STUDY

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Non-performing loans - new risks and policies?

What factors drive the performance of national asset management companies?

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Non-performing loans - new risks and policies?

What factors drive the performance of national asset management companies?

Abstract

In the past decade, asset management companies (AMCs) have been an effective tool for relieving banks of large portfolios of non-performing loans (NPLs). Managed over time, AMCs can reduce the financial burden on the overall system.

This paper is based on the existing literature and EU experiences of national AMCs created in the aftermath of the global financial crisis. It discusses the advantages and disadvantages of using AMCs, and considers the key elements in their design.

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CONTENTS

LIST OF ABBREVIATIONS 6
LIST OF BOXES 8
LIST OF FIGURES 8
LIST OF TABLES 8
EXECUTIVE SUMMARY 9
1. INTRODUCTION 11
2. ADVANTAGES AND DISADVANTAGES OF AMCS 13
2.1. Advantages 14
2.2. Disadvantages 16
3. DESIGN AND ORGANISATIONAL STRUCTURE OF AMCS 18
3.1. NPL perimeter and mix 18
3.2. Transfer price 19
3.3. Capital and funding structure 23
3.4. Governance and control 24
3.5. Legal framework 24
4. COMPARISON OF NATIONAL AMCS 26
4.1. Capital and funding structure 26
4.2. Ownership structure 27
4.3. NPL perimeter, size and mix 28
4.4. Mandate and lifespan 30
4.5. Performance 32
5. CONCLUSIONS AND POLICY REMARKS 33
REFERENCES 35
ANNEX 1. AMCS ESTABLISHED IN EU-28 SINCE THE GLOBAL FINANCIAL CRISIS 38
ANNEX 2. QUESTIONS 39

LIST OF ABBREVIATIONS

AMCs	Asset management companies
AMCO	Asset Management Company S.p.A.
AQR	Asset Quality Review
BdN	Banco di Napoli
BRRD	Bank Recovery and Resolution Directive (2014/59/EU)
CEC	Council of the European Commission
CoCos	Contingent Convertibles
DGS	Deposit guarantee scheme
DEPFA	Deutsche Pfandbriefbank
DUBT	Družba za upravljanje terjatev bank, d.d.
EAA	Erste Abwicklungsanstalt
EBA	European Banking Authority
ECB	European Central Bank
ECON	Committee on Economic and Monetary Affairs
EGOV	Economic Governance Support Unit
EU	European Union
FMS/WM	FMS Wertmanagement
FOLF	Failing or likely to fail
FROB	Fund for Orderly Bank Restructuring
GDP	Gross Domestic Product
HRE	Hypo Real Estate
KPIs	Key performance indicators

MARK	Magyar Reorganizacios es Követeleskezelo Zrt.
NAMA	National Asset Management Agency
NPLs	Non-performing loans
NRW	North Rhine-Westphalia
SAREB	Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria
SMEs	Small and medium-sized enterprises
SoFFin	Sondervermögen Finanzmarktstabilisierungsfonds
SRMR	Single Resolution Mechanism Regulation (806/2014)
SRB	Single Resolution Board
SRF	Single Resolution Fund
UK	United Kingdom
VBAG	Volksbanken AG
ZUKSB	Zakon o ukrepih Republike Slovenije za krepitev stabilnosti bank

LIST OF BOXES

Box 1. Covid-19 and the Temporary Framework of the Commission on State aid 22

LIST OF FIGURES

Figure 1: Strengths, weaknesses, opportunities and threats of publicly backed AMCs 14

Figure 2: Changes in SAREB's portfolio (2012-2019) 30

Figure 3: AA1/EEA ownership structure (2019) 31

Figure 4: Immigon portfolioabbau ownership structure (2019) 32

LIST OF TABLES

Table 1: Phases of AMC creation in Europe 26

Table 2: Selected European AMCs – ownership structure 28

Table 3: Selected European AMCs – size and portfolio 29

Table 4: Selected European AMCs – net profit/losses (EUR million) 32

EXECUTIVE SUMMARY

In the aftermath of the global financial and eurozone debt crises, **asset management companies (AMCs)** have proved to be an **effective tool to manage large portfolios of non-performing loans** (NPLs). At least 12 EU Member States (including the UK) took this route. The Covid-19 pandemic is expected to provoke a significant surge in NPLs, which might require some Member States to cleanse their bank balances again with publicly supported AMCs.

This paper assesses the advantages and disadvantages of using these publicly supported AMCs. It takes stock of the salient aspects in the design of AMCs, based on the existing literature, and compares a selection of EU AMCs created in response to the financial crises.

There are several (potential) **advantages** in transferring and pooling the NPLs of several banks to an AMC instead of managing large portfolios of NPLs on balance sheets or through private sales. AMCs can:

- increase the efficiency and effectiveness of the NPL resolution (by bridging the intertemporal valuation gap, scaling advantage, pooling expertise, and reducing funding costs);
- clean bank balances, thereby reducing uncertainty about financial strength, and increasing the ability to continue lending to the real economy; and
- contribute to the promotion of secondary markets for NPLs.

There are also a number of important **disadvantages**, however. These are that:

- the transfers of NPLs from the issuing bank to the AMCs can result in the loss of – especially tacit – knowledge about the debtor;
- the lack of a clear mandate and inconsistent adherence to it may reduce the effectiveness of AMCs; and
- too-high NPL acquisition prices can result in taxpayer losses.

To a large extent, the **design** of publicly supported AMCs determines their effectiveness and efficiency.

In order to maximise economies of scale, the **portfolios of NPLs** transferred to AMCs should be quite homogeneous. In practice, most of the AMCs set up after the previous crises benefited from the pooling of NPLs from several banks, but often had to wind down various types of distressed assets (e.g. real estate, loans, securities) in several jurisdictions.

The financial performance of AMCs largely depends on the **transfer price**, which, to limit the losses for the sponsors, including governments, should not be higher than the real economic value. In practice, the transfer prices were often derived from the estimated market value, which was lower than the economic value, considering the lack of a liquid market, difference in funding costs, potential market distress, and so on.

The **capital and funding structure** is essential to ensure low funding costs and arrange appropriate burden sharing, which limits moral hazard. Most of the AMCs created after 2014 ensure this through ownership by both the banks transferring NPLs and the government. The cumulative losses of AMCs since their establishment present a mixed picture, with most reporting a smaller or larger cumulative profit, but also some with cumulative losses. The available public information does not allow us to be conclusive about the drivers behind this (transfer price, funding costs, expertise, operational efficiency, macro-economic developments, etc.). **Independent governance and control** is also important to protect the AMCs from political intrusion or financial stress, and this has mostly been ensured by putting the AMC at some distance from the government.

In the future, it is unlikely that third parties will be willing to pay a price for NPLs that reflects their real economic value. The use of publicly supported AMCs can overcome this market failure and have a broader impact on financial stability, economy and society at large. The existing efforts from the European Commission and others to promote effective and efficient AMCs should be complemented by a revision of the existing State aid regime application. More specifically, the criteria for the estimation of the real economic value should be specified. **The real economic value should be based on a responsible winding down of the NPLs**, whereby the remaining minimum income for households and the long-term viability of businesses is considered.

1. INTRODUCTION

At one time, finding optimal ways to manage non-performing loans (NPLs) was mostly reserved for developing and emerging economies. But since the 2007-2009 global financial crisis and the 2010-2012 eurozone debt crisis, this has now become a central issue in developed countries as well. Indeed, systemic macro-financial crises cause severe swings in levels of economic activity, thereby amplifying NPLs in national banking systems. The ensuing NPL burden could endanger the functionality and/or even the stability of banking systems. Hence, policy tools employed to tackle NPLs have become key policies in safeguarding financial stability and easing the recovery after economic crises.

In most cases, asset management companies (AMCs) have proved to be an effective way of managing those large portfolios of NPLs burdening relevant parts of national banking systems. At the same time, this is an endeavour fraught with difficulty in the EU, given the restrictions placed on public support by the State aid regime. In addition, using AMCs to aid the recovery of national banking systems within the EU is by no means a guarantee that level playing field considerations will be respected or that AMC governance issues will be dealt with in an effective manner across the Union.

To overcome these restrictions and to create a fairer burden-sharing structure, while alleviating the governance problems that often plague AMCs, Avgouleas and Goodhart (2016 and 2017) proposed the creation of a pan-European holding company. It would have to participate in the capital of national AMCs along with that of domestic banks wishing to transfer their NPLs to the AMC. The holding company would be owned by Member States whose participation in the share capital of the AMC would vary depending on a combination of their GDP and the ratio of NPLs to total loans of the country's banking sector. To overcome any criticism that such an initiative would cause loss mutualisation among Member States, the proposal suggests that losses or profits of each AMC be cleared at the national level.

More recently, in 2020, Andrea Enria, Chair of the Supervisory Board of the European Central Bank (ECB), during a public hearing before the Committee on Economic and Monetary Affairs (ECON) of the European Parliament, reiterated his proposal[1,2] to overcome the issues with NPLs. Either a European AMC or a network of national AMCs should be established. Once the Covid-19 economic relief measures implemented in many Member States are lifted, as Enria pointed out, a new wave of distressed bank loans will certainly emerge. With the national AMC network alternative, Enria argued that mechanisms to avoid loss mutualisation among Member States could also be designed, if this was the political will. In his view, common funding of national AMCs (guaranteed or provided by a central body) and harmonised pricing would be key to ensuring a level playing field within the Banking Union and to preserving the competitiveness of Member State banking systems.

In December 2020, recalling the AMC blueprint drafted in 2018,[3] the European Commission published an Action Plan where AMCs would be one of the tools to tackle the expected accumulation of NPLs due to the Covid-19 crisis. A new generation of NPLs is bound to emerge in the Union in the near future, especially after the expiry of the various memoranda signed between banks and their creditors.[4]

[1] See Committee on Economic and Monetary Affairs (2020), Public Hearing with Andrea Enria, Chair of the Supervisory Board of the European Central Bank, Brussels, 27 October.

[2] Andrea Enria (2020) has already presented this proposal in an article published in the Financial Times.

[3] See European Commission (2018), Commission Staff Working Paper, AMC Blueprint, *Accompanying the document,* Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, p. 5, where it is stressed that AMCs could produce a particularly effective result in relation to NPLs concerning commercial real estate and large corporate exposures.

[4] See European Commission (2020b), Communication from the Commission to the European Parliament, the Council and the European Central Bank, Tackling non-performing loans in the aftermath of the COVID-19 pandemic, Brussels, 16.12.2020, COM(2020) 822 final.

Accordingly, for coordination purposes, the Commission has suggested the creation of a loose EU-wide network of national AMCs with a view to benefiting from synergies and economies of scale gained from the exchange of best practices and experiences, and data sharing.

The remainder of this paper is as follows: Chapter 2 offers an analysis of the advantages and disadvantages of AMCs and Chapter 3 provides an assessment of their design. Chapter 4 compares the characteristics and performance of national AMCs in the EU. Chapter 5 draws the main conclusions and recommends a number of ways to facilitate the creation of AMCs to deal with the new generation of NPLs.

2. ADVANTAGES AND DISADVANTAGES OF AMCs

KEY FINDINGS

There are **several advantages** to centralised rather than decentralised (that is, operated via mere sales of NPLs) management of NPLs in AMCs:

- AMCs increase efficiency and effectiveness of the NPL resolution (by bridging the intertemporal valuation gap, scaling advantage, pooling expertise, and reducing funding costs)
- AMCs clean bank balances
- AMCs can contribute to the promotion of secondary markets for NPLs.

AMCs also present a number of **important disadvantages**:

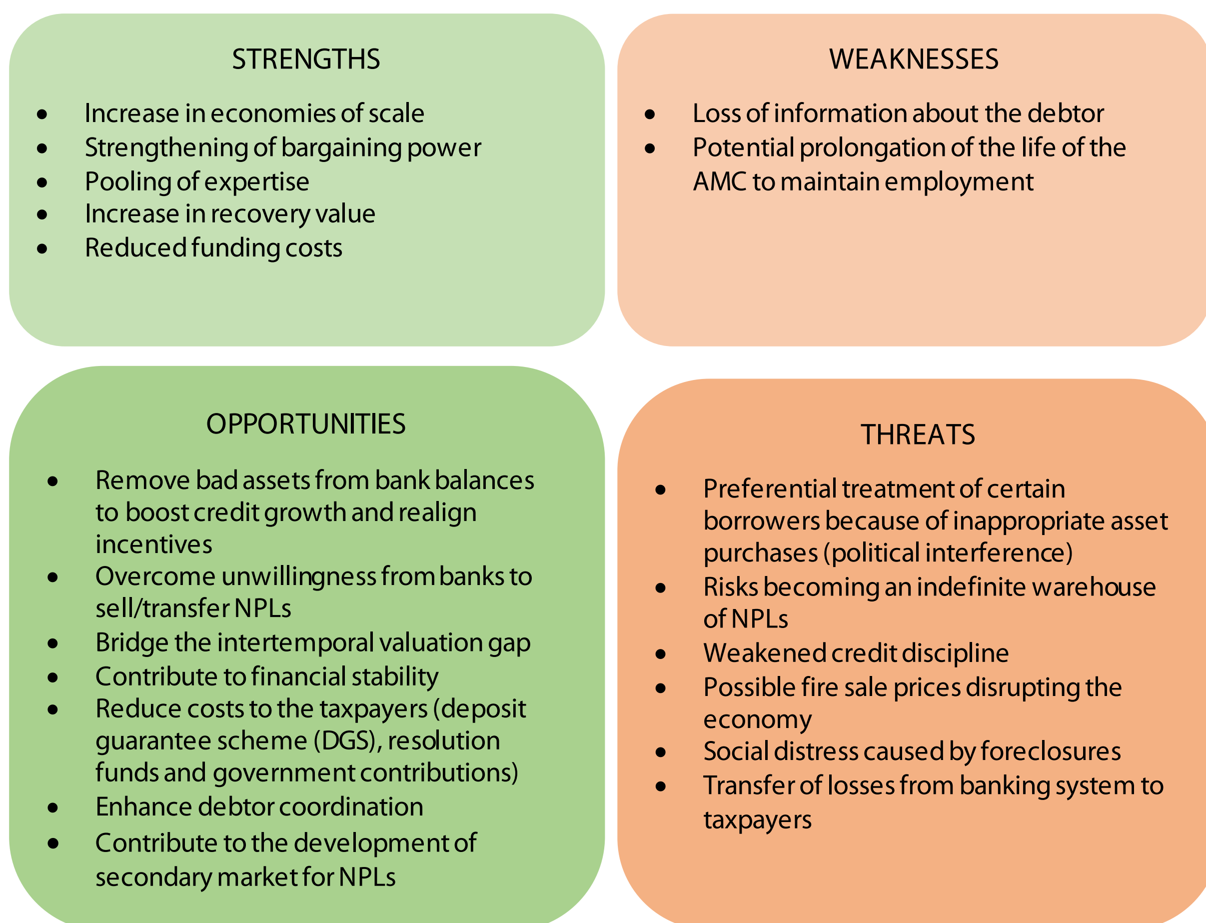
- NPL transfers from the issuing bank to the AMC can result in loss of information about the debtor's business and repayment record
- AMC effectiveness may suffer from the lack of a clear mandate or inconsistent adherence to it, for instance from political interference
- Generous acquisition prices could result in taxpayer losses.

AMCs have been widely used to manage the accumulation of NPLs. However, NPL management faces several challenges. Low liquidity and depressed markets mean that during financial crises these assets may only be sold with high haircuts, resulting in high charges on banks' capital buffers and serious erosion of that capital. Thus, to avoid excessive losses and/or postpone the recognition of losses, banks are likely to maintain the NPLs on their balances. Delayed recognition of NPLs may lead banks to practise 'evergreening',[5] with negative repercussions on efficiency and stability (Acharya et al., 2020). Therefore, policymakers and bank management need to identify ways of managing NPLs more efficiently so as to reduce the risk of deep haircuts and to incentivise banks to tackle NPLs in a timely fashion.

The advantages and disadvantages of publicly supported AMCs, as summarised in Figure 1, are discussed in more detail in the remainder of this chapter.

[5] This is the practice of not paying the principle of loans for a longer period of time, also known as revolving loans. Banks engaging in evergreening practices do not write down defaulted loans and essentially keep alive "zombie" debtors.

Figure 1: Strengths, weaknesses, opportunities and threats of publicly backed AMCs



Source: Authors' composition.

2.1. Advantages

AMCs using public or bank funds to remove bad assets from bank books (Klingebiel, 2000; Calomiris et al., 2012) seems a superior method of tackling accumulations of NPLs compared with decentralised management of distressed loans at the level of individual banks. Centralisation of NPL management via AMCs has various advantages (Council of the European Commission - CEC, 2017). First, **the deal making process is more clear-cut**. Solving the creditors' coordination problem allows for the building of relationships over multiple transactions and can **spur secondary markets – enhancing secondary market liquidity – to curb haircuts**. Second, AMCs follow a **clear mandate to acquire and then dispose of NPLs**, thus tackling any unwillingness to sell issues. Third, AMCs are **more efficient because of their ability to focus on a**

single asset class (with homogeneous assets) and by deploying **expertise specific to distressed debt management and workouts**, whereas banks lack the ability to develop suitable in-house debt restructuring skills.

The academic literature also offers other arguments in favour of using AMCs to deal with the debt overhang problem, to promote financial stability and to restore market confidence. Ayadi et al (2017) advocate the differentiation between systemic and non-systemic events and propose a theoretically backed argument for a centralised eurozone level approach to maintain fair recovery rates to deal with banks' NPLs. Enria et al. (2017) emphasised the importance of having the **infrastructure in place to**

deal with the legacy assets, whether it is a European AMC or a coordinated plan for national governments to act promptly.

Avgouleas and Goodhart (2017) highlight the **adverse effect of debt overhang and suggest that an AMC scheme that drastically cleanses bank balance sheets** from distressed assets can boost credit growth and also overcome moral hazard through burden sharing with the shareholders of the banks. Avgouleas and Goodhart propose a comprehensive structure for a pan-European AMC with virtually ring-fenced country subsidiaries to ensure burden sharing without debt mutualisation. This could resolve a host of governance, valuation, and transparency problems that would otherwise surround a decentralised solution involving the uncoordinated actions of several national AMCs playing the role of “bad banks”, which are impaired asset segregation tools analogous to AMCs. Arguably, aspects of their plan are incorporated in the EU Commission’s latest plan to tackle Covid-19 debts (EU Commission, 2020b).

Cerruti and Neyens (2016) identify the potential benefits of public AMCs from a large international sample of countries. An AMC could: i) **force banks to recognise losses**, thereby contributing to rapid **restoration of confidence in the financial system**; ii) **improve asset quality and liquidity** (if bonds can be used for collateral at central bank) and provide income to banks; iii) strengthen the financial system (through the exit of non-viable banks and the restructuring of viable banks); iv) **enjoy economies of scale and bargaining power,** which may contribute to more efficient asset sale and recovery process; and v) **allow banks to focus on financial intermediation** rather than asset recovery.

Others delved further into the issue of rebuilding incentives to restore healthy lending via AMC interventions with and without government backing. Segura and Suarez (2019) characterise policy interventions directed to minimise the cost to the DGS and the taxpayers of banks with legacy problems. NPLs with low and risky returns create a debt overhang that induces bank owners to forego profitable lending opportunities. NPL disposal requirements can restore the incentives to undertake new lending but, as they force bank owners to absorb losses, they can also make them prefer the bank being resolved. For severe legacy problems, combining NPL disposal requirements with positive transfers is optimal and involves no conflict between minimising the cost to the authority and maximising overall surplus. **Thus, the authors propose publicly sponsored AMCs**.

Similarly, Arner, Avgouleas and Gibson (2020), on the basis of their historical analysis of the aftermath of the Asian financial crisis, show that even **government-backed AMCs proved a better way to restore banking sector stability and national economy to strength than internal loan restructurings accompanied by bank closures and bank mergers**. In the jurisdictions they examine, including Indonesia, South Korea and Thailand, AMCs helped the banking sector to tackle NPLs and restore profitability without serious long-term losses accruing to the respective state budgets.

Using data about NPL policies from over 190 countries over a period of 27 years, Balgova et al. (2017) find that **a combination of AMCs and public funds made available for recapitalisation is a more effective way to resolve NPLs**. Bolognesi et al. (2020) show that AMCs may provide a benefit by **helping develop the secondary market for NPLs,** while **state guarantees** on NPL-based securitised assets **may also be beneficial**.

More specifically, on the channels via which AMC can become more effective, Brei et al. (2020) study whether bad banks and recapitalisation lead to recovery in the originating banks’ lending and drop in NPLs, and find that **bad banks are effective only if they combine recapitalisation with asset segregation securing a ‘clean break’ for the restructured bank**. They also find that bad banks are **more effective when**: i) asset purchases are **funded privately**; ii) **smaller shares** of the originating bank’s assets are segregated, and iii) they are located in countries with **more efficient legal systems**.

Other analysts have looked at the pricing of NPLs, which becomes very important when it comes to NPL disposal using market solutions. Fell et al. (2017) argue that information asymmetries in the NPL market drive a wedge between the prices that investors are prepared to pay for NPLs and the prices that banks are prepared to sell them for. The costs are very high for information asymmetries to be overcome through investor due diligence, and few investors have the resources to absorb such costs. At the same time, potential NPL investors can face coordination challenges when debtors have multiple loans with different banks. In such scenarios, investors compete with other creditors for the debtor's resources. Coordination between banks for common exposures to alleviate this problem can be costly, weighing further on market prices. NPL transaction platforms, however, offer the prospect of greater market transparency, fostering wider investor participation and addressing coordination issues.

The attendant improvement in market liquidity would allow banks to achieve better prices for NPL sales. Gaffeo and Mazzocchi (2019) focus on the development of an efficient secondary market for NPLs and conclude that setting up an EU-backed AMC might help. They argue that such a vehicle might be useful in solving just one of the three failures typically affecting the market for NPLs, namely, excessive information asymmetries between buyers and sellers about the quality of the asset. To successfully tackle the other two – market power and collusion – appropriate design of the market is critical.

Finally, concerning the role AMCs have in bank resolution, which is an essential step for recovery, Lehmann (2017) remarks that past EU experience has demonstrated the effectiveness of AMCs, particularly when they work with a large part of the banking sector and are focused on specific loan types. **Asset separation in conjunction with an AMC can also be an effective tool for bank resolution**, but the difficulties inherent in setting up an AMC and achieving a track record in restructuring should not be underestimated. Countries are well advised to prepare the legal basis for such entities. Skrzypinska (2020) presents stylised facts about the episodes of high NPLs, and policies deployed to reduce them. She finds that a combination of the establishment of AMCs and government bailout of ailing banks is the most effective approach to resolving an average NPL crisis (see also Balgova et al., 2017). Moreover, she studies the question of cross-border spillovers from reducing NPLs and shows that: i) changes in the NPL stock of a parent bank affect the non-performing exposures of its foreign subsidiary banks; ii) as a result of this transmission, policies aiming to reduce NPLs can have detectable cross-border effects; and iii) establishing AMCs in the jurisdiction of the parent bank is estimated to lead to a 12% drop in the stock of NPLs of the foreign subsidiaries.

2.2. Disadvantages

However, AMC intervention presents three key weaknesses and potential threats:

- Shifting a loan to the AMC may imply a **loss of information on the debtor** and **block restructuring** if that requires additional credit/liquidity to complete a successful debtor turnaround, a problem which may be acute for high information-intensive loans such as those to small and medium-sized enterprises (SMEs) and households, including residential mortgages.
- AMCs should not be seen as an indefinite warehouse of NPLs, but should have **a clear mandate** to work out the acquired NPLs in an efficient manner over a predefined timeline.
- The **perception** that an AMC is set up with a focus **to disburse state aid** – e.g. by offering overly generous acquisition prices for the transferred NPLs – **should be avoided**, since that would impair its functioning by raising voices against the scheme on grounds of equity and distribution (i.e. state policies favour the banks at the expense of the taxpayer and of borrowers).

Cerruti and Neyens (2016) conclude that AMCs face a number of key challenges: i) undue **political** interference; ii) **preferential treatment** of certain borrowers owing to inappropriate asset purchases (for example, due to acquisition of assets before completion of due diligence), which can be solved with protection in the founding law; iii) failure to dispose assets in a timely manner, or "**warehousing**" (optimal trade-off between likely lower recovery values due to earlier sales and higher operational and funding costs due to longer holding period needs to be found), which can be solved with sunset clauses (e.g. Danaharta 7 years and Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria (SAREB) 15 years); iv) changes in mandate "**mission creep**" designed to prolong life of institution and maintain employment (e.g. purchase strategic performing loans), which can be solved using narrow mandate defined in law and strict definition of eligible assets; v) **weakened credit discipline** with frequent asset purchases at inflated prices that do not force banks to recognise losses provide little incentive to strengthen credit underwriting, which can be solved using transfer price based on a thorough valuation process, one-time purchase, and strong servicing arrangements; vi) public AMCs can generate significant **losses for the taxpayer**.

From a macro-prudential perspective, the policies addressing NPL problems after they arise should take account of relevant side effects, such as the short-term effects of asset foreclosure on asset prices or on borrowers' activity, or the impact of NPL disposal on banks' capital and hence on their lending capacity. **Relevant externalities range from possible fire sale prices to the economic disruption and social distress to affected borrowers** (or their customers, suppliers, workers, etc.) **caused by foreclosure,** especially if the number of foreclosures is very high.

3. DESIGN AND ORGANISATIONAL STRUCTURE OF AMCs

KEY FINDINGS

The effectiveness and efficiency of AMCs primarily depend on:

- the **NPL mix** transferred to AMCs should ideally be quite homogeneous to maximise the economies of scale
- The **transfer price** of NPLs should ideally not be higher than the real economic value, to limit the chances of losses for the supporting governments
- The **capital and funding structure** is essential to ensure low funding costs, limit moral hazard and reach an appropriate level of burden sharing
- Independent **governance and control** are important to protect the AMC from political intrusion or financial stress.

The effectiveness of AMCs mostly depends on their capital and funding structure as well as the price at which they acquire NPLs from banks. Alongside the previous points, CEC (2017) specified that the European Blueprint for AMCs should take the following into account.

- **NPL perimeter and mix**. While AMCs enjoy economies of scale through centralised management of NPLs, some NPL classes may be improper and a heterogeneous NPL mix can impair the process. The AMC's mandate should help **identify the most suitable NPL mix**.
- **Transfer pricing**. While one of the reasons for setting up the AMC is to raise NPL market value, appropriate methods to assess the value of NPLs and collateral should be employed to **avoid over-optimistic transfer prices** that would burden the AMC with future losses. The rules of engagement with State aid are crucial at this juncture.
- **Capital and funding structure**. A list of alternatives can be considered for the AMC's capital and funding structure and legal status, which, in the case of state ownership may require consolidation in the public sector. It seems desirable to **elicit fruitful public-private partnerships**.
- **Governance and control**. Its governance should protect the AMC from political intrusion or financial stress, possibly establishing its duration ex ante, allowing the AMC to freely avail itself of the most efficient work-out and loan-enforcement schemes.

Finally, the AMC also needs to fit within the **legal framework** established for bank crisis management.

These elements are assessed in more detail in the remainder of this chapter.

3.1. NPL perimeter and mix

Suarez and Sánchez Serrano (2018) touch on AMCs when they refer to coordination and collective action problems that emerge in the presence of technological or strategic complementarities between agents' decisions. They are **conceptually related to externalities and increasing returns to scale**. In the absence of a coordinating institution, **agents acting in a decentralised manner in their own best interests may become blocked into an inefficient allocation**. For example, if creating a secondary market for NPLs requires set-up costs that can only be recovered if the volume of trade in such a market is sufficiently large, the economy may be trapped in a situation in which such a market never gets started because it is always too small for the individual agents deciding at the margin whether to

establish it. This problem could be solved by promoting the creation of an AMC specialised in buying and managing NPLs.

As preconditions for public AMCs, Cerruti and Neyens (2016) list: i) systemic crisis and public funds at risk; ii) solid **diagnostic**, critical mass and **homogeneity of NPLs** (when purchasing assets); iii) tradition of institutional independence and public accountability; and iv) a **robust legal framework for bank resolution, debt recovery and creditor rights**.

Peresa and Medina Cas (2016) study the experience of three EU AMCs – NAMA, Sareb and FMS Wertmanagement – finding that the type of assets transferred, and the macroeconomic environment, are crucially important for successful asset disposals, and that additional success factors are: i) clean **asset documentation**; ii) a solid **valuation process**; iii) **efficient asset servicing**; iv) a **strong legal framework**; and v) **skilled staff**.

3.2. Transfer price

The price at which banks sell their NPLs (the transfer price) is a **key element to consider in the design of AMCs if they are to be successful**. Should the transfer price be higher than the book value, banks would not be negatively affected, but AMCs would likely end up suffering losses (or lower gains) once these assets have been disposed of. Loss-making AMCs, after having eroded their equity, might have to be liquidated in the context of insolvency law proceedings in the jurisdiction where they have been established, thereby leading to those fire sales that they were meant to avoid in the first place or causing additional losses for the guarantors (mostly governments).

Cerruti and Neyens (2016) concluded that **transfer price is a key issue**: if "too-high" AMCs cannot break even, or "too-low" banks need recapitalising. So the leading principles should be a transparent, market-based, due diligence process conducted by an independent third party experienced in valuation. The legal framework is using as a proxy the EU "real economic value", which is tied to estimates of long-term economic value of the requisite assets, on the basis of underlying cash flows and the broader time horizon. It is a very loosely defined proxy that hardly be used for the transfer of assets with uncertain cash flows or market value. Thus, there is a need for further expert work to clarify this and mandate the use of benchmarks as proxies of value concretising the concept of real economic value.

The transfer price is also instrumental in ascertaining whether NPL transfers comply with the State aid regime. If a publicly supported AMC[6] buys NPLs at a price exceeding the estimated market value, then the transaction involves State aid, whose amount will be the difference between the transfer price and the estimated market value.[7] If that is the case, the transaction needs to be approved by the Commission. For such authorisation to be released, according to the Commission Impaired Asset Communication 2009, the following conditions have to be met:

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[6] See European Commission (2018), Commission Staff Working Paper, AMC Blueprint, *Accompanying the document,* Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, pp. 4-9, clarifying that an AMC supported by State aid is *"an AMC that is partially or fully publicly-owned (or even privately owned but with actions that are imputable to the State, or benefiting from a State guarantee), buying assets at a transfer price higher than the estimated market value"*.

[7] In this regard see European Commission (2018), Commission Staff Working Paper, AMC Blueprint, *Accompanying the document,* Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD (2018) 72 final, p. 9, where it is underlined that a diagnostic exercise should be performed, through an Asset Quality Review (AQR) and a Stress Test, with a view to helping *"the authorities to determine an appropriate transfer price, which typically lies between the (estimated) market value and the real economic value of the concerned assets."*

- the transfer price does not exceed the real economic value;[8]
- losses resulting from the write-down of NPLs from their net book value to the transfer price are not covered by the impaired asset aid; and
- the valuation of impaired assets is performed by independent experts and validated by the competent authority based on the valuation provisions set out in the Communication.[9]

In addition to these conditions, the requirements for the provision of restructuring aid, according to the Commission's Banking Communication of 2013[10] and the Restructuring Communication of 2009,[11] have to be met as well. These are:

- restoring the bank's long-term viability;
- limiting State aid to the minimum necessary through burden sharing and own contribution; and
- limiting distortions of competition.

Depending on the price (and conditions) at which a publicly supported AMC purchases NPLs from credit institutions, different scenarios can occur, some of them being fully or partially outside the scope of the State aid and the BRRD[12]-SRMR[13] regimes, and some of them actually triggering the application of such regimes. Thus, purchases of NPLs can take place:

- **Without State aid**. If a publicly supported AMC buys NPLs from a credit institution at the prevailing market price for the requisite assets, by acting as a mere market-based buyer, it does not provide any State aid and therefore the transaction is outside the scope of the State aid and BRRD-SRMR regimes.
- **Through an asset separation tool in resolution.** When a failing or likely to fail (FOLF)[14] credit institution has been submitted to resolution, the resolution authority can apply the "asset

[8] The concept of real economic value was introduced by the Impaired Assets Communication of 2009 and is defined as the ''*underlying long-term economic value of the assets, on the basis of underlying cash flows and broader time horizon*''. The European Commission (2018), Commission Staff Working Paper, AMC Blueprint, *Accompanying the document*, Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD (2018) 72 final, p. 50 also states that the real economic value *"is an estimation of the asset value by disregarding the additional haircuts which private investors require because of the lack of information and because of the temporary illiquidity of those assets. If markets are efficient and liquid, the real economic value of assets equals the assets' market price. However, if markets are seized up by lack of information and illiquidity, the real economic value usually exceeds the (estimated) market price."*

[9] See Communication from the Commission of 26 March 2009 on the treatment of impaired assets in the Community financial sector ('Impaired Assets Communication'), *Official Journal* C 72/1, 2009.

[10] Communication from the Commission of 30 July 2013 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'), *Official Journal* C 216/1, 2013.

[11] Communication of the Commission of 19 August 2009 on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules ('Restructuring Communication'), *Official Journal* C 195/9, 2009.

[12] Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) no 1093/2010 and (EU) no 648/2012, of the European Parliament and of the Council.

[13] Regulation (EU) no 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) no 1093/2010.

[14] According to Article 32 paragraph 4 of the Directive 2014/59/EU (BRRD), "*an institution shall be deemed to be failing or likely to fail" in one or more of the following circumstances: (a) the institution infringes or there are objective elements to support a determination that the institution will, in the near future, infringe the requirements for continuing authorisation in a way that would justify the withdrawal of the authorisation by the competent authority including but not limited to because the institution has incurred or is likely to incur losses that will deplete all or a significant amount of its own funds; (b) the assets of the institution are or there are objective elements to support a determination that the assets of the institution will, in the near future, be less than its liabilities; (c) the institution is or there are objective elements to support a determination that the*

separation tool", which is in essence an AMC buying some of the assets of the institution under resolution.[15] In this context, additional support might be needed in order for the transaction(s) to take place. Accordingly, financial means (qualified as State aid) can be provided either by the Single Resolution Fund (SRM) or by the national resolution fund, depending on whether the bank in resolution is established in a country participating in the Banking Union or outside it. Such support can be given when it is considered necessary for the efficient application of resolution tools, yet a number of strict conditions need to be met.[16]

- **With State aid in the context of national insolvency proceedings.** When a FOLF credit institution has been submitted to insolvency proceedings under national law, the domestic authority in charge of handling the crisis might opt for the transfer of NPLs to an AMC. Public support might be needed to enable the AMC to buy NPLs. Against this background, the Banking Communication 2013 allows Member States, under certain conditions, to provide liquidation aid to facilitate the exit of non-viable institutions in an orderly manner to avoid negative effects on financial stability.[17] Such conditions are: limitation of liquidation costs, limitation of competition distortions, and burden sharing.[18]
- **With State aid through a precautionary recapitalisation.** A solvent and non-FOLF credit institution can benefit from State aid without being consequently determined as FOLF, when the aid is granted in the context of a "precautionary recapitalisation" and the ensuing requirements are met.[19] Such a tool has been mostly adopted to increase the capital of solvent institutions that have failed a stress test in the so-called adverse scenario.[20] Yet it could also be used to enable the transfer of NPLs to a publicly supported AMC, provided that the intervention pursues the same objective as capital injection and the specific State aid conditions for impaired asset measures are respected.[21] This implies that impaired assets can be purchased

institution will, in the near future, be unable to pay its debts or other liabilities as they fall due; (d) extraordinary public financial support is required except in a few cases."

[15] The asset separation tool is provided pursuant to article 42 of the BRRD.

[16] The use of the Single Resolution Fund (SRF) is subject to State aid rules and thus requires authorisation from the Commission. The provision of such support also requires a minimum contribution to loss absorption and recapitalisation of 8 % of total liabilities including own funds by shareholders and creditors of the entity in resolution, if losses are indirectly passed on to the SRF. In that case, the upper limit for contributions by the Fund is capped at 5 % of the total liabilities including own funds of the entity under resolution.

[17] On liquidation aid see paragraphs 65 and following of the Communication from the Commission of 30 July 2013 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'), *Official Journal* C 216/1, 2013; in this regard see Lastra et al (2019), Stock Take of the SRB's activities over the past years: What to Improve and Focus On? Policy Paper Drafted for the European Parliament.

[18] Additionally, the transfer of NPLs from a credit institution to a publicly supported AMC is also to be assessed under the Impaired Assets Communication of 2009. In this regard, the complete liquidation of the institution under ordinary insolvency proceedings does not require the transfer price of the NPLs to be below the loans' real economic value, as the residual entity will be facing constraints that limit distortions of competition and will totally exit from the market; on the provision of liquidation aid in the crises of Banca Popolare di Vicenza and Veneto Banca, see Bodellini (2018), To bail-in, or to bail-out, that is the question, *European Business Organization Law Review*, 19.

[19] A number of conditions have to be met for a precautionary recapitalisation to be conducted, in particular precautionary recapitalisation: 1) can take place in order to remedy a serious disturbance in the economy of a Member State and preserve financial stability; 2) is confined to solvent institutions that are not FOLF; 3) is of a precautionary and temporary nature; 4) is conditional on final approval under the EU State aid framework; 5) must be proportionate to remedy the consequences of the serious disturbance of the economy; 6) should not be used to offset losses that the institution has incurred or is likely to incur in the near future; 7) should be limited to injections necessary to address capital shortfall established in national, EU-wide or SSM-wide stress tests, AQR reviews or equivalent exercises conducted by the ECB, the European Banking Authority (EBA) or national authorities, where applicable, confirmed by the competent authority.

[20] See Bodellini (2017), Greek and Italian 'Lessons' on Bank Restructuring: Is Precautionary Recapitalisation the Way Forward? 2017 *Cambridge Yearbook of European Legal Studies*, 19.

[21] See European Commission, Commission Staff Working Paper, AMC Blueprint, *Accompanying the document,* Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, p. 8.

by the AMC at a transfer price that exceeds the estimated market value of the NPLs but which does not exceed their real economic value.

The final outcome of purchasing NPLs in the context of a precautionary recapitalisation might indeed be equivalent to an increase of capital. In fact, with a direct injection of own funds, the assets are sold at market price and the State contributes with fresh capital to ensure that the bank maintains its capital position following the loss from the sale of assets. Likewise, through an impaired asset relief measure, the bank is allowed to sell NPLs at a price higher than market price (but not exceeding the real economic value), thus the capital position of the bank is preserved by reducing the upfront loss.[22] If NPL transfers to a publicly supported AMC are performed, through extraordinary public financial support,[23] in order 'to remedy a serious disturbance in the economy of a Member State and to preserve financial stability', such transactions can qualify as a precautionary recapitalisation and accordingly banks receiving such State aid will not be considered FOLF.

However, one question that arises here is whether precautionary recapitalisation could be used alongside an AMC solution. As one of the main tasks of using an AMC to tackle NPLs is to achieve a clean break by crystallising NPL losses, it is unlikely that precautionary recapitalisation can follow the establishment of an AMC. Indeed, precautionary recapitalisation cannot be used to offset incurred losses. By contrast, the establishment of an AMC could follow precautionary recapitalisation to speed up the post-recapitalisation cleaning of the bank NPLs but in this case without the AMC enjoying any public backstop. It follows that the two solutions are not mutually exclusive, but a decision must have been taken in advance that the AMC will follow rather than precede the recapitalisation and will not receive any public subsidies.

Box 1. Covid-19 and the Temporary Framework of the Commission on State aid

The Commission has relaxed the rules on the provision of State aid so that the economic emergency resulting from the Covid-19 pandemic can be effectively faced. Accordingly, the Commission has adopted a 'Temporary Framework for State aid measures to support the economy in the current Covid-19 outbreak',[24] which also deals with precautionary recapitalisation.[25] According to the new framework, if credit institutions need extraordinary public financial support in the form of liquidity, recapitalisation or impaired asset measure because of the Covid-19 outbreak, whether the measure meets the conditions of Article 32(4), point (d) (i), (ii) or (iii), BRRD would have to be assessed. If these conditions were to be fulfilled, the credit institution receiving such extraordinary public financial support would not be deemed to be FOLF.[26]

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[22] *Id.*, pp. 35-37, also stating that precautionary recapitalisation can be any combination of *"recapitalisation aid (injected into the bank to recapitalise it) and impaired asset aid (as a price contribution to a higher price at which the bank transfers impaired assets to the AMC to help the bank avoid bearing the full extent of losses that would stem from the sale of the impaired assets in the market)"*.

[23] Pursuant to Article 3(1)(29) SRMR and Article 2(1)(28) BRRD, 'extraordinary public financial support' refers to State aid within the meaning of Article 107(1) TFEU or any other public financial support at supra-national level, which, if provided at national level, would constitute State aid, that is provided in order to preserve or restore the viability, liquidity or solvency of an entity or of a group of which such an entity forms part.

[24] See European Commission (2020a), Communication from the Commission, Temporary Framework for State aid measures to support the economy in the current Covid-19 outbreak.

[25] On this, see Gortsos, Siri and Bodellini (2020), A proposal for a temporarily amended version of precautionary recapitalisation under the Single Resolution Mechanism Regulation involving the European Stability Mechanism, in EBI Working Paper Series, 2020 no. 73.

[26] See European Commission (2020a), Communication from the Commission, Temporary Framework for State aid measures to support the economy in the current Covid-19 outbreak, paragraph 7.

Also, if such measures were to address problems linked to Covid-19, they would be deemed to fall under point (45) of the 2013 Banking Communication, which sets out an exception to the requirement of burden sharing by shareholders and subordinated creditors.[27] Such an exception is of particular significance as it empowers the Commission to exclude the application of the burden-sharing mechanism when this would endanger financial stability or lead to disproportionate results. Thus, despite the use of public resources, the burden-sharing mechanism, affecting both shareholders and subordinated creditors, does not necessarily have to apply.

The Temporary Framework, therefore, might potentially pave the way for an increased number of precautionary recapitalisations to be conducted through the use of public money. It would mean both shareholders and subordinated creditors could be exempted from the application of the burden-sharing requirement where the Covid-19 pandemic has provoked the need for such a measure.[28] Accordingly, the purchase of NPLs in the context of a precautionary recapitalisation with a view to effectively tackling the increase of bad assets caused by the Covid-19 pandemic is expressly discussed by the Commission in its Action Plan of December 2020.[29]

3.3. Capital and funding structure

The effectiveness of AMCs critically depends on their capital and funding structure. Although AMCs should be (at least partially) owned by the transferring banks to reduce moral hazard, they can still be either privately or publicly funded.[30] Yet according to previous experiences across the globe it seems that some sort of public support has often been a key element in their success.[31] In the EU, nevertheless, this needs to reconcile with the State aid regime.

According to Cerruti and Neyens (2016) adequate and timely funding and lifespan provide time to realise value of assets **(avoiding "fire sales") but prevent permanent warehousing of bad loans**.

Santos (2019) analyses the capital structure of private asset managers in which the acquisition of NPLs is funded with Contingent Convertibles (CoCos) placed with investors. The paper develops a model based on NPL transfer prices and residual recovery rates to assess capital structures consisting of CoCos and equity. The CoCos would contain put and call options to write down losses and write up profits respectively that arise from liquidation and restructuring procedures. The paper concludes that **the protection mechanism provided by debt write-downs embedded in CoCos and the incentives to investors provided by debt write-ups could help bridge the gap between Portuguese banks' NPL bid prices and private equity firms' ask prices**.

Public funding does not constitute State aid per se. The relevant factor in this context is the outcome of a comparative assessment with what a market economy operator would do in the same situation. In other words, public funding would not be considered as State aid if a market economy operator would act in a similar way in an equivalent situation. For this to occur, the purchase of NPLs should take place

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[27] *Id.*, paragraph 7, third sentence.

[28] See Bodellini and Lintner (2020), The impact of the Covid-19 pandemic on credit institutions and the importance of effective bank crisis management regimes, 2020 *Law and Economics Yearly Review*, 9, p. 209.

[29] See European Commission, Communication from the Commission to the European Parliament, the Council and the European Central Bank, Tackling non-performing loans in the aftermath of the COVID-19 pandemic, Brussels, 16.12.2020, COM(2020) 822 final, p. 3.

[30] Publicly funded AMCs typically issue senior unsecured bonds, which are bought by those banks that intend to transfer their NPLs to the AMCs. Such senior bonds usually carry a full and irrevocable guarantee of the national Treasury and would thus be eligible as collateral in refinancing transactions with the central bank. They often have a call option available to the issuer as well.

[31] See Arner et al. (2020), Financial Stability, Resolution of Systemic Banking Crises and COVID-19: Toward an Appropriate Role for Public Support and Bailouts, 2020, University of Hong Kong Faculty of Law Research Paper No. 2020/044, discussing the use of AMCs during the Asian financial crisis in Thailand, Indonesia, South Korea, and Malaysia and during the eurozone debt crisis in Spain, Ireland, Italy and Greece.

at the market price (or at the estimated market value[32] when the former is not available) and the other conditions laid down in the European Commission's Crisis Communications need to be met as well.[33]

At any rate, the Commission has already made it clear that '[t]he option of an AMC involving State aid should not be seen as the default solution since AMCs can take multiple forms and can be structured and financed in several ways'[34] and that the use of AMCs should not prevent FOLF banks ''*from being liquidated or resolved under the BRRD, which provides for an efficient framework enabling market exit of troubled banks while minimising costs to the taxpayer and negative repercussions to the economy.*''[35]

3.4. Governance and control

The governance and control mechanism should protect the AMC political intrusion or financial stress. Cerruti and Neyens (2016) also find that successful AMCs have strong commercial focus. First, AMCs should have professional distressed asset management, strong governance practices, **robust transparency requirements, and strong internal controls**: independent boards with strong private sector/international presence; documentation of key decisions; internal staff rules and codes of conduct; **key performance indicators** (KPIs); periodic progress evaluations conducted by **external auditor**. Second, AMCs need strategic and operating plans aligned with mandate: asset purchases have clear rationale, and all assets have well-defined resolution plans and exit strategies; **social mandates which conflict with commercial focus were minimised**.

3.5. Legal framework

From the legal perspective, there are a number of obstacles in the EU potentially hindering the successful establishment of AMCs or of a pan-European network of AMCs. In this regard, one of the most critical issues relates to the State aid regime.[36] Direct or indirect involvement of the state(s) in the

[32] See European Commission (2018), Commission Staff Working Paper, AMC Blueprint, *Accompanying the document,* Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, p. 50, stating that *"In circumstances where there is no liquid market and no directly comparable transaction taking place at the same moment, the Commission may, in order to establish the market value, use adjusted benchmarking to correct the price observed for the sale of assets that have some similarities with the assets in question. The adjustment is based on the difference of the characteristics and quality of the two sets of assets."*

[33] 'Crisis Communications' are: 1) Communication from the Commission of 25 October 2008 on the application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis ('2008 Banking Communication'), *Official Journal* C 270/8, 2008; 2) Communication from the Commission of 15 January 2009 on the recapitalization of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions of competition ('Recapitalization Communication'), *Official Journal* C 10/2, 2009; 3) Communication from the Commission of 26 March 2009 on the treatment of impaired assets in the Community financial sector ('Impaired Assets Communication'), *Official Journal* C 72/1, 2009; 4) Communication of the Commission of 19 August 2009 on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules ('Restructuring Communication'), *Official Journal* C 195/9, 2009; 5) Communication from the Commission of 7 December 2010 on the application, from 1 January 2011, of State aid rules to support measures in favour of financial institutions in the context of the financial crisis ('2010 Prolongation Communication'), *Official Journal* C 329/7, 2010; 6) Communication from the Commission of 6 December 2011 on the application, from 1 January 2012, of State aid rules to support measures in favour of financial institutions in the context of the financial crisis ('2011 Prolongation Communication'), *Official Journal* C 356/7, 2011; 7) Communication from the Commission of 30 July 2013 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'), *Official Journal* C 216/1, 2013.

[34] See European Commission (2020b), Communication from the Commission to the European Parliament, the Council and the European Central Bank, Tackling non-performing loans in the aftermath of the COVID-19 pandemic, Brussels, 16.12.2020, COM(2020) 822 final, p. 11.

[35] See European Commission (2020a), Commission Staff Working Paper, AMC Blueprint, *Accompanying the document,* Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, pp. 23-24.

[36] Article 107 TFEU provides that any State aid is incompatible with the internal market, unless it qualifies as one of the narrow exceptions set out in Article 107(2) TFEU or unless it has been approved by the Commission for one of the reasons set out in Article 107(3) TFEU. In relation to public support given to banks, the reason mostly adopted so far to authorise the aid has been, according to Article 107(3)(b) TFEU, '… to remedy a serious disturbance in the economy of a Member State'.

funding of AMCs could trigger, depending on the transfer price, State aid restrictions, as well as intra-EU strife and accusation about illegal subsidies directed to the banking sector of the Member States concerned. By contrast, if selling NPLs to AMCs means that bank losses materialise, there is always the possibility that they will exhaust their capital buffers, triggering the application of the EU bank-resolution regime that comprises the BRRD and the SRMR. The application of this regime can lead to a number of actions taken by the SRB and/or national resolution authorities, including the bailing-in of bank creditors and liquidation.[37] The AMCs' funding structure and the price at which they buy NPLs from credit institutions are thus critical aspects to carefully consider to avoid triggering the State aid regime, which in turn could determine the application of the resolution (or liquidation) regime as well. Indeed, the resolution (or liquidation) framework under the BRRD-SRMR provides that a bank requiring extraordinary public financial support is to be declared as FOLF, unless the conditions for precautionary recapitalisation are met.[38] The FOLF declaration triggers the initiation of either resolution or liquidation, depending on what is in the public interest.

[37] In the post-global financial crisis EU legal framework, resolution and liquidation are the two alternative procedures to initiate in the face of a FOLF bank, depending on what is in the public interest; see Bodellini (2020), Alternative forms of deposit insurance and the quest for European harmonized deposit guarantee scheme-centred special administrative regimes to handle troubled banks, *The Uniform Law Review*, 2-3, *passim*.

[38] The relevant provisions as to precautionary recapitalisation are article 18(4)(d)(iii) of the SRMR and article 32(4)(d)(iii) of the BRRD.

4. COMPARISON OF NATIONAL AMCs

KEY FINDINGS

At least 12 EU Member States (including the UK) have established a minimum of 17 AMCs in the aftermath of the global financial crisis.

There are substantial differences between these AMCs in terms of design and organisational structures.

The large diversity in AMCs limits the possibility of drawing robust conclusions about their effectiveness and efficiency in the EU.

Several public AMCs were set up in the EU in the years following the 2007-2009 global financial crisis and the 2010-2012 euro sovereign crisis. These AMCs acquired, managed, and disposed of distressed assets, and played an important role in bank restructuring.[39]

While all AMCs must be fully compliant with the EU legal framework, there are substantial differences in the design and organisational structure of these entities, as well as in the role governments and restructuring authorities have played in different member states.

In what follows, we will present an analysis of selected European AMCs, with the aim of comparing these entities along several lines to discuss the strengths and weaknesses of the different models.

4.1. Capital and funding structure

AMC asset acquisition can be funded in a number of ways: (i) through the issuance of debt securities with or without government guarantees; (ii) through direct capitalisation by governments; (iii) though private investors' equity and loss sharing; and (iv) through a combination of public and private equity, guarantees and private loss sharing. As a result, the landscape of AMCs is varied across EU Member States, with the full spectrum of ownership structures and many organisational design choices.

Importantly, organisational designs and ownership structures affect how AMCs impact on public budgets. Gandrud and Hallerberg (2016) identify three stages in the creation of European AMCs (see Table 1): (1) before 2009, a phase characterised by a variety of AMC ownership types; (2) 2009-2014, when governments tended to create AMCs with a minimal majority share (51 %) of private ownership; and (3) post-2014, where bailed-in shareholders of failed banks own the AMCs created to resolve them.

Table 1: Phases of AMC creation in Europe

Phase	Time period	Type of ownership	Examples: Restructuring of privately owned banks	Examples: Restructuring of publicly owned banks
1	Pre-2009	Mixed, including majority public ownership	Finansiel Stabilitet (DK), RPI (BE), Société de Financement de l'Economie Française (FR)	Erste Abwicklungsanstalt (DE), FMS Wertmanagement (DE)

[39] Annex 1 provides an overview of these entities, including the year of establishment and the EU member state.

Phase	Time period	Type of ownership	Examples: Restructuring of privately owned banks	Examples: Restructuring of publicly owned banks
2	Mid-2009 to mid-2014	Slim private majority ownership	NAMA SPV (IE), SAREB (ES)	Dexia (BE/FR/LU), DUTB (SI), Parvalorem/Parups/ Parparticipadas (PT), KA Finanz (AT), Propertize (NL), UK Asset Resolution (UK)
3	Mid-2014 onwards	Large majority private ownership	Banco Espírito Santo (PT)	HETA Asset Resolution (AT)

Source: Authors' elaboration of Gandrud and Hallerberg (2016).

4.2. Ownership structure

Perhaps the best way to understand the differences between the AMCs that have been set up since the global financial crisis is to consider the role of the government. The earliest AMCs were strictly internal bank restructuring units, set up as a separate division or subsidiary of the troubled banks and focused on the wind-down of ring-fenced portfolios of bad or non-strategic assets. More recently, these AMCs have been receiving help from their respective governments. Examples include Erste Abwicklungsanstalt (EAA), the bad bank of WestLB, and FMS Wertmanagement (FMS/WM), and the bad bank of Hypo Real Estate Holding AG (HRE), both in Germany.

The creation of AMCs with 100 % public ownership has been a common feature of restructuring activities started as a consequence of the global financial crisis (see Table 2). Examples of 100 % national government ownership are FMS/WM (Germany) and Družba za upravljanje terjatev bank, dd (DUBT) (Slovenia), while AMCO, established after the euro sovereign crisis, is owned by the Italian Ministry of Finance. A minority public ownership was chosen by the Irish authorities, whereby the NAMA owns 49 %, and 51 % of shares are collectively owned by private companies via the establishment of the NAMA Investment DAC. Similarly, SAREB was set up as a private company. The Fund for Orderly Bank Restructuring (FROB) owns 45 % while private shareholders own the remaining 55 % of SAREB. The initial private shareholders were mostly Spanish banks, including Ibercaja, Bankinter, Unicaja, Cajamar, Caja Laboral, Banca March, Cecabank and Banco Cooperativo Español. Private shareholders also included two foreign banks: Deutsche Bank and Barclays Bank, and four insurers: Mapfre, Mutua Madrileña, Catalana Occidente and Axa. Other banks and insurance companies have subsequently participated.

Table 2: Selected European AMCs – ownership structure

AMC	Country	Main shareholder	Share of public ownership	Other shareholders	Notes
AA1/EAA	Germany	Regional government (State of NRW, 48.202 %)	100 %	Savings Banks; Regional authorities	Rheinischer Sparkassen- und Giroverband (25.032 %) Sparkassenverband Westfalen-Lippe (25.032 %), Landschaftsverband Rheinland (0.867 %) Landschaftsverband Westfalen-Lippe (0.867 %)
FMS/WM	Germany	National government (SoFFin)	100 %		
NAMA	Ireland	National government (National Asset Management Agency Investment)	49 %	51 % (National Asset Management Agency Investment DAC.)	51 % of its shares are collectively owned by private companies (New Ireland Assurance Co. plc, BNY Custodial Nominees (Ireland) Ltd, the Representative Church Body and the Church of Ireland Clergy Pensions Fund)
AMCO	Italy	Italian Ministry of Finance (MEF)	99.78 %	0.22 % Other shareholders	Other shareholders have B shares with no voting rights
DUTB	Slovenia	National government (ZUKSB)	100 %		
SAREB	Spain	FROB (Spanish National Resolution Authority) / National government	45.95 %	Banks, other investors (54.05 %)	Banco de Sabadell (6.61 %), Caixabank, S.A. (12.24 %), Banco Santander, S.A. (22.22 %) and Others (13.03 %)

Source: Authors' elaboration based on AMC websites and annual reports (2019).

4.3. NPL perimeter, size and mix

AMCs also vary substantially in terms of size. The largest one is FMS/WM, with a nominal value of assets of around EUR 175 700 million initially transferred. This was established in 2010 with the aim of taking over and winding up the risk positions and non-strategic operations from the nationalised HRE Group. In 2014, FMS Wertmanagement (FMS/WM) was commissioned to take over and wind up the former Irish subsidiary of the HRE Group, Deutsche Pfandbriefbank plc (DEPFA). FMS/WM acquired assets from the DEPFA Group in 2016 and 2017, with an original nominal value of around EUR 7 200 million, therefore expanding its portfolio. Since then, FMS/WM has made good progress in winding down its portfolio and has remained profitable since its inception (see Table 3).

While some AMCs are set up with the limited mission of unwinding the portfolio of a particularly troubled bank, others are successively entrusted with assets from different institutions. In some cases, restructuring help extends to a particular category of banks, for example the Spanish saving banks.

Table 3: Selected European AMCs – size and portfolio

AMC	Portfolio	Perimeter	Nominal value of asset transferred (EUR million)	Market value of assets transferred (EUR million)	Total assets -2019 (EUR million)	Equity - 2019 (EUR million)	Employees - 2019
AA1/EAA	WestLB	Structured assets	77 500	na	37 815	655	159
FMS/WM	Hypo Real Estate Holding AG, DEPFA BANK plc	All asset types	357 800* (resolvable assets: 175 700)	na	146 490	1 751	103
NAMA	AIB, Bank of Ireland, Anglo Irish Bank, EBS, Irish Nationwide Building Society	CRE, land and property	74 000	26 200	5 612	5 569	211
AMCO	Veneto Banca and Banca Popolare di Vicenza Banca Carige	Non-performin g loans (NPLs)	18 000	na	2 755	600	220
DUTB	NLB and NKBM Abanka, Banka Celje Probanka, Factor banka.	Non-performin g loans (NPLs) and developer loans	5 800	2 020	824	484	135
SAREB	BFA-Bankia, Catalunya Banc, Banco de Valencia, Novagalicia Banco and Banco Gallego Liberbank, Caja 3, CEISS and BMN	Developer loans and real estate assets	50 781	107 000	31 470	230	394

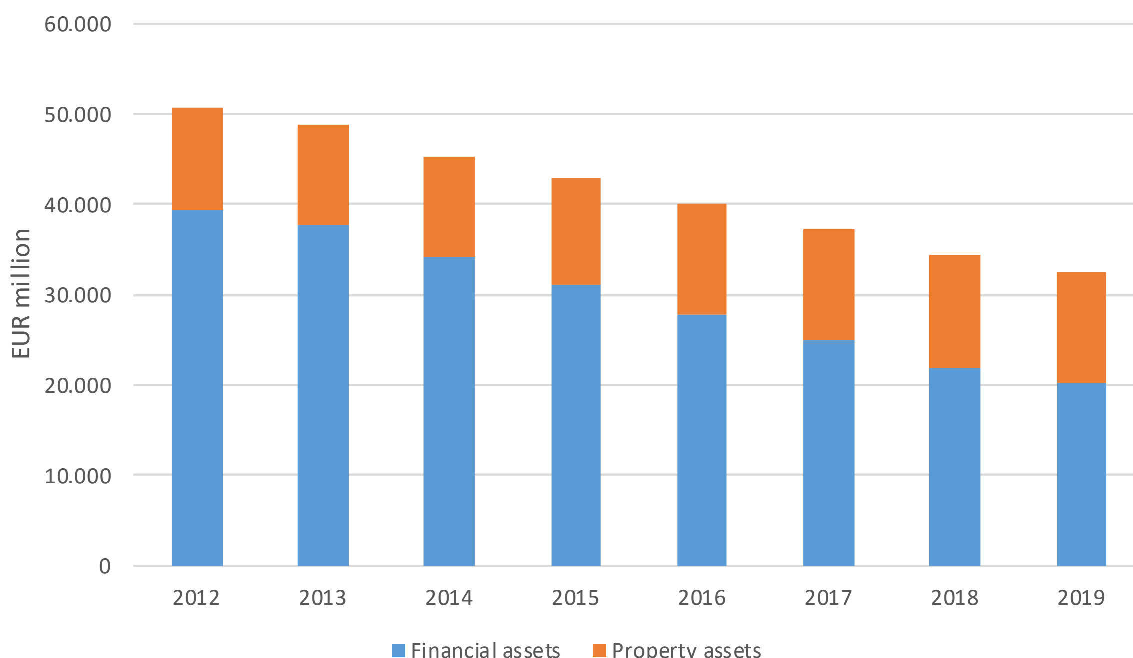
Note: * The total assets of FMS/WM also included a large portfolio of debt issued by HRE Group with a government guarantee from SoFFin, which were by own issuances of FMS /WM.

Source: Authors' elaboration based on AMC websites and annual reports.

4.4. Mandate and lifespan

The mandate and lifespan of AMCs are important characteristics, and there are substantial differences. Some AMCs explicitly state in their mission the number of years over which they are to liquidate the assets. For example, SAREB states that its mission is the orderly liquidation of assets over a 15-year period, ending in November 2027. At the end of 2019, SAREB's financial asset portfolio had decreased 51 % while the overall portfolio had reduced 36 % (see Figure 2).

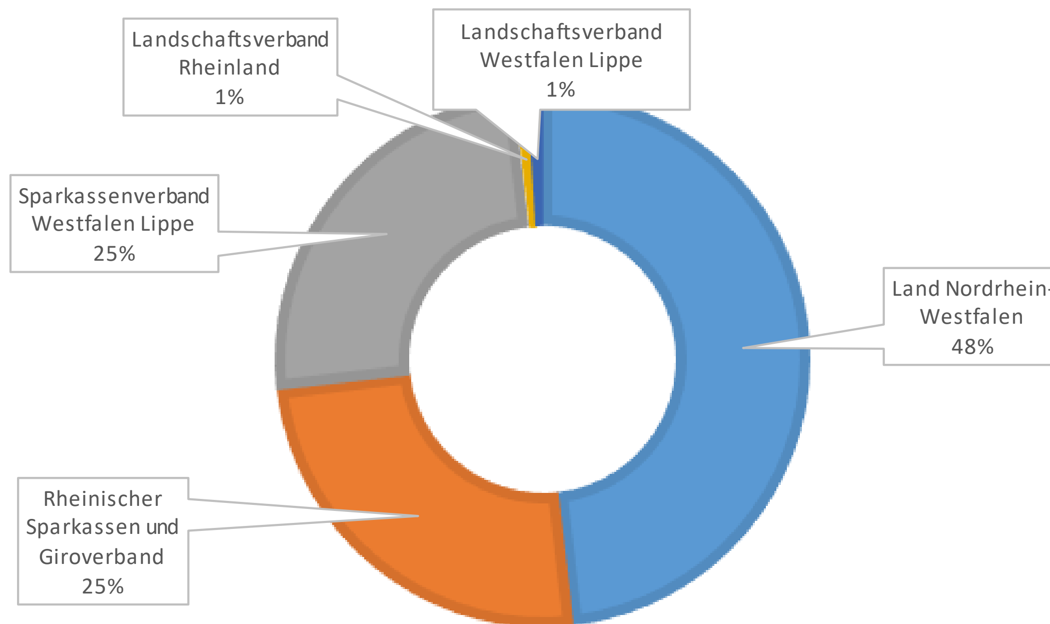
Figure 2: Changes in SAREB's portfolio (2012-2019)



Source: Authors' elaboration based on annual reports SAREB.

Similarly, AA1/EEA has a clearly defined public function, which is to take over and wind up the WestLB's risk exposures and non-strategic businesses and assets, in a manner that minimises risk over a 15-year period. The EAA enjoys a high credit rating from the main credit-rating agencies, as it benefits from an extremely high likelihood of support from its public owners, primarily the German regional State of North Rhine-Westphalia (NRW), the regional savings banks associations of Westphalia-Lippe and Rhineland (25 % each) and the local public authorities of Westphalia-Lippe and Rhineland (0.9 % each) (see Figure **3**). So far, the EAA has wound up more than four fifths of the transferred positions. While doing so, it has been profitable since 2012 (see Table 4).

Figure 3: AA1/EEA ownership structure (2019)



Source: Authors' elaboration based on annual reports AA1 (2019).

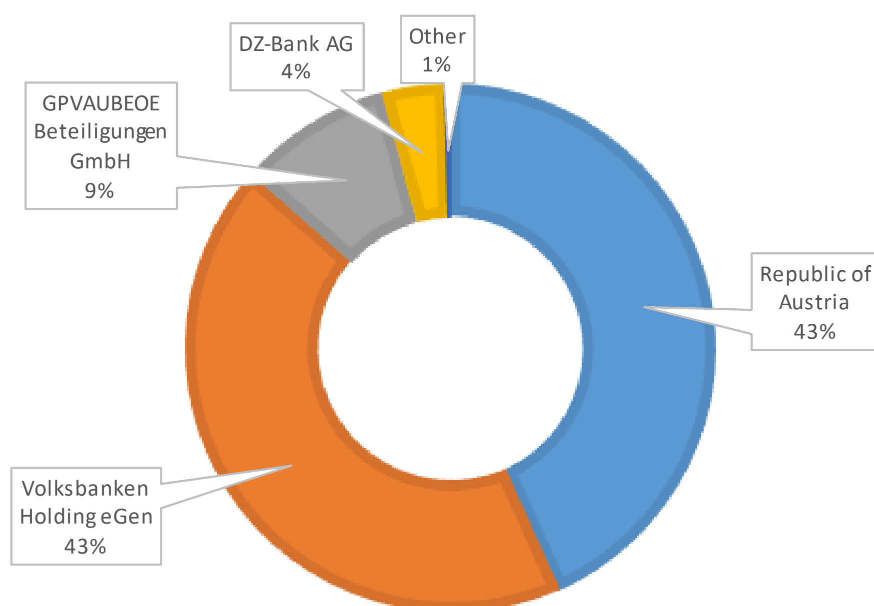
Other AMCs have a longer history. The Italian AMCO was originally established in 1989, and in 1996 it launched the operations related to the rescue of Banco di Napoli (BdN). The current structure was set up in 2016, to allow for the acquisition and/or management of loans other than those of the BdN. In 2018, it took over the management of Veneto Banca (EUR 7.7 billion) and Banca Popolare di Vicenza (EUR 4.3 billion) portfolios. It also acquired EUR 2.3 billion of NLPs from Banca Carige, among others. At the end of 2019, AMCO had a total asset size of EUR 2.8 billion.

This raises the question of whether AMCs should be tasked with managing troubled assets to ensure their orderly and active disposition, on the best terms possible and within the time period necessary. In turn, there are costs in establishing a new entity, particularly during crisis periods, when the market expertise of an established AMC would benefit the orderly transfer of large asset portfolios.

An example of a recently established AMC which completed the winding-down process over a short time period, is the Austrian Immigon portfolioabbau ag iA. Immigon was established in 2015 to restructure Volksbanken AG (VBAG),[40] after getting approval from European authorities as part of a wind-down plan that began with a EUR 1 350 million rescue in 2012. The only objective of Immigon portfolioabbau was to sell EUR 7 billion in assets from Österreichischen Volksbanken-AG. The AMC was set up under public ownership, with 43.3 % owned directly by the Republic of Austria. The wind-down operations were completed in January 2019 and Immigon was closed in May 2019.

[40] Immigon wound down the parts of VBAG that did not function as central organisation and central institution. Those parts were transferred to Volksbank Wien-Baden AG.

Figure 4: Immigon portfolioabbau ownership structure (2019)



Source: Authors' elaboration based on annual report (2019).

4.5. Performance

Evaluating the performance of AMCs is not straightforward, and the diversity of mandates, objectives, lifespan, transfer prices, and ownership structures could distort the application of traditional benchmarks for operational performance.

One standard measure of performance is the evaluation of net profits/losses. For the AMCs, revenues originate from the management and sale of loans, and from the sale and letting of real estate items acquired from bailed-out banks. Other revenues include revenues from financial assets. Costs include operating costs, costs of recoveries, interest expenses, staff costs and provisions. Most AMCs have been profitable in recent years, with the exception of SAREB (see Table 4).

Table 4: Selected European AMCs – net profit/losses (EUR million)

AMC	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
AA1/EAA	-599.6	-878.2	6.6	59.0	62.5	13.1	9.6	14.4	2.6	-2.7	-1 312.7
FMS/WM	-2.0	0.0	36.8	122.0	313.4	295.9	313.3	359.1	114.8	236.1	1 789.4
NAMA	-1 180.0	246.6	232.0	213.6	458.3	1 825.9	1 502.7	480.8	794.6	264.9	4 839.4
AMCO	..	..	..	..	..	..	13.1	1.9	47.5	39.9	102.4
DUTB	..	..	..	-5.8	36.4	-8.3	7.8	67.0	57.6	40.2	194.9
SAREB	..	..	-7.8	-402.9	-1 000.6	-135.2	-662.7	-533.9	-879.0	-864.3	-4 486.4

Source: Authors' elaboration based on annual reports of AMCs.

5. CONCLUSIONS AND POLICY REMARKS

The Covid-19 pandemic is likely to cause NPL stock to increase sharply, prices to be further depressed and borrowers/consumers to suffer hardship over the next years.

Buyers are unlikely to be willing to pay a price reflecting the real economic value of such assets, possibly also taking advantage of the new rules requiring credit institutions to progressively increase loss provisioning under Regulation 2019/630/EU.[41] Moreover, defaulted borrowers and consumers will be further subjected to difficulties in the absence of harmonised rules that deal with detriment inflicted during the debt-collection exercise.

The use of publicly supported AMCs, publicly supported pan-European AMCs or network of publicly supported national AMCs can overcome these market failure(s) and their broader consequences on the economy and society. Robust AMC operations and governance frameworks capable of overcoming the operating challenges are nonetheless needed. It is critical that the skills of AMC staff are evaluated because their capacity to act efficiently, in a timely way, independently and fairly will be a key determinant of AMC performance. This performance must be seen broadly, not only in financial terms (as efficient wind-down of NPLs) but also for the economy (to preserve financial stability) and for society (to reduce consumer detriment and hardship inflicted by the widespread financial and economic crises).

Several legal shortcomings and structural obstacles might hinder the ability of AMCs to perform, with the expected upcoming surge in NPLs provoked by the Covid-19 pandemic.

A certain amount of public support will be needed for AMCs to be able to successfully operate and this also seems to be the view of the Commission.[42] The main issue concerning public support is that every purchase of NPLs carried out by a publicly supported AMC at a price exceeding the estimated market value qualifies as State aid. The qualification of such transactions as State aid in turn would cause the beneficiary bank(s) to be classed as FOLF, unless the intervention takes place in the form of a precautionary recapitalisation. In other words, the only way for a publicly supported AMC to buy NPLs from banks at a price reflecting their real economic value would currently be through a precautionary recapitalisation. Despite the Commission's decision to relax the rules on public support and to extend the exception under point 45 of the 2013 Banking Communication in light of the pandemic, it is questionable whether precautionary recapitalisation would be a suitable tool to handle the widely predicted surge in NPLs affecting many banks in the Union. Precautionary recapitalisation is indeed a measure primarily conceived to face single (or a limited number of) idiosyncratic crises through the injection of public money with a view to increasing the capital of individual banks. Therefore, it might fall short if many institutions needed to offload large portfolios of NPLs at the same time.[43]

[41] Regulation (EU) 2019/630 of the European Parliament and of the Council of 17 April 2019 amending Regulation (EU) No 575/2013 as regards minimum loss coverage for non-performing exposures.

[42] See European Commission (2018), Commission Staff Working Paper, AMC Blueprint, Accompanying the document, Communication from the Commission to the European Parliament, the Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, p. 15, highlighting that *"Market funding without a guarantee should be explored as part of the national AMC design process and, if feasible, may be preferred over the government-guaranteed funding. However, historical experience indicates that such market-based solutions prove difficult to implement and may require a significantly larger equity contributions"*; even more explicitly European Commission (2020b), Communication from the Commission to the European Parliament, the Council and the European Central Bank, Tackling non-performing loans in the aftermath of the COVID-19 pandemic, Brussels, 16.12.2020, COM(2020) 822 final, p. 11, states that *"even if private capital and funding could be attracted, sizeable public funding would probably be needed in most cases, which would necessitate a State Aid assessment"*.

[43] The Commission has already stated that if a transfer of NPLs to an AMC is to be (partially) financed with a precautionary recapitalisation, that bank should first participate in a national or EU-wide AQR, stress testing or similar exercise; see European Commission (2018), Commission Staff Working Paper, AMC Blueprint, Accompanying the document, Communication from the Commission to the European Parliament, the

From the legal and economic perspectives, the Commission would be advised to rethink the way State aid rules are applied in relation to the purchase of NPLs. Accordingly, it might be appropriate to reconsider the treatment of NPL purchases at prices that reflect the real economic value. Although developing a set of criteria and valuation methodology that would make the real economic value a more concrete concept is urgently required, it may not be possible to do so. Subsequent asset purchases at prices reflecting the real economic value should not automatically qualify as illegitimate State aid, as no financial loss for the government is expected under this concept. A Treaty-compliant interpretation could be advanced on the grounds that in the current situation, public support would be used, not just for the benefit of single banks, but mostly to correct a system-wide market failure affecting the price formation of NPLs. This would be mainly because of the negative macroeconomic juncture caused by the pandemic, along with a number of other factors (i.e. lack of information and illiquidity), that can only be properly tackled over time through a host of measures, such as the ones that the Commission has included in its Action Plan.[44] This argument could be at least supported in the case of a pan-European system-wide AMC whose mandate would be to help clean up the banking system from the burden of NPLs generated by the Covid-19 crisis.

From a socio-economic perspective, in the process of debt collection, debtors do face a range of detriments (financial, psychological and social) resulting from the strong pressure to repay their debts. These can be costly for the individual debtor as well as for wider society. The AMC should therefore aim to collect the debt, while ensuring that the individuals retain a minimum living wage.[45] Similarly, the longer-term viability of businesses should also be considered in the context of debt collection, so that potential extensions, refinancing and write-offs can maintain jobs and economic activity. Although this approach can have a negative impact on the recovery values and operational efficiency of the AMCs, it is not necessarily the case because this approach also increases the earnings and thus repayment capacity of both individuals and businesses. To avoid a potential financial loss for the government, the methodology for the real economic value calculation would have to consider the winding down of the NPLs following this approach.

Still, several structural obstacles might affect the ability of AMCs to contribute to resolving the NPL issue in the Union. The most relevant obstacles in this regard relate to: i) long recovery times and consequent high costs that also differ from country to country; ii) low and different levels of transparency, which create "the market for lemons"[46] conditions in the secondary market and increase bid-ask spread discrepancies; iii) appreciable disparities between net book value and market value; iv) low profitability of banks;[47] and v) dealing effectively with consumer detriment issues. It follows that for AMCs to be effective tools, such structural obstacles need to be removed as well. And from this perspective, the Commission Action Plan of December 2020 puts forward a number of effective measures that should be implemented as soon as possible.

Council and the European Central Bank, Second Progress Report on the Reduction of Non-Performing Loans in Europe, Brussels, 14.3.2018, SWD(2018) 72 final, p. 8.

[44] The Treaty legal basis could be either: (i) article 107(2)(b): *''The following shall be compatible with the internal market: (…) aid to make good the damage caused by natural disasters or exceptional occurrences'*; or (ii) article 107(3)(b): *'The following may be considered to be compatible with the internal market: (…) aid (…) to remedy a serious disturbance in the economy of a Member State''*.

[45] See Eurofound (2018), Concept and practice of a living wage.

[46] See Akerlof, The Market for "Lemons": Quality Uncertainty and the Market Mechanism, 1970, *The Quarterly Journal of Economics*, Vol. 84, No. 3, p. 488.

[47] See Avgouleas and Goodhart (2017), Utilizing AMCs to tackle Eurozone's legacy non-performing loans, European Economy - Banks Regulation and the Real Sector, 1, 99.

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ANNEX 1. AMCs ESTABLISHED IN EU-28 SINCE THE GLOBAL FINANCIAL CRISIS

NR	Name	Established (Year)	Country	Link
1	Finansiel Stabilitet	2008	Denmark	https://www.fs.dk
2	KA Finanz AG	2009	Austria	https://www.kafinanz.at/en/
3	Royal Park Investments	2009	Belgium	https://www.royalparkinvestme nts.com/EN
4	**AA1/EEA**	**2009**	**Germany**	**https://www.aa1.de/en/**
5	**NAMA**	**2009**	**Ireland**	**https://www.nama.ie**
6	**FMS/WM**	**2010**	**Germany**	**https://www.fms-wm.de/en/**
7	Hellenic Financial Stability Fund	2010	Greece	https://hfsf.gr/en/
8	Parvalorem	2010	Portugal	https://www.parvalorem.pt
9	UK Asset Resolution	2010	UK	https://www.ukar.co.uk
10	Landmark Mortgages Limited (previously Northern Rock Asset Management)	2010	UK	http://www.landmarkmortgages .com/about-us
11	Dexia	2011	Belgium	https://www.dexia.com/en/abou t
12	**SAREB**	**2012**	**Spain**	**https://www.sareb.es/**
13	**DUTB**	**2013**	**Slovenia**	**https://dutb.eu**
14	HETA Asset Resolution	2014	Austria	https://www.heta-asset-resolution.com/en
15	MARK	2014	Hungary	http://www.markzrt.hu
16	**Immigon portfolioabbau**	**2015**	**Austria**	**https://www.fma.gv.at/en/im migon-portfolioabbau-ag/**
17	**AMCO**	**2016**	**Italy**	**https://www.amco.it/en/**

Note: the AMCs selected for further analysis are presented in **bold**.

Source: Authors' research.

ANNEX 2. QUESTIONS

Dr Elke König, Chair of the Single Resolution Board (SRB), will come to the European Parliament for a public hearing of the ECON committee in Spring 2021. In the context of this paper on the factors driving the performance of national asset management companies, the authors suggest asking the following questions during the Q&A part of the hearing:

- What role do you see for asset management companies in cleaning the bank balances?
- If you see a role for AMCs, would there be a need for an EU or eurozone backstop for these AMCs to avoid a sovereign-bank doom loop?
- If so, would you see a role for the SRB/SRF in the facilitation of AMCs outside the resolution framework?

In the past decade, asset management companies (AMCs) have been an effective tool for relieving banks of large portfolios of non-performing loans (NPLs). Managed over time, AMCs can reduce the financial burden on the overall system.
This paper is based on the existing literature and EU experiences of national AMCs created in the aftermath of the global financial crisis. It discusses the advantages and disadvantages of using AMCs, and considers the key elements in their design.

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