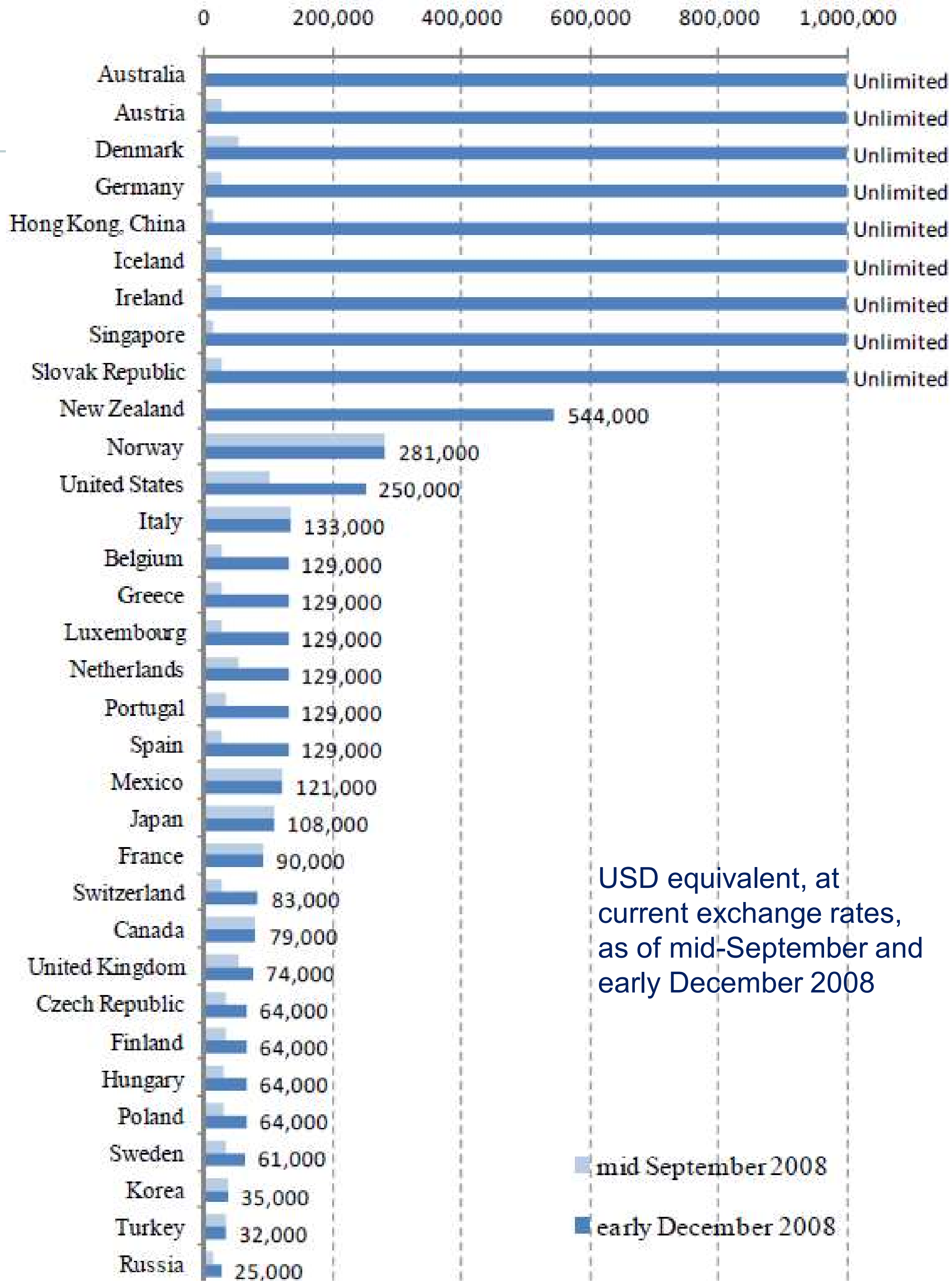
Number of respondents = 135

Source: Deposit Insurers' Role in Contingency Planning and System-wide Crisis Preparedness and Management, IADI Guidance Paper, May 2019

Deposit Insurance:

Increase in Coverage Limits during GFC

- **The global financial crisis illustrated the importance of maintaining depositor confidence and limiting contagion - and the key role that deposit protection plays in this regard.**
- **One of the earliest and most widely adopted crisis responses in 2008 was the increase in deposit insurance coverage.**

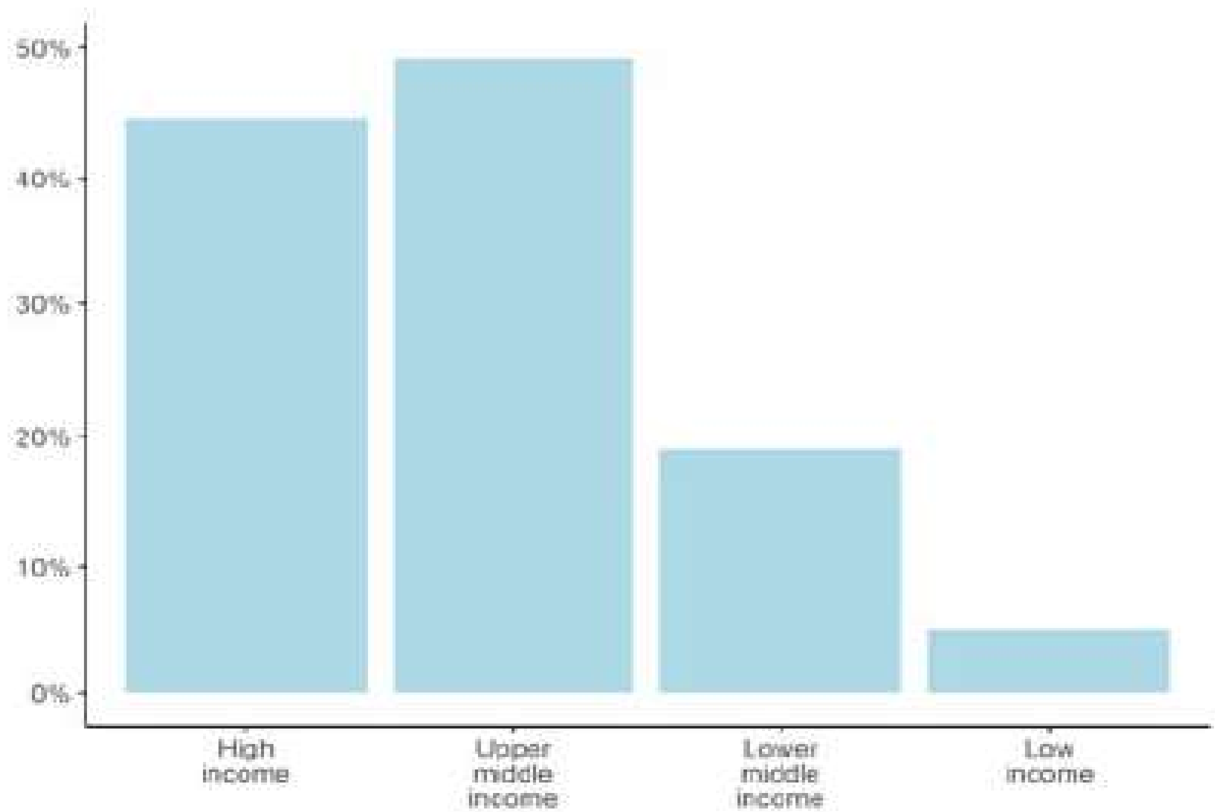


Source: Financial Crisis: Deposit Insurance and Related Financial Safety Net Aspects, Sebastian Schich, OECD, 2008

Deposit Insurance

Liabilities covered vary across countries

Figure shows average percentage of total bank liabilities that were covered by deposit insurance across countries in each income group in 2016. The data is from Bank Regulation and Supervision Survey conducted by the World Bank.



Source: Anginer, Deniz; Demirguc-Kunt, Asli. 2018. *Bank Runs and Moral Hazard : A Review of Deposit Insurance (English)*. Policy Research working paper; no. WPS 8589. Washington, D.C. : World Bank Group.

Preconditions for Effective Deposit Insurance

The International Association of Deposit Insurers' (IADI) "Core Principles for Effective Deposit Insurance Systems" (2014) describe how the establishment and design features of deposit insurance depend on many preconditions. Without these, deposit insurance would be less effective and could create moral hazard. The preconditions include the following:

- **Macroeconomic environment.** Macroeconomic conditions influence the effectiveness of markets, the ability of the financial system to intermediate resources, and economic growth. Persistent instability hampers the functioning of markets, and such conditions affect the ability of financial institutions to absorb and manage their risks. In periods of economic instability, market volatility can lead to destabilizing creditor runs (including depositor runs).
- **Financial system structure.** The soundness of a financial system influences the appropriate design features of a deposit insurance system. Any assessment of a deposit insurance system should consider the health and structure of the financial sector and the range of possible demands on the deposit insurer. The existence of and nature of depositor preference is also relevant to consider when designing a deposit insurance framework.
- **Prudential regulation, supervision, and resolution.** Strong prudential regulation and supervision help to ensure that an institution's weaknesses are promptly identified and corrected. Implementation of corrective measures is monitored and, where deficient, early intervention and an effective resolution regime help to lower the costs associated with bank failures. Supervision helps to reduce moral hazard risks that would otherwise arise. An effective resolution regime is essential, including timely entry into resolution and the availability of a range of resolution options.
- **Legal framework.** Deposit insurance systems cannot be effective if relevant and comprehensive laws do not exist or if the legal regime is characterized by significant inconsistencies. The legal framework has a significant impact on the activities of the deposit insurance system. A well-developed legal framework should incorporate a system of business laws, including corporate, insolvency, contract, creditor rights, consumer protection, anti-corruption and fraud and private property laws.
- **Accounting, disclosure, and auditing.** Sound accounting and disclosure regimes are necessary for the effective evaluation of risks by deposit insurance systems. Accurate, reliable, and timely information can be used by management, depositors, the market, and authorities to make decisions regarding the risk profile of an institution and thereby increase market, regulatory, and supervisory discipline. A sound accounting and disclosure regime includes comprehensive and well-defined accounting principles and rules that command wide international acceptance. Effective auditing is essential to the verification of the accuracy of disclosures and compliance with accounting standards.

4. Resolution Arrangements

- Greater resilience can help banks withstand shocks, but one cannot rule out the possibility of failure.
- A resolution authority/arrangement is responsible for resolving distressed or problem banks using resolution powers and tools.
- A key post-crisis response to GFC’s lessons was the development of the Financial Stability Board's Key Attributes of Effective Resolution Regimes for Financial Institutions.
- The Key Attributes set out the responsibilities, instruments and powers that national resolution regimes should have to enable orderly resolutions of failing financial firms, without exposing the taxpayer.

Resolution Arrangements – FSB Key Attributes Summary (1)

- **Scope.** The resolution framework should at least apply to all systemically important financial institutions
- **Resolution authority.** There should be a dedicated authority responsible for the resolution of financial institutions, with appropriate governance, operational independence, legal powers, accountability, and transparency.
- **Resolution powers.** There should be a comprehensive range of legal powers to enable a financial institution and members of the relevant regulatory group to be resolved in a manner consistent with resolution objectives.
- **Set-off, netting, collateralization, segregation of client assets.** The legal framework governing set-off rights, contractual netting, collateralization agreements, and the segregation of client assets should be clear, transparent, and enforceable and should not hamper the effective implementation of resolution measures.
- **Safeguards.** Resolution powers should be exercised in a way that respect the hierarchy of claims while providing flexibility to depart from the general principle of equal treatment of creditors of the same class. Creditors should be compensated to the extent they are rendered worse off than under a conventional liquidation of the resolved financial institution.
- **Funding of firms in resolution.** Jurisdictions should have statutory funding mechanisms or other arrangements in place so that authorities do not rely on public ownership or bailout funds as a means of resolving firms. Any funding arrangements should be subject to robust safeguards to minimize taxpayer liability and moral hazard.

Source: "Key Attributes of Effective Resolution Regimes for Financial Institution", FSB, revised October 2014.

Resolution Arrangements – FSB Key Attributes Summary (2)

- **Legal framework conditions for cross-border cooperation.** The statutory mandate of a resolution authority should empower and strongly encourage the authority wherever possible to achieve a cooperative solution with foreign resolution authorities.
- **Crisis management groups (CMGs).** Home and key host authorities should maintain CMGs with the objective of enhancing preparedness for, and facilitating the management and resolution of, a cross-border financial crisis affecting the firm.
- **Institution-specific cross-border cooperation agreements.** For financial institutions of systemic importance and with significant cross-border operations, there should be institution-specific cooperation agreements between the home and host authorities that set out the framework and processes for achieving a coordinated cross-border resolution.
- **Resolvability assessments.** Resolution authorities should regularly undertake resolvability assessments that evaluate the feasibility of resolution strategies and their credibility considering the likely effect of the firm's failure on the financial system and the overall economy.
- **Recovery and resolution planning.** Jurisdictions should put in place an ongoing process for recovery planning and resolution planning, covering at minimum domestically incorporated firms that could be systemically significant or critical if they fail.
- **Access to information and information sharing.** Jurisdictions should ensure that no legal, regulatory, or policy impediments exist that hinder the appropriate exchange of information.

Source: "Key Attributes of Effective Resolution Regimes for Financial Institution", FSB, revised October 2014.

Choice of resolution instrument depends of several aspects

Matching country characteristics to resolution polices

NPL and country characteristics		Resolution policies: Debt workout	Write-offs	Asset protection schemes	Securitisation	Public AMCs	Direct sales
Macroeconomic conditions	*Slow growth*	√	√		√		√
	Shock to sset quality	√	√	√	√	√	√
Asset types	*Mortgages*		√	√	√	√	√
	SME loans	√	√	√	√		
	Large corporate loans	√	√	√			√
	Unsecured loans		√		√	√	√
Fiscal space	*Limited*	√	√	√	√		√
Legal and judicial constraints	*Strong constraints*		√	√			

1) This table matches resolution policies to country characteristics on the basis of the relative degrees of complexity of each pairing.

Source: Adapted from P. Baudino and H. Yun, BIS (2017);

Resolution policy/ arrangements – by Country

Key NPL resolution instruments during crisis (selected countries)							
	Crisis episode	***Debt restg & out-of-court w/o***	***Write-offs***	***Asset Protection Scheme***	***Securitisation***	***AMCs***	***Direct Sales***
Indonesia	Asian crisis	√	√		√	√	√
Korea	Asian crisis	√	√		√	√	√
Malaysia	Asian crisis	√	√		√	√	
Thailand	Asian crisis	√	√		√	√	√
Ireland	GFC		√			√	√
Italy	GFC		√		√		√
Spain	GFC		√			√	√
UK	GFC		√	√		√	√
USA	GFC	√	√	√	√		√
Japan	Japan crisis	√	√		√	√	
Sweden	Nordic crisis		√			√	√
USA	S&L crisis	√	√		√	√	√

Source: Adapted from Resolution of non-performing loans – policy options, P. Baudino and H. Yun, Financial Stability Institute, BIS, October 2017

Domestic Financial Safety Nets – Some Caveats

- **Moral Hazard:** In designing a FSN, how should the stability gained from a financial safety net be balanced against the moral hazard problem? FSN can lead to excessive risk taking by financial institutions and despite extensive discussions, the literature lacks a theoretical framework that can be used to address this question.
- **Inter-agency Coordination:** A Financial Safety Net can achieve its objective only with effective coordination among the relevant authorities. (Ref: Crisis Simulation Exercise Tool offered by WB)
- **Dynamic Nature:** FSN will have to continuously adapt as risk to the system change

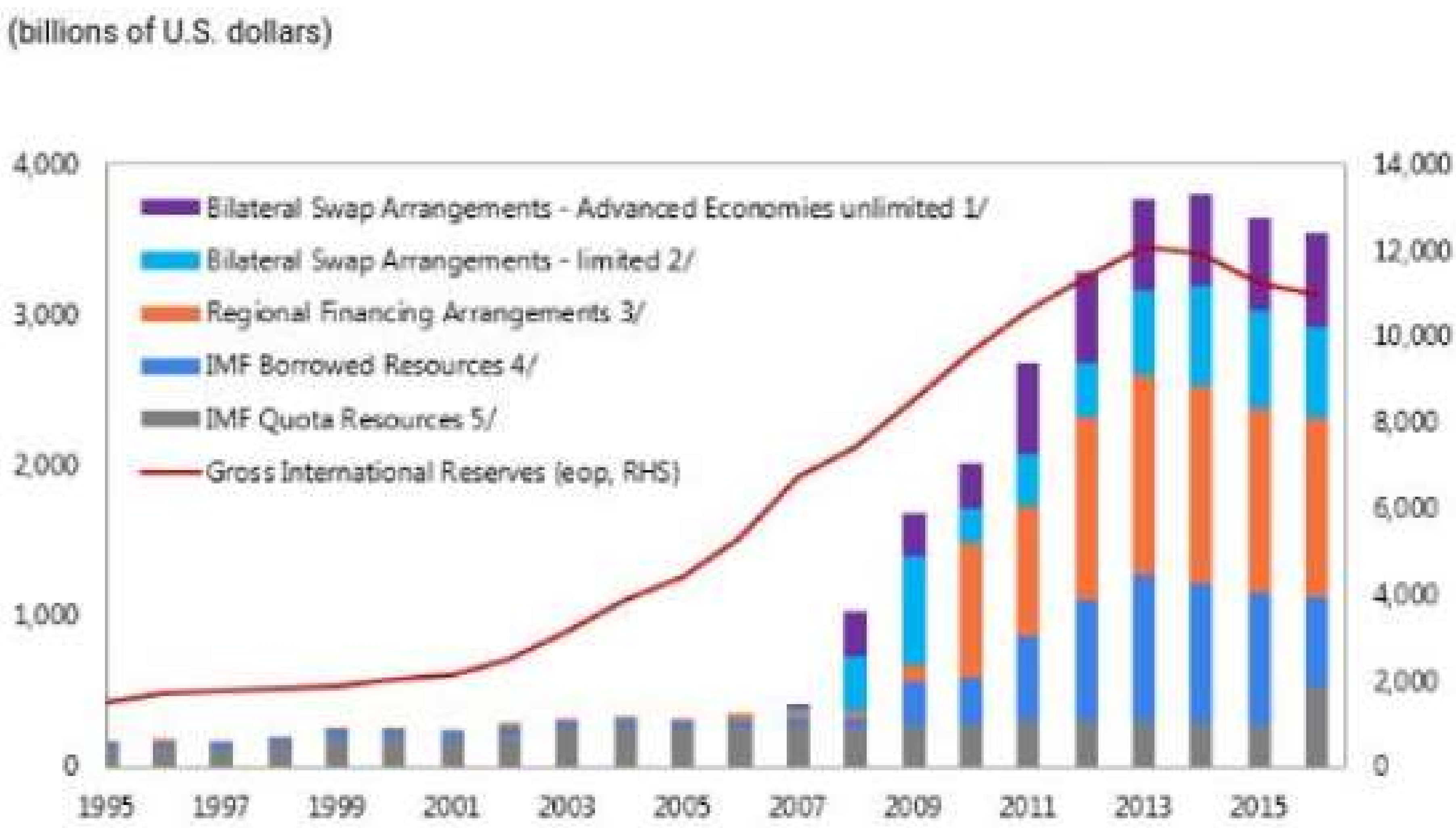
Global and Regional Financial Safety Nets

Global/Regional Financial Safety Nets and Line of Defense

Field	Keywords
Global line of defence	global financial safety net, international financial architecture, international monetary system
Regional line of defence	regional financing (financial) arrangements, regional facility or specific mention of a RFA (e.g. EFSF, ESM, etc.)
National line of defence	bilateral swap lines, joint Central Bank actions, foreign (international) reserves, self-insurance, counter-cyclical fiscal policy

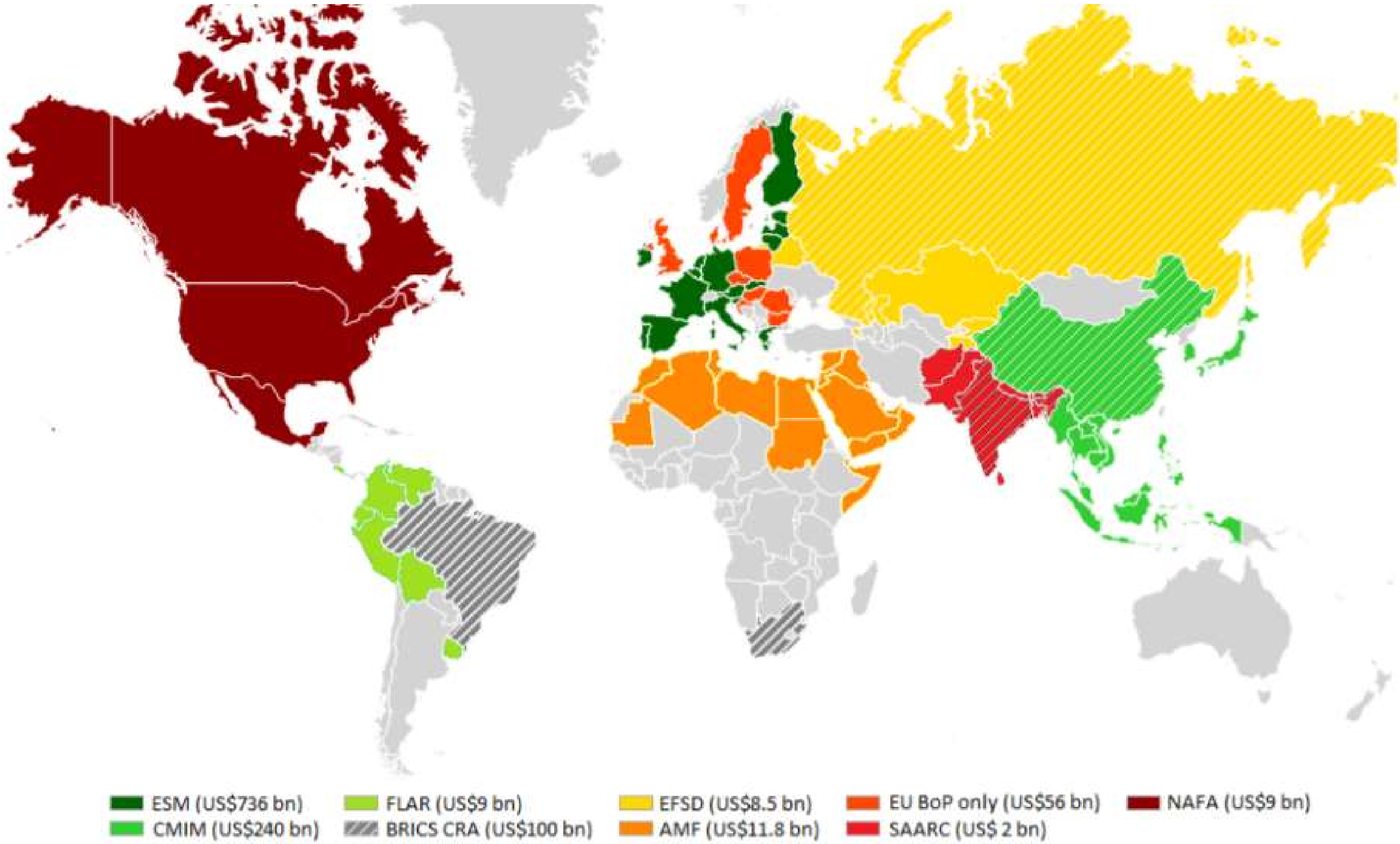
Source: The Global Financial Safety Net Through the Prism of G20 Summits, Gong Cheng, 2015

Global Financial Safety Net: Significant expansion since GFC



Source: "Strength in Numbers: A Safety Net to Prevent Crises in the Global Economy", IMF Blog, December 19, 2019

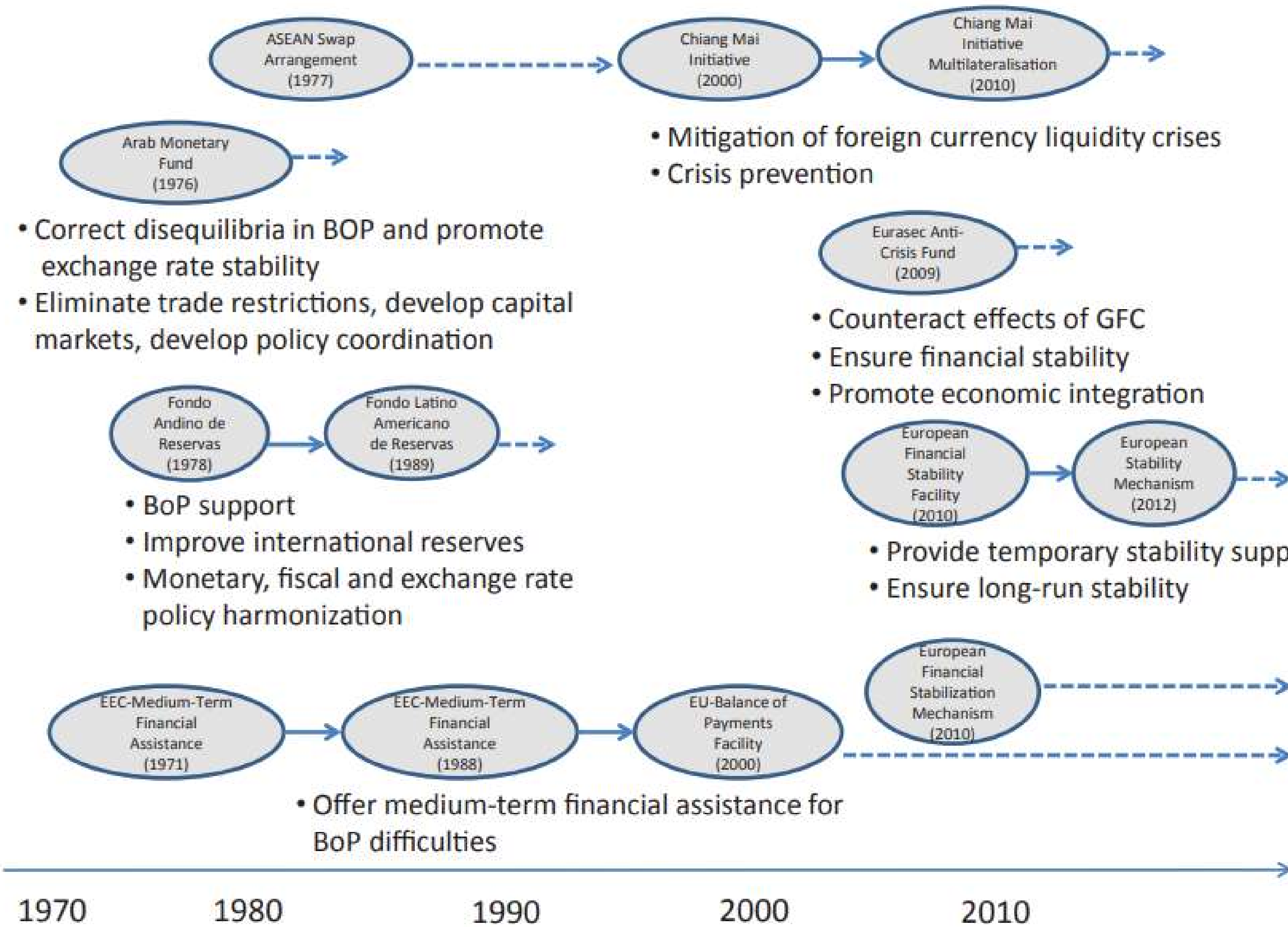
Regional Financial Arrangements by Country (end 2015)



Note: The lending capacity of the RFAs (indicated in brackets) is the explicit capacity/limit where available (euro area and EU facilities, CMIM, NAFA, and SAARC), committed resources (BRICs CRA), or estimated capacity based on country access limits and paid-in capital (AMF, EFSD, and FLAR). The ESM figure also includes outstanding loans under the EFSF. RFAs are ranked based on their average coverage, measured as the RFA lending capacity in percent of the RFA GDP, from high coverage (dark green) to low coverage (dark red).

Source: Adequacy of the Global Financial Safety Net (GFSN); IMF Policy Paper; March 10, 2016

Evolution of Regional Arrangements



ASEAN = Association of Southeast Asian Nations; EEC = European Economic Community; EURASEC = Eurasian Economic Community
a. In 1988 the Medium-Term Financial Assistance and Community Loan Mechanism was merged into a single Medium-Term Financial Assistance Facility.

Source: Global and Regional Financial Safety Nets: Lessons from Europe and Asia, C Rhee, L Sumulong, S Vallee, Bruegel Working Paper, 2013.

Key characteristics of Regional Financial Arrangements

Regional financial arrangement	Number of members	Legal basis	Fund size	Paid-in capital/pledge	With option to issue bonds?	Instruments
Arab Monetary Fund (Middle East)	22	Agreement	$2.7 billion	600 million Arab dinars	Yes	-Automatic loan -Ordinary loan -Extended loan -Compensatory loan -Structural Adjustment Facility -Short-term liquidity
Latin American Reserve Fund (*Fundo Latino Americano de Reservas*, FLAR)	7	Agreement	$3.28 billion	$2.28 billion	Yes	-Balance of payments credit -Foreign debt restructuring -Liquidity credit -Contingent credit -Treasury credit
European Union Balance of Payments Facility	27	Treaty	€50 billion	€50 billion	Yes	Loan/credit line
Chiang Mai Initiative Multilateralization (ASEAN+3)	13	Agreement	$240 billion	Pledge	No	-Swap, precautionary line -Swap, stability facility
EURASEC Anti-Crisis Fund (Central Asia)	6	Treaty	$8.513 billion	$8.513 billion	No	-Stabilization credit -Sovereign loans
European Stability Mechanism (euro area)	17	Treaty	€500 billion	€80 billion	Yes	-Loan -Credit line (PCCL and ECCL) -SMSF
European Financial Stabilization Mechanism (European Union)	27	Agreement	€60 billion	Backed by EU budget	Yes	-Loan -Credit line
European Financial Stability Facility (euro area)	17	Agreement	€440 billion[a]		Yes	-Loan -Credit line (PCCL and ECCL) -SMSF

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and the Republic of Korea; SMSF = Secondary Market Support Facility; PCCL = Precautionary Conditioned Credit Line; ECCL = Enhanced Conditions Credit Line.

a. Combined lending ceiling of the European Stability Mechanism and European Financial Stability Facility will be €700 billion in July 2013 with €80 billion pledged by member states and the balance to be raised from the capital markets.

Source: Global and Regional Financial Safety Nets: Lessons from Europe and Asia, C Rhee, L Sumulong, S Vallee, Bruegel Working Paper, 2013.

Thank You.

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