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Author(s)	Arner, DW; Avgouleas, E; Gibson, E
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**OVERSTATING MORAL HAZARD:
LESSONS FROM TWO DECADES OF BANKING CRISES**

Douglas W. Arner^{*}, Emiliós Avgouleas^{**} & Evan C. Gibson^{***}

Abstract

Over the past two decades a variety of banking system rescue approaches have been used, including in the 1997 Asian financial crisis, the 2008 global financial crisis, and the 2010 European debt crisis. By analysing the resolution of these crises as well as the approach to addressing bad loans in the People's Republic of China, this paper provides a new perspective on the common belief that bailouts are invariably harmful to public funds or excessively conducive to moral hazard. Depending on the form of bailout, bank restructuring, and fiscal backstop, resolutions can be an effective means to restore a banking system. This paper argues that in a systemic financial crisis, a combination of balance sheet restructuring and the use of asset management companies to deal with non-performing loans is often the best choice. However, a fully-fledged resolution that triggers the bail-in procedure remains the best approach for non-systemically important financial institution failures which take place outside of systemic crises, namely when the failure is idiosyncratic.

Keywords: Financial Crisis; Bank Rescues; Bailouts; Asset Management Companies; Moral Hazard

JEL Classifications: G21, G28, G32, G33

^{*} Kerry Holdings Professor in Law, University of Hong Kong.

^{**} Chair in International Banking Law and Finance, University of Edinburgh.

^{***} Research Fellow, Asian Institute of International Financial Law, Faculty of Law, University of Hong Kong.

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I. INTRODUCTION

Banking crises are most frequently caused by high leverage ratios that result in stressed balance sheets when the economic cycle contracts—from a market-correction or adverse macroeconomic developments.¹ The legacy of unsustainable leverage is large quantities of non-performing loans (NPLs) and severe debt overhang.² Normally, during the expansionary phase of the economic cycle, credit standards are relaxed, increasing the capacity of borrowers to access credit, stimulating demand for financial assets and, in some cases, real investment. Consumer and business confidence rises, encouraging more investors to enter the market which further fuels asset price growth and increased leverage.

When asset prices increase above the notion of fundamental value, the central bank/regulator may intervene to discourage demand for further borrowing by tightening monetary policy, raising interest rates, and/or introducing countercyclical prudential measures, for example altering loan to value ratios.³ When borrowers' capacity to support the market abates and default risk increases, banks reduce their exposure by tightening credit standards, raising the cost of credit. Borrowers with high credit default risk are forced to de-lever by selling assets, which places downward pressure on asset prices that can possibly trigger fire-sales.⁴

If the volume of asset (i.e. collateral) sales is widespread, simultaneous, and heavily discounted, this can trigger an economic crisis,⁵ and a spike in bank loan defaults. Acute credit imbalances develop during the economic cycle, as described by Hyman Minsky in the 'Financial Instability Hypothesis'.⁶ As the credit cycle contracts and the economic cycle

¹ John Geanakoplos, 'Solving the Present Crisis and Managing the Leverage Cycle', (2010) *FRBNY Economic Policy Review* 101-131; John Geanakoplos, 'The Leverage Cycle' in Daron Acemoglu, Kenneth Rogoff, and Michael Woodford, eds., *NBER Macroeconomics Annual 2009, Volume 24* (Chicago: University of Chicago Press, 2010), pp. 1–65.

² Emiliós Avgouleas, 'Bank Leverage Ratios and Financial Stability: A Micro- and Macroprudential Perspective', (October 2015) *Levy Economics Institute, Working Paper No. 849*: available at <https://www.econstor.eu/bitstream/10419/146977/1/840973446.pdf>.

³ Stijn Claessens, 'An Overview of Macroprudential Policy Tools', (December 2014) *IMF WP/14/214*: available at <https://www.imf.org/external/pubs/ft/wp/2014/wp14214.pdf>

⁴ See: Markus Brunnermeier, Andrew Crocket, Charles Goodhart, Avinash D. Persaud, and Hyun Shin, 'The Fundamental Principles of Financial Regulation', (January 2009) *Geneva Reports on the World Economy* 11, 5 et seq.

⁵ Nobuhiro Kiyotaki and John Moore, 'Credit Cycles', (April 1997) 105 *Journal of Political Economy* 2, 211–248. Naturally, causality is reciprocal.

⁶ Hyman P. Minsky, 'The Financial Instability Hypothesis', (1992) *Levy Economics Institute of Bard College Working Paper No. 74*; and 'Financial Instability Revisited: The Economics of Disaster— Fundamental Reappraisal of the Discount Mechanism', (1970) *Board of Governors of the Federal Reserve System*.

enters into the recessionary phase, banks have to manage a large number of non-performing or partially performing assets. Bank balance sheets can become severely stressed, giving rise to solvency vulnerabilities. When a number of banks share liquidity and/or solvency vulnerabilities, the risk of a systemic banking crisis is high.

Identifying distressed assets and effecting an efficient off-balance sheet transfer to clean up banks' loan books, thereby enabling new lending, can be crucial for restoring the stability of the banking system. This also depends on the level of NPLs banks carry on their balance sheets. Naturally, regulatory authorities have a duty to prevent an accumulation of NPLs, which is not entirely independent of the size of capital write-offs that NPL losses may realise. Preventative measures include high levels of loan pre-provisioning (boosted by the adoption of International Financial Reporting Standard 9), high loan-to-income and loan-to-value ratios, macro-prudential capital buffers, and more recently bail-in tools and bail-able capital instruments. Further NPL prudential measures include debt service coverage ratios, NPL ratios, NPLs to total loans, and NPL volumes.⁷ Arguably, experience from recent banking crises suggests that among the most successful approaches to stabilise a banking system characterised by high ratios of NPLs is to realise a legal transfer to an asset management company (AMC).

This paper analyses three major banking crises over the past two decades to explain, on the basis of evidence, why restructuring systemic banks' balance sheets is the most effective approach when bailing-out a banking system. Historical examples are drawn from countries most affected by the banking crises in Asia, the United States and Europe. This paper is in six sections: Following this Introduction, Section II discusses the issues concerning the definition and regulatory treatment of NPLs, and critically examines the key aspects of international and European Union (EU) bank resolution standards. This section debates the causes and consequences of NPLs from an economic analysis perspective. A distinction is drawn between NPLs accumulating from institutional weaknesses, including flawed lending policies and underwriting standards, and NPLs that are more clearly rooted in macroeconomic developments. Section III analyses the effects of the Asian financial crisis on the banking systems of Thailand, Indonesia, South Korea, Malaysia, and the use of AMCs in the People's Republic of China (China). Section IV examines three bank rescue case studies: the bail-outs of UBS, RBS, and Citigroup respectively; during the global financial crisis (GFC) to evaluate

⁷ This paper uses NPL ratios, primarily sourced from the World Bank, to identify distressed assets.

the effectiveness of the approaches in Switzerland, the United Kingdom, and the United States. Section V examines the approaches to resolve the ongoing banking crises in Spain, Ireland, Italy and Greece, and obstacles relating to NPL resolution. Section VI draws on the earlier analysis to firstly provide a prescriptive summary of our findings and secondly to offer normative guidance on the most effective approaches to rescue a banking system.

II. IDENTIFICATION, TREATMENT, CAUSES, AND CONSEQUENCES OF NON-PERFORMING LOANS

In considering resolution of banking crises, the first step is obviously prevention. However, experience has shown very clearly that prevention is not sufficient; it is also necessary to have in place a system designed to address banking and financial problems of varying sorts prior to the actual onset of such issues. Significant work has been done over the past twenty years in this respect.⁸ There are however varying views on the most effective strategic approach to addressing resolution of problems particularly in systemically important financial institutions.⁹ While it initially might seem obvious, definition of non-performing assets remains a significant issue.

A. Non-performing Loans: Definition, Regulatory Issues, and Accounting Treatments

Attempts to systemise a definition of NPLs are problematic because loan non-performance varies, and there are different forms of delinquent loans. The Basel Committee on Banking Supervision (BCBS) defines a non-performing exposure (NPE) based on delinquency status—loan and debt securities that are 90 days past due or the unlikelihood of repayment, including: (i) exposures defaulted under the Basel framework, (ii) exposures impaired according to the applicable accounting framework, and (iii) all other exposures that are more than 90 days due or evidence that the full payment of principal and interest without realisation of collateral is unlikely, regardless of the number of days past due.¹⁰ This is

⁸ See Rolf Weber, Douglas Arner, Evan Gibson and Simone Baumann, “Addressing Systemic Risk: Financial Regulatory Design”, (2014) 49 *Texas International Law Journal* 149.

⁹ See Douglas Arner and Joseph Norton, “Building a Framework to Address Failure of Complex Global Financial Institutions”, 39 *Hong Kong Law Journal* 95, 95-128 (2009).

¹⁰ Basel Committee on Banking Supervision, “Guidelines Prudential treatment of problem assets – definitions of non-performing exposures and forbearance,” (15 July 2016) *Consultative Document*, 1 and 8.

similar to definition used by the International Monetary Fund (IMF)—a default on principle and interest that lasts more than 90 days.¹¹ Comparatively the BCBS definition is wider, because not all definitions capture debt securities.¹²

Adopting internationally-accepted NPE/NPL classifications promotes confidence in the recognition of a bank’s balance sheet financial position, credit risks and the ability to achieve solvency.¹³ NPL classifications and measures are the most universal methods of identifying credit exposures. Numerous flaws in this methodology have been identified by the BCBS, notably the NPL definition is predominately determined by ex-post collectability—i.e., 90 days past due. Furthermore, jurisdictions rarely share the same definition of NPLs.¹⁴ Arguably this is because each jurisdiction’s banking system is unique, necessitating a number of stylised qualitative factors to measure NPLs. Until the BCBS guidelines on the prudential treatment of problem assets are universally adopted, NPL measures remain the only viable means to measure banks’ balance sheet financial position and credit risk exposure to problem or distressed assets.

International Financial Reporting Standard (IFRS) 9 – ‘Financial Instruments’ provides internationally accepted standard for the accounting treatment for impaired assets. This treatment centres on forward-looking or expected credit losses (ECLs)—the timing of recording a loan loss provision (e.g., provision for doubtful debts), and when to move NPLs/NPEs off-balance sheet. ECL accounting treatment comprises quantitative and qualitative measures.¹⁵ ECLs account for performing loans when credit risk increases, which affect bank balance sheets when credit growth and credit risk expectations increase—i.e., at the top of the credit cycle heading into a credit contraction.

IFRS 9 can impact capital buffers and possibly trigger bail-in debt instruments—for example contingent convertibles (CoCos). As NPL recognition under IFRS 9 is subject to banks’

¹¹ The term ‘non-performing loans’ is not uniform among jurisdictions. This paper adopts the IMF definition: Adriaan M. Bloem and Russel Freeman, ‘The Treatment of Nonperforming Loans’, (June 2005) *IMF, Issue Paper Prepared for the July 2005 Meeting of the Advisory Expert Panel*, 8.

¹² Basel Committee on Banking Supervision, “Guidelines Prudential treatment of problem assets – definitions of non-performing exposures and forbearance,” (15 July 2016) *Consultative Document*, 6.

¹³ World Bank, ‘Bank Loan Classification and Provisioning Practices in Selected Developed and Emerging Countries’, (2002) *A Survey of Current Practices in Countries Represented on the Basel Core Principles Liaison Group*, 3.

¹⁴ David Bholat, Rosa Lastra, Sheri Markose, Andrea Miglionico, and Kallol Sen, ‘Non-performing Loans: Regulatory and Accounting Treatments of Assets’, (April 2016) *Bank of England, Staff Working Paper No. 594*, 22 and 23.

¹⁵ *Ibid* 36 and 37.

discretion, there is an incentive to procrastinate to avoid bail-in triggering events.¹⁶ The IMF recognises this impediment and recommends incentives to accelerate the transfer of NPLs/NPEs off-balance sheet.¹⁷ It is unclear how this will materialise in practice. For developed markets, IFRS 9 will commence in 1 January 2018, and for developing markets (e.g., Asia) from 1 January 2025 or sooner if the threshold is met.

In April 2016 the BCBS released the ‘Prudential treatment of problem assets – definitions of non-performing exposures and forbearance’, in which it seeks to harmonise NPE definitions and measures to promote consistent bank reporting and disclosures.¹⁸ This includes quantitative measures such as delinquency status (i.e., 90 days past due) or the unlikelihood of payment of loans and debt securities. The proposed definitions complement asset categorisation in existing accounting and regulatory frameworks.¹⁹ Rules are being drafted to determine uniform criteria to upgrade an exposure from non-performing to performing and the interaction between non-performing status and forbearance.²⁰

This is complemented by ‘Regulatory treatment of accounting provisions’. The Bank for International Settlements (BIS) issued accounting provisions which centre on timing when a credit loss and therefore a NPL/NPE is recorded. To overcome the problem where IFRS 9 NPL/NPE recognition is subject to banks’ discretion, the BCBS proposes that banks follow sound credit risk management practices, namely early recognition of credit losses.²¹ The BCBS is considering linking the accounting provisions with banks’ Basel III capital requirements to harmonise accounting approaches—any shortfalls are to be deducted from Common Equity Tier 1 (CET1).²²

Accounting classifications are important as NPLs/NPEs shown at fair value affect the level of loan loss provisions and when NPLs/NPEs are recorded or written-off. Valuations are pro-cyclical because they tend to be overstated during times of rapid economic expansion and

¹⁶ IMF, ‘Ireland: Ex Post Evaluation of Exceptional Access Under the 2010 Extended Arrangement’, (January 2015) *IMF Country Report No. 15/20*, 52.

¹⁷ *Ibid.*

¹⁸ BCBS, ‘Prudential Treatment of problem assets - definitions of non-performing exposures and forbearance – consultative document’, (April 2016): available at <http://www.bis.org/bcbs/publ/d367.htm> (visited on 25 October 2016).

¹⁹ BCBS, ‘Prudential Treatment of problem assets - definitions of non-performing exposures and forbearance – consultative document’, (April 2016): available at <http://www.bis.org/bcbs/publ/d367.htm> (visited on 25 October 2016).

²⁰ *Ibid.*

²¹ Bank of International Settlements, ‘Regulatory treatment of accounting provisions’, (11 October 2016) *Consultative Document*, 1.

²² *Ibid.* 2.

understated in downturns.²³ Thus the ECL seeks to smooth valuation volatility and strengthen banks' capital position. An ECL standard is currently being implemented in the EU.

The definition of an NPE in the BCBS prudential treatment of problem assets is incongruent with the definition of ECL in the BIS regulatory treatment of accounting provisions. NPEs are defined using the incurred-loss model (i.e., 90 days past due—an ex-post measure) whereas the ECL definition disregards 90 days past due because it is an ex-ante measure based on IFRS 9. To overcome this anomaly, the prudential treatment of problem assets and accounting provisions require harmonisation.

In July 2015, the BCBS released 'Guidelines for identifying and dealing with weak banks' which focuses on resolution powers and tools, for example the management of impaired assets. Guidance is given on asset quality, namely negotiating new agreements with debtors (e.g., loan maturity extensions, interest rate reductions, partial debt forgiveness, and debt to equity swaps), taking possession of collateral, writing-off long-term NPLs, and selling assets then transferring to a special purpose debt management vehicle (e.g., AMC).²⁴ Asset recovery is economic, fair, expeditious, and on a net present value basis.²⁵ Methods for selling impaired assets include portfolio sales, asset-by-asset sales, securitisation, or sales to a restructuring entity.²⁶ Reasons for transferring assets off-balance sheet are to render balance sheet and bank viability, for management to focus on problems and strategies, and for specialists (e.g., AMCs) to maximise recovery value.²⁷

B. International Approaches and Standards: Systemic Bank Resolution and Moral Hazard

Banks facing a large number of NPLs could experience an extreme capital reduction. Capital write-offs may push the ailing bank into resolution. Most modern resolution regimes, analogous to Dodd-Frank's Orderly Liquidation Authority (OLA)²⁸ and the EU's Bank

²³ David Bholat, Rosa Lastra, Sheri Markose, Andrea Miglionico, and Kallol Sen, 'Non-performing loans: regulatory and accounting treatments of assets', (April 2016) *Bank of England, Staff Working Paper No. 594*, 21.

²⁴ BCBS, 'Guidelines for identifying and dealing with weak banks', (July 2015) *Bank for International Settlements*, 38.

²⁵ *Ibid.* 49.

²⁶ *Ibid.*

²⁷ *Ibid.*

²⁸ Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Act (Pub L 111-203, HR 4173)).

Recovery and Resolution Directive²⁹ (BRRD) target, beyond the objective of orderly bank failure and avoidance of systemic disruption, the very well documented too-big-to-fail subsidy,³⁰ and adverse selection by bank management and shareholders (i.e., selection of riskier assets)³¹ which is the content of moral hazard that is associated with public bailouts. Normally a bail-out extends to senior unsecured creditors who remain unaffected by the cost of bank failures, which are thus borne by the taxpayer.³² For this reason, public bail-outs are regarded as both an important source of bank management excessive risk-taking (moral hazard) and of weak monitoring by creditors. There is a wide belief that by eliminating public assistance in resolution or by setting high very barriers to entry, contemporary resolution regimes have overcome moral hazard. This paper demonstrates below, that unlike the US and to a large extent the EU BRRD, international bank resolution and NPL restructuring standards take less of a doctrinal approach by providing a pragmatic view of the problem and of the role of (temporary) public funding to resolve high NPL ratios.

On 4 November 2011, the Financial Stability Board (FSB) released the ‘Key Attributes of Effective Resolution Regimes for Financial Institutions’ (“Key Attributes”) which state that an effective resolution regime:

is to make feasible the resolution of financial institutions without severe systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions through mechanisms which make it possible for

²⁹ Directive 2014/59/EU establishing a framework for the recovery and resolution of credit institutions and investment firms OJ L 2014 173/190 or BRRD.

³⁰ Joao A. C. Santos, ‘Evidence from the Bond Market on Banks’ “Too-Big-To-Fail” Subsidy’, (December 2014) 20 *Federal Reserve Bank of New York, Economic Policy Review* 29; Kenichi Ueda and Beatrice Weder Di Mauro, ‘Quantifying the Value of the Subsidy for systemically Important Financial Institutions’, (2011) *IMF Working Paper WP/12/128*; Zan Li, Shisheng Qu, and Jing Zhang, ‘Quantifying the Value of Implicit Government Guarantees for Large Financial Institutions’, (2011) *Moody’s Analytics Quantitative Research Group*; Donald P. Morgan and Kevin J. Stiroh, ‘Too Big To Fail after All These Years’, (September 2005) *Federal Reserve Bank of New York Staff Reports, Staff Report no. 220*.

³¹ Gara Alfonso, Joao Santos, and James Traina, ‘Do “Too Big To Fail” Banks Take on More Risk?’, (2014) 20 *Federal Reserve Bank of New York, Economic Policy Review* 2; Luis Brandao Marques, Ricardo Correa, and Horacio Saprizza, ‘International Evidence on Government Support and Risk Taking in the Banking Sector’, (2013) *IMF Working Paper 13/94*; Blaise Gadanetz, Kostas Tsatsaronis, and Yener Altunbas, ‘Spoilt and Lazy: The Impact of State Support on Bank Behavior in the International Loan Market’, (2012) 8 *International Journal of Central Banking* 121.

³² Yet bail-out costs may not be accurately measured unless the cost of the alternative—instability—is also counted. See: Mathias Dewatripont, ‘European Banking: Bail-out, Bail-in and State Aid Control’, (2014) 34 *International Journal of Industrial Organisation* 37. Moreover, as was the case with the US Troubled Asset Relief Programme, the costs of public intervention may be recovered in the long-term making the calculation of the costs of public bail-outs even more complex.

shareholders and unsecured and uninsured creditors to absorb losses in a manner that respects the hierarchy of claims in liquidation.³³

The options to resolve an unviable bank are ‘stabilisation’ and ‘liquidation’ which are underpinned by resolution powers including: (i) removing and replacing senior management and directors; (ii) appointing an administrator; (iii) powers to terminate, continue, or assign contracts; (iv) the power to purchase or sell assets; (v) writing down debt and restructuring bank operations; (vi) continuity of essential services; (vii) overriding shareholder rights to facilitate a merger, take-over, sale of business operations, recapitalisation, or other measures to restructure or dispose of the bank’s business, liabilities or assets; (viii) establishing a separate bridge institution or asset management vehicle to transfer run-down NPLs or difficult to value assets; (ix) carry out a bail-in within resolution; (x) impose a moratorium to suspend payments to unsecured creditors and customers; and (xi) effective an orderly liquidation.³⁴ These resolution powers enable the sale and transfer of NPLs to an AMC. This includes the power to transfer assets and liabilities to AMCs which does not require the consent of interested parties or creditors, nor constitute a contractual default or termination event.³⁵

When bail-in tools are used to transfer impaired assets, the resolution authority’s powers include: (i) a write-down that respects the hierarchy of claims in liquidation, equity, or other instruments to absorb losses; (ii) converting into equity or ‘bank under resolution’ ownership instruments that respect the hierarchy of claims in liquidation; and (iii) upon entry into resolution, convert or write-down any contingent convertible (e.g. CoCos) or contractual bail-in instruments where terms have not been triggered.³⁶

On 19 October 2016, the FSB released ‘Key Attributes Assessment Methodology for the Banking Sector’ which sets out a bank resolution framework in the context of the Key Attributes. The methodology focuses on the resolution regime for global systemically important banks (G-SIBs). Preconditions for G-SIB resolution effectiveness include: (i) a

³³ Financial Stability Board, ‘Key Attributes of Effective Resolution Regimes for Financial Institutions,’ (4 November 2011), 3.

³⁴ Financial Stability Board, ‘Key Attributes of Effective Resolution Regimes for Financial Institutions,’ (4 November 2011), 7 and 8.

³⁵ Financial Stability Board, ‘Key Attributes of Effective Resolution Regimes for Financial Institutions,’ (4 November 2011), 8.

³⁶ Financial Stability Board, ‘Key Attributes of Effective Resolution Regimes for Financial Institutions,’ (4 November 2011), 9.

well-established framework for financial stability, surveillance, and policy formulation; (ii) an effective system of supervision, regulation, and the oversight of banks; (iii) effective protection schemes for depositors and other protected clients or customers, and clear rules on the treatment of client assets; (iv) a robust accounting, auditing, and disclosure regime; and (v) a well-developed legal framework and judicial system.³⁷ Cross-border cooperation and process standards support the effectiveness of resolution powers in the Key Attributes.³⁸

The FSB released the ‘Principles for Cross-border Effectiveness of Resolution Actions’ on 3 November 2015. Principles cover statutory approaches, contractual recognition, temporary stays and early termination rights, and a bail-in tool. Contractual recognition supports cross-border resolution enforceability, for example temporary stays on early termination rights and the write down, cancellation, or conversion of debt instruments.³⁹ Where bail-in instruments are governed by foreign law, bail-in recognition clauses are to support debt instruments for home resolutions.⁴⁰

The FSB released the ‘Guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank (G-SIB)’ which mandates the private sector as the first funding choice for bank resolutions.⁴¹ Government funding conditions are designed to mitigate moral hazard.⁴² Losses incurred from government-funded resolutions must be recovered.⁴³ Cross-border cooperation is to be consistent and support group-wide resolution.⁴⁴ Namely, the FSB approach to bank resolution does not either preclude the use of AMCs nor does it totally rule out the involvement of public money. On the contrary, the FSB standard stipulates that any public money involved in a bank resolution must be recovered. This is entirely plausible and, as will be discussed in Part III, a key feature of AMC centred resolution practices for reducing NPL ratios.

³⁷ FSB, ‘Key Attributes Assessment Methodology for the Banking Sector – Methodology for Assessing the Implementation of the Key Attributes of Effective Resolution Regimes for Financial Institutions in the Banking Sector’, (19 October 2016), 13.

³⁸ FSB, ‘Key Attributes Assessment Methodology for the Banking Sector – Methodology for Assessing the Implementation of the Key Attributes of Effective Resolution Regimes for Financial Institutions in the Banking Sector’, (19 October 2016), 10-11.

³⁹ FSB, ‘Principles for Cross-border Effectiveness of Resolution Actions’, (3 November 2015), 7.

⁴⁰ FSB, ‘Principles for Cross-border Effectiveness of Resolution Actions’, (3 November 2015), 7-8.

⁴¹ FSB, ‘Guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank (“G-SIB”)’, (18 August 2016), 9-11.

⁴² FSB, ‘Guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank (“G-SIB”)’, (18 August 2016), 12-14.

⁴³ FSB, ‘Guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank (“G-SIB”)’, (18 August 2016), 14.

⁴⁴ FSB, ‘Guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank (“G-SIB”)’, (18 August 2016), 17 and 18.

The non-prohibition of public money ex ante, especially where a crisis has systemic characteristics and is largely the result of macroeconomic developments, or at least the result of generic factors such as management’s focus on Return on Equity (RoE) and bonuses (that can influence relaxed lending standards), does not infer that too-big-to-fail institutions must be encouraged. There are already a variety of tools to achieve this objective. For example G-SIBs, which have been compared to super-polluters,⁴⁵ that spread risk due to implicit government guarantees are subject to higher loss absorbency requirements and increased going-concern loss absorbency, to reduce the impact of any failure.⁴⁶ G-SIBs capable of causing the greatest disruption are categorised as Bucket 5 and the least disruption are Bucket 1. A Bucket 5 G-SIB requires an additional 3.5% CET1, with declining increments of 0.5% per bucket to 1% CET1 for Bucket 1.⁴⁷ Currently the top ranking is Bucket 4—for example Citigroup (2016). Among others, UBS, RBS, Santander, and Unicredit Group are Bucket 1 G-SIBs as of November 2016.

In addition, G-SIBs are required to hold total loss-absorbing capital (TLAC). TLAC ensures loss-absorbency and recapitalisation is available for an orderly resolution that minimises financial instability, ensures continuity of critical functions, and avoids exposing taxpayers to loss.⁴⁸ Proposed guiding principles include material sub-group identification, size of the TLAC requirement, composition and issuance, triggering mechanisms, and international coordination when writing-down and/or converting TLAC into equity.⁴⁹ Supervisors need to address legal, regulatory, tax, or operational obstacles when implementing TLAC mechanisms.⁵⁰ Minimum TLAC must be at least 16% of the resolution group’s risk weighted assets from 1 January 2019 and at least 18% by 1 January 2022.⁵¹ These requirements are in

⁴⁵ Andrew G. Haldane, ‘The 100 Billion question’, (30 March 2010) *comment given at the Institute of Regulation & Risk, Hong Kong*; see also: Andrew G. Haldane and Vasileios Madouros, ‘The dog and the frisbee’, (31 August 2012) *Speech at the Federal Reserve Bank of Kansas City’s 366th economic policy symposium, “The changing policy landscape”, Jackson Hole, Wyoming*.

⁴⁶ BCBS, ‘Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement’, (July 2013) Bank for International Settlements, 3.

⁴⁷ *Ibid.* 12.

⁴⁸ FSB, ‘Principles on Loss-absorbing and Recapitalisation Capacity of G-SIBs in Resolution: Total Loss-absorbing Capacity (TLAC) Term Sheet’, (9 November 2015), 5.

⁴⁹ FSB, ‘Guiding Principles on the Internal Total Loss-absorbing Capacity of G-SIBs’, (16 December 2016) *Consultative Document*, 8.

⁵⁰ FSB, ‘Guiding Principles on the Internal Total Loss-absorbing Capacity of G-SIBs’, (16 December 2016) *Consultative Document*, 20-21.

⁵¹ FSB, ‘Principles on Loss-absorbing and Recapitalisation Capacity of G-SIBs in Resolution: Total Loss-absorbing Capacity (TLAC) Term Sheet’, (9 November 2015), 10.

addition to Basel III capital requirements.⁵² Assuming that regulatory capital reflects the bank's approach to offsetting economic capital against lending, these additional requirements and recent structural reforms, including ring-fencing in the UK, render difficulties in positing that the only way to contain moral hazard is with bail-in centred resolution and no form of public funding however temporary that may be.

Of course, bank failures during financial crises usually involve domestic SIBs (D-SIBs) as G-SIB failures are an outlier event. The BCBS issued a D-SIB regulatory framework in October 2012. Analogous to the G-SIB framework, the D-SIB framework consists of an assessment methodology and high loss absorbency requirements. Loss absorbency is commensurate with D-SIB systemic importance.⁵³

C. European Union Standards and the Single Resolution Mechanism

The Single Supervisory Mechanism (SSM) is the first step towards an EU banking union (EBU).⁵⁴ Its main aims are to ensure safety and soundness of the EU banking system, increase financial integration and stability, and ensure consistent supervision.⁵⁵ The European Central Bank (ECB) enforces the SSM as the authority responsible for: (i) reviews, inspections, and investigations; (ii) licensing; (iii) assessing qualifying holdings; (iv) compliance; and (v) setting countercyclical capital buffers.⁵⁶ On 4 November 2014, the ECB assumed responsibility for the SSM which is applicable to member banks. Another pillar of the EBU is the Single Resolution Mechanism (SRM) which is designed to bolster the resilience of the banking sector.⁵⁷ On 1 January 2016 the SRM commenced operations.

Banking crises have shown that the resolution of SIBs generally requires substantial public funds. However, the prevailing view is that because bail-outs are financially unsustainable and threaten sovereign solvency, the EU has enacted the BRRD, which provides authorities

⁵² BCBS, 'Basell III: A global regulatory framework for more resilient banks and banking systems', (December 2010 (rev June 2011) *Bank for International Settlements*, 62-3.

⁵³ For details, see: BCBS, 'A framework for dealing with domestic systemically important banks', (October 2012) *Bank for International Settlements*, 8 (Principle 9).

⁵⁴ See Emiliios Avgouleas and Douglas Arner, "The Eurozone Debt Crisis and the European Banking Union: "Hard Choices", "Intolerable Dilemmas" and the Question of Sovereignty", (2017) 50(1) *The International Lawyer* 29.

⁵⁵ European Central Bank, 'Single Supervisory Mechanism',: available at <https://www.bankingsupervision.europa.eu/about/thessm/html/index.en.html> (visited on 17 January 2017).

⁵⁶ European Central Bank, 'Single Supervisory Mechanism',: available at <https://www.bankingsupervision.europa.eu/about/thessm/html/index.en.html> (visited on 17 January 2017).

⁵⁷ European Commission, 'Single Resolution Mechanism to come into effect for the Banking Union', (31 December 2015) *Press Release*: available at http://www.europa.eu/rapid/press-release_IP-15-6397_en.htm?locale=en (visited on 17 January 2017).

with arrangements to deal with failing banks by addressing weaknesses, mitigating public funds, and conforming with the FSB's Key Attributes.⁵⁸ Members designate resolution authorities to apply resolution tools and exercise resolution powers.⁵⁹

There are four key elements of the BRRD: (i) preparation and prevention, (ii) early intervention, (iii) resolution, and (iv) cooperation and coordination. When a resolution is triggered, a number of objectives must be satisfied: (i) safeguarding the continuity of essential banking operations; (ii) protecting deposits, client assets, and public funds; (iii) minimising risks to financial stability; and (iv) avoiding unnecessary destruction of value.⁶⁰ Part IV of the BRRD lists four resolution tools: the sale of business tool, bridge institution tool, asset separation tool (i.e., AMC), and the bail-in tool.⁶¹

Bail-in tools are viewed as important to mitigate moral hazard inherent with a strong reliance on bail-outs.⁶² The BRRD bail-in tool allows the resolution authority to write-down or convert to equity the claims of creditors in accordance with a pre-determined hierarchy.⁶³ This reduces the extent of a capital injection and therefore the burden on taxpayers and, in principle, acts as an additional capital buffer.⁶⁴ What is, however, proving problematic is the BRRD's requirement for banks in resolution to bail-in a minimum of 8% of liabilities before any contribution by the resolution fund or subsequent to that, a contribution injection of public funds.⁶⁵

Stress tests applied to Italian bank Monte dei Paschi di Siena in late 2016 suggest that in extreme conditions CET1 is negative. Although the bank is solvent, under the SRM and forward-looking BRRD, additional CET1 must be raised in the market; otherwise a bail-in is required. To avert a resolution being triggered, the Government of Italy approved

⁵⁸ European Commission, 'EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions', (15 April 2014) *Memo*, 1 and 3.

⁵⁹ Art. 3, BRRD.

⁶⁰ European Commission, 'EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions', (15 April 2014) *Memo*, 3.

⁶¹ Chapter IV, arts. 2-5, BRRD.

⁶² European Central Bank, 'Systemic Implications of the European bail-in tool: a multi-layered network analysis', (May 2016) *Financial Stability Review – Special features*, 120.

⁶³ European Central Bank, "Systemic Implications of the European bail-in tool: a multi-layered network analysis," (May 2016) *Financial Stability Review – Special features*, 120.

⁶⁴ European Central Bank, "Systemic Implications of the European bail-in tool: a multi-layered network analysis," (May 2016) *Financial Stability Review – Special features*, 120.

⁶⁵ Art. 37(10(a)) and Recs 73, 75, BRRD. For the advantages and disadvantages of this approach, see: Emiliou Avgouleas and Charles Goodhart, 'A Critical Evaluation of Bail-in as a Bank Recapitalisation Mechanism', (July 2014) *CEPR Discussion Paper No. DP10065*.

precautionary recapitalisation on 23 December 2016 based on the European Commission State Aid Rules, stating that the EU is subject to:

... persistent risk of a serious disturbance in the economy ... to grant crisis-related support measures ... as the crisis situation persists, creating genuinely exceptional circumstances where financial stability at large is at risk.⁶⁶

Admittedly the failed stress tests and the expected creditor bail-in under the BRRD caused wide-spread short-term instability in the Italian banking sector.⁶⁷

In September 2016, the ECB released ‘Draft guidance to banks on non-performing loans’ aimed at SIBs with high NPL levels which establish strategic objectives to reduce NPLs over realistic and ambitious time horizons.⁶⁸ The guidance is non-binding, yet SIBs are subject to a ‘comply or explain’ regime if requested by their supervisor.⁶⁹ Similar to the BCBS consultative document on the prudential treatment of problem assets, the ECB guidance centres on NPLs, forbearance, and NPEs. The guidance limits NPEs to reporting requirements.⁷⁰ Definitions in the ECB and BCBS documents are analogous, as is the link between NPEs and forbearance. The guidance provides short- and long-term options which promote a consistent prudential treatment of distressed assets, and recognises IFRS 9 and ECLs. As discussed previously, an anomaly arises between the definitions of NPE/NPLs and ECL/IFRS 9, and fair value accounting is a counterproductive option that is bound to raise problems when the time comes to sell distressed assets.

D. Causes and Consequences of Non-performing Loans

In general, NPLs arise either as a result of crony banking, fraud, and relaxed underwriting standards, or due to a contracting macroeconomic cycle which impacts on the value of collateral. A contracting macroeconomic cycle is the hardest for banks to calculate their exposures against. For example, Spain’s banking sector was one of the worst affected by the crisis despite its banks having applied a sound dynamic pre-provisioning approach to

⁶⁶ European Commission, ‘Communication from the Commission on the application, from 1 August 2013, of State aid rules to support measures in favour of banks in the context of the financial crisis (‘Banking Communication’), (30 July 2013), [5], [6], and [13].

⁶⁷ Philip Molyneux, ‘Will Italy’s failing banks trigger financial collapse across Europe?’, (28 November 2016) *The Guardian*: available at <https://www.theguardian.com/commentisfree/2016/nov/28/italy-failing-banks-new-japan> (visited on 7 March 2017).

⁶⁸ ECB, ‘Draft guidance to banks on non-performing loans’, (September 2016), 7.

⁶⁹ ECB, ‘Draft guidance to banks on non-performing loans,’ (September 2016), 6.

⁷⁰ ECB, ‘Draft guidance to banks on non-performing loans’, (September 2016), 46.

lending.⁷¹ A real estate bubble stimulated by the ECB's low interest rates, compared with what would have been appropriate for the Spanish economy, rendered all prudential measures ineffective.⁷² This is a very important lesson for two reasons. Firstly, Spain highlights the limitations of the moral hazard argument, especially where the macroeconomic cycle and monetary policy have contributed more to the NPL crisis than bank management and shareholders (or creditors), especially since the latter are direct targets of moral hazard legislation. Secondly, the next crisis of loan defaults and NPLs is likely to be the consequence of today's very relaxed monetary policy—historically low interest rates and quantitative easing.

A new and insightful econometric methodology pioneered by Klein (2013)⁷³ differentiates between bank-specific and macroeconomic factors using dynamic panel regressions. The method was recently adopted by the IMF in a study of Italian NPLs.⁷⁴ More specifically, the IMF paper ran fixed effects and Generalized Method of Moments regressions of NPLs on various macroeconomic variables common to all banks, as well as bank-specific variables, to determine the role each played in the build-up of NPLs. The authors found that a number of macroeconomic variables played a significant factor with respect to the quantity of accumulated NPLs, concluding that both bank-level and macroeconomic factors have affected banks' asset quality in Italy. Lower bank profitability is associated with higher NPL levels and a rapid loan book expansion due to (high growth rates or low interest rates) which, on average, results in lower asset quality:

Overall, the results show that the recession, which was of exceptional duration and intensity, had a profound impact on banks' asset quality, which was exacerbated by bank-specific factors.⁷⁵

E. Economic Consequences of Non-performing Loans and Moral Hazard

⁷¹ On the mechanics and effects of the Spanish dynamic pre-provisioning system adopted in the mid-2000s as a macroprudential measure see Gabriel Jiménez, Steven Ongena, Jose-Luis Peydró, and Jesus Saurina, 'Macroprudential policy, Countercyclical Bank Capital Buffers and Credit Supply: Evidence from the Spanish Dynamic Provisioning Experiments', (May 2012) *Barcelona GSE Working Paper Series, Working Paper no 628*.

⁷² See: Gabriel Jiménez, Steven Ongena, Jose-Luis Peydró, and Jesus Saurina, 'Hazardous Times for Monetary Policy: What Do Twenty-Three Million Bank Loans Say About the Effects of Monetary Policy on Credit Risk?', (March, 2014) 82 *Econometrica*, 2, 463-505.

⁷³ Nir Klein, 'Nonperforming Loans in CESEE: Determinants and Impact on Macroeconomic Performance', (March 2013) *IMF Working Paper, WP/13/72*.

⁷⁴ See: Anke Weber, Emanuel Kopp, and Jose Garrido, 'Cleaning-up Bank Balance Sheets : Economic, Legal, and Supervisory Measures for Italy', (July 2016) *IMF Working Paper, WP/16/135*, 9-11.

⁷⁵ *Ibid*, 9. In particular the authors of the paper note: 'The prolonged recession led to higher default risk for large corporates and banks, which are typically low-default portfolios'.

Legislation

A significant body of past and present research, including on behalf of the IMF, suggest that banking sector NPL levels can be important for credit extension and growth.⁷⁶ Weak bank balance sheets can act as a drag on economic activity, especially in economies such as the EU that rely mainly on bank financing. Relevant studies find that higher NPLs tend to reduce the credit-to-GDP ratio and GDP growth, while increasing unemployment. A recent IMF study by Aiyar et al. has shown that this is also consistent with data from EU banks over the last five years.⁷⁷

Aiyar et al. have found that high NPL ratios constrain bank capital that could otherwise be used to increase lending, reduce bank profitability, and raise funding costs—thereby dampening the supply of credit.⁷⁸ Reducing NPLs expeditiously is therefore crucial to support credit growth. For this reason the ESM view—solely relying on GDP growth will not lead to a sufficiently expeditious decline of NPL levels—carries additional weight.⁷⁹ An IMF report on NPLs has noted that a lasting recovery following a financial crisis requires reducing the level of NPLs.⁸⁰ Nonetheless, while the IMF has made the NPL ratio a key measurement of financial sector strength,⁸¹ there is no explanation or definition of an acceptable NPL ratio,

⁷⁶ The literature on financial dependence and growth is well-established Raghuram G. Rajan and Luigi Zingales, ‘Financial Dependence and Growth’, (1998) 88 *The American Economic Review* 3, 559-586; Anil K. Kashyap, Owen A. Lamont, and Jeremy C. Stein, ‘Credit Conditions and the Cyclical Behavior of Inventories’, (1994) 109 *Quarterly Journal of Economics* 3, 565-592. Several recent studies have looked specifically at the feedback effects from NPLs to macroeconomic performance and have reached similar conclusions. For example: Nir Klein, ‘Nonperforming Loans in CESEE: Determinants and Impact on Macroeconomic Performance’, (March 2013) *IMF Working Paper, WP/13/72*; Mwanza Nkusu, ‘Nonperforming Loans and Macrofinancial Vulnerabilities in Advanced Economies’, (2011) *IMF Working Paper, WP/11/161*; Ananthkrishnan Prasad and Raphael A. Espinoza, ‘Nonperforming Loans in the GCC Banking System and their Macroeconomic Effects’, (2010) *IMF Working Paper, WP/10/224*; and Wolfgang Bergthaler, Kenneth Kang, Yan Liu, and Dermot Monaghan, ‘Tackling small and medium sized enterprise problem loans in Europe’, (March 2015) *IMF Staff Discussion Note, SDN/15/04*.

⁷⁷ Shekhar Aiyar, Wolfgang Bergthaler, Jose M. Garrido, Anna Ilyina, Andreas Jobst, Kenneth Kang, Dmitry Kovtun, Yan Liu, Dermot Monaghan, and Marina Moretti, ‘A Strategy for Resolving Europe’s Problem Loans’, (September 2015) *IMF Staff Discussion Note, SDN/15/19*.

⁷⁸ European Stability Mechanism, ‘ESM Annual Report 2015’, (June 2016).

⁷⁹ Shekhar Aiyar, Anna Ilyina, and Andrea Jobst, ‘How to tackle Europe’s non-performing loan problem’, (5 November 2015), Figure 2: available at <http://www.voxeu.org/article/how-tackle-europe-s-non-performing-loan-problem> (visited on 7 March 2017).

⁸⁰ European Stability Mechanism, ‘ESM Annual Report 2015’, (June 2016), 42-43.

⁸¹ World Bank Group, IMF, European Investment Bank, European Bank for Reconstruction and Development, ECB, and European Commission, ‘European Banking Coordination “Vienna Initiative” - Working Group on NPLs in Central, Eastern and Southeastern Europe’, (March 2012).

⁸² The IMF employs a ‘nonperforming loans net of provisions to capital’ ratio as an indication of the extent to which losses can be absorbed before the sector becomes technically insolvent: IMF, ‘Financial Soundness Indicators and the IMF’, (Last Updated: November 2015) referring to IMF, ‘Financial Soundness Indicators: Compilation Guide’, (2006), Part II, [6.15].

implying that the optimal ratio is the lowest possible. The rationale, as may be gauged by aforementioned IMF report, is that NPLs on banks' balance sheets create uncertainty and weigh on the ability to resume lending, and therefore aggregate demand and investment.⁸²

The most likely source of such uncertainty extends to doubts about the bank's solvency per se,⁸³ because the affected bank has not written-down the true value of NPL assets, and the market assumes that the accounting value of capital on banks' financial statements is overstated. Another important factor is that NPLs reduce bank profitability and no matter how well a bank appears to be capitalised, a bank with very low profitability is readily presumed as being close to having liquidity or solvency issues.⁸⁴

The large stock of NPLs is an important cause of anaemic economic activity in the Eurozone not only because of reduced lending, but also because of a persistent impression of bank fragility. A further issue is that unresolved NPLs suppress the economic activity of overextended borrowers⁸⁵ and trap resources in unproductive activities. Therefore, resolving impaired loans is tantamount to tackling debt overhang, stimulating viable firms' demand for new loans, while promoting the winding-down of unviable firms.⁸⁶ Finally, cleaning up the bank lending channel would enhance the transmission of monetary policy to the real economy.

These findings are very important with respect to how NPLs should be managed. A concentration of unresolved legacy loans with a stifling of new credit does not only impact on economic growth but also on the pace of innovation and the Schumpeterian cycle. In addition, this induces forms of parallel financing that may increase overall lending rather than decrease the supply of credit. A good example is China where the bulk of legacy loans are with state-owned enterprises operating in the old manufacturing sector, in contrast to the thriving new technology industries which have to resort to other more ingenious and riskier

⁸² European Stability Mechanism, 'ESM Annual Report 2015', (June 2016), 4. 2016

⁸³ In fact, if a separate set of variables to what European Banking Authority uses for its stress tests is employed, the impression of vulnerability is even stronger, see: Viral V. Acharya, Diane Pieret, and Sascha Steffen, 'Capital Shortfalls of European Banks since the Start of the Banking Union', (28 July 2016): available at [http://www.pages.stern.nyu.edu/~sternfin/vacharya/public_html/pdfs/shortfalls_v27July2016%20\(1\).pdf](http://www.pages.stern.nyu.edu/~sternfin/vacharya/public_html/pdfs/shortfalls_v27July2016%20(1).pdf) (visited on 17 March 2016).

⁸⁴ Ibid. Indicatively, the authors note that 'Since the start of the Banking Union in November 2014, European banks lost nearly half their market capitalization'.

⁸⁵ For example, 80% of NPLs in Italy are loans to corporates: Nadège Jassaud and Kenneth Kang, 'A Strategy for Developing a Market for Nonperforming Loans in Italy', (February 2015) *IMF Working Paper, WP/15/24*, 6.

⁸⁶ Ibid, 17; and Shekhar Aiyar, Anna Ilyina, and Andrea Jobst, 'How to tackle Europe's non-performing loan problem', (5 November 2015): available at <http://www.voxeu.org/article/how-tackle-europe-s-non-performing-loan-problem> (visited on 7 March 2017).

(from a financial stability perspective) forms of financing. This is especially applicable to NPLs arising as a result of gyrations in the macroeconomic cycle, rather than loose underwriting standards, crony banking or outright fraud, because taking a too principled stance vis-a-vis moral hazard when it comes to NPL resolution is frankly counterproductive.

As mentioned previously, the recognition of losses under IFRS 9 can impact capital buffers and possibly trigger bail-in procedures, subject to banks' discretion. Thus, a bank's management has an incentive to procrastinate to avoid triggering bail-in events.⁸⁷ Given that triggering CoCo conversion/redemption or pushing a bank into bail-in centred resolution could prove a disruptive affair if the nature of the problem is systemic, as would be the case with a national banking system loaded with NPLs, rather than idiosyncratic (referring to one bank),⁸⁸ the behaviour of regulators is also uncertain.⁸⁹ By analogy it has been suggested by the IMF that Italian bank managers face a number of tax obstacles, dis-incentivising the timely resolution of NPLs.⁹⁰

Bank management and regulatory inertia is of enormous importance for the timely resolution of NPLs and the extent of losses accrued by a bank. Timely and effective NPL resolution is key to the resumption of bank lending and tackling debt overhang (as explained above), but also impacts on the length of recovery and value of NPLs. As the IMF notes:

The delays depreciate the value of the NPLs, and the prices buyers are ready to pay, after discounting the delays, are not attractive for the banks. A reduction in the time to recover loans would have a positive impact in the price of NPLs.⁹¹

From this framework, we turn to a series of case studies considering approaches in the context of the major banking crises of the past twenty years.

III. THE ASIAN FINANCIAL CRISIS AND CHINA'S ASSET MANAGEMENT COMPANIES

⁸⁷ IMF, 'Ireland: Ex Post Evaluation of Exceptional Access Under the 2010 Extended Arrangement', (January 2015) *IMF Country Report No. 15/20*, 52.

⁸⁸ Emiliou Avgouleas and Charles Goodhart, 'Critical Reflections of Bank Bail-ins', (2015) 1 *Journal of Financial Regulation* 1, 3-29.

⁸⁹ See Emiliou Avgouleas and Charles Goodhart, 'An Anatomy of Bank Bail-ins – Why the Eurozone Needs a Fiscal Backstop for the Banking', (2016) 2 *European Economy*, 75-90.

⁹⁰ Nadège Jassaud and Kenneth Kang, 'A Strategy for Developing a Market for Nonperforming Loans in Italy', (February 2015) *IMF Working Paper, WP/15/24*.

⁹¹ José Garrido, 'Insolvency and Enforcement Reforms in Italy', (July 2016) *IMF Working Paper, WP/16/134*, 6.

Asia experienced its most significant financial crisis in 1997-1998. Severe economic and structural imbalances leading into the crisis destabilised banking systems. This section begins by examining the regulatory approaches and effects on the banking systems of Thailand, Indonesia, Korea, and Malaysia, which were severely affected during the Asian crisis. An examination of China's approach to banking system restructuring will follow. Together the examination of these key but dissimilar (given differentiated political regimes and approaches to private property) contexts show that endemically lax supervision and weak credit and bank governance regimes are rooted to a variety of causes rather than being the consequence of moral hazard due to the prospect of a bailout. Additionally, in these environments radical balance sheet restructuring from the use of state funds minimized ex post bank losses and taxpayer exposure and allowed domestic banks to resume lending.

A. Thailand

The easing of foreign exchange restrictions in the early 1990s allowed domestic banks to source funds internationally. Banks accounted for 64% of financial sector assets.⁹² Credit and reporting standards were lax—in 1996 the NPL ratio was 13%⁹³ with banks holding 847 billion Baht of NPLs.⁹⁴ The banking system rapidly unwound from rising NPLs and a credit shortage.⁹⁵

On 5 August 1997 stand-by support of US\$17.2 billion was provided by the IMF. The IMF policy was to restructure the finance sector by: (i) identifying and closing insolvent institutions; (ii) applying blanket government depositor and creditor guarantees; and (iii)

⁹² Asian Development Bank, 'Rising to the Challenge in Asia: A Study of Financial Markets: Volume 11 – Thailand', (December 1999); Masahiro Kawai and Ken-ichi Takayasu, 'The Economic Crisis and Financial Sector Restructuring in Thailand', 37.

⁹³ Giancarlo Corsetti, Paolo Presenti, and Nouriel Roubini, 'What Caused the Asian Currency and Financial Crisis? Part I: A Macroeconomic Overview', (December 1998) *National Bureau of Economic Research, Working Paper 6833*, 26 and 46 (Table 21): referring to BIS 1997 statistics. Lending by financial companies equated to about a third of all commercial bank lending. Non-bank financial companies realised similar NPL ratios.

⁹⁴ Asian Development Bank, 'Rising to the Challenge in Asia: A Study of Financial Markets: Volume 11 – Thailand', (December 1999); Masahiro Kawai and Ken-ichi Takayasu, 'The Economic Crisis and Financial Sector Restructuring in Thailand', 47.

⁹⁵ Tarrin Nimmanahaeminda, 'Statement by the Hon. Tarrin Nimmanahaeminda, Governor of the Bank for Thailand, at the Joint Annual Discussion', (October 1998) *International Monetary Fund, World Bank Group, Press Release No. 26*, 3.

implementing structural and regulatory reforms.⁹⁶ In August 1997 the Financial Restructuring Package prompted the development of a private AMC framework.⁹⁷

The Asset Management Corporation was established to dispense of NPLs auctioned by the Financial Restructuring Authority (FRA).⁹⁸ NPLs transferred to state-owned AMCs from state-owned banks were guaranteed by the Financial Institutions Development Fund (FIDF) which eventually sustained losses.⁹⁹ Later, in 1999, the Bank of Thailand (BoT) was tasked with supervision over state-owned AMCs.¹⁰⁰

The BoT supported NPL transfers to private AMCs. In accordance with the Emergency Decree on Asset Management Company (1998), AMCs managed distressed assets and resolved bad debts through asset restructurings, asset sales, foreclosures, or other legal actions. Effective distressed debt resolution was facilitated by credit facilities, securitizations, and debt-equity swaps.¹⁰¹ Upgraded rules recognised NPLs after six months rather than twelve, and provisions were made for NPLs during bank restructuring.¹⁰²

To accelerate debt restructuring, a dispute resolution mechanism was established and the Corporate Debt Restructuring Advisory Committee (CDRAC) assisted voluntary out-of-court restructurings. Regulatory and tax inducements spread the burden between debtors and creditors. The NPL ratio reached 42.9% (1998) and NPLs rose to 2,729 billion Baht in 1999, the equivalent of 47.7% total credit.¹⁰³ NPLs took until 2005 to fall below 10% and to 2010 to reach 3.9%.¹⁰⁴ The CDRAC was partially credited with NPLs falling by more than 50% to 17.91% in 2002.¹⁰⁵

FIDF borrowings to bail-out financial institutions amounted to 1.4 trillion Baht. Emergency legislation enabled the MoF to issue bonds to fund the bail outs. Outstanding bonds at the end

⁹⁶ Andrew Berg, 'The Asia Crisis: Causes, Policy Responses, and Outcomes', (October 1999) *International Monetary Fund, Asia Pacific Department, Working Paper 138*, 53.

⁹⁷ Bank of Thailand, 'Supervision Report 2001-2002', 12.

⁹⁸ Bank of Thailand, 'Supervision Report 2000', 11.

⁹⁹ Bank of Thailand, 'Supervision Report 2001-2002', 20.

¹⁰⁰ Bank of Thailand, 'Supervision Report 2000', 6.

¹⁰¹ *Ibid.* 5.

¹⁰² *Ibid.* 17.

¹⁰³ Bank of Thailand, 'Supervision Report 2001-2002', 32.

¹⁰⁴ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2> (visited on 13 November 2016).

¹⁰⁵ Bank of Thailand, 'Supervision Report 2001-2002', 23.

of 2013 stood at approximately 1.1 trillion Baht,¹⁰⁶ despite emergency IMF loans having been repaid in 2003.¹⁰⁷

B. Indonesia

Following the onset in Thailand, contagion spread throughout Asia. Indonesia experienced a rapid currency devaluation and shortages in consumer staples that resulted in political and civil unrest.¹⁰⁸ The banking system was vulnerable, being characterised by crony lending and loose underwriting standards. On 31 October 1997 the central bank, Bank of Indonesia, and the IMF announced a Bank Resolution Package. The package covered 50 banks, with most committing or experiencing fraud. Performing assets were transferred from insolvent to solvent banks.¹⁰⁹ The remaining banks were subject to the following conditions: (i) new investors would inject capital to cover some losses; (ii) NPLs were restructured over a 20 year time horizon; (iii) new investors pledged collateral for the reconstructed NPLs; and (iv) the Bank of Indonesia would issue a long-term subordinated loan to cover investor NPL losses.¹¹⁰ With NPLs remaining on-balance sheet, the restructuring of insolvent banks was futile.¹¹¹

On 5 November 1997, an IMF US\$10 billion standby facility was approved to support macroeconomic stability and banking system reforms. A second IMF programme was announced on 15 January 1998, followed by a government emergency plan involving: (i) a blanket guarantee of all depositors and creditors, (ii) establishing the Indonesia Bank

¹⁰⁶ Bank of Thailand, 'Financial Institutions Development Fund': available at https://www.bot.or.th/English/BOTStoryTelling/Pages/FIDF_StoryTelling_FI.aspx. (visited on 12 January 2016).

¹⁰⁷ John W. Head, 'The Asian Financial Crisis in Retrospect—Observations on Legal and Institutional Lessons Learned After A Dozen Years', (2009) 5 *East Asia Law Review* 1, 55.

¹⁰⁸ Stephen Sherlock, 'Crisis in Indonesia: Economy, Society and Politics', (April 1998) *Parliament of Australia, Current Issues Brief 13 1997-98*: available at http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/CIB/CIB9798/98cib13 (visited on 8 November 2016).

¹⁰⁹ Carl-Johan Lindgren, Tomás J.T. Balino, Charles Enoch, Anne-Marie Gulde, Marc Quintyn, and Leslie Teo, 'Financial Sector Crisis and Restructuring: Lessons from Asia', (1999) *International Monetary Fund, Occasional Paper 188*, 58.

¹¹⁰ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, 'Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999', (2001) *International Monetary Fund, IMF Working Paper 52*, 29.

¹¹¹ *Ibid.*

Restructuring Agency (IBRA) to rehabilitate weak banks and manage NPLs, and (iii) a corporate restructuring plan.¹¹²

IBRA was established pursuant to the ‘Decree of the President of the Republic of Indonesia’¹¹³ with three functions: (i) manage distressed credits (e.g. NPLs); (ii) manage investments; and (iii) a bank restructuring unit.¹¹⁴ Laws enabled IBRA to take control and sell insolvent banks’ NPLs without obtaining approval from borrowers or bank owners.¹¹⁵

Legislation was passed in 1998 to shorten NPL time in arrears, strengthen NPL credit standards, address borrower repayment capacity, revise collateral valuation procedures, and reduce connected lending.¹¹⁶ The ‘Decree Concerning Debt Restructuring’ provided for: (i) asset and equity interest transfers in loan workouts, (ii) accounting rules, (iii) connected loan restructuring restrictions, and (iv) the classifications of restructured loans.¹¹⁷

In April 1998, IBRA closed seven banks, another seven were taken over (approximately 16% of banking system assets), and 16 banks were under IBRA control.¹¹⁸ Management was replaced in six taken-over banks. International auditor reviews of private banks revealed wide-spread connected lending and identified six insolvent banks with NPL ratios approaching 55%, one exceeding 90%.¹¹⁹

The Indonesian Debt Restructuring Agency was established to reduce banking system short-term funding pressures and provide a distressed debt restructuring framework.¹²⁰ Advice and

¹¹² Carl-Johan Lindgren, Tomás J.T. Balino, Charles Enoch, Anne-Marie Gulde, Marc Quintyn, and Leslie Teo, ‘Financial Sector Crisis and Restructuring: Lessons from Asia’, (1999) *International Monetary Fund, Occasional Paper 188*, 59.

¹¹³ Ben Fung, Jason George, Stefan Hohl, and Guonan Ma, ‘Public asset management companies in East Asia – Case studies’, (2004) *Bank for International Settlements*, 8.

¹¹⁴ Ben Fung, Jason George, Stefan Hohl, and Guonan Ma, ‘Public asset management companies in East Asia – Case studies’, (2004) *Bank for International Settlements*, 9.

¹¹⁵ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, ‘Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999’, (2001) *IMF Working Paper, WP/01/ 52*, 77 and 78.

¹¹⁶ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, ‘Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999’, (2001) *IMF Working Paper, WP/01/ 52*, 65 and 69.

¹¹⁷ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, ‘Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999’, (2001) *IMF Working Paper, WP/01/ 52*, 66.

¹¹⁸ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, ‘Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999’, (2001) *IMF Working Paper, WP/01/ 52*, 34.

¹¹⁹ Carl-Johan Lindgren, Tomás J.T. Balino, Charles Enoch, Anne-Marie Gulde, Marc Quintyn, and Leslie Teo, ‘Financial Sector Crisis and Restructuring: Lessons from Asia’, (1999) *International Monetary Fund, Occasional Paper 188*, 61; Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, ‘Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999’, (2001) *IMF Working Paper, WP/01/ 52*, 36.

¹²⁰ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, ‘Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999’, (2001) *IMF Working Paper, WP/01/ 52*, 37.

mediation services were offered by the Jakarta Initiative Task Force (JITF) to initiate voluntary debtor-creditor restructuring agreements. The JITF participated in one-third of corporate debt restructuring arrangements.¹²¹

Over 400 trillion Rupiah of government-issued bonds, or 35% of GDP, were issued to fund the bank recapitalisation programme.¹²² Bank numbers halved after state closures and take-overs.¹²³ IBRA was responsible for 234 trillion Rupiah of NPLs, representing 19 per cent of GDP.¹²⁴ NPL ratios peaked in 1998 at 48.6%, before falling to 31.9% in 2001, and 6.8% by 2003.¹²⁵

C. South Korea

South Korea's economy is industrial and export-driven. In 1997 South Korea's financial sector was underdeveloped, NPLs stood at 5.8%, and the banking system was exposed to short-term foreign debt.¹²⁶ Following a sharp drop in the Won,¹²⁷ South Korea lacked sufficient foreign currency liquidity to meet maturing liabilities,¹²⁸ experiencing a flight of capital. Legislative measures were taken to stabilise the banking system.¹²⁹ To absorb a rapid increase in NPLs, a Non-performing Asset Resolution Fund (NPARF) was established with 3.5 trillion Won under the supervision of the Korean Asset Management Corporation (KAMCO).¹³⁰

¹²¹ Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, 'Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999', (2001) *IMF Working Paper*, WP/01/ 52, 40.

¹²² Authors calculations referring to: Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, 'Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999', (2001) *International Monetary Fund, IMF Working Paper* 52, 107.

¹²³ Carl-Johan Lindgren, Tomás J.T. Balino, Charles Enoch, Anne-Marie Gulde, Marc Quintyn, and Leslie Teo, 'Financial Sector Crisis and Restructuring: Lessons from Asia', (1999) *International Monetary Fund, Occasional Paper* 188, 65.

¹²⁴ Authors calculations referring to: Charles Enoch, Barbara Baldwin, Olivier Frécaut, and Arto Kovanen, 'Indonesia: Anatomy of a Banking Crisis Two years of Living Dangerously 1997-1999', (2001) *IMF Working Paper*, WP/01/ 52, 39.

¹²⁵ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

¹²⁶ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

¹²⁷ Bank of Korea, 'Annual Report: 1997', 4.

¹²⁸ Bank of Korea, 'Annual Report: 1997', 17.

¹²⁹ Kim Kihwan, 'The 1997-98 Korean Financial Crisis: Causes, Policy Response, and Lessons', (July 2006) *High-Level Seminar on Crisis Prevention in Emerging Markets, International Monetary Fund and the Government of Singapore*, 13

¹³⁰ Bank of Korea, 'Annual Report: 1997', 17, 27, and 29.

Legislative amendments enabled the central bank, the Bank of Korea (BoK), to implement credit policies,¹³¹ the Korea Deposit Insurance Corporation (KDIC) to resolve and restructure banks, and provided supervisors with legal control over failing banks' capital.¹³² The Financial Supervisory Service¹³³ and the banking supervisor—the Financial Supervisory Commission (FSC)—were empowered to enforce write-offs, mergers, and closures.¹³⁴ Moreover, the Corporate Restructuring Coordination Committee acted as a voluntary mediator for debt restructuring.¹³⁵ KDIC supervised bank recapitalisations, KAMCO managed NPLs, with coordination directed by the FSC.

Viable or solvent banks were recapitalised with NPLs purchased by NPARF on the condition of merger, management replacement, and downsizing.¹³⁶ Recapitalisations and NPL purchases were funded by government capital injections and bond issues.¹³⁷ Banks with high NPL ratios were closed down.¹³⁸ Weak banks had to submit rehabilitation plans.

On 4 December 1997, the IMF granted South Korea US\$21 billion of stand-by credit with an additional US\$36 billion available on the programme's completion.¹³⁹ The first IMF restructuring exercise focused on distressed banks.¹⁴⁰ Legislative changes to the definition of banks' equity capital were made to reduce leverage and debt to equity ratios.¹⁴¹ The classification of asset soundness and the BCBS capital adequacy requirements were tightened.¹⁴² Loan-loss provisioning was abandoned and forward-looking asset (e.g. NPL) classifications were adopted.¹⁴³

¹³¹ Bank of Korea, 'Annual Report: 1997', 28.

¹³² Bank of Korea, 'Annual Report: 1997', 28.

¹³³ The administrative arm of the FSC.

¹³⁴ Bank of Korea, 'Annual Report: 1997', 28-29; Kim Kihwan, 'The 1997-98 Korean Financial Crisis: Causes, Policy Response, and Lessons', (July 2006) *High-Level Seminar on Crisis Prevention in Emerging Markets, International Monetary Fund and the Government of Singapore*, 13-14; and OECD, 'Insolvency Systems in Asia: An Efficiency Perspective', (2001) *Finance and Investment*, 179.

¹³⁵ Dongsoo Kang, 'Key Success Factors on the Revitalization of Distressed Firms: A Case of the Korean Workouts', (February 2004) *Korea Development Institute*, 2-2.

¹³⁶ Bank of Korea, 'Annual Report: 1998', 38-39.

¹³⁷ Kim Kihwan, 'The 1997-98 Korean Financial Crisis: Causes, Policy Response, and Lessons', (July 2006) *High-Level Seminar on Crisis Prevention in Emerging Markets, International Monetary Fund and the Government of Singapore*, 14-15.

¹³⁸ Bank of Korea, 'Annual Report: 1998', 38.

¹³⁹ Bank of Korea, 'Annual Report: 1997', 17.

¹⁴⁰ Bank of Korea, 'Annual Report: 1998', 39.

¹⁴¹ Bank of Korea, 'Annual Report: 1998', 45.

¹⁴² Bank of Korea, 'Annual Report: 1998', 46.

¹⁴³ Kim Kihwan, 'The 1997-98 Korean Financial Crisis: Causes, Policy Response, and Lessons', (July 2006) *High-Level Seminar on Crisis Prevention in Emerging Markets, International Monetary Fund and the Government of Singapore*, 16.

Assessments by the FSC of 12 banks' balance sheets revealed inadequate capital adequacy ratios.¹⁴⁴ Between 1998 and 2002, nine banks merged.¹⁴⁵ Bank numbers fell from 33 to 19.¹⁴⁶ The KDIC ceased operations in 2001 with recapitalisations of over 128 trillion Won.¹⁴⁷ NPL ratios peaked at 8.9% in 2000 before falling to 3.4% during 2001.¹⁴⁸

D. Malaysia

Malaysian loan growth averaged 25% per annum between 1994 and 1997.¹⁴⁹ Banks held 43.6% of total assets,¹⁵⁰ with property sector loans accounting for one-third of total loans.¹⁵¹ Banking system NPLs surged from 1, 255 to 3, 646 million Ringgit during 1997, an increase of over 190%.¹⁵² Prior to the crisis, NPLs were 4.1% before peaking at 18.6% in 1998.¹⁵³

Structural weaknesses were addressed by implementing a pre-emptive crisis programme.¹⁵⁴ NPLs were reclassified closer to international standards by reducing the period in arrears from six to three months and improving detection, identification, and monitoring.¹⁵⁵ Capital controls were applied to stem outflows.¹⁵⁶

In contrast to other countries, Malaysia only accepted IMF technical assistance. A restructuring plan consisted of creating: (i) a merger plan, (ii) an AMC—Danaharta—to manage NPLs, (iii) a special purpose vehicle—Danamodal, and (iv) a Corporate Debt Restructuring Committee (CDRC).¹⁵⁷ A Steering Committee on Restructuring chaired by the

¹⁴⁴ Bank of Korea, 'Annual Report: 1998', 39.

¹⁴⁵ Bank of Korea, 'Annual Report: 2003', 58.

¹⁴⁶ Bank of Korea, 'Annual Report: 2003', 58.

¹⁴⁷ Authors calculations: Bank of Korea, 'Annual Report: 2001', 51; Bank of Korea, 'Annual Report: 2002', 49.

¹⁴⁸ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

¹⁴⁹ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1997', Ch 4; Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 9.

¹⁵⁰ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1997', Ch 4; Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 9.

¹⁵¹ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1997', Ch 4, 13.

¹⁵² Author's calculations based on: Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1997', Ch 4, 3, and 9. Loan loss reserves amounted to 92% of NPLs, loan loss provisioning was 1, 365 and 3, 964 million RM.

¹⁵³ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2> (visited on 13 November 2016).

¹⁵⁴ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 1, 4: after the depreciation of Ringgit by 40% the government introduced exchange control measures to stabilise short-term capital flows.

¹⁵⁵ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1997', Ch 4, 4-5.

¹⁵⁶ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 1, 4: after the depreciation of Ringgit by 40% the government introduced exchange control measures to stabilise short-term capital flows.

¹⁵⁷ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 11.

Governor of the Bank Negara Malaysia (BNM), the central bank, co-ordinated policies, operations, and the progress of these independent bodies.¹⁵⁸

Danaharta was a limited liability company wholly owned by BNM designed to rehabilitate NPLs, restructure NPLs, and maximise NPL recovery value.¹⁵⁹ Powers included acquiring and managing NPLs and appointing administrators. Rehabilitation focused on purchasing NPLs. Danaharta only purchased unmanageable NPLs.¹⁶⁰ NPLs purchased realised a capital injection. Banks sold NPLs to Danaharta if their gross NPL ratio exceeded 10%, with the residual written down and restructured.¹⁶¹ Danaharta then renegotiated NPL conditions with corporate borrowers.¹⁶² Recapitalised banks sold NPLs to Danaharta at fair market value, funded by the government and, when market conditions allowed, the sale of bonds.¹⁶³

Danaharta ceased purchasing NPLs in 2001 having dealt with RM52.4 billion—an expected recovery rate of 59%, with bonds totalling RM11.1 billion.¹⁶⁴ This fiscal backstop and NPL portfolio restructuring proved successful. By 2005, RM29 billion or 94% of RM30.8 billion of outstanding NPLs had been recovered, with NPL ratios dropping to 9.4%.¹⁶⁵

Danamodal was a subsidiary of the BNM to facilitate bank recapitalisations. Existing bank shareholders were decimated because they absorbed all losses prior to recapitalisation.¹⁶⁶ In contrast to Danaharta, the BNM enforced Danamodal's powers so that capital was only injected into viable banks on commercial terms.¹⁶⁷ Capital injections amounted to RM7.6 billion and involved 10 institutions.¹⁶⁸ Danamodal had recovered RM6.6 billion by 2003 when it was wound down.¹⁶⁹

The CDRC facilitated the restructuring of corporate debt. Being a voluntary mechanism, the CDRC had no legal basis to compel debt restructuring. Recovery proceeds consisted of cash,

¹⁵⁸ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 13.

¹⁵⁹ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶⁰ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶¹ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶² Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶³ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶⁴ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-2000', Ch 4, 14; Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-2002', Ch 4, 116.

¹⁶⁵ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-2004', Ch 4, 108; World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

¹⁶⁶ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶⁷ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-1998', Ch 4, 12.

¹⁶⁸ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-2001', Ch 4, 134.

¹⁶⁹ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-2003', Ch 4, 107. Danamodal expected to recover the outstanding RM 1 billion from one institution.

redeemable instruments, and rescheduled debts.¹⁷⁰ The CDRC was closed on 15 August 2002 which ended Malaysia's debt restructuring efforts.

E. China

(i) Asset management companies: 1998-2008

China was insulated from the Asian financial crisis because, at that time, its financial sector was closed, currency convertibility was entirely controlled, and the economy was continually posting strong GDP growth. Export growth experienced a downturn in 2000 that took until 2003 recover, peaking at 10% in 2005 before plunging to negative 10% in 2008-9.¹⁷¹ The banking system and its supervision were in transition during the crisis.

Dominating the banking sector were four state-owned banks accounting for nearly two-thirds of total assets: (i) Bank of China (BoC); (ii) Agricultural Bank of China (ABC); (iii) China Construction Bank (CCB); and (iv) Industrial and Commercial Bank of China (ICBC). Despite strong GDP growth, the banking system was characterised by structural weaknesses, nascent prudential supervision, and lax underwriting standards. In 1997 the NPL ratio was 20%.¹⁷²

Reforms to address these issues included the recapitalisation of state-owned banks, adopting NPL international classification standards, enforcement of commercially viable loans, and banning local governments from influencing lending decisions.¹⁷³ The last two reforms centred on strengthening credit standards and quashing connected lending. Bank recapitalisation was funded by government-issued bonds valued at RMB270 billion.¹⁷⁴ A risk-based classification of NPLs was adopted.¹⁷⁵ Nonetheless NPL ratios remained over 20%.

¹⁷⁰ Bank Negara Malaysia, 'Bank Negara Malaysia Annual Report-2002', Ch 4, 115.

¹⁷¹ World Bank, 'Exports of goods and services (annual % growth)'; available at <http://www.data.worldbank.org/indicator/NE.EXP.GNFS.KD.ZG> (visited on 13 November 2016).

¹⁷² BIS, 'Strengthening The Banking System In China: Issues And Experiences', (March 1999): YK Mo, 'A review of recent banking reforms', 91.

¹⁷³ BIS, 'Strengthening The Banking System In China: Issues And Experiences', (March 1999): YK Mo, 'A review of recent banking reforms', 93.

¹⁷⁴ BIS, 'Strengthening The Banking System In China: Issues And Experiences', (March 1999): YK Mo, 'A review of recent banking reforms', 93.

¹⁷⁵ BIS, 'Strengthening The Banking System In China: Issues And Experiences', (March 1999): YK Mo, 'A review of recent banking reforms', 96.

In 1999, four state-owned AMC's were established to transfer NPLs from corresponding state-owned banks.¹⁷⁶ Transfers of NPLs in 1999-2000 amounted to RMB1.4 trillion, about 20% of the banks' combined loan book, or 18% of GDP.¹⁷⁷ It has been estimated that this was less than half of total NPLs.¹⁷⁸

NPLs were purchased by AMC's issuing bonds with credit supplied by the central bank.¹⁷⁹ Disposals were slow and the recovery rate was 21%.¹⁸⁰ After implementation of the reforms, NPL ratios took until 2004 to fall to 13.2%.¹⁸¹ The government decided to list two state-owned banks on the Shanghai and Hong Kong Stock Exchanges. To strengthen balance sheets, the central bank transferred RMB320 billion in NPLs from the BoC and CCB to their AMC's for 30 to 40% of book value.¹⁸² The government injected US\$45 billion of capital which boosted capital adequacy ratios and supported new lending to offset NPLs.¹⁸³ Similar restructuring efforts were then applied to ABC and ICBC.

NPLs dropped to 2.4% in 2008.¹⁸⁴ This reduction was supported by very strong GDP growth. China's NPL reduction was therefore not solely attributable to AMC transfers.

(ii) Managing non-performing loans post-2008: An increasing concern

As growth rates have decelerated and the levels of indebtedness risen, this has led to a substantive increase in NPLs. AMC's core business remains distressed debt although they have evolved into financial conglomerates. China Huarong Asset Management (CHAM) is the largest AMC having absorbed 55% or 264 billion yuan of bank NPLs in the first half of

¹⁷⁶ See, Barry Hsu, Douglas Arner, and Qun Wan, 'Policy Functions as Law: Legislative Forbearance in China's Asset Management Companies', (2007) 23 *UCLA Pacific Basin Law Journal* 129, 129-171.

¹⁷⁷ Guonan Ma and Ben SC Fung, 'China's asset management corporations', (August 2002) *BIS Working Papers No 115*, 2.

¹⁷⁸ Guonan Ma and Ben SC Fung, 'China's asset management corporations', (August 2002) *BIS Working Papers No 115*, 2.

¹⁷⁹ Guonan Ma and Ben SC Fung, 'China's asset management corporations', (August 2002) *BIS Working Papers No 115*, 4.

¹⁸⁰ Guonan Ma and Ben SC Fung, 'China's asset management corporations', (August 2002) *BIS Working Papers No 115*, 11-12.

¹⁸¹ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

¹⁸² Guonan Ma, 'Who pays China's bank restructuring bill?', (2006) *Centre D'Ethudes Prospectives Et D'Inforations Internationales*, 112.

¹⁸³ The Economist, 'Botox shot: Injections of capital may soon wear off', (8 January 2004) *Recapitalising China's Banks, Hong Kong*: available at <http://www.economist.com/node/2338716> (visited on 14 January 2016).

¹⁸⁴ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

2016.¹⁸⁵ The Chairman of CHAM has stated that the quality of NPLs is deteriorating, tightening profit margins, with an average disposal time of one to three years.¹⁸⁶ Bank NPL ratios have increased for 19 consecutive quarters (August 2016) with debt to GDP being 225%—corporate debt is 145%.¹⁸⁷ The IMF has raised concerns and called for rebalancing measures, estimating that corporate loan portfolio losses could conservatively reach 7% of GDP in 2016.¹⁸⁸

In comparison to countries affected by the Asian financial crisis, China is in a more secure position because of the financial buffers and factors underpinning the banking system. Firstly, China has a relatively closed, albeit porous, capital account to stem the outflow of funds. Secondly, debt is mostly domestic and not foreign sourced. Thirdly, the largest banks and debtors are state-controlled and are therefore more akin to a corporate group, owned by the government which is willing and able to provide financial support. Finally, the largest AMCs are also state-controlled.

Apart from the high level of NPLs there are a number of structural banking system concerns. The IMF estimates that state-owned enterprises (SOEs) account for 55% of corporate debt.¹⁸⁹ This heightens default risk, since China's legal system is relatively lenient towards debt enforcement and recovery. For example, NPLs are universally defined as 90 days past due. The average collection time in China is 83 days, exceeded by certain industries: industrial firms average 131 days; technology companies average 120 days; and telecommunications firms average 118 days.¹⁹⁰ Research suggests that banks routinely mischaracterise NPLs as 'structured investment products'.¹⁹¹ One estimate puts mischaracterisation at 20% of GDP.¹⁹² Another issue is lending transparency and exposures outside the traditional banking system.

¹⁸⁵ Lai Xiaomin, Chairman of China Huarong Asset Management in: 'Bad loans to grow as disposal becomes harder, says chairman of China's biggest 'bad bank'', (31 August 2016) *South China Morning Post*.

¹⁸⁶ Lai Xiaomin, Chairman of China Huarong Asset Management in: 'Bad loans to grow as disposal becomes harder, says chairman of China's biggest 'bad bank'', (31 August 2016) *South China Morning Post*.

¹⁸⁷ Lai Xiaomin, Chairman of China Huarong Asset Management in: 'Bad loans to grow as disposal becomes harder, says chairman of China's biggest 'bad bank'', (31 August 2016) *South China Morning Post*.

¹⁸⁸ David Lipton, IMF First Deputy Managing Director speaking at: 'Rebalancing China: International Lessons in Corporate Debt', (11 June 2016) *IMF China Economic Society Conference On Sustainable Development in China and the World*.

¹⁸⁹ David Lipton, IMF First Deputy Managing Director speaking at: 'Rebalancing China: International Lessons in Corporate Debt', (11 June 2016) *IMF China Economic Society Conference On Sustainable Development in China and the World*.

¹⁹⁰ Ye Xie, 'China Has a \$590 Billion Problem With Unpaid Bills', (20 March 2016) *Bloomberg Markets*.

¹⁹¹ Yuan Yang and Gabriel Wildau, 'Chinese banks disguise risky loans as 'investments'', (29 April 2016) *Financial Times, Shadow Banking*.

¹⁹² Jason Bedford, Director of Asian Financial Research at UBS in: 'China's shadow banking sleuth', (28 February 2016) *The Globe and Mail*.

Moody's Investor Services estimates (2015) that China's shadow banking system accounts for nearly 80% of GDP.¹⁹³

The government is following a multi-pronged strategy to address the NPL problem— actively encouraging mergers or bankruptcies of technically insolvent companies, allowing provincial governments to establish AMCs, and introducing a debt for equity swap programme. Debt for equity operates akin to a bail-in tool.

In May 2012, the banking supervisor approved provincial AMCs, with 27 since being established. These AMCs purchase NPLs and facilitate the debt for equity swap programme alongside state-owned AMCs. Provincial AMCs are preferred to manage distressed local SOEs, benefitting from local governments ability to order local SOEs to sell NPLs.¹⁹⁴

The debt to equity swap programme focuses on distressed steel and coal companies. Technically insolvent companies are excluded from the programme.¹⁹⁵ Each swap involves three parties, the originator (creditor) bank, the SOE debtor, and a third-party executor.¹⁹⁶ Upon receiving approval from the banking supervisor, distressed SOEs exchange debt for equity thereby strengthening their balance sheet. Executors are a big four SOE bank which purchases the debt (e.g. NPLs) before selling on to an AMC. Effectively the debt is retained by the government until realised by the AMC. Each transaction in the chain diminishes NPL value and spreads the risk among government agencies. Essentially this amounts to a bail out of the four big SOE banks. The programme began operating on 25 October 2016 with the banking supervisor issuing draft regulations.

F. Lessons from the Asian Crisis: Key Characteristics and the Effectiveness of Banking Sector Restructuring

During banking crises balance sheets are placed under extreme stress requiring restructuring through capital and equity injections, renegotiating credit terms, and transferring distressed

¹⁹³ Moody's Investors Service, 'Moody's Negative outlook on China's banking system driven by challenging operating environment and deteriorating asset quality and profitability', (31 May 2016): available at https://www.moods.com/research/Moodys-Negative-outlook-on-Chinas-banking-system-driven-by-challenging-PR_349828 (visited on 26 October 2016).

¹⁹⁴ Liu Ran and Wu Hongyuran (rewritten by Han Wei), 'Carving up the Non-performing Loan Elephant', (2016) *CaixinOnline*: available at <http://www.english.caixin.com/2016-08-08/100975319.html> (visited on 9 November 2016).

¹⁹⁵ Yuan Yang, 'Chinese banks begin raising capital for debt-for-equity swaps', (25 October 2016) *Financial Times, China Business*.

¹⁹⁶ Yuan Yang, 'Chinese banks begin raising capital for debt-for-equity swaps', (25 October 2016) *Financial Times, China Business*.

assets off-balance sheet. Banking system bail-outs require adequate legal/regulatory frameworks and supervision—for example, risk management, capital and liquidity buffers, restrictions on large exposures, transparent credit standards, bank restructuring frameworks, and effective distressed debt transfer mechanisms.

Capital adequacy ratios of 8% to 10% proved insufficient to absorb high levels of NPLs. These levels satisfied BCBS recommendations at the time of the Asian crisis. Capital ratios were the main solvency buffer as CoCos, bail-in debt instruments, and pre-crisis resolvability and resolution plans had not been developed.

When the crisis reached a stage whereby banks required balance sheet and business model restructuring to remain solvent, NPL and bank resolution regimes were either underdeveloped or non-existent. Indonesia, Thailand, and South Korea were forced to accept IMF support to bail-out or recapitalise their banking systems. Large capital injections are necessary to stabilise bank balance sheets, which may result in state ownership to provide additional balance sheet stability.

The IMF bank resolution policies focused on closing and liquidating insolvent institutions and the provision of government guarantees, with capital restructuring being the last resort. Indonesia epitomises the policy of closing down rather than restructuring banks with bank numbers halving within a few years. Bank closures reduced Indonesia's NPL ratio, yet this is attributable to the efforts of a few banks which had particularly high NPL ratios. A concentration of bank closures in Thailand did not correlate with a drop in NPL ratios in the short-term—i.e., 3 years. Indonesia and Thailand had the highest level of closures and experienced the deepest and longest disruptions to their banking systems and financial stability requiring the most extensive use of public funds.

Resolving systemic banking system crises by focusing on closures rather than balance sheet restructuring weakens confidence. A resolution policy that prioritises closures does not correlate with banking system strength and stability. Paradoxically, this was a condition of the IMF support programme. Malaysia, which did not request an IMF bail-out nor supported widespread bank closures, had a more effective banking sector restructuring programme because of the pre-emptive and well-planned implementation of an effective NPL transfer mechanism which maintained confidence throughout the crisis.

Indonesia's reluctance to implement reforms and provide appropriate legislative backing intensified its banking crisis and hindered NPL resolution efforts. In contrast in South Korea the existing framework was modified expeditiously to mitigate rising NPLs which proved effective.

All jurisdictions experienced significant NPL reduction and banking system stabilisation after bank consolidation had taken place and debt restructuring arrangements became operational. Debt restructuring was contingent of legislative and regulatory frameworks. Thailand was slow to respond and Indonesia was reluctant to implement effective reforms. This hesitation offers critical lessons as it maintained banking system fragility since NPLs continued to surge in contrast to the pre-emptive approaches taken in South Korea and Malaysia.

Government guarantees were essential to stabilising banking systems and a condition of the IMF bail-out. China implicitly guaranteed bank lenders' solvency and borrowers' repayment ability because state-owned banks lent to state-owned enterprises. Guarantees may be an effective and efficient component of the restructuring framework because they increase banking system confidence, yet are rarely enforced.

While all of these programmes involved a form of public funding, variations have been observed with regards to the most effective form of restructuring and public intervention. Experience from the Asian crisis shows that expeditious debt restructuring programmes and legal frameworks rather than bank closures proved to be the most effective approach to restructure banking systems and restore viability in the context of a systemic banking crisis.

The use of AMC's was instrumental in cleansing bank balance sheets of NPLs, strengthening capital ratios in the longer-term, stabilising banking systems, and enhancing banks' capacity to re-start lending aiding regional economic recovery. AMC's were funded either by government capital injections or the sale of bonds.

Conversely, there is no clear evidence whether state-owned or private AMC's were more effective bail-out mechanisms. Debt overhang from Thailand's NPLs programme is an ongoing problem. China's AMC performance cannot be properly assessed around the time of the state-owned bank privatisations because the extensive bank recapitalisations distorted the banking system.

KAMCO is a good example of how an existing AMC, with a majority of funding coming from bond issues (i.e. private sector), can be used as a counter-cyclical relief mechanism. A potential banking crisis was promptly abated from a surge in NPLs while mitigating taxpayer expenditure. This in our view is an important finding. Banks need to be equipped with tools to manage NPLs promptly to avoid distressed assets festering, destabilising balance sheets and confidence, as is occurring in certain Eurozone countries.

IV. BANK RESCUE CASE STUDIES FROM THE GLOBAL FINANCIAL CRISIS: UBS, ROYAL BANK OF SCOTLAND AND CITIGROUP

This section focuses on the approaches adopted during the GFC in Switzerland, the United Kingdom (UK) and the United States (US) to restructure UBS, the Royal Bank of Scotland, and Citigroup. Switzerland and the UK managed guarantee-based programmes rather than asset sales. The US operated a guarantee programme and a Troubled Asset Relief Program (TARP) to purchase distressed assets.¹⁹⁷

A. UBS

On 1 October 2007, UBS announced a write down of 4 billion Swiss francs (CHF) from investments in asset-backed securities and collateralised debt obligations.¹⁹⁸ Performance of these instruments was linked to NPLs—US sub-prime mortgages.¹⁹⁹

UBS received a government capital injection of CHF6 billion, consisting of mandatory convertible notes (i.e. converting into equity/capital) and the sale of NPLs and NPL linked instruments, from the Swiss National Bank ('SNB'—the central bank).²⁰⁰ These distressed assets were then transferred to a special purpose vehicle (SPV), the 'StabFund'.²⁰¹ The StabFund was designed to absorb UBS distressed assets and realise a return.

¹⁹⁷ On TARP, see: Board of Governors of the Federal Reserve System, 'Troubled Asset Relief Program (TARP) Information': Available at <http://www.federalreserve.gov/bankinginfo/tarpinfo.htm> (visited on 9 November 2016).

¹⁹⁸ Securities and Exchange Commission, 'UBS AG Form 6-K', (1 October 2007) *Report on Foreign Issuer, Washington*, 2; Swiss Federal Banking Commission, 'Subprime Crisis: SFBC Investigation into the Causes of the Write-downs of UBS AG', (September 2008), 4. The subsidiary was Dillon Read Capital Management.

¹⁹⁹ For a description of securitisation, see: Phillip R. Wood, *Project Finance, Securitisations, Subordinated Debt, Volume 5* (London: Sweet and Maxwell Limited, 2007), pp111-174.

²⁰⁰ SNB, 'SNB StabFund repays Swiss National Bank loan', (16 August 2013) *Press Release*, 1.

²⁰¹ StabFund or stabilisation fund.

The StabFund was a limited partnership consisting of two partners solely owned by the SNB: an unlimited liability partner managing the SPV, and a limited liability partner.²⁰² Distressed asset purchases were financed by SNB loans and UBS equity contributions—a maximum of 10% of asset purchased up to US\$6 billion.²⁰³ Equity contributions were designed to absorb the first 10% of losses.²⁰⁴ UBS had an option to purchase the StabFund from the SNB after repaying all loans.²⁰⁵ Once the loan was repaid, UBS was entitled to receive the first US\$1 billion of profit, with UBS and SNB sharing profits thereafter.²⁰⁶

Distressed assets totalling US\$38.7 billion were sold to the StabFund between December 2008 and April 2009. Asset sale returns were US\$15.8 billion which were used to repay SNB loans.²⁰⁷ A profit of CHF1.2 billion was realised by the Swiss government selling its CHF6 billion UBS equity. The final SNB loan repayment was made by UBS in August 2013. UBS exercised the option to purchase the StabFund in September 2013.

B. Royal Bank of Scotland

The Royal Bank of Scotland (RBS) grew dubiously through a series of aggressive acquisitions, notably the 2007 partial purchase of ABN AMRO.²⁰⁸ Following the failure of Lehman Brothers, RBS capital and liquidity became severely strained. NPLs rose dramatically from 1.4% to 5% in 2009, reaching 9% by 2013.²⁰⁹

On 8 October 2008 the UK government announced the rescue and recapitalisation of RBS. The European Commission approved the Bank of England's (BoE) recapitalisation measures

²⁰² SNB, 'SNB's special purpose vehicle for UBS assets to be domiciled in Switzerland', (26 November 2008) *Press Release*, 1.

²⁰³ SNB, 'SNB's special purpose vehicle for UBS assets to be domiciled in Switzerland', (26 November 2008) *Press Release*, 1; and SNB, 'SNB StabFund repays Swiss National Bank loan', (16 August 2013) *Press Release*, 1.

²⁰⁴ SNB, 'SNB purchases StabFund from SNB', (8 November 2013) *Press Release*, 1.

²⁰⁵ SNB, 'SNB StabFund repays Swiss National Bank loan', (16 August 2013) *Press Release*, 1.

²⁰⁶ SNB, 'SNB's special purpose vehicle for UBS assets to be domiciled in Switzerland', (26 November 2008) *Press Release*, 2.

²⁰⁷ SNB, 'SNB purchases StabFund from SNB', (8 November 2013) *Press Release*, 2.

²⁰⁸ See, House of Commons Treasury Committee, 'The FSA's report into the failure of RBS,' (October 2012) *Fifth Report of Session 2012-13*.

²⁰⁹ European Commission, 'United Kingdom Restructuring of the Royal Bank of Scotland following its recapitalisation by the State and its participation in the Asset Restructuring Scheme', (14 December 2009) *State aid No N 422/2009 and N 621/2009*, 6; Moody's Investor Services, 'The Royal Bank of Scotland Group plc – Substantial Restructuring Progress Underpins Our Positive Outlook', (January 2016), 7: available at http://www.investors.rbs.com/~/_media/Files/R/RBS-IR/credit-ratings/moody/2016%2001%2011%20Moody's%20on%20RBS%20-%20Substantial%20Restructuring%20Progress%20Underpins%20Our%20Positive%20Outlook.pdf (visited on 15 November 2016).

including a guarantee under ‘EU State Aid Rules’ on 13 October 2008.²¹⁰ An initial sale of £15 billion in RBS shares, underwritten by the government, attracted virtually no subscribers. This forced the government to purchase the bulk of RBS shares, effectively a capital injection and nationalisation. BoE emergency loans provided an additional £20 billion recapitalisation,²¹¹ with the government holding 90.6 billion RBS shares, 70% of voting shares and 84% of total capital.²¹²

On 3 November 2008 the government established United Kingdom Financial Investments Ltd (UKFI) to manage the RBS and Lloyds recapitalisations and the government’s equity interest/capital injections. A condition of the RBS capital injection was participation in the Asset Protection Scheme (APS), established to protect banks against losses on distressed assets.²¹³ RBS sought protection for £325 billion in assets (e.g. NPLs), subsequently revised to £282 billion. Liability was distributed—the first £60 billion of asset losses absorbed by RBS with losses thereafter falling on RBS and government at 10% and 90% respectively.²¹⁴ Effectively the government was providing a guarantee against 90% of distressed asset losses above a pre-determined threshold.

The APS function was analogous to a state-owned AMC managing bank NPLs, yet differed because asset ownership remained with the bank on-balance sheet. This arrangement was quicker to implement and did not require capital injections to purchase distressed assets.²¹⁵ However, there were marked disadvantages—chiefly, retaining distressed assets on-balance sheet and the bank not receiving any NPL sale proceeds. Larger government capital injections were eventually required to maintain bank solvency until an NPL return was realised. Shareholder and creditor claims are diluted unless protected.²¹⁶ RBS exited the APS on 18

²¹⁰ European Commission, ‘State aid: Commission approves impaired asset relief measure and restructuring plan of Royal Bank of Scotland’, (14 December 2009) *Press Release*: available at http://www.europa.eu/rapid/press-release_IP-09-1915_en.html (visited on 20 January 2016); and European Commission, ‘United Kingdom Restructuring of the Royal Bank of Scotland following its recapitalisation by the State and its participation in the Asset Restructuring Scheme’, (14 December 2009) *State aid No N 422/2009 and N 621/2009*, 7.

²¹¹ European Commission, ‘United Kingdom Restructuring of the Royal Bank of Scotland following its recapitalisation by the State and its participation in the Asset Restructuring Scheme’, (14 December 2009) *State aid No N 422/2009 and N 621/2009*, 7.

²¹² UKFI, ‘UK Financial Investments Limited (UKFI) Update on UKFI Market Investments March 2010’, 4.

²¹³ APA, ‘Annual Report and Accounts 2009-10’, (July 2010) *HC 259*, 20.

²¹⁴ IMF, ‘United Kingdom: Crisis Management and Bank Resolution Technical Note’, (July 2011) *IMF Country Report No. 11/228*, 20, fn 13.

²¹⁵ National Audit Office, ‘HM Treasury, The Asset Protection Scheme’, (21 December 2010) *Report by the Comptroller and Auditor General, HC 567, Session 2010-2011*, 5.

²¹⁶ National Audit Office, ‘HM Treasury, The Asset Protection Scheme’, (21 December 2010) *Report by the Comptroller and Auditor General, HC 567, Session 2010-2011*, 5.

October 2012, and the APS ceased operations realising a £5 billion profit.²¹⁷ RBS removed over £1 trillion in assets from its balance sheet.²¹⁸

On 3 November 2009, the government announced that RBS would be restructured including inter alia raising its credit rating to AA standard, a CET1 ratio above 8% (compared to 4% in 2008), and separating and disposing of non-core assets.²¹⁹ RBS is still struggling to dispose of these assets and is currently seeking a buyer for a bloc of 315 branches that it is obliged to dispose of under the amended terms of its restructuring plan in accordance with the EU state aid rules.²²⁰

The government is disposing of its RBS equity although this should recoup £32 billion when total investment exceeds £45 billion.²²¹ Privatising RBS is ongoing with equity sales realising losses of £1 billion as of early 2017.

C. Citigroup

The US\$700 billion ‘Troubled Asset Relief Program’ or ‘TARP’ was designed to stabilise the US finance system by purchasing distressed assets.²²² TARP consisted of sub-programmes including the Capital Purchase Program (CCP) to inter alia strengthen bank capital.²²³ Citigroup was a recipient of the TARP CCP, receiving US\$25 billion on 28 October 2008. Citigroup subsequently revealed a loss of US\$27.68 billion, causing its share price to plunge.

On 23 November 2008 Citigroup agreed to a government bail-out. Distressed assets (e.g. CDOs) were the greatest threat to Citigroup’s viability.²²⁴ Citigroup’s bail-out included a US\$301 billion government guarantee on a pool of assets under the Asset Guarantee Program (AGP). The AGP retained distressed assets on Citigroup’s balance sheet.

²¹⁷ APA, ‘Annual Report and Accounts for the period from 1 April 2012 to 31 October 2012’, (12 June 2012) *HC 120*, 6.

²¹⁸ Rothschild, ‘The UK investment in Royal Bank of Scotland’, (10 June 2015) *Rothschild Report*, 3.

²¹⁹ European Commission, ‘United Kingdom Restructuring of the Royal Bank of Scotland following its recapitalisation by the State and its participation in the Asset Restructuring Scheme’, (14 December 2009) *State aid No N 422/2009 and N 621/2009*, 12-13.

²²⁰ See: UKFI, ‘UK Financial Investments Limited (UKFI) Annual Report and Accounts 2015/16’, (July 2016), 19-24; and European Commission, ‘State aid: Commission approves amendments to restructuring plan of Royal Bank of Scotland’, (April 2014) *Press Release*.

²²¹ Rothschild, ‘The UK investment in Royal Bank of Scotland’, (10 June 2015) *Rothschild Report*, 5.

²²² Board of Governors of the Federal Reserve, ‘Troubled Asset Relief Program (TARP) Information’: available at <http://www.federalreserve.gov/bankinginfo/tarpinfo.htm> (visited on 22 January 2016); Emergency Economic Stabilization Act 2008, s 102.

²²³ FDIC, ‘2008 Annual Report 2008’, Part I, Supervision and Consumer Protection.

²²⁴ Special Inspector General for the Troubled Asset Relief Program, ‘Extraordinary Financial Assistance Provided to Citigroup, Inc.’, (13 January 2011) *SIGTARP 11-002*, 17 and 19.

The terms of AGP rendered Citigroup liable for the first US\$39.5 billion in losses.²²⁵ TARP and Citigroup would then absorb US\$5 billion and US\$0.6 billion respectively. Following losses would be absorbed at US\$10 billion by the Federal Deposit Insurance Corporation (FDIC) and US\$ 1.1 billion by Citigroup. Losses thereafter would be serviced by the Federal Reserve Bank of New York (FRBNY) by securing a loan over remaining guaranteed assets at 90% collateral value. The capital injection provided an additional buffer against losses sustained under the AGP.²²⁶

To strengthen Citigroup's balance sheet a TARP capital injection of US\$20 billion was exchanged for Citigroup preferred shares. This approach, the Targeted Investment Program (TIP), was adopted because standard TARP funding was insufficient to stabilise Citigroup.²²⁷ A quarterly dividend of 8% per annum was paid by Citigroup for TIP.

Citigroup's share price continued to decline precipitously, undermining the TIP capital injection. In July 2009, US\$25 billion in preferred equity, obtained through TARP's CCP, was exchanged for common stock. Citigroup had become partially nationalised.

In September 2009, Citigroup notified the Treasury that it wanted to repay and exit TIP, and terminate the AGP. Conditions included maintaining sufficient capital levels, an ability to access long-term debt markets without government assistance, and raising common equity by 50% of the Treasury's redeemable equity.²²⁸ To increase its capital levels, on 23 December 2009 Citigroup issued 5.4 billion common shares for US\$17 billion, and tangible equity units of US\$3.5 billion.²²⁹ The Treasury unwound its position in Citigroup's TARP, AGP and TIP programmes on 10 December 2010, selling 7.7 billion common shares for a profit of US\$12 billion.²³⁰

D. Analysis and Evaluation

²²⁵ This figure was government's expected average loss from the guarantee. Citigroup expected losses to be closer to US\$ 29 billion: Special Inspector General for the Troubled Asset Relief Program, 'Extraordinary Financial Assistance Provided to Citigroup, Inc.', (13 January 2011) *SIGTARP 11-002*, 19-20.

²²⁶ Special Inspector General for the Troubled Asset Relief Program, 'Extraordinary Financial Assistance Provided to Citigroup, Inc.', (13 January 2011) *SIGTARP 11-002*, 21.

²²⁷ Special Inspector General for the Troubled Asset Relief Program, 'Extraordinary Financial Assistance Provided to Citigroup, Inc.', (13 January 2011) *SIGTARP 11-002*, 18.

²²⁸ Special Inspector General for the Troubled Asset Relief Program, 'Extraordinary Financial Assistance Provided to Citigroup, Inc.', (13 January 2011) *SIGTARP 11-002*, 34.

²²⁹ Special Inspector General for the Troubled Asset Relief Program, 'Extraordinary Financial Assistance Provided to Citigroup, Inc.', (13 January 2011) *SIGTARP 11-002*, 38.

²³⁰ Special Inspector General for the Troubled Asset Relief Program, 'Extraordinary Financial Assistance Provided to Citigroup, Inc.', (13 January 2011) *SIGTARP 11-002*, 9 and 40.

During the earlier stages of the GFC, when inadequate capital and liquidity buffers combined with excessive leverage ratios were exposed, systemic bank bail-outs as opposed to closure and liquidation were the preferred approach, perhaps, due to lack of legally viable bail-in regimes. The approach taken by the authorities in the UBS, RBS, and Citigroup rescues went counter to the approach adopted by the IMF in the Asian crisis. Governments provided massive capital injections, thereby effecting partial bank nationalisations albeit structured – importantly – in each case to avoid being taken onto the government’s balance sheet.

G-SIBs became fragile from an over-exposure to NPLs and/or NPL linked financial instruments (e.g., derivatives, CDOs). This complicated bail-outs and the establishment of AMC’s to sequester distressed assets from banks. RBS and Citigroup were subject to government guarantees, retaining distressed assets on-balance sheet. UBS transferred distressed assets to an AMC—a similar process to that adopted in the Asian crisis. Both approaches strengthened balance sheets and stabilised financial systems, eventually allowing banks to resume lending. Nevertheless, both programmes exposed governments to bail-out liability.

Rescue frameworks were sourced from existing legislation to aid prompt implementation and participating banks signed contractual agreements with regulators to facilitate restructuring and uphold ensuing obligations on the part of the banks. Switzerland injected capital and took an ownership position in UBS at the beginning of the programme. In contrast, hesitation in the UK forced the government to convert and purchase equity in RBS after its share issue underwriting failed. This hesitation is analogous to that of Indonesia and Thailand which eroded confidence and the success of a bail-out programme.

Switzerland’s restructuring approach highlights the advantage of ‘loss control’ when using an AMC as opposed to a state guarantee. Regulators can control the timing of the sale of NPL distressed assets until more favourable market conditions prevail, effectively mitigating losses and government liability.

In contrast, RBS and Citigroup employed guarantees retaining distressed assets on-balance sheet, necessitating larger capital injections to strengthen balance sheets thereby increasing state ownership stakes, heightening potential taxpayer risks. Bank liability from the disposal of distressed assets under the UK and US guarantee schemes compelled banks to absorb initial losses. Distressed asset sales under a guarantee scheme are usually executed

immediately when market conditions may not mitigate losses. Thus a guarantee approach can create inefficiencies, since the risk of government liability is elevated in depressed markets which may necessitate further capital injections.

The guarantee schemes were profitable and relatively short-lived. Despite substantive taxpayer risk, the guarantee programmes were effective and efficient in managing distressed assets, stabilising G-SIBs, stemming creditor runs, and maintaining banking system stability.

Switzerland's central bank had a far greater exposure to potential losses than the UK and US guarantee schemes. Since the central bank was the AMC's creditor and equity holder, if the AMC failed the central bank would be exposed to unlimited liability. If UBS losses were substantial, Switzerland's central bank (i.e., taxpayer) exposure would shield UBS from liability. Either way, while this approach entails risks for a central bank's credibility and credit standing, ultimately this is not a major solvency risk as central bank losses in its own currency can be inflated and absorbed in the long-run. Conversely, Switzerland's approach is more effective in strengthening banks' capital base and more efficient since further capital raising is not necessary. For these reasons this approach is preferable to a guarantee scheme.

V. THE EUROZONE CRISIS AND BANKING SECTOR RESTRUCTURING

This section analyses the impact of the European debt crisis on the banking systems of Spain, Ireland, Italy, and Greece by examining distressed asset and bank recapitalisation approaches. One point that is evident from the analysis below: stricken Eurozone countries were more proactive in tackling banks' distressed debt before the implementation of the BRRD, rather than afterwards, even though during both periods the EU state aid regime has been largely unaltered.

A. Spain

Spain experienced a property bubble prior to the European debt crisis. After the bubble burst, Spain entered into recession in January 2009 at which point NPLs exceeded 4%, peaking over 9% in 2014.²³¹

²³¹ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

The government established the Fund for Orderly Bank Restructuring (FROB) to restructure banks. FROB was capitalised with €9 billion to take-over non-viable banks, subscribe convertible instruments to merge viable banks, and subscribing ordinary shares to recapitalise viable banks.²³² The banking system reform strategy was implemented in three phases: (i) consolidation, (ii) solvency improvement, and (iii) cleaning-up balance sheets.²³³ Spain entered a second recession in 2012.

Spain sought a banking system bail-out of €100 billion from the ESM. Financial assistance was implemented through FROB in accordance with EU State Aid Rules. Conditions included diagnosing bank capital requirements based on asset quality, transferring distressed assets from bank balance sheets to an AMC, recapitalising and restructuring of viable banks, and an orderly resolution of non-viable banks sharing the burden with the private sector.²³⁴

Banking system stress tests identified additional capital requirements ranging from €25.9 billion to €59.3 billion.²³⁵ This resulted in the partial nationalisation of a number of banks for €38.9 billion, and €2.5 billion to establish an AMC—Asset Management Company for Assets Arising from Bank Restructuring (Sareb). The programme consisted of three procedures: (i) early intervention, (ii) restructuring, and (iii) resolution. This section focuses on the restructuring procedure.

Sareb's purpose is to receive, manage, and dispose of distressed assets from banks receiving government assistance.²³⁶ The FROB has the power to transfer distressed assets from banks to Sareb for independent management.²³⁷ Sareb is a public limited company with a 15 year lifespan to liquidate assets. The majority of Sareb's shares are private (i.e. 55%), owned mainly by SIBs. FROB (i.e. the government) owns the remaining 45% of Sareb. In exchange for distressed assets, Sareb issues government guaranteed bonds that can be used as collateral for financing.²³⁸

²³² FROB, 'Fund for Orderly Bank Restructuring (FROB)', (April 2012), 7.

²³³ FROB, 'Fund for Orderly Bank Restructuring (FROB)', (April 2012), 8.

²³⁴ European Commission, 'Post-programme surveillance for Spain': available at http://www.ec.europa.eu/economy_finance/assistance_eu_ms/spain/index_en.htm (visited on 31 January 2016).

²³⁵ Banco De Espana, 'Financial Stability Report 11/2012', (2012), 40.

²³⁶ Sareb, 'Half Year Report. H1 2013', 1.

²³⁷ See generally: Banco De Espana, 'Briefing note on Royal Decree-Law 24/2012 on restructuring and resolution of credit institutions', (25 September 2012).

²³⁸ IMF, 'Spain: Financial Sector Reform—Third Progress Report', (July 2013) *IMF Country Report No. 13/205*, 9.

Banks are classified into recapitalisation plan groups. Group 1 consists of four banks where the FROB is the major shareholder (i.e. partial nationalisation). Distressed assets, approximately 200,000 or €36.5 billion, were transferred from Group 1 banks to Sareb. Group 2 banks transferred €14 billion of distressed assets, 80% NPLs and 20% collateral (i.e. property), to Sareb.²³⁹ Total banking system doubtful debts were €195 billion and provisions for bad debts and country risk as contra assets were €133 billion.²⁴⁰

From January 2013, banks are required to hold a capital ratio of 9%.²⁴¹ Total doubtful assets rose to €204 billion by June 2013 despite provisioning for bad debts and country risk falling to €126 billion.²⁴² Eventually, Spain's NPL ratio rose from 7.5% to 9.4%.²⁴³ By March 2016 the NPL ratio had dropped to 6%.²⁴⁴

In January 2014, Spain exited the EU financial assistance programme. Total doubtful assets continued to rise to €222 billion with the provision for bad debts and country risks remaining steady.²⁴⁵ Doubtful loans made up over half of all refinanced and restructured loans in the banking system.²⁴⁶

Sareb's statutory objective is to ensure the most efficient use of public resources.²⁴⁷ Nonetheless, Sareb has posted losses for every financial year since its inception. AMC profit margins from NPL distressed asset sales are determined from exogenous market factors over time. The recovery of Spain's real estate sector is critical for Sareb's profitability because 100% of its assets are located in Spain and are collateralised in real estate. Exogenous market factors have created low quality asset tranches, adversely affecting Sareb's profitability.

The capacity of an AMC to efficiently use public resources is contingent on the development of the market for NPL collateral, collateral concentration, NPL quality, and foreign investor participation. For Spain, this indicates a need for the government to introduce policies to

²³⁹ Sareb, 'What is Sareb': available at <https://www.sareb.es/en-en/about-sareb/Pages/What-is-Sareb.aspx> (visited on 1 February 2016).

²⁴⁰ Banco De Espana, 'Financial Stability Report 5/2013', (2013), 22, Table 2.1.

²⁴¹ Banco De Espana, 'Financial Stability Report 5/2013', (2013), 13.

²⁴² Banco De Espana, 'Financial Stability Report 11/2013', (2013), 20, Table 2.1.

²⁴³ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

²⁴⁴ European Banking Authority, 'EBA Report On The Dynamics and Drivers of Non-performing Exposures in the EU Banking Sector', (July 2016), 12.

²⁴⁵ Banco De Espana, 'Financial Stability Report 5/2014', (2014), 18, Table 2.1.

²⁴⁶ Banco De Espana, 'Financial Stability Report 5/2014', (2014), 27, Box 2.2.

²⁴⁷ Art 3 (c), Royal Decree Law 9/2012.

stimulate its real estate market, including through the use of foreign investment, to improve collateral and loan quality.

B. Ireland

Ireland experienced a credit boom typified by connected lending and a lowering of credit standards resulting in a highly levered banking system that was heavily exposed to the property sector.²⁴⁸ Illiquid wholesale funding markets coincided with a downturn in the credit and property cycles, triggered a collapse in the banking system.²⁴⁹

To manage a spike in bank NPLs, a state-owned AMC, the National Asset Management Agency (NAMA), was established in December 2009.²⁵⁰ NAMA is funded by issuing bonds. The purpose of NAMA is to address serious economic threats, and the stability of banks and the finance sector.²⁵¹ This involves inter alia expeditious and efficient economic recovery, protecting state and taxpayer interests, restructuring banks, and restoring banking system confidence.²⁵² NAMA is empowered to provide capital, credit, and restructurings or reorganisations.²⁵³

In December 2010 Ireland accepted an IMF/EU €85 billion bail-out, to restructure its NPL ridden banking system. Key objectives of the rescue programme were to identify viable banks and implement strengthening measures (i.e. downsizing and reorganisation), recapitalising banks, encouraging bank deposit inflows and market-based funding, strengthen banking supervision, and introduce a bank resolution framework.²⁵⁴

NAMA acquired bank NPLs secured by real estate. The acquisitions amounted to €74.2 billion, involving 850 debtors and 11,000 loans collateralised on 16,000 properties.²⁵⁵ NAMA acquired the NPLs at a 57% discount, paying €31.8 billion by issuing government guaranteed

²⁴⁸ Commission of Investigation into the Banking Sector in Ireland, 'Misjudging Risk: Causes of the Systemic Banking Crisis in Ireland', (March 2011) *Report of the Commission of Investigation into the Banking Sector in Ireland*, ii.

²⁴⁹ Patrick Honohan, 'The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008', (31 May 2010) *A Report to the Minister of Finance by the Governor of the Central Bank*, 22.

²⁵⁰ NAMA is a statutory body that operates under the aegis of the National Treasury Management Agency.

²⁵¹ s2(a), NAMA Act 2009.

²⁵² s2(b), NAMA Act 2009.

²⁵³ ss12(2)(a) and (d), NAMA Act 2009.

²⁵⁴ IMF, 'IMF Approves €22.5 Billion Loan for Ireland', (16 December 2010): available at <http://www.imf.org/external/pubs/ft/survey/so/2010/car121610a.htm> (visited on 27 January 2016).

²⁵⁵ Department of Finance (Ireland), 'National Asset Management Agency': available at <http://www.finance.gov.ie/what-we-do/banking-financial-services/shareholding-management-unit/national-asset-management-agency> (visited on 26 November 2016).

senior notes and €1.6 billion in subordinated debt securities.²⁵⁶ There were a number of delays in restructuring distressed debt. Legal obstacles included the one year foreclosure moratorium on defaults and a High Court decision to prohibit summary proceedings for mortgages originating before 2009.²⁵⁷ By 2015, 73% of senior debt issued was redeemed, €22.1 billion, and NAMA stated that redemption of all senior debt would occur by 2018.²⁵⁸

Ireland exited the IMF/EU bail-out in December 2013. Nonetheless, Irish banks still had a substantial volume of NPLs on-balance sheet.²⁵⁹ The IMF attributed this to weak accounting standards,²⁶⁰ notably IAS 39—a backward looking provisioning approach for loss accruals. This changed in May 2013 with the implementation of IFRS 9—a forward looking approach that recognises NPLs expeditiously. Mortgage Arrears Resolution Targets were introduced, forcing banks to sustain short-term forbearance, thereby reducing arrears.²⁶¹ In 2014, the three largest banks NPL ratios were 17%, 33%, and 45%.²⁶² On-balance sheet NPLs represented 19% of banks' combined loan book in 2016.²⁶³

Despite high NPL ratios, NAMA is focused on redeeming senior debt. The process concentrates on efficiency, mirroring the NAMA Act 2009 statutory purpose.²⁶⁴ The reason for establishing NAMA or any AMC is to effectively cleanse bank balance sheets of distressed assets. The EU BRRD states:

Resolution authorities ...transfer assets, rights or liabilities only if: ...(b) such a transfer is necessary to ensure the proper functioning of the institution under resolution; or (c) such a transfer is necessary to maximise liquidation proceeds...²⁶⁵

²⁵⁶ NAMA, 'Section 227 Review', (July 2014), 12.

²⁵⁷ IMF, 'Ireland: Ex Post Evaluation of Exceptional Access Under the 2010 Extended Arrangement', (January 2015) *IMF Country Report No. 15/20*, 52.

²⁵⁸ NAMA, '2015 End of Year Review', (5 January 2016) *Press Statement*: available at <https://www.nama.ie/about-us/news-detailed-view/news/nama-2015-end-of-year-review-1/> (visited on February 2016).

²⁵⁹ IMF, 'Ireland: Ex Post Evaluation of Exceptional Access Under the 2010 Extended Arrangement', (January 2015) *IMF Country Report No. 15/20*, 52.

²⁶⁰ IMF, 'Ireland: Ex Post Evaluation of Exceptional Access Under the 2010 Extended Arrangement', (January 2015) *IMF Country Report No. 15/20*, 52.

²⁶¹ Sharon Doherty, 'Sharon Doherty: NPL workout and resolution in the euro area', (6 October 2016) *Bank for International Settlements*.

²⁶² FitchRatings, '2015 Outlook: Irish Banks', (16 December 2014) *Outlook Report*, 1.

²⁶³ Sharon Doherty, 'Sharon Doherty: NPL workout and resolution in the euro area', (6 October 2016) *Bank for International Settlements*.

²⁶⁴ ss10(2) and 11(d), NAMA Act 2009.

²⁶⁵ Art42 (5) (b) and (c).

High NPL ratios impede banks' proper functioning thus obliging NAMA to purchase NPLs. Therefore, the NAMA Act does not comply with the BRRD. NAMA is statutorily obliged to perform its functions to obtain the best possible returns for the State.²⁶⁶ In contrast, Sareb is designed to:

... take measures necessary to transfer assets on the balance sheet ... in the case of highly impaired assets or assets whose continued presence on the balance sheet could affect the viability of the institution ...²⁶⁷

The purpose of the NAMA Act 2009 requires amending to include a transfer of distressed assets that could affect bank viability. Viability is probably judged against the Capital Requirements Directive (CRD IV) and BRRD. Nonetheless, Ireland's definition of 'viability' requires a quantitative NPL ratio benchmark, for example below 5%, to meet its BRRD obligations.

Despite NAMA being profitable and efficient, relatively high bank NPL ratios undermine NAMA's effectiveness—transferring distressed debt off banks' balance sheets. Nonetheless, it is important that the state mitigates the use of taxpayer funds.

C. Italy

The Italian economy is experiencing a prolonged low growth period because of structural imbalances within its economy and an inert public sector. The Eurozone crisis has accentuated this low growth environment and has contributed to Italy's very high levels of sovereign indebtedness which have recently exceeded 133% of GDP. Following the eruption of the European debt crisis in early 2010, credit conditions tightened after wholesale funding markets became illiquid and credit risk intensified.²⁶⁸ By the end of 2011, the Italian banking system's CET1 averaged 9.3% with leverage lower than comparable European banks.²⁶⁹ Italy's NPL ratio was 11.7% and over half of gross NPLs were bad debts.²⁷⁰

²⁶⁶ s 11 (1) (a), NAMA Act 2009.

²⁶⁷ Art. 35, Royal Decree Law 9/2012.

²⁶⁸ Bank of Italy, 'Annual Report for 2011', (2012), 143.

²⁶⁹ Bank of Italy, 'Annual Report for 2011', (2012), 144.

²⁷⁰ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>; Bank of Italy, 'Annual Report for 2011', (2012), 155-6.

Long insolvency and credit recovery procedures depressed NPL valuations.²⁷¹ In 2011 insolvency proceedings averaged six years.²⁷² The government redressed the long procedures through a number of reforms. Pre-bankruptcy creditor agreements were introduced to facilitate full or partial company sales, out-of-court dispute procedures—assisted negotiations and first instance court appeals arbitration referrals, and frivolous cases are discouraged with judges able to accelerate ordinary civil proceedings by enforcing summary proceedings.²⁷³

Nonetheless, one-third of cases still last between three years to five years.²⁷⁴ Bank balance sheet NPLs were €350 billion in 2015.²⁷⁵ Transfers of NPLs by sale or securitisation were €7 billion in 2013-2014.²⁷⁶ One reason for these high NPL levels is the long credit recovery procedures.²⁷⁷

As a result, further amendments came into force in August 2015 to increase creditor recovery rates—out-of-court restructuring agreements apply to debts constituting 50% or more of bank total liabilities.²⁷⁸ Court proceedings for forced collateral sales have been simplified and shortened.²⁷⁹ Auction rules allow bids to start at 75% of asset value.²⁸⁰

The tax treatment of loan loss provisions was not synchronised with the EU, for example immediate deductions were not allowed.²⁸¹ This prompted amendments for full and immediate tax deductibility of loan write-downs and write-offs.²⁸² These reforms have resulted in bankruptcy and enforcement procedures becoming shorter and more efficient.²⁸³

To circumvent inefficient procedures, large banks, hedge funds, and private equity firms have formed SPV partnerships targeting corporate loans. These partnerships lever activist

²⁷¹ Bank of Italy, 'The Governor's Concluding Remarks for 2014 ', (2015), 14.

²⁷² Bank of Italy, 'Annual Report for 2014 ', (2015), 110.

²⁷³ Bank of Italy, 'Annual Report for 2014 ', (2015), 110-111.

²⁷⁴ Bank of Italy, 'Financial Stability Report No. 1 / 2016 ', 34 and 35.

²⁷⁵ Bank of Italy, 'Financial Stability Report No. 1 / 2015', 20.

²⁷⁶ Bank of Italy, 'Financial Stability Report No. 1 / 2015', 20.

²⁷⁷ Bank of Italy, 'Annual Report for 2014 ', (2015), 118.

²⁷⁸ Bank of Italy, 'Financial Stability Report No. 2 / 2015', 38.

²⁷⁹ Bank of Italy, 'Financial Stability Report No. 2 / 2015', 38.

²⁸⁰ Bank of Italy, 'Financial Stability Report No. 2 / 2015', 38.

²⁸¹ Bank of Italy, 'Bank of Italy: Concluding Remarks ', (2015), 14.

²⁸² Bank of Italy, 'Financial Stability Report No. 2 / 2015', 38.

²⁸³ Bank of Italy, 'Financial Stability Report No. 2 / 2015', 38.

investing skills to control and restructure companies—for example, debt equity swaps and new equity.²⁸⁴

Large banks have set up AMC SPVs to dispose of NPLs off-balance sheet. These NPLs only constitute €2-3 billion and progress is slow because Italy's NPL market was virtually non-existent prior to 2015.²⁸⁵

Italy has the fifth largest NPL ratio in the EU,²⁸⁶ which stabilised at 18% of bank loan books by July 2016.²⁸⁷ The banking system consists of many small banks that are inexperienced in managing NPLs.²⁸⁸ Legislation was passed to merge cooperative banks to reduce the number and increase size. In November 2015, four unviable small banks were recapitalised (€3.6 billion) by the central bank, the Bank of Italy, under a new Italian Resolution Fund. The Italian Resolution Fund is financed by the three largest banks.²⁸⁹ Existing shareholders and subordinated debt will absorb losses.²⁹⁰ All four banks were restructured into bridge banks with bad debts transferred to an AMC.²⁹¹ Bridge bank capital is held by the Resolution Fund, supervised by the Bank of Italy.²⁹² An expression of interest to sell the bridge banks was issued by the Bank of Italy a month later. In 2017 it was announced that three would be sold for nominal consideration—€1—as they require around €450 million to meet capital requirements and are burdened with NPLs.²⁹³

The government is in the process of creating a state-owned AMC SPV to accelerate the transfer of NPLs, although prudent progress is required in order not to violate BRRD strictures. Benefits mooted by the Bank of Italy for the creation of an AMC include lower costs, transparent balance sheets, enhancing funding channels, eliminating credit constraints,

²⁸⁴ Nadège Jassaud and Kenneth Kang, 'A Strategy for Developing a Market for Nonperforming Loans in Italy', (February 2015) *IMF Working Paper, WP/15/24*, 18. For example, UniCredit, Intesa, KKR, and Alvarez & Marsal.

²⁸⁵ Nadège Jassaud and Kenneth Kang, 'A Strategy for Developing a Market for Nonperforming Loans in Italy', (February 2015) *IMF Working Paper, WP/15/24*, 17

²⁸⁶ European Banking Authority, 'EBA Report On The Dynamics and Drivers of Non-performing Exposures in the EU Banking Sector,' (22 July 2016), 12.

²⁸⁷ IMF, 'Italy – 2016 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Italy', (July 2016) *IMF Country Report No. 16/222*, 1.

²⁸⁸ Bank of Italy, 'Annual Report for 2014', (2015), 118.

²⁸⁹ On 16 November 2015, the EU Bank Recovery and Resolution Directive was transposed into national legislation.

²⁹⁰ European Commission, 'State aid: Commission approves resolution plans for four small Italian banks Banca Marche, Banca Etruria, Carife and Carichieti', (22 November 2015) *Press Release*, 1.

²⁹¹ Nuova Banca delle Marche; Nuova Banca dell'Etruria e del Lazio; Nuova Cassa di Risparmio di Chieti; and Nuova Cassa di Risparmio di Ferrara.

²⁹² Banca D'Italia, 'Information on resolution of Banca Marche, Banca Popolare dell'Etruria e del Lazio, Cassa di Risparmio di Chieti, and Cassa di Risparmio di Ferrara crises', (22 November 2015), 2.

²⁹³ Reuters, 'Fitch: Italy Bridge Banks Sale Highlights Post-Resolution costs,' (20 January 2017).

increasing competition, increasing banking system efficiency through consolidation, and developing the distressed debt market.²⁹⁴ AMC NPLs are limited to bad debts—€210 billion in December 2015, over half of all NPLs.²⁹⁵

AMCs are subject to EU State Aid Rules which restrict state subsidies. Accordingly, NPL sales must be at market value/terms. To facilitate NPL sales, there is a government guarantee option. Valuing Italy's NPLs has delayed the establishment of the AMC. An AMC plan to allow banks to sell NPLs to a state-owned AMC was approved by the European Commission on 26 January 2016. This effectively transfers the risk and potential cost onto the taxpayer.

The BRRD bail-in rules impose an obstacle because NPL restructures which result in substantial losses will require a bank recapitalisation. This effectively creates a charge or hypotheca on banks' capital buffers. Before a failing bank receives a capital injection, creditors (i.e. bondholders) must be bailed-in to the equivalent of 8% of liabilities. With retail investors making-up about one-third of all bank bondholders²⁹⁶, any bail-in would affect a large proportion of the population with potentially adverse consequences for banking system.²⁹⁷ Italian bank management and regulators have not prioritised high NPLs and bank recapitalisations.²⁹⁸

Prerequisites for the efficient and effective transfer of NPLs are: (i) laws that facilitate the expeditious transfer of NPLs; (ii) a legal system that does not depress NPL values; (iii) tax laws that promote the purchase and sale of NPLs; (iv) NPL guidance and infrastructure for small or inexperienced banks; and (v) the development of a distressed asset market.

The first prerequisite requires a statutory transfer regime that mitigates debtors frustrating the process. For example, Spain has legislated that:

Assets shall be transferred to the asset management company with no need for third-party consent to be obtained, by means of any legal transaction, and with no need to meet the conditions of structural changes to commercial companies. In this respect, no provisions of article of association or contractual clauses restricting the transfer of

²⁹⁴ Bank of Italy, 'Financial Stability Report No. 1 / 2015', 20.

²⁹⁵ Bank of Italy, 'Financial Stability Report No. 1 / 2016', 33.

²⁹⁶ IMF, 'Italy – 2016 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Italy', (July 2016) *IMF Country Report No. 16/222*, 24.

²⁹⁷ IMF, 'Italy – 2016 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Italy', (July 2016) *IMF Country Report No. 16/222*, 24, 25, 27, 34, 79, and 82.

²⁹⁸ IMF, 'Italy – 2016 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Italy', (July 2016) *IMF Country Report No. 16/222*, 1, 33, and 82.

holdings may be bought to bear against such transfers, and no liability of compensation claims of any kind may be filled for breach of such provisions or clauses.²⁹⁹

If the design of the AMC framework does not support efficient and effective NPL transfers, it will be a futile exercise. By excluding third party consent, contractual obligations, and liability, NPL transfers between banks and AMCs can be expeditious without incurring additional costs.

With more than 50% of NPLs not classified as bad debts and remaining on-balance sheet, the Decree's objective of transferring 'highly impaired assets or assets who continued presence on the balance sheet could affect the viability of the institution'³⁰⁰ is not satisfied.

Recently, recapitalisations have increased in Italy with the build-up of on-balance sheet NPLs. After failing to raise €5 billion in capital in December 2016, the government approved a bail-out (liquidity guarantees and precautionary recapitalisation of €8.8 billion) of Monte dei Paschi di Siena, Italy's third largest bank—in accordance with the EU BRRD.³⁰¹ The precautionary recapitalisation was designed not to trigger a bail-in. A decree was passed whereby the bank's subordinated bonds were converted into equity.³⁰² Retail investors are fully compensated with newly issued senior bonds.³⁰³ The state guarantee on senior tranches of securitisation transactions is available to all banks for a fee,³⁰⁴ and bail-outs are funded by public debt issues.³⁰⁵ Problematically, under EU State Aid Rules a precautionary recapitalisation is not designed to cleanse balance sheets of NPLs.

²⁹⁹ Art. 36, Royal Decree Law 9/2012.

³⁰⁰ Art. 35, Royal Decree Law 9/2012.

³⁰¹ Banca D'Italia, 'The "precautionary recapitalization" of Banca Monte dei Paschi di Siena,' (2016): available at <https://www.bancaditalia.it/media/approfondimenti/2016/ricapitalizzazione-mps/index.html?com.dotmarketing.htmlpage.language=1> (visited on 7 March 2017).

³⁰² Banca D'Italia, 'The "precautionary recapitalization" of Banca Monte dei Paschi di Siena,' (2016): available at <https://www.bancaditalia.it/media/approfondimenti/2016/ricapitalizzazione-mps/index.html?com.dotmarketing.htmlpage.language=1> (visited on 7 March 2017).

³⁰³ Banca D'Italia, 'The "precautionary recapitalization" of Banca Monte dei Paschi di Siena,' (2016): available at <https://www.bancaditalia.it/media/approfondimenti/2016/ricapitalizzazione-mps/index.html?com.dotmarketing.htmlpage.language=1> (visited on 7 March 2017).

³⁰⁴ Dipartimento del Tesoro, 'Guarantee on Securitization of Bank Non Performing Loans (GACS) to be introduced shortly,' (2016): available at http://www.dt.tesoro.it/en/news/news_gacs.html (visited on 7 March 2017).

³⁰⁵ Banca D'Italia, 'The "precautionary recapitalization" of Banca Monte dei Paschi di Siena,' (2016): available at <https://www.bancaditalia.it/media/approfondimenti/2016/ricapitalizzazione-mps/index.html?com.dotmarketing.htmlpage.language=1> (visited on 7 March 2017).

An effective and efficient approach utilises private sector AMCs, operating under market forces, that do not expose taxpayers to potential losses. KKR Credit launched an AMC called Pillarstone Italy in October 2015. Pillarstone has two functions, NPL resolution and corporate restructuring.³⁰⁶ Intesa and UniCredit, two large SIBs, received almost all of the initial NPL recovery, before a higher proportion accrues to Pillarstone.³⁰⁷ HIG Bayside Capital has established an AMC to buy NPLs in exchange for its AMC equity.³⁰⁸

Pillarstone took on the debts of five companies including paper maker Burgo and Lediberg, theme park manager Alfa Park, telecommunications group Sirti, and the shipping company Premuda.³⁰⁹ An agreement was reached with Premuda whereby Pillarstone would inject new equity, taking a 50% ownership stake in exchange for absorbing €250 million NPLs.³¹⁰ Pillarstone has equity positions in distressed Italian companies totalling over €1 billion and its Chief Executive estimates that Pillarstone's potential market could surpass €20 billion within three years.³¹¹

D. Greece

Greece experienced widening budget and trade deficits since its accession to the Eurozone in the early 2000s due to structural weaknesses and widespread tax evasion. Increasing debt flows resulted in the economy posting high growth rates during this period. Doubts concerning the sustainability of Greek debt arose in the second half of 2009 as the economy entered recession and a sovereign debt crisis unfolded. Investors began to lose confidence in Greece's ability to service its bonds. Between 2009 and 2015, Greek GDP declined by 26%

³⁰⁶ The Economist, 'Bargain hunt,' (20 August 2016): available at <http://www.economist.com/news/finance-and-economics/21705341-structural-obstacles-make-italian-banks-bad-loans-hard-sell-bargain-hunt> (visited on 27 October 2016).

³⁰⁷ Dominic O'Neill, 'Restructuring: KKR launches Pillarstone for European NPLs,' (October 2015) *Euromoney*.

³⁰⁸ Gavin McLean, 'Breaking bad: Tackling European NPLs', (26 September 2016) *White & Case*: available at <http://www.whitecase.com/publications/insight/breaking-bad-tackling-european-npls> (visited on 27 October 2016).

³⁰⁹ Francesca Landini and Massimo Gaia, 'KKR unit takes on Italian shipping company debt from banks', (22 April 2016) *Reuters, Hot Stocks*.

³¹⁰ Alberto Quarati, 'Milan Stock Exchange: deal with Pillarstone lifts Premuda shares', (23 April 2016) *The Medi Telegraph*: available at <http://www.themeditelgraph.com/en/shipping/shipowners/2016/04/23/milan-stock-exchange-deal-with-pillarstone-lifts-premuda-shares-SBSLE6pawMaK9My3Jct0kM/index.html> (visited on 27 October 2016).

³¹¹ Dominic O'Neill, 'Restructuring: KKR launches Pillarstone for European NPLs', (October 2015) *Euromoney*.

and unemployment reached 27% in 2014.³¹² In April 2010 the Greek government requested an IMF/EU bail-out.

Conditions of the €110 billion package included reining in fiscal spending, structural reforms to rebalance the economy, and stabilising the banking system by inter alia, establishing the Hellenic Financial Stability Fund (HFSF)—a private entity. Banks maintained liquidity and capital from support by the HFSF and ECB Emergency Liquidity Assistance (ELA). These arrangements assisted in bank reconstructions, providing loans for resolutions, and managing NPLs.³¹³

In 2007, NPLs were 4.6% rising to 9.1% in 2010, before surging to 31.9% in 2013.³¹⁴ By 2013, 12 banks had been placed into liquidation or resolved.³¹⁵ Nonetheless NPLs were retained on balance sheet as a distressed debt legal framework only became operational in November 2015. NPEs increased to 43.6% by September 2015 up from 39.9% in 2014.³¹⁶ In March 2016 the NPL ratio was 47%, the second highest in the EU.³¹⁷

A number of weaknesses in Greece's distressed asset legal framework have been identified by the HFSF. Judicial impediments include judges lacking debt restructuring experience, procedural delays to hear cases, an inflexible insolvency code, and no out-of-court restructuring and settlement mechanism.³¹⁸ The 2016 NPL law has fixed some of these flaws but it still contains inadequate transfer mechanisms, namely: (i) the securitisation law excludes NPL transfers; (ii) debtor notice is costly, time consuming, and may require consent; (iii) uncertain NPL tax arrangements involving VAT and stamp duty; (iv) may expose the transferor to liability for breach of fiduciary duty if consideration is inadequate;

³¹² Ioannis Asimakopoulos, Panagiotis K Avramidis, Dimitris Malliaropoulos, and Nickoloas G Travlos, 'Moral hazard and strategic default: evidence from Greek corporate loans', (July 2016) *Bank of Greece, Working Paper*, 3.

³¹³ Hellenic Financial Stability Fund, 'What we do',; available at http://www.hfsf.gr/en/about_whatwedo.htm (visited on 26 October 2016).

³¹⁴ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

³¹⁵ Bank of Greece, 'The Chronicle Of The Greek Crisis: The Bank Of Greece 2008-2013', (2014), viii.

³¹⁶ Yannis Stourmaras, Bank of Greece Governor at the 83rd Annual Meeting of Shareholders: 'The Completion of the Review is Essential for an Exit from the Crisis', (February 2016) *Speech*.

³¹⁷ European Banking Authority, 'EBA Report On The Dynamics and Drivers of Non-performing Exposures in the EU Banking Sector', (22 July 2016), 12.

³¹⁸ Hellenic Financial Stability Fund, 'Updated Analysis of Non-Regulatory Constraints & Impediments for the development of the NPL market in Greece', (September 2016), 11-12.

(v) certain security transfers may not be automatic; and (vi) the transferee may be liable for a NPL balance levy.³¹⁹

Weaknesses in transfer servicing include: (i) no exemption from data privacy rules; (ii) the definition of servicers as suppliers creates uncertainty; (iii) servicers are required to take special care of socially sensitive groups which creates uncertainties; (iv) servicers are subjected to the Notification Company Law; and (v) certain transferees may not have collection and enforcement privileges.³²⁰

Inadequate enforcement procedures include: (i) executory title in forced sales following an application to vacate when assets are attached or foreclosed; (ii) lacking incentives for out-of-court settlements; (iii) NPL oversupply leading to inadequate returns for secured creditors; (iv) requires procedural homogenisation and cost reductions; and (v) questionable effectiveness and delays.³²¹

On 17 May 2016 following the recapitalisations of two of the largest banks, Alpha Bank and Eurobank, KKR Credit reached an agreement to assign and manage credit and equity exposures in an AMC managed by KKR Credit's Pillarstone.³²² KKR is utilising a similar AMC platform as in Italy.³²³ However, unlike Pillarstone Italy, Pillarstone Greece may receive a €50 million injection from the European Bank for Reconstruction and Development (EBRD) which will also provide corporate governance advice to distressed Greek companies.³²⁴ The EBRD is already a shareholder in Greece's four big banks, investing €250 million.³²⁵ Non-bank NPL services and acquirer licensing is supervised by the Bank of

³¹⁹ Hellenic Financial Stability Fund, 'Updated Analysis of Non-Regulatory Constraints & Impediments for the development of the NPL market in Greece', (September 2016), 21 to 22.

³²⁰ Hellenic Financial Stability Fund, 'Updated Analysis of Non-Regulatory Constraints & Impediments for the development of the NPL market in Greece', (September 2016), 22 to 23.

³²¹ Hellenic Financial Stability Fund, 'Updated Analysis of Non-Regulatory Constraints & Impediments for the development of the NPL market in Greece', (September 2016), 18 to 21.

³²² KKR, 'Alpha Bank, Eurobank and KKR Reach Agreement to Support Greek Companies', (17 May 2016) *Media Centre*: available at http://www.media.kkr.com/media/media_releasedetail.cfm?ReleaseID=971220&utm_source=Public%20Affairs&utm_medium=Twitter&utm_term=Pillarstone%20Agreement&utm_campaign=Press%20Release (visited on 26 October 2016).

³²³ Dominic O'Neill, 'Greece hosts KKR scheme as NPL market opens', (June 2016) *Euromoney*: available at <http://www.euromoney.com/Article/3560042/Greece-hosts-KKR-scheme-as-NPL-market-opens.html> (visited on 26 October 2016).

³²⁴ Dominic O'Neill, 'Greece hosts KKR scheme as NPL market opens', (June 2016) *Euromoney*: available at <http://www.euromoney.com/Article/3560042/Greece-hosts-KKR-scheme-as-NPL-market-opens.html> (visited on 27 October 2016).

³²⁵ Dominic O'Neill, 'Greece hosts KKR scheme as NPL market opens', (June 2016) *Euromoney*: available at <http://www.euromoney.com/Article/3560042/Greece-hosts-KKR-scheme-as-NPL-market-opens.html> (visited on 27 October 2016).

Greece, the NPL regulator. Licenses have been sought by Alpha Bank, Eurobank, KKR Credit, and a large law firm.³²⁶ Bank NPL sales will begin in 2017.³²⁷

E. Analysis and Evaluation

The EU/IMF bail-out programmes prescribe, inter alia, banking sector consolidation, solvency improvement, and balance sheet cleansing. Consolidation involves mergers and downsizing rather than closures, solvency improvement is through capital injections, and balance sheet cleansing is distressed asset cleansing. This restructuring approach focuses on distressed asset cleansing, in particular the use of AMCs.

Ireland and Spain merged and nationalised (i.e., recapitalised) banks prior to establishing AMCs. A large bank was liquidated in Ireland after a forced merger failed. Closure and liquidation is viewed as a last resort in contrast to the IMF approach in the Asian crisis. Capital injections, similar to those in other systemic banking crises, have been critical in maintaining bank solvency and stability.

Bank capital adequacy ratios under the Basel II framework for Ireland, Italy, and Spain were above 10% in 2007.³²⁸ Greece's capital adequacy ratio was also above 10%, although Basel II had not been implemented.³²⁹ When the property markets in Spain and Ireland collapsed, NPL ratios rose significantly, mirroring those of Thailand and Indonesia in the Asian crisis. The surge in NPLs during the European and Asian banking crises highlighted that satisfying international standards, for example capital adequacy ratios, does not necessarily reflect banking system strength.

The 2006 NPL ratios in Spain and Ireland were less than 1%³³⁰ because of the 2005 adoption of 'incurred loss' instead of 'expected loss' accounting standards and securitisation which allowed banks to reduce loss provisioning.³³¹ Italy, which used the same standard, had an NPL ratio of 6.6% in 2006, higher than South Korea and Malaysia, but significantly lower

³²⁶ Phillip Chrysopoulos, 'Four Firms Apply for Red Loan Management License in Greece', (13 August 2016) *Greek Reporter*: available at <http://www.greece.greekreporter.com/2016/06/13/four-firms-apply-for-red-loan-management-license-in-greece/> (visited on 26 October 2016).

³²⁷ Dominic O'Neill, 'Greece hosts KKR scheme as NPL market opens', (June 2016) *Euromoney*: available at <http://www.euromoney.com/Article/3560042/Greece-hosts-KKR-scheme-as-NPL-market-opens.html> (visited on 27 October 2016).

³²⁸ OECD, 'OECD Economic Surveys: Ireland', (2011), 77.

³²⁹ Bank of Greece, 'Annual Report 2007', (April 2008), 32 and 33.

³³⁰ World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

³³¹ OECD, 'OECD Economic Surveys: Ireland', (2011), 77: referring to IMF Financial Soundness Indicators.

than Indonesia and Thailand.³³² This is alarming considering that this accounting standard understates NPLs. For this reason, incurred loss accounting should be avoided.

Ireland took the initiative to establish an AMC prior to its EU/IMF bail-out, similar to the approach adopted by Malaysia in the late 1990s, which has been successful in stabilising the banking system. Italy has not taken an EU/IMF bail-out, yet accepts that its banks need restructuring, in particular NPL cleansing. The EU BRRD obliges Italy to establish a government-owned AMC. This obligation is not fulfilled because of ongoing domestic political issues. In contrast Spain has established an AMC, being an EU bail-out condition. Greece is relying on private sector AMCs to satisfy its EU bail-out conditions but no real progress has been made. Restructuring programmes in Ireland, Italy and Spain do not transfer NPLs at an effective level nor do they mitigate taxpayer losses.

After successive bank recapitalisations and the promulgation of NPL laws to facilitate AMC transfers, Greece and Italy have reached agreements with private sector AMCs. Delays in promulgating legal frameworks to facilitate NPL transfers due to political deliberations are destabilising the Greek and Italian banking systems. Recurrent delays to effectively deal with high NPL ratios on bank balance sheets intensify both the problem of bank solvency and illiquidity in the economy perpetuating the vicious cycle of recession, illiquidity, and debt overhang discussed in Part II.

In the Asian and European banking crises the legal frameworks were chronically underdeveloped prior to the onset of systemic banking problems. New laws are required to establish AMCs and effect NPL transfers off-balance sheet. Successful distressed asset markets are also characterised by short legal processes.³³³

However, promulgating legislation alone is not sufficient as viable AMCs require functional distressed asset markets. The greatest obstacles to bank restructuring are ineffective NPL

³³² World Bank, 'Bank nonperforming loans to gross loans', data: available at <http://www.data.worldbank.org/indicator/FB.AST.NPER.ZS?page=2>.

³³³ Edward I. Altman, 'The Role of Distressed Debt Markets, Hedge Funds and Recent Trends in Bankruptcy on the Outcomes of Chapter 11 Reorganizations', (2013) *NYU Stern Business School*, 17.

legislation and underdeveloped distressed asset markets.³³⁴ Evidence suggests that domestic markets for distressed assets grow in tandem with the level of NPLs and viable AMCs.³³⁵

The EU market for distressed debt is quite illiquid for structural reasons yet obstacles are higher, for legal and cultural reasons, in Greece, Italy and Spain. Distressed asset markets in Spain are concentrated in commercial real estate, limiting NPL dispersion,³³⁶ with a legislative obstacle under Catalonian law discouraging AMC NPL purchases. Eliminating or diminishing the profit incentive from NPL purchases is a disincentive for AMCs to participate in distressed asset markets.

Bond issues fund AMC NPL purchases in Ireland and Spain but the ownership structure and *raison d'être* of the two schemes is quite different. Ireland's AMC is 100% government owned, exposing taxpayers to unlimited liability. This may explain its statutory purpose of paying-down debt. In contrast, Spain's AMC is partially privatised (i.e., 55%), with Spanish taxpayers exposed to its 45% equity share, with senior debt issued by the AMC to fund NPL purchases. Perpetual subordinated debt is not guaranteed by the government. Italy guarantees NPL securitisation transactions, involving senior note issues which are supported by unguaranteed junior notes issued to at least 50% of investors. Therefore, Italy's maximum liability is 50% of note issues. Italy's guarantee assists banks to transfer NPLs for a higher price rather than supporting AMCs to purchase NPLs. This may not result in expeditious NPL transfers. Guarantees require calibration to balance the competing incentives of NPL transfers off-balance sheet and AMC NPL purchases. Spain's Banco Popular request for a €2.5 billion capital injection in May 2016 demonstrates why expeditious NPL transfers are critical. In Greece most NPLs are not subject to a state guarantee. Greek banks which hold the bulk of NPLs have however received large capital injections.

The exit plan of Ireland's AMC is based on paying down its bond debt. This equates to nine years of operation before realising a profit. Spain's AMC has a lifespan of 15 years to liquidate NPLs and there is uncertainty whether a profit will ever be realised. Once both AMCs are decommissioned, it is doubtful whether bank NPL ratios will be at viable levels.

³³⁴ Shekhar Aiyar, Wolfgang Bergthaler, Jose M. Garrido, Anna Ilyina, Andreas Jobst, Kenneth Kang, Dmitry Kovtun, Yan Liu, Demot Monaghan, and Marina Moretti, 'A Strategy for Resolving Europe's Problem Loans', (September 2015) *IMF Staff Discussion Note, SDN/15/19*, 14.

³³⁵ Nadège Jassaud and Kenneth Kang, 'A Strategy for Developing a Market for Nonperforming Loans in Italy', (February 2015) *IMF Working Paper, WP/15/24*, 19 (Figure 14) referring to PwC.

³³⁶ *Ibid.* 21.

Italy's and Greece's private AMCs face two hurdles—deficient legislation and undeveloped distressed asset markets—before a substantial reduction in NPL ratios is feasible.

The use of private sector AMCs in Italy is proving to be profitable and effective with strong forecasts for market growth. This balance sheet restructuring approach is preferred over state-owned AMCs because taxpayer liability is limited.

VI. CONCLUSION

The IMF's approach to banking crises has evolved from closing down banks to aligning with the FSB Key Attributes—restructuring banks by strengthening bank balance sheets with the use of AMCs. This resolution approach pursues an orderly banking system restructuring that ensures the continuity of vital economic functions while mitigating taxpayer exposure. Evidence from the three major banking crises of the past two decades supports the participation of public funds where the rescue programme focuses on restructuring balance sheets rather than bank closures, particularly in the context of SIBs. When the threat of a banking crisis or when a surge in NPLs is identified, pre-emptive and operational restructuring actions have been more effective in mitigating banking system instability. Reluctance or hesitation to implement reforms can intensify banking crises and undermine long-term solvency.

Robust capital, leverage, and liquidity buffers minimise bank failures. However, regulators can misjudge the strength of the banking system by merely relying on compliance with international capital adequacy standards. Moreover banks that are fully compliant ex ante with international regulatory standards can experience a rapid deterioration of their capital position from exogenous and endogenous factors, namely adverse macroeconomic developments or contagion from a financial crisis. Therefore, when capital buffers are under stress and private funding is unavailable, the government should be allowed to make a marginal capital injection for systemic or macroeconomic reasons into a viable yet failing bank to instil market confidence. When a bank is under severe stress from systemic and macroeconomic factors, the argument against public support for fear of giving rise to moral hazard is fundamentally untenable. In a limited number of cases state injections of capital will result in the state taking an ownership position in a systemic bank, which may also be

necessary to restore confidence. Nonetheless, competition in the market system should be maintained and directed lending avoided whenever possible.

Banks need to be equipped with the tools to manage balance sheets promptly, to avoid distressed assets destabilising banks and banking system confidence. Bail-in tools can provide additional capital which strengthens bank balance sheets by converting creditor claims to equity when there is no danger of contagion, especially where the key factor for the failure of the bank is idiosyncratic—for example, fraud. In a financial crisis, an anti-bail-out bias can cause the collapse of credit markets and the banking system. A consistent bail-out approach, including cross-border cooperation, instils confidence and stability in a banking system.

Accounting treatments should avoid fair value accounting and expected loss accounting which underestimates banking system vulnerability. ECL and accounting treatments which harmonise with the NPE definition provide a more accurate financial position.

Transferring distressed assets off-balance sheet necessitates the use of AMCs. AMCs are effective at strengthening banks' capital base without the need for additional capital injections and are capable of controlling the timing of distressed asset sales until more favourable market conditions prevail. Using private-sector AMCs (though perhaps government invested), in contrast to government bail-outs, is advantageous since the level of government-ownership and taxpayer liability is significantly lower. In contrast, public-sector AMCs can expose the government to unlimited liability, burdening the taxpayer. The key problem with AMCs is asset valuations. From an accounting perspective, NPL bad debts are considered uncollectable. Thus, the chances of AMC profitability are low unless bad debts are bought at a steep discount. This would benefit the AMC at the expense of the bank. However, the guarantee places liability on the government for the bank's benefit. Therefore, a public AMC is unlikely to satisfy the objective of ensuring the most efficient use of public resources, although in the long-run this may prove to be a more efficient solution than other bail-out options.

Government guarantees may prove critical to the initial stability of a banking system. Large exposures to NPL linked financial instruments can complicate the establishment of AMCs to sequester banks from distressed assets. If this is the case, then retaining distressed assets on-balance sheet supported by government guarantees will be the preferred option. Government

guarantees that retain distressed assets on-balance sheet can lack control over the timing of sales, exposing governments to substantive liability and extensive capital injections. Guarantees should only be used when banks can be returned to viability within a short-time horizon.

Debt restructuring requires legislative frameworks and infrastructure. If NPL legislation or infrastructure is absent, a programme should be designed expeditiously, ideally ex ante. Delays in promulgating legal support or infrastructure destabilises banking systems by maintaining and possibly intensifying high NPL ratios on-balance sheet. A public authority must be designated to co-ordinate the management of the NPL programme. It is advisable that regulators adopt a broad and uniform definition of NPLs or NPEs, for example the BCBS definition of NPEs, to capture the greatest range of distressed assets.

Effective and expeditious NPL transfers depend on passing NPL legislation that builds suitable bankruptcy, arbitration, and civil procedures. These requirements should not depress NPL values or distressed asset markets. Legal infrastructure should enable all banks regardless of size to participate in the restructuring programme. AMCs require a capacity to manage a wide range of distressed assets to ensure that bank participation is maximised.

To incentivise NPL transfers, government guarantees can be placed on NPL sales to private AMCs and/or AMC bond issues. NPL transfer efficiency is heightened in a market-based system because government guarantees require calibration to balance the competing incentives of transferring NPLs off-balance sheet and minimising losses from AMC NPL purchases. As guarantees expose taxpayers to liability and potentially increase the cost of a programme, fees can be charged to offset these costs.

An AMC must be capable of maximising discretionary NPL sales. Ideally NPLs are sold when market conditions yield profit and an efficient transfer. Successful NPL sales require a developed distressed asset market. In turn successful distressed asset markets require short legal processes. If the market is underdeveloped or obstructed, the government needs to remove legal and regulatory obstacles, and design policies to create investment incentives. In general, legal and regulatory obstacles are those that penalise or act as a disincentive for NPL transfers and purchasers and the development of a liquid secondary market for distressed debt. The optimum market-based restructuring solution for NPLs utilises private sector AMCs and requires a tax regime that promotes distressed asset markets. It also needs to be

premised on a legal system that ensures the efficient and effective transfer of NPLs and enforces distressed asset liability.

Assuming the fulfilment of the above conditions, the use of AMCs is instrumental in cleansing bank balance sheets of NPLs, strengthening capital ratios in the longer-term and enhancing banks' capacity to re-start lending. Especially where the majority of funding is sourced from bond issues (i.e. the private sector), this acts as a counter-cyclical relief mechanism, which can promptly abate the triggering or further deterioration of a banking crisis from a surge in NPLs, while mitigating taxpayer expenditure. This is a very important lesson both for the economies in the periphery of the Eurozone and policy planners in other parts of the globe that may face an NPL crisis in future. Experience from past crises suggests that in tackling NPLs and bank restructurings, regulatory thinking ought to shift towards an efficiency and effectiveness approach rather than one that magnifies the importance of moral hazard. The role of the latter should not be overestimated where the causes of the crisis are systemic.

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