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What Makes a Good 'Bad Bank'? The Irish, Spanish and German Experience

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What Makes a Good 'Bad Bank'?

The Irish, Spanish and German Experience

Stephanie Medina Cas, Irena Peresa

Abstract

This paper examines the experience of three asset management companies (AMCs) or 'bad banks' established in the euro area following the 2008 global financial crisis. Specifically, it studies NAMA, Sareb and FMS Wertmanagement (FMS). These AMCs were set up to purchase growing non-performing loans on banks' balance sheets with the aim of their eventual disposal. The study seeks to identify factors that support an AMC's success. It also analyses the impact of the European regulatory framework, including the Eurostat rules, State-aid regulations and bank resolution rules, on the AMCs' design. It also reflects on the way recent changes to EU bank resolution rules now limit the involvement of State aid in AMCs. The study finds that the type of assets transferred and the macroeconomic environment are crucially important for successful asset disposals. The paper also focuses on additional success factors, such as clean asset documentation, a solid valuation process, efficient asset servicing, a strong legal framework and skilled staff. Though challenges remain, the three AMCs have contributed to banking sector stabilisation as they have been undertaken alongside bank restructuring measures. The financial backing of the authorities, decisive in the cases analysed, has however come at a fiscal cost.

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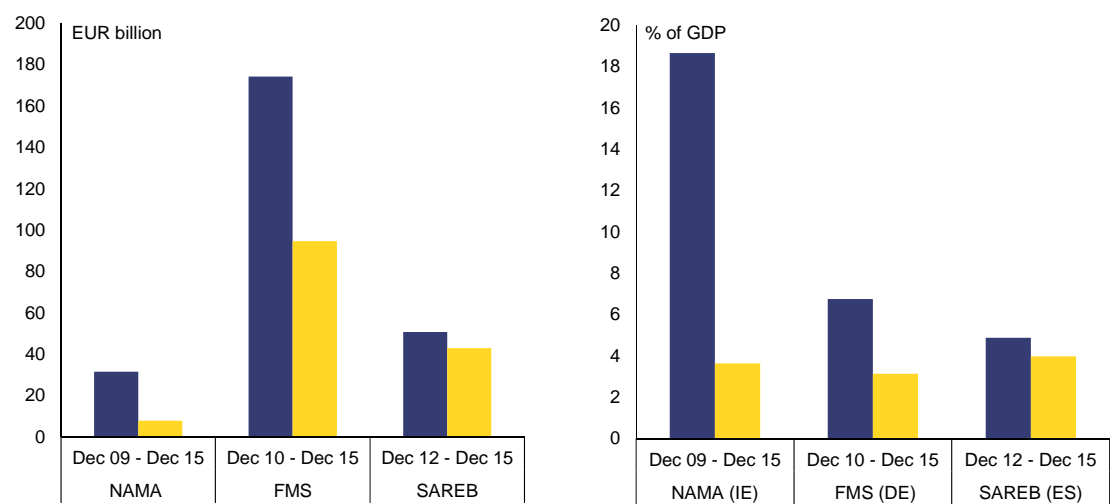
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1. INTRODUCTION

Graph 1.1: Value of initial and current portfolio



Source: AMECO, FMS, NAMA and Sareb

Following the global financial and economic crisis, several euro-area countries set up asset management companies (AMCs), also known as ‘bad banks’⁽¹⁾, to address banks’ growing non-performing loans (NPLs) that were undermining financial stability. In 2009, the Irish authorities created the National Asset Management Agency (NAMA). The German ones set up the FMS Wertmanagement (FMS) in 2010. In Spain, the Management Company for Assets Arising from the Restructuring of the Banking Sector (Sareb) was created in 2012⁽²⁾. All three AMCs took on impaired assets that were significant in absolute and relative terms to the size of their respective countries’ GDP (Graph 1.1). NAMA and Sareb acquired real-estate related assets from several banks, while FMS acquired different categories of assets, from real estate to structured products, from one banking group. The three AMCs are today at different stages of portfolio disposal. As in many countries public finances deteriorated strongly due to the economic downturn and banking sector bail outs, the design of the AMCs was highly influenced by the Eurostat fiscal accounting principles. Since the creation of the AMCs provided impaired asset relief by the state to the affected banks, their establishment also had to be approved under the European Commission’s State-aid rules. These rules were critical for the valuation of the assets transferred to the AMCs and for determining the accompanying banking sector reforms. The establishment of new AMCs or similar initiatives is a reality, a case in point being the NPL securitisation measure supported by state guarantees or Garanzia Cartolarizzazione Sofferenze (GACS), and the Atlante fund in Italy. This warrants a closer look at some of the already existing cases for policy purposes.

This paper seeks to identify key factors that underpin the success of AMCs. It does this by reviewing existing studies on the issues affecting the establishment of AMCs. It also provides a full overview of the three established AMCs’ institutional framework and operational strategies. The study also analyses the importance of the European regulatory framework, including recent updates to the Eurostat rules, State-aid guidelines and bank resolution rules, for the AMCs’ structure. It also provides a brief synopsis of GACS and the potential role of Atlante, a rescue fund established in April 2016, in helping Italian banks (Box 5.1). The paper attempts to assess the effectiveness of the AMCs in terms of achieving their objectives related to the disposal of their assets and the broader repair of the banking sector. NAMA has been in existence for longer and is the most advanced in terms of portfolio disposals, followed by FMS

(1) The term ‘bad bank’ is somewhat a misnomer because AMCs are by and large not real banks as they do not have a banking license and are not subject to the standard banking regulations.

(2) The three AMCs analysed were chosen because they were amongst those established within the euro area during the recent financial crisis. At the same time, they differ sufficiently to usefully illustrate different policy approaches in the set-up of AMCs.

and then Sareb. The latter has also faced a more difficult market environment of the sale of its assets and challenges related to new accounting rules.

The study finds that the type of assets transferred, along with the general macroeconomic environment, usually dictate the pace of disposal. This has been especially important for NAMA which has operated amid a strong pick-up in real-estate prices, while Sareb has only recently benefitted from a recovery in the real-estate market. FMS faces more challenges disposing of its assets due to their complexity and heterogeneity. All three AMCs have solid governance and management frameworks which underpin their performance. In terms of policy recommendations, the paper emphasizes the importance of clean asset documentation and a solid valuation process, a strong legal framework, efficient asset servicing and skilled staff. The financial backing of Irish, German and Spanish authorities has been crucial to these AMCs' progress, though it has come at a fiscal cost. The new Bank Recovery and Resolution Directive (BRRD) now limits the establishment of AMCs with State aid to only when a bank is in resolution and with a bail-in of creditors prior to transferring assets to an AMC. This constrains the design of future support modalities for banks burdened by large amounts of non-performing assets. In any case, AMCs should be created as instruments for bank repair and restructuring only alongside complementary banking sector measures.

This paper has six sections. Section 2 reviews the existing economic literature on the considerations surrounding the setup of an AMC. Section 3 provides an overview of the three AMCs analysed and a scene setter focusing on the economic and financial context of their establishment. Section 4 reviews the EU regulatory framework at the time as well as its subsequent changes. Section 5 evaluates the AMCs' efficiency so far in achieving their objectives and provides a snapshot of the Italian GACS and the Atlante fund. Section 5 concludes and draws policy lessons from the AMCs' work. The Annex serves as background as it gives the following information on the setup of NAMA, Sareb and FMS: their objectives, ownership, funding, structure, strategy, asset management specificities, governance and transparency aspects, servicing and other operational and legal considerations. It contains details that are often crucial for a thorough understanding of the AMC.

2. CONSIDERATIONS FOR THE SET-UP OF AMCS: LITERATURE OVERVIEW

The design of an AMC is conditioned by several factors, such as the amount and type of distressed assets as well as the size of the banking system (Aggarwal and Aritomo, 2012). Big banking systems with a large amount of distressed assets, especially if of the same type, will usually call for publicly-supported and centralised entities. The fiscal capacity of the government for additional borrowing and the prospects of involving private investors are likewise crucial as they determine the ownership structure of the AMC, and so is the political will or lack thereof, to support the state rescue of the banks.

Objectives

An AMC is an entity created to purchase, manage and ultimately dispose of distressed, usually non-performing assets from banks. It aims to spread existing losses over a longer period of time and maximise profits from sales. AMCs are typically part of a broader tool-kit of measures aiming at stabilising one or more banks, or even the whole financial system, and at restoring credit supply as the basis of an efficient allocation of capital in the economy. The goal is to have banks recognise losses from the sale of their distressed assets to the AMC often at a price below the book value, have them possibly undergo public or private recapitalisation, and re-start lending. The AMCs themselves focus on maximising the recovery value of acquired assets by disposing of them as the market normalises. However, combining this primary goal with other social initiatives, such as the provision of housing, can lead to conflicting goals for the entity (Ingves et al, 2004).

Rationale

Separating bad loans from performing assets allows bank managers to focus on standard bank lending (Landier and Ueda, 2009). Such carve-out reduces uncertainty for debt and equity investors, leading to improved valuation of the banks and lower banks' funding costs. Moreover, in cases where previous lending had been imprudent, the separation of the loan from the original lender can result in a more objective assessment of credit quality, and thus better valuation and credit discipline (Aiyar, Bergthaler, Garrido et al, 2015). When markets are very illiquid, an AMC can be critical for price discovery, fill the pricing gap and aid the development of a functioning market. The exchange of bad assets, usually for government bonds or government-guaranteed bonds, provides capital relief to the banks. Finally, the removal of toxic assets from banks' balance sheets can lead to an improvement in bank profitability (Woo, 2002).

Structure

A decentralised AMC means that the asset management is undertaken by the bank itself and these AMCs also tend to be private. Such an entity focuses only on one or more specific banks or specific asset classes, in any case on a smaller share of assets in the whole system. A decentralised AMC can take the form of an internal workout unit of a bank. Generally speaking, banks should be better placed to resolve NPLs than a centralised AMC as they already have the loan files and institutional knowledge of the borrower (Klingebiel, 2002). Leaving the distressed assets in the banks may increase incentives for banks to maximise the recovery value of bad debt. Byrne (2015) further distinguishes between such 'in-house' AMCs and 'single-purpose' entities set up by a government to deal with the assets from a single bank.

A centralised AMC involves one workout entity with some degree of public ownership (Klingebiel, 2002). This centralised, 'systemic' approach implies the pooling of a larger share of distressed assets in the financial system. Impaired assets are placed in a single entity that can benefit from economies of scale in terms of resources and expertise as well as a standardisation of workout practices. This results in an ability to attract investors searching for sizeable portfolios and to sell larger quantities of assets. Managing specific loans and assets may require different skills than those usually available in a bank (Ingves et al., 2004). A more permanent engagement of a larger team of specialists (i.e. for real estate or liquidation) is often necessary. Lastly, the establishment of a centralised AMC can help break the

sometimes toxic borrower-lender link, resulting in more leverage over borrowers and in a more efficient loan collection (Klingebiel, 2002).

Ownership

With regards to ownership, AMC's can be public or private entities, or a mixture of both. When the owners are the banks themselves, it raises some issues because ultimately, the risk of losses on the impaired assets is still with the banks. The operational division line with the 'main' bank can be defined in different ways, but the balance sheet remains consolidated. Private AMC's can also benefit from state guarantees. This is because when a significant amount of distressed assets has to be transferred over a short time period, it can be difficult to find a private investor without government guarantees. In this case, the government may be in a better position to (partly) own the AMC itself and benefit from any possible future price rise of the AMC's assets (Ingves et al, 2004). Public AMC's, or partly publicly-owned AMC's, are created by and accountable to state authorities and ultimately, the taxpayer. Here, the state bears risks as well as potential gains, with repercussions on the sovereign's fiscal position. Claw-backs can be introduced to safeguard public funds in the case of losses (Aiyar et al, 2015). Public entities can benefit from special legal prerogatives, but are also more prone to being politicised (Gandrud and Hallenberg, 2013).

Selection of assets

The choice of assets eligible for transfer is very important. The AMC should purchase assets that it can manage more effectively than the bank (Woo, 2002). The transfer of whole asset portfolios would stem from the need for banks to terminate their non-core activities, so strategic and non-strategic assets need to be identified. It is also possible to impose size limits on the assets transferred: it may be more efficient to leave smaller loans with the bank. If the affected bank is to remain operational, the asset transfer should be a one-off event and not an open-ended process, to prevent moral hazard (Ibid.). Securitisation of assets can also be made easier when assets are dealt with in larger quantities and when underlying loan portfolios are more diversified.

Funding

Funding usually comes in the form of state-guaranteed senior debt, subordinated debt or common equity. Risk management and hedging needs derive from the fact that purchased portfolios often come with funding mismatches that need to be covered. There is the option of having a banking license as it can improve access to capital markets (thus lowering funding costs) and enable direct access to central bank funding. On the other hand, it leads to higher capital requirements and enhanced regulatory supervision.

Asset management and disposal

The portfolio disposal strategy should reconcile the need for fast disposals with that of obtaining a higher return. A slower disposal exposes the AMC's to the risk of further deterioration of asset values, as well as higher funding needs for longer. Aggarwal and Aritomo (2012) suggest that highly capital intensive assets should be fixed (restructured or hedged) and sold as soon as possible. On the other hand, it is better to wait with the sale of medium-term performing assets that are not very capital-consuming, illiquid long-dated assets or assets whose fixing and/or sale costs would be prohibitively high. The release of a large volume of assets may lead to a dampening of prices and destabilization of the market. That being said, ensuring sufficient market supply and setting price floors can also help normalize market expectations (Woo, 2002), which is why these two trends should be carefully balanced. Immediate actions upon the establishment of the AMC include data collection and clearing, categorization and prioritization of assets and the setting-up of specialized work-out teams. It is important to identify prospective buyers and tailor the assets for sale, taking into consideration securitization options if available. A 'factory' approach that implies an active management of assets is generally considered preferable to a 'warehouse' approach that

relies mostly on time in order for assets to recover in value. An example of the former would be the completion of unfinished buildings whenever it makes sense with respect to the costs, so as to increase their market value and facilitate disposal at a profit.

Governance and transparency

It is necessary to establish an operational structure that will guarantee independence and efficiency. Due to the large amounts of assets it may handle, an AMC should be insulated from political interference (Ingves et al., 2004). AMCs often hire new staff in order to signal a break with the past and position themselves as standalone units. The AMCs institutional independence should be protected while preserving its accountability to the public through regular reports and audits, especially if it has received state support. As AMCs often do not hold banking licenses, they are not necessarily under central bank supervision, which is why their supervisory framework should be defined. The structure, business model and mandate of the entity need to be communicated clearly to all stakeholders.

Legal aspects

An effective legal system is one of the prerequisites for a successful operation of AMCs as the distressed assets often involve disputed claims. The AMC must assume the role of the former lender, which is obtained by ensuring a clean transfer of titles and the removal of legal obstacles, such as any requirement of the debtor's permission that would impede a transfer of assets (Parker, 2011). The legal framework should facilitate an orderly debt resolution without impediments for realization of collateral when needed, and strike the balance between protecting debtors and lenders alike. The courts should be adequately equipped for the handling of such cases without major bottlenecks that could hamper the timeliness or quality of the process. According to Klingebiel (2002), a deficient regulatory environment was often the reason for the underperformance of AMCs, which is why it is important that relevant foreclosure, bankruptcy and seizure of collateral frameworks are established.

Incentives

The specific nature of AMCs means that the more successful they are in achieving their mandate, the faster they are wound down. Ingves et al (2004) point out the need to develop the right set of incentives within their governing bodies and employees, as staff recruitment and retention are problems that often arise. Additional challenges pertain to public AMCs whose staff falls under a public salary system which is less flexible. In order to correct this, a mix of salary and performance-based bonuses can be implemented (Parker, 2011). Staff retention policies are likewise important to ensure the consistency in the quality of work of the AMC, so attention should be paid to employee development, compensation schemes and career prospects.

Other operational issues

Creating a separate AMC can be very costly also because separate organization structures and IT systems need to be established (Brenna et al, 2009). Some of the AMCs services may be outsourced to the banks themselves or other providers. For instance, the transfer and processing costs for an AMC of working out some smaller assets might be larger than having these assets stay with the 'good bank' (Klingebiel, 2000). High-quality and cost-effective information technology (IT) systems have to be enabled to ensure an optimal portfolio management. Furthermore, data cleansing processes are very important for correct asset pricing and for the sale process. They can be tedious as they often involve tracking down initial credit applications as well as additional actions such as renegotiations. The files inherited from banks, including collateral documentation, need to be reviewed and completed in case of missing information. This is not an easy task as it involves the engagement of numerous specialized experts (surveyors, civil engineers, attorneys, etc.) implying additional time and costs.

3. SCENE SETTER

3.1. MACROECONOMIC AND FINANCIAL CONTEXT

Although the establishment of NAMA, Sareb and FMS was a consequence of the 2008 global economic and financial crisis, the three AMCs were designed under differing circumstances. Being a small open economy with a domestic banking sector that had grown to over 470% of GDP, the initial impact of the crisis was the most severe in Ireland. Economic output contracted sharply in 2008/09, most of the financial system was significantly affected by a liquidity crunch and the amount of non-performing loans soared (Table 3.1). NAMA was established in late 2009 to carve out impaired assets from all but one of the domestic banks ⁽³⁾. On the other hand, the Spanish banks weathered the onset of the financial crisis in 2008 due to high capital buffers and a less severe economic downturn. The Spanish banking crisis was different to Ireland's: though also systemic in nature, about 70% of the financial sector in Spain did not need public financial support. However, growth remained sluggish for longer in Spain. This caused the amount of impaired assets to rise further on banks' balance sheets, so by 2012 Sareb was created as an asset relief measure for nine state-owned and private banks facing capital shortfalls. In Germany, the more diversified banking sector did not undergo such an acute systemic shock as in Ireland and Spain. The German FMS was established in 2010 to deal with a single nationalised bank group, the HRE group, whose business model was particularly affected by the global liquidity crunch.

The financial crisis in Ireland was mostly a result of one of the largest real-estate bubbles in advanced economies in recent times, fuelled by excessive bank lending to firms and households. The domestic banks' balance sheets expanded due to lending to property developers with large portfolios consisting of office buildings, retail and housing estates. Banks funded their lending mostly by borrowings in international wholesale money markets, which is why their freeze in 2007/08 led to liquidity problems. As the magnitude of overvaluation of the property market came to light, banks' solvency also suffered greatly. In 2008, the government issued a 'blanket' guarantee on the liabilities of the six main domestic banks ⁽⁴⁾, recapitalized Bank of Ireland (BOI), Allied Irish Banks (AIB) and Anglo Irish Bank (Anglo), and then nationalized Anglo and Irish Nationwide Building Society (INBS) ⁽⁵⁾. The systemic bank distress prompted the government to set up NAMA in December 2009 to carve out the toxic commercial property assets from the banks' balance sheets. The European Commission approved NAMA's establishment under its State-aid rules in February 2010 ⁽⁶⁾. Due to acute budgetary pressures resulting from banking sector support and a loss of investor confidence, in November 2010 Ireland requested a three-year EUR 85 billion financial assistance programme from the European Financial Stability Facility (EFSF) and the International Monetary Fund (IMF).

Similar to the Irish case, Spanish banks significantly increased their exposure to the housing and construction sector in the mid-2000s. The burst of the real-estate bubble in Spain in 2008 led to severe bank distress due to the high amount of problematic real estate loans they held. However, not all banks were affected in the same way. First, the savings banks (cajas de ahorros) were more exposed to the domestic real-estate market, suffered from serious corporate governance deficiencies and had to be recapitalised and/or nationalised. Second, there was a group of small and medium-sized highly leveraged banks that were mostly exposed to the corporate sector. Third, there were two large banks which managed to keep adequate capital levels, mostly due to having a significant part of their operations abroad. Several savings banks underwent restructuring and their number was reduced to one fourth. The public funds used for this were channelled through the Bank of Spain's Fondo de Reestructuración Ordenada Bancaria (FROB - the Fund for the Orderly Restructuring of the Banking Sector), established in 2009. In June

⁽³⁾ Permanent TSB did not participate as it was a retail bank with a negligible involvement in commercial real estate, so there were no significant assets to be transferred to NAMA.

⁽⁴⁾ The blanket guarantee scheme was introduced in September 2008. In 2009 it was replaced with the reduced-scope Eligible Liabilities Guarantee (ELG) scheme that ended in March 2013.

⁽⁵⁾ Anglo and INBS were merged into the Irish Bank Resolution Corporation (IBRC), which was liquidated in 2013.

⁽⁶⁾ See EC decision State aid N725/2009 – Ireland, Establishment of a National Asset management Agency (NAMA): Asset relief scheme for banks in Ireland, OJ C 94, 14.04.2010.

2012, the government requested an 18-month financial assistance programme resulting in EUR 100 billion committed from the EFSF (though only EUR 39 billion was finally disbursed). The financial assistance programme included the creation of Sareb in November 2012 so that credit institutions in financial difficulties that received public support could offload their real estate assets.

The sharp downturn in the German economy in 2008/09 was caused by the global economic crisis that particularly affected the export-oriented manufacturing sector. Some segments of the German banking sector were also exposed to the global financial turmoil, mostly due to the increase in wholesale lending to foreign banks by the Landesbanken (state-owned banks) (Detzer and Heine, 2014). Still, the diversified structure of the banking sector, with public, cooperative and private banks as well as regionally, nationally and internationally focused banks helped prevent a more severe systemic crisis. To safeguard the banks, the government established the Special Financial Market Stabilization Fund (SoFFin - Sonderfonds Finanzmarktstabilisierung) to provide government guarantees, recapitalize banks and purchase distressed assets. In parallel, the Financial Market Stabilisation Agency (FMSA - Bundesanstalt für Finanzmarktstabilisierung) was established to manage SoFFin. The private HRE group had its main focus on international commercial real-estate finance. By purchasing the Irish DEPFA bank in 2007, it entered infrastructure and public sector finance activities. The flaw of HRE's business model – financing long-term investments with short-term interbank funding – was aggravated by the inclusion of DEPFA, and made HRE vulnerable to the contraction in money markets in 2007/08. Under the auspices of FMSA and SoFFin, FMS Wertmanagement (FMS) was created as an AMC to deal with toxic assets from the HRE Group ⁽⁷⁾. After several capital injections, the HRE group was nationalized in 2009 and in October 2010 its portfolio was transferred to FMS.

⁽⁷⁾ Similarly, the Erste Abwicklungsanstalt (EAA) was established to take over assets from the West LB bank.

Table 3.1: Macroeconomic indicators in selected countries

	2008	2009	2010	2011	2012	2013	2014	2015
NPLs (in % of total loans)								
Ireland	1.9	9.8	13.0	16.1	25.0	25.7	20.7	14.9
Spain	2.8	4.1	4.7	6.0	7.5	9.4	8.5	6.3
Germany	2.9	3.3	3.2	3.0	2.9	2.7	2.3	n.a.
Real GDP growth (in %)								
Ireland	-2.2	-5.6	0.4	2.6	0.2	1.4	5.2	7.8
Spain	1.1	-3.6	0.0	-1.0	-2.6	-1.7	1.4	3.2
Germany	1.1	-5.6	4.1	3.7	0.4	0.3	1.6	1.7
Private sector credit growth (in %)								
Ireland	14.0	-4.3	-7.9	-10.0	-4.4	-3.8	-7.2	-10.1
Spain	11.3	1.9	-0.4	-0.1	-3.4	-9.3	-7.2	-3.1
Germany	5.2	2.1	-0.5	1.3	1.8	0.4	0.6	1.8
New private sector credit growth (in %)								
Ireland	-13.5	-14.5	-50.8	-47.0	-26.8	1.1	-0.3	26.1
Spain	-11.1	-8.1	-22.1	-23.4	-8.7	-19.2	-6.6	12.0
Germany	21.5	-8.2	-20.9	-0.9	-2.1	-2.6	0.8	9.9

(1) Yellow denotes the year NAMA was created in Ireland, pink the year FMS was created in Germany and blue the year Sareb was created in Spain.

(2) According to the Eurostat House Price Index. For 2015, average growth in the period 2015Q1 to 2015Q3.

Source: AMECO, Data Insight, ECB, Eurostat, IMF

3.2. OVERVIEW OF NAMA, FMS AND SAREB CASES

In terms of the three AMC's structure, assets and funding, there are more similarities between NAMA and Sareb than between either of them with FMS. This is in part due to the nature of the crisis that affected Ireland and Spain - systemic financial distress with the burst of a real-estate bubble. Moreover, both NAMA and Sareb were established as majority privately-owned entities while FMS was designed as an entirely public AMC (Table 3.2). See Section 4.1 for more on the fiscal considerations for the ownership structure of AMCs. For more details regarding the set up the AMCs, such as asset disposal and governance, see Annex 1.

Table 3.2: Ownership and asset overview

AMC	Type of ownership	Equity holders	Type of assets transferred
National Asset Management Agency Investment Ltd.	51% private, 49% public	51% three private companies 49% National Asset Management Agency (NAMA)	loans properties as securities for land and development and associated loans
FMS Wertmanagement	100% public	100% Financial Market Stabilisation Fund (SoFFin)	commercial real estate, commercial real estate-workout, infrastructure, public sector and structured products
Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria (Sareb)	55% private, 45% public	14 national banks 2 foreign banks 10 insurance companies 45% Fund for Orderly Bank Restructuring (FROB)	property development loans property

Source: FMS, NAMA and Sareb

In terms of operational structure, NAMA and Sareb are centralised, and FMS is a single-purpose entity. These AMC's operational models are defined in special legislation. They are established as limited liability companies that operate through one or several special purpose vehicles (SPVs) and sometimes, they have special status or prerogatives. All three AMCs have no banking license nor need to comply with regulatory capital requirements. NAMA operates through multiple SPVs controlled by a Master SPV, held by the National Asset Management Agency Investment Limited (NAMAIL, a public-private partnership). NAMA holds a 49% stake in the Master SPV as well as a veto over its strategic decisions. FMS is defined as a 'structurally and financially independent public law entity operating under the FMSA' (Braakmann and Forster, 2011). It is split into two main operative entities: the FMS Service Company and DEPFA Bank plc, which is in wind-down. Sareb is 45% state-owned through FROB.

There are differences among the three AMCs with regards to the size of the asset portfolios purchased (Table 3.3). While the amount of assets transferred (EUR 175.6 billion) makes FMS one of the largest AMCs established, its value was just below 7% of the German GDP in 2010. In contrast, while the book value of the assets transferred to NAMA was less than EUR 75 billion, this represented 44% of Irish GDP in 2009. In terms of scope, NAMA took over assets from all but one of the domestic banks, Sareb acquired assets from nine small to medium-sized banks and FMS focused on a single banking group, taking over most of its assets. The criteria for the assets to be transferred to the AMC in some cases included a minimum value. For NAMA, two participating banks (AIB and BOI) had a minimum loan threshold of EUR 20 million in order to cap the number of eligible assets. As to Sareb, only real estate properties with a value of over EUR 100,000 and financial assets over EUR 250,000 were transferred.

Table 3.3: Selected indicators of the AMCs analysed

	NAMA	Sareb	FMS
Year of creation	2009	2012	2010
Year due to be unwound	2020	2027	no specific date
Assets transferred (1)			
Book value (EUR bn)	74.2	107.4	175.6
in % of GDP	43.8	10.3	6.8
in % of banking assets	9.3	3.0	2.3
Transfer value (EUR bn)	31.6	50.8	175.6
implied haircut in % (2)	57.4	52.7	0.0
Percent of assets disposed (3)	75.3	15.4	46.1
Size of the domestic banking system (EUR bn) (1)			
	Ireland	Spain	Germany
Size of the domestic banking system (EUR bn) (1)	801	3595	7517
in % of GDP	472.8	344.7	291.3

(1) Assets and nominal GDP as of the year when the AMC was set up.

(2) Equals percent difference between transfer value and book value.

(3) As of end-2015.

Source: CBI, ECB, Eurostat, FMS, NAMA and Sareb

Regarding asset type (Figure 3.1), NAMA and Sareb are similar as they purchased real-estate related assets. In NAMA's case, it was property and secured development loans while in Sareb's, it was loans as well as actual properties. FMS, on the other hand, acquired a much more complex portfolio consisting of public sector bonds and loans, structured products, commercial real estate and infrastructure loans. In terms of geographical composition, while Sareb took over exclusively Spanish assets, NAMA bought a mix of assets, located in Ireland but also the UK (about a third). Over half of NAMA's property portfolio

was located in London and Dublin, while Sareb's assets were more dispersed across Spain. FMS's portfolio is very diversified both geographically and currency wise.

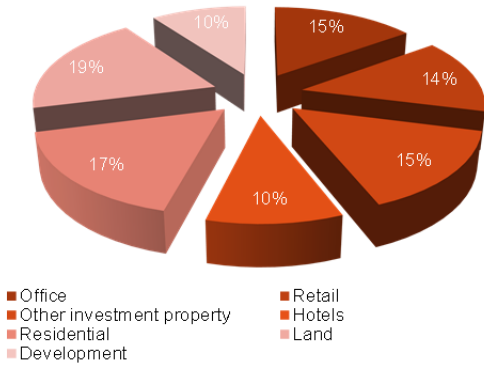
The three AMCs have recruited a lot of specialised skilled staff with private sector experience. NAMA and Sareb mostly outsource asset servicing activities, while FMS does its own servicing. NAMA initially left servicing with the participating bank. Now, most of its primary servicing (loan administration, charging of interest/fees) is outsourced to Capita Asset Services and AIB for a fee. Special servicing (case management, interaction with debtors) is mostly done by NAMA directly, while a small part is also done by Capita. When Sareb was set up, it used the contributing banks as servicers but in 2015 it moved the administration and management of loans to four private companies. Due to the complexity of the portfolio, FMS created its own service provider in 2013. The FMS Service Company capitalised on the pooling of internal resources and existing expertise as most of its employees are former HRE staff.

The liabilities of NAMA consisted of EUR 30.2 billion in state-guaranteed senior bonds, EUR 1.6 billion in subordinated bonds whose pay-outs are linked to NAMA's performance ⁽⁸⁾ and EUR 100 million in equity. Sareb was funded originally with EUR 50.8 billion in state-guaranteed senior debt, EUR 3.6 billion in subordinated debt (15-year callable bonds convertible into equity) and EUR 1.2 billion in equity held by 26 banks and insurance companies. FMS has a different funding strategy due to the large refinancing needs stemming from the profile of its assets. The original EUR 124 billion of SoFFiN (government) bonds were replaced by FMS's own funding by 2011. FMS now funds itself through money market instruments and capital market issuances (bonds) at favourable rates due to a sovereign guarantee.

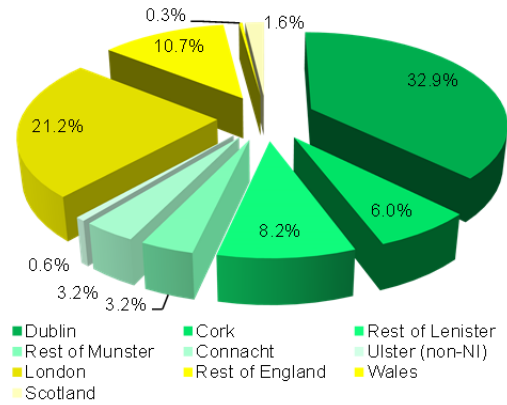
⁽⁸⁾ NAMA decided to pay interest to the holders of its subordinated debt in 2014, 2015 and 2016. While the payment of the coupon is discretionary, the interest rate is the 10-year Irish government bond rate on the day of first issue plus a margin of 0.75%.

Graph 3.1: Asset composition

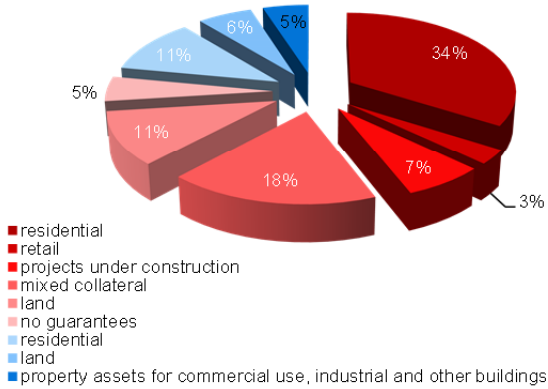
NAMA's portfolio consisted of commercial real estate loans...



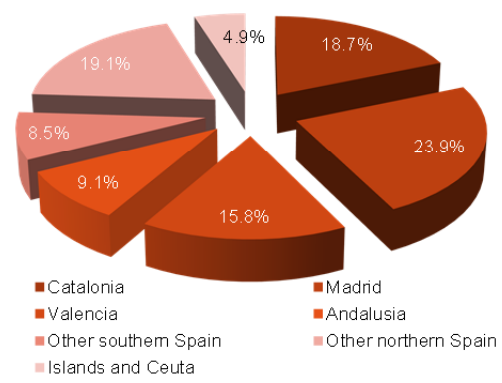
...connected mostly to properties in Irish and British urban centres.



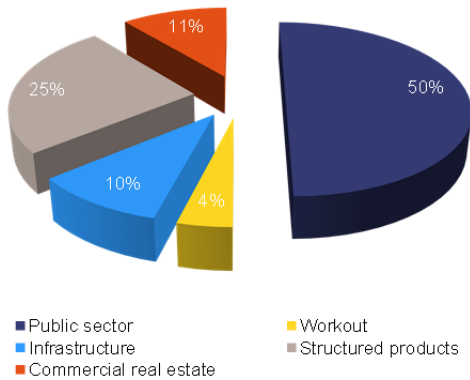
SAREB purchased loans as well as actual real estate...



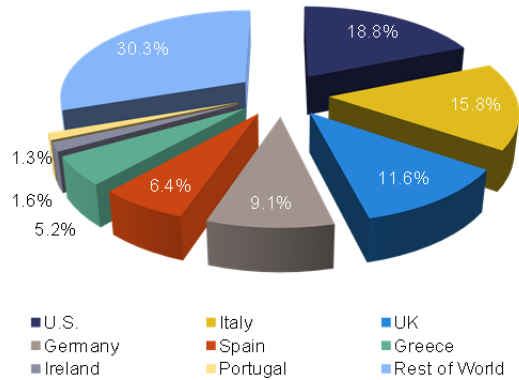
...its assets being exclusively Spanish, and dispersed throughout the country.



FMS has a very diversified portfolio that includes complex products...



...that are located all over the world.



Source: FMS, NAMA and Sareb

4. THE EU REGULATORY FRAMEWORK

4.1. THE IMPACT OF EUROSTAT FISCAL DATA RULES

Eurostat's rulings strongly influenced the shape of some of the AMCs established in Europe, especially in countries where the absorption capacity for additional public debt was limited, such as Ireland (Gandrud and Hallerberg, 2014). They had a significant impact on NAMA and Sareb, but not on the German AMCs, Erste Abwicklungsanstalt (EEA) and FMS Wertmanagement.

In 2009 Eurostat published a decision on the fiscal impact of measures such as bank recapitalizations, guarantees, liquidity assistance and AMCs. Debt issued by publicly owned entities would be counted towards public debt and not as contingent liabilities. However, Eurostat provided conditions for *special purpose entities* to be classified outside the general government sector even if they benefitted from government guarantees. Such entities would need to have the following features: 1) majority privately owned, 2) temporary, 3) established with the sole purpose to address the financial crisis, 4) autonomous in decision-making and 5) acquiring assets with a substantial haircut on the purchase price. The creation of such privately-owned entities funded by the government would still increase sovereigns' contingent liabilities. Eurostat also decided to treat capital injections into banks as deficit increasing capital transfers (government expenditure), and not as financial transactions (acquisition of equity) ⁽⁹⁾.

In Ireland, NAMA was classified in the general government sector while a 51% privately-owned SPV, NAMAIL, was created in 2009 to comply with the rules for classification as a financial corporation ⁽¹⁰⁾. This NAMA SPV ⁽¹¹⁾ was temporarily established with the sole purpose of purchasing and managing the acquired impaired loans from banks. Its private ownership status was brought into question in 2010 and 2012 when two of its three investors were nationalized, de facto increasing the public ownership stake in the SPV. This is why the Irish Life & Permanent's (ILP) and Allied Irish Banks' (AIB) stakes ⁽¹²⁾ were promptly sold to foreign investors.

The likelihood of NAMA making a significant loss for the government was mitigated by three measures: the lack of government guarantees on its subordinated debt, a 'claw-back provision' in the form of a bank-levy on participating banks ⁽¹³⁾, and most importantly, a purchase price for the impaired assets that implied an average haircut of 57%. The authorities projected that it could only make a loss if the market value of the assets acquired increased by less than 10% over its envisioned ten-year lifetime. The large haircut applied to the asset purchase was a significant hit for the banks' capital levels. The necessary recapitalisation of the banks that followed led to a large increase in general government debt. The Irish government's capital injections into the banks amounted to 25.7% of GDP in the period from 2008-2014 ⁽¹⁴⁾, and contributed to a rise in the budget deficit from 13.8% of GDP in 2009 to 32.3% of GDP in 2010 (Table 4.1). In addition, NAMA's government-guaranteed senior debt issued in 2009 to finance the purchase of impaired bank assets represented almost 18% of GDP in additional contingent liabilities for the government at the time, though it was not counted towards general government debt.

In Spain, government debt levels were rising fast from 2008, in part due to the recapitalisation of the banks. To minimize further direct impact on public debt levels, the creation of Sareb in 2012 was done upon extensive consultation with Eurostat in order to ensure the fulfilment of the afore-mentioned criteria. A significant haircut (an average 53%) was applied in calculating the transfer price of the assets

⁽⁹⁾ See ESA95 manual on government deficit and debt, <http://ec.europa.eu/eurostat/documents/3859598/5874253/KS-BE-03-003-EN.PDF/84dc99bc-bae0-43dd-ba16-3b039f35e158>.

⁽¹⁰⁾ The initial private investors in NAMA were Irish Life & Permanent, New Ireland Assurance (Bank of Ireland Group) and a group of clients of Allied Irish Banks Investment Managers. They each provided EUR 17 million of the equity.

⁽¹¹⁾ For simplicity, in this paper we refer to NAMA when talking about its SPV.

⁽¹²⁾ The AIB stake was held by AIB Investment Managers, which in turn was sold to a third party. In this way the stake was transferred as part of a larger sale.

⁽¹³⁾ In the event of NAMA making a loss, a tax surcharge would be imposed on participating institutions. See NAMA Act, Section 225, <http://www.irishstatutebook.ie/eli/2009/act/34/enacted/en/pdf>.

⁽¹⁴⁾ This compares to a euro-area average of 2.1% of GDP during the same period.

purchased by Sareb. The AMC was also established as 55% privately-owned. The result was that the government-guaranteed senior bonds issued to fund Sareb, representing almost 5% of GDP at the time, were certified as a contingent liability.

In contrast to Ireland and Spain, the German government established two entirely publicly-owned AMCs (EEA and FMS). The creation of FMS raised general government debt by about 8 percentage points of GDP in 2010, but since there was no haircut on the transfer price of the assets, there was no need for capital injections into the concerned bank, the HRE group (Braakmann and Forster, 2011). At the time, political considerations were also important for saving the failing banks West LB and HRE outweighed the negative fiscal impact of public ownership of the two AMCs. HRE was considered a vital bank for the Pfandbriefe⁽¹⁵⁾ market. In the case of EEA, due to the fact that the related failing bank, West LB, was owned mostly by public savings banks, it was important to several regional economies. At the time of the AMCs' creation, the fact that Germany's general government deficits were much lower than Ireland's and Spain's meant that it was able to absorb the one-off increase in public debt.

Table 4.1: Fiscal indicators in selected countries

	2008	2009	2010	2011	2012	2013	2014	2015
General government debt (in % of GDP)								
Ireland	42.4	61.8	86.8	109.1	120.1	120.0	107.5	93.8
Spain	39.4	52.7	60.1	69.5	85.4	93.7	99.3	99.2
Germany	64.9	72.4	81.0	78.3	79.6	77.2	74.7	71.2
of which FMS debt			7.4	6.9	5.9	4.7	4.7	
Contingent liabilities (senior debt)								
NAMA, EUR billion		30.2	28.7	29.1	25.4	22.7	13.6	8.1
NAMA, in % of GDP		17.8	17.2	16.7	14.6	12.6	7.2	3.8
Sareb, EUR billion					50.8	49.0	45.5	45.0
Sareb, in % of GDP					4.9	4.8	4.4	4.2
General government balance (in % of GDP)								
Ireland	-7.0	-13.8	-32.3	-12.6	-8.0	-5.7	-3.8	-2.3
Spain	-4.4	-11.0	-9.4	-9.6	-10.4	-6.9	-5.9	-5.1
Germany	-0.2	-3.2	-4.2	-1.0	-0.1	-0.1	0.3	0.7

(1) Yellow denotes the year NAMA was created in Ireland, pink the year FMS was created in Germany and blue the year Sareb was created in Spain.

Source: AMECO, NAMA, German Ministry of Finance and Sareb

Recent Eurostat changes

Eurostat's European System of National and Regional Accounts (ESA 2010) led to a further tightening of the rules for AMCs to be classified outside of the general government sector. A stronger emphasis was put on the entity that effectively bears the financial risk (and whether it is ultimately the sovereign), regardless of the AMCs' ownership structure. The new rules imply that if an AMC is mostly privately-owned, but its funding benefits from a government guarantee, the AMC would be classified within the general government. Moreover, the new system excludes the possibility of establishing AMCs with a banking license in order to keep them off the public budget (Gandrud and Hallerberg, 2014).

⁽¹⁵⁾ A type of German bond collateralized with long-term assets, usually property mortgages. The Pfandbrief bonds make a substantial share of the German bond market.

4.2. STATE AID AND BURDEN SHARING CONSIDERATIONS

AMCs need to abide by EU State-aid regulations when acquiring impaired assets from banks. The transfers can either not involve State aid or involve State aid, which - under certain conditions – can be declared compatible under Article 107(3)(b) of the Treaty of the Functioning of the European Union (TFEU) ⁽¹⁶⁾ ‘to remedy a serious disturbance in the economy of a Member State’. The Commission’s Impaired Asset Communication (IAC, 2009) ⁽¹⁷⁾ sets out in detail the State aid compatibility criteria for the transfer of impaired assets. It defines impaired asset relief as any action that ‘frees the beneficiary bank from the need to register either a loss or a reserve for a possible loss on its impaired assets and/or frees regulatory capital for other uses’. The restructuring required under State aid rules for a bank which receives State aid, also in the form of impaired asset measures, is defined in the 2009 Restructuring Communication ⁽¹⁸⁾.

The IAC defines the following criteria for asset relief measures to comply with State-aid rules:

- There should be *full ex-ante transparency and disclosure of impairments* and an upfront viability assessment of banks, ‘with appropriate identification of the problems’.
- There ought to be adequate *burden sharing of the costs* related to the transfer of assets between the government and the banks’ shareholders and creditors. When setting the transfer price, the haircut applied has to make banks recognize losses. Ideally, the burden sharing would be ensured ex-ante and bank shareholders would be bailed in. If this is not possible ⁽¹⁹⁾, banks should be made to contribute at a later stage by, for example, introducing claw-back clauses.
- There should be an *alignment of incentives* for distressed banks with public policy objectives. The timeframe for the bank to participate in asset relief schemes should be limited to six months from the launch of the AMC scheme. This is to encourage a rapid resolution and to avoid moral hazard.
- When determining the *eligibility of assets*, there should be a balance between restoring financial stability and the need to return to normal market functioning in the medium-term. Eligible asset classes are defined as those that have caused the financial crisis and have become illiquid, implying a broad scope of assets.
- The *valuation* of impaired assets should follow a general methodology and be coordinated in advance with the Commission, who might also consult experts on the valuation methods. It should be based on all information known *at the time when the valuation is undertaken*.
- The *management of assets* should feature a clear functional and organisational separation between the beneficiary bank and the assets, to prevent conflicts of interest.
- A *restructuring plan* for each beneficiary bank has to be approved by the Commission. The plan should focus on restoring the bank to viability, on the burden sharing arrangements and on the measures to limit possible distortions to competition.

⁽¹⁶⁾ See Consolidated version of the Treaty on the Functioning of the European Union, OJ C 326, 26.10.2012, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_2012.326.01.0001.01.ENG

⁽¹⁷⁾ See Communication from the Commission on the treatment of impaired assets in the Community banking sector (2009/C 72/01), <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:072:0001:0022:EN:PDF>.

⁽¹⁸⁾ See Commission communication on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules, OJ C 195, 19.08.2009., <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:195:0009:0020:EN:PDF>.

⁽¹⁹⁾ This may not be possible when a bank is in severe financial distress.

According to the IAC, the valuation and transfer price of the impaired assets are critical in determining the presence and the amount of State aid. If the transfer price of the assets is equal or lower than the market value at the time of the transfer, the creation of the AMC does not imply State aid. If however, the transfer price exceeds the market price, the impaired asset measure involves State aid. It can be declared compatible if the transfer price of the assets is not higher than the real economic value (or underlying long-term economic value) of the assets. The real economic value can be based on the discounted cash flow projections of the assets until its maturity ⁽²⁰⁾. The difference between the transfer price and the market price of the assets represents State aid (Graph 4.1). In cases where it is very complex to forecast developments in prices (due to illiquid markets for instance), uniform haircuts to asset classes can be used to approximate the real economic value of assets. In general, the impaired asset measure would be State aid compatible if the transfer price would be equal or lower than the real economic value as this ensures burden sharing by the banks: since the price is set below the book value (the price of the asset on the bank's balance sheet), banks need to write-off the difference between the book value and the transfer price. Setting the transfer price below the real economic value can provide compensation to the authorities for risk, in the form of a possible upside asset appreciation. To establish the amount of State aid (transfer value minus market value), the asset transfer needs to be preceded by an independent and comprehensive assessment of the real economic value and the market price of the distressed assets.

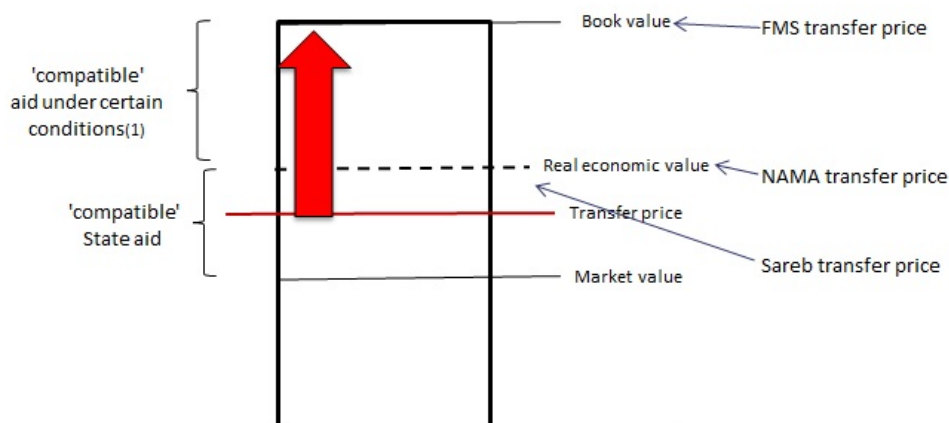
In certain exceptional cases, the IAC ⁽²¹⁾ provides that an impaired asset measure could be declared compatible even if the transfer price is above the real economic value. This would be allowed if the bank can contribute at a later stage to the losses for instance via recovery or claw back clauses, or if it offers more extensive restructuring measures, or presents an orderly winding-up plan. Moreover, in order for aid included in an impaired asset measure to be compatible, the requirements stemming from the 2009 Restructuring Communication need to be fulfilled too. In particular, this includes the return of the good bank to long-term viability, or – if this is not possible – its orderly winding down.

⁽²⁰⁾ The real economic value corresponds to the net present value of the sum of expected cash flows (interest payments and principal payments plus corresponding losses) and the appropriate discount rate, which is based on the risk-free rate plus a risk premium. For more discussion on the real economic value see Boudghene and Maes, 2012.

⁽²¹⁾ See points (24) and (25) of the IAC.

The three AMC cases

Graph 4.1: Portfolio of impaired assets, valuation and State aid



(1) These conditions include claw back clauses, in-depth restructuring and/or liquidation.

Source: Commission services

In the Irish case, the State aid criteria were respected. The Commission agreed with the authorities on a methodology to determine the transfer pricing of the distressed assets for NAMA. The decision on the establishment of NAMA was authorised by the Commission in early 2010⁽²²⁾. Subsequently, the Commission also approved the actual transfer price for the nine tranches of assets transferred to NAMA between 2010 and 2012. *Loans were transferred to NAMA at a price equal to their real economic value* upon a valuation based on information available in November 2009. Thus, this was ‘compatible’ State aid as the transfer prices were higher than the prevailing market values but not higher than the real economic value. To limit the State aid, burden sharing with junior (subordinated) bondholders in the participating banks was introduced, the surviving banks had to present and implement restructuring plans approved by the Commission, and two of the participating banks were wound down⁽²³⁾.

In Spain, the State-aid criteria were also respected. More specifically, State aid rules were implemented as the Commission closely monitored the methodology for measuring the value of the impaired assets transferred to Sareb at end-2012 and 2013 under the EU financial assistance programme. The Commission, assisted by external experts, found the asset transfer in line with State aid rules. The transfer value was based on the estimated long-term real economic value of the assets and then a discount was applied, also to account for aspects such as expenses to be assumed by the AMC and the negative short-term outlook for divestment of the assets. *The transfer price was about 5-10% below the projected real economic value of the assets*, hence State aid was ‘compatible’. A conservative transfer price ensured remuneration to the government in the form of potential upside in asset value⁽²⁴⁾. Moreover, in its State aid decision on the Spanish banks⁽²⁵⁾, the Commission took positive note of the burden sharing of equity and subordinated debt holders of the banks, acknowledging that the capital need was further reduced through bank divestments. Participating banks also had to present restructuring plans to the Commission.

⁽²²⁾ See Establishment of a National Asset Management Agency (NAMA): Asset relief scheme for banks in Ireland, State aid N725/2009 – Ireland, OJ C 094, 14.04.2010.

⁽²³⁾ The Commission also agreed there was adequate burden sharing and remuneration to the government as the purchase price was based on a discount rate equal to the Irish government bond yield (risk-free rate) plus a 170 basis points margin to cover for the risk of additional losses.

⁽²⁴⁾ The banks received low-yielding bonds in exchange for their assets. The Commission considered that this also helped address the burden sharing criteria for State aid.

⁽²⁵⁾ See State aid SA.35253 (2012/N) – Spain Restructuring and Recapitalisation of the BFA Group, http://ec.europa.eu/competition/state_aid/cases/246568/246568_1406507_239_4.pdf.

Unlike in the previous two cases, the Commission found that the asset transfer from HRE to FMS in 2010 that the transfer price exceeded the real economic value by EUR 16.2 billion as *the transfer price was equal to the book value*. However, the Commission could declare the aid compatible given the partial claw back and the in-depth restructuring (including significant downsizing of HRE). It was certain that PBB (the core bank left from HRE's restructuring) was unable to claw back the full difference between the transfer price and the real economic value, but as it had been nationalised, proceeds from its privatisation would also accrue to the government. The Commission found these additional conditions were sufficient for concluding that the aid was compatible. In 2014, DEPFA bank also transferred its assets to FMS but this was not deemed State aid since the transfer was done at market prices.

Recent changes to burden sharing requirements

Over the last few years, a new legal framework was introduced aiming to deal with distressed banks while avoiding the large scale use of public funds that was witnessed during the last crisis. Apart from broadly safeguarding the use of taxpayers' money, it was put in place to prevent a negative sovereign-banking loop that was among the main roots of the crisis. In providing a standardised framework and set of tools enabling bank recovery and resolution and further defining the modalities of State aid, the new legislation aims to ensure market discipline by endorsing a more coherent approach to long-term systemic risks.

In August 2013, important changes to the State aid framework were introduced with the Commission's 2013 Banking Communication on State aid rules in order to reduce moral hazard (2013 Banking Communication) ⁽²⁶⁾. This followed the trend to include more burden sharing (from subordinated debtholders) in bank restructurings: compare for example, the Spanish bank restructuring at end-2012 with SNS REAAL in the Netherlands in the spring of 2013 ⁽²⁷⁾. In particular, adequate burden sharing is required from the shareholders, hybrid capital holders and subordinated debt holders before any State aid can be granted. They must contribute to the maximum extent to reduce the bank's capital shortfall. The 2013 Banking Communication also states that an impaired asset measure can only be authorised after the bank's restructuring is approved by the Commission. It is important to note that all three AMC's reviewed in this paper were created before the 2013 Banking Communication and before the strengthened burden sharing requirements it introduced entered into force. Nonetheless in the autumn of 2013 – after the 2013 Banking Communication – the Slovenian authorities developed a sector-wide AMC which was fully compliant with the new burden sharing rules of the 2013 Banking Communication.

The EU Bank Recovery and Resolution Directive (BRRD) aims at minimising public sector participation and thus toughened the burden sharing requirements for creating an AMC ⁽²⁸⁾. As per the BRRD, a new impaired asset measure involving State aid would likely trigger resolution of the beneficiary banks, and this primarily means a bail-in of shareholders and creditors equal to at least 8% of total liabilities including own funds ⁽²⁹⁾. The BRRD, fully implemented only since 2016, recognises the creation of an AMC as a type of bank resolution tool, in that it separates clean and toxic assets between 'good' and 'bad' banks through a transfer of assets. The Single Resolution Mechanism (SRM) implements the BRRD in the euro area. Under the SRM, the set-up of a public or partially public AMC has to be controlled by the resolution authorities that can also participate in the ownership structure. The Single Resolution Board (SRB) carries out the bank resolution as it decides whether and when to put a bank into resolution, defines the resolution scheme and the use of resolution tools. The BRRD limits the use of AMCs only in

⁽²⁶⁾ See Communication from the Commission on the application of State aid rules to support measures in favour of banks in the context of the financial crisis, OJ C 216, 30.06.2013.

[http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XC0730\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XC0730(01)&from=EN).

⁽²⁷⁾ In the Spanish case, subordinated bond holders were partially bailed in. In SNS REAAL, junior bondholders were fully bailed in and lost all their investment, though senior bondholders did not have any losses.

⁽²⁸⁾ See Bank Recovery and Resolution Directive, OJ L 173, 12.06.2014, <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014L0059&from=EN>. The BRRD sets out the rules for the resolution of credit institutions and large investment firms in all EU Member States.

⁽²⁹⁾ Bail-in will not apply to deposits backed by a deposit guarantee scheme, short-term interbank lending or claims of clearing houses and payment and settlement systems with a maturity of seven days, client assets, or liabilities such as salaries.

conjunction with other resolution tools, to prevent a competitive advantage for the failing institution⁽³⁰⁾. It can only be set up if 1) financial markets would be adversely impacted by the orderly liquidation (under normal insolvency proceedings) of the assets to be transferred, 2) where the transfer is necessary to ensure the proper functioning of the institution under resolution (or bridge institution), or 3) to maximise liquidation proceeds. NAMA, Sareb and FMS became operational before the full BRRD implementation and were thus unaffected by the revised bail-in requirements.

Under the BRRD, the conditions defined in the IAC and Banking Communication on burden sharing still apply to all State aid for banks. Although the BRRD aims to reduce the use of public funds during a banking crisis, it does not forbid the use of public money for bank resolution, especially during a systemic crisis. In principle, the use of public funds automatically puts an institution into resolution and the full bail-in rules apply. However, there are exceptions when a bank requiring extraordinary public financial support shall not be considered as failing or likely to fail with certain types of State aid⁽³¹⁾, though asset relief through an AMC is not included. The Single Resolution Fund (SRF) will also provide funding support for a bank in resolution but it can only do so if at least 8% of the bank's liabilities have been bailed in. These cases will still be subject to State aid rules, including the conversion or write down of subordinated debt. However, if an AMC operates with no State aid, then neither bail-in nor bank resolution are required. This is the case of the Hungarian AMC MARK that will buy NPLs from solvent financial institutions: in February 2016 the Commission assessed, from a strictly State aid perspective, the MARK case and found that MARK's methodology to determine the transfer price of the assets was consistent with market values⁽³²⁾.

⁽³⁰⁾ The transfer of toxic assets from a specific bank should not distort the banking market through helping just one bank when a whole asset class, held by multiple banks, is toxic.

⁽³¹⁾ This includes whenever the State aid takes any of the following forms: a state guarantee to back liquidity facilities provided by central banks according to the central banks' conditions, a state guarantee of newly issued liabilities, or an injection of own funds or purchase of capital instruments at prices and on terms that do not confer an advantage upon the institution.

⁽³²⁾ See State aid: *Commission approves impaired asset management measures for banks in Hungary and Italy*, European Commission - Press release, Brussels, 10 February 2016, http://europa.eu/rapid/press-release_IP-16-279_en.htm.

5. EVALUATING THE EFFECTIVENESS OF AMCs

Similar to Klingebiel's (2002) approach, the effectiveness of the three AMCs is measured based on progress towards meeting their narrow as well as their broad objectives. The individually defined aims for NAMA, Sareb and FMS, set in national legislation and/or public strategies, have similarities, but also some differences (Annex 1). All three AMCs' narrow objectives refer to management and disposal of the assets purchased, while enhancing their value. NAMA and Sareb in addition put a strong emphasis on boosting returns to the state or minimising public financial support. They also have a set timeframe for asset disposal, and aim at the redemption or servicing of the senior bonds. FMS on the other hand emphasises its cost-effective funding. In terms of broader objectives, both Sareb and FMS commit to contribute to the financial sector repair. NAMA arguably has the broadest mandate set by a decision of its board: to support property market activity and contribute to the socio-economic development in Ireland.

Narrow objectives

NAMA has been very effective with the sale of assets - the most advanced of the three AMCs, though it has been in existence for the longest time. By end-2015, it had sold 75.3% of its assets in the six years since it was established (Figure 5.1). This success is underpinned by the fact that its assets are homogeneous, mostly large land and development real-estate loans. Such assets are relatively easier to sell than for example, corporate loans, that often involve complex business restructurings. NAMA has also benefitted from having part of its asset portfolio located in the UK and especially London, as this allowed for significant sales before 2013 as property prices in the UK market started recovering earlier (around 2010). The recovery in property prices in Ireland from 2013 onwards has enabled NAMA to also advance with the sales of its Irish portfolio. NAMA tends to sell its loans in large packages to institutional investors. The 'factory' approach (Section 2) to its management of assets has helped enhance their value. Moreover, the NAMA Act gave NAMA legal powers that enabled it to collect payments due on loans more effectively as it helped speed up asset disposals and ensure income generation from rentals⁽³³⁾. This also helped break the past speculative close link between developers and lenders. NAMA's ability to promptly access commercial real estate collateral from insolvent debtors would have been hampered had the operating legal framework been similar to the one applying to residential real estate in Ireland, characterised by difficulties in collateral realisation and numerous court adjournments. By June 2016, NAMA had repaid 85% of its senior bonds and intends to repay them all by end-2018 – about two years ahead of the original plan. In terms of accounting framework, NAMA opted to apply the general International Financial Reporting Standards (IFRS)⁽³⁴⁾ and has taken significant additional provisions on its asset portfolio after acquisition. Nonetheless, NAMA has also been profitable since 2011 which makes its funding position comfortable. It is expected to make a profit of around EUR 2 billion or 1% of GDP for the government by the time it winds down.

It is still early to judge how successful Sareb will be. As of end-2015, Sareb had sold about 15.4% of its portfolio and repaid 14.4% of its senior debt. Sareb's disposal pace has been lagging those of NAMA and FMS in its first three years. This is in part due to the fact that its assets are all located in Spain where the property market recovery has been slower and more recent than in Ireland. Most of the real-estate sold is in Madrid and Barcelona, where the market has improved most. Sareb also holds a much greater number of individual assets, as it received many small value property loans and collateral. Moreover, most of those are residential, unlike NAMA's large commercial real-estate assets. In Spain, access to collateral and foreclosure procedures have not been an impediment to Sareb's performance, if anything they are generally judged to be favouring the lenders. Most of Sareb's sales income comes from the retail channel, as opposed to the institutional-investor channel used by NAMA and FMS. In 2014, Sareb stated it would revise its disposal strategy from a 'warehouse' model towards a 'factory' model, more similar to NAMA,

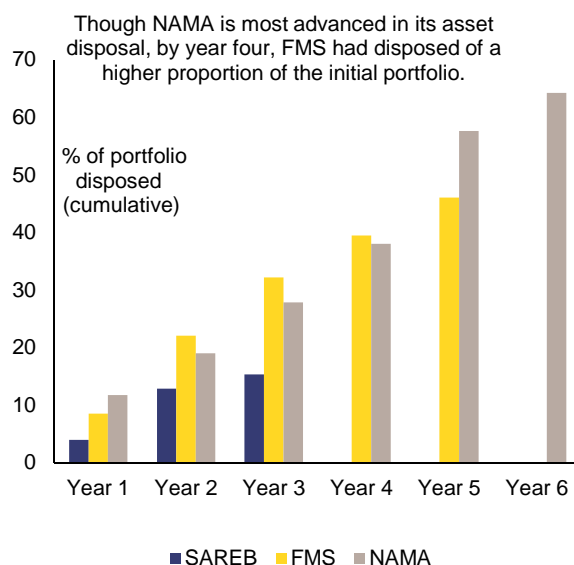
⁽³³⁾ The powers granted include vesting orders and compulsory purchase orders, the right to unilaterally change the language of loan contracts, disposal of assets at its discretion, entitlement to obtain tax information on its debtors and the preference/priority over payments made by insolvent borrowers.

⁽³⁴⁾ NAMA adopted the amortised cost method, used by many banks, under which expected cash flows (and not contractual cash flows) are considered to value loans. The assets are priced by taking the 'actual' initial value of the asset and future expected cash flows, minus potential impairments.

to increase the value of its assets. Even though the real-estate market started recovering, in 2015 the pace of Sareb's asset disposals slowed down due to its transition to new servicers, a process which was completed in April 2016 ⁽³⁵⁾. The new servicers are expected to improve the asset management and intensify commercial activity.

Sareb has been loss-making in 2013 and 2014 but it made an after-tax profit of EUR 0.3 million in 2015 (in part due to tax credits). Low profitability weighs on its effectiveness as ultimately the possible additional cost for its private and public owners remains unclear. It has undergone repeated asset write-downs due to portfolio revisions, since the assets were transferred rather quickly and most of the assets' due diligence and revaluation was done afterwards. Moreover, only in October 2015 did the Bank of Spain release the updated rules for Sareb's valuation of assets ⁽³⁶⁾. The new rules require the assessment of all its assets individually to reflect changes in market prices by end-2016. This resulted in additional impairment provisions of EUR 2.04 billion, of which 90% was applied retroactively to the 2014 and 2015 accounts. For this purpose, Sareb exhausted the buffer provided by its original shareholder equity and in addition had to convert EUR 2.17 billion of its subordinated debt into equity. Following the conversion, it had EUR 0.95 billion in equity and EUR 1.43 billion in subordinated debt. The new valuation standards have implications on its disposal business too, as they require Sareb to focus on operations where the sale price of the asset is above the valuation price to generate profits, causing a temporary slowdown in the disposal of its assets.

Graph 5.1: Portfolio disposal pace



Source: FMS, NAMA and Sareb

FMS has made good progress with the sales of its assets, though the coming years will likely be more challenging. At end-2015, it had sold about 46.1% of its original portfolio. Asset disposals in the future could become more difficult given the long maturity and complexity of its securities ⁽³⁷⁾. Furthermore, according to Moody's, the majority of FMS' portfolio reduction has been due to redemptions, not active sales ⁽³⁸⁾. FMS has been profitable under the German GAAP accounting framework, largely due to

⁽³⁵⁾ See Post-programme surveillance report on Spain, autumn 2015 by the European Commission http://ec.europa.eu/economy_finance/publications/eeip/ip013_en.htm.

⁽³⁶⁾ See The Banco de España approves the accounting Circular for Sareb, Banco de España, Press Release, Madrid, 2 October 2015, http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/15/Arc/Fic/presbe2015_41en.pdf.

⁽³⁷⁾ Its assets preparation for sale is a process that involves, for instance, judicial disputes with Italian municipalities.

⁽³⁸⁾ See Moody's Sovereigns report, 'Bad Banks' in Ireland, Spain and Germany: Diverging Fortunes, 27 October, 2015.

ordinary activities, since 2012. However, this accounting framework does not require market valuations for its assets, implying hidden losses ⁽³⁹⁾. Last available data shows that although FMS's debt had declined by 30% between 2010 and 2014, it still remains substantial at EUR 135 billion (4.7% of GDP), mostly as a reflection of its elevated funding needs stemming from the heterogeneous portfolio structure. Although the initial strategy was to sell all assets in ten years, FMS subsequently revised it to reflect the assets' long-term average maturity, so it no longer contains a fixed date for the wind down of its activities. The business plan is now made every year with a ten year outlook to achieve the best return.

Broad objectives

Sareb and NAMA have played important roles in the recovery of the banking sectors in Spain and Ireland. NAMA has had a more substantial impact as it removed a higher share of total impaired assets from the banking sector (Table 3.3). Schoenmaker (2015) estimates that NAMA took about one third of all property loans off the surviving banks' balance sheets. In Spain, Sareb took over about 10% of credit institutions' total real-estate related assets. The transfer of assets to both AMCs at a steep discount made banks recognise upfront the losses on their balance sheets. The implementation of the restructuring plans for state-aided banks which benefitted from Sareb and NAMA has advanced well in general and they have downsized ⁽⁴⁰⁾. In Spain, four of these banks have been absorbed by other banks, one was liquidated and two remain partly state-owned, Banco Mare Nostrum (BMN) and Bankia. In Ireland, two of the three main domestic banks, AIB and PTSB, remain majority state-owned, while the third, BOI, remains minority state-owned. The transfer of the impaired assets at a point-in-time value also helped insulate the Irish and Spanish banks from the effects of further property price declines. The participating Spanish banks became profitable in 2013 and the Irish ones in 2015. For all banks concerned, capital ratios are well above regulatory requirements. The ratio of NPLs in Spain and Ireland is declining though for Ireland, it remains one of the highest in the euro area (Table 3.1). At end-2015, the NPL ratio for residual commercial real estate loans held by the domestic Irish banks was 37%, indicating the difficulties that they still face in resolving these loans despite the large amount of assets transferred to NAMA. Likewise, though declining, the NPL ratio for real-estate loans in Spain was still elevated at almost 28% at end-2015. The renewal of Irish and Spanish banks' lending activities is slow due to the ongoing private sector deleveraging, as private debt levels remain high, though new credit flows are rising in both countries.

In conjunction with SoFFin, FMS has helped stabilise the German financial sector during the crisis ⁽⁴¹⁾. Its creation signalled the readiness of the German government to support its banks. Although FMS received assets from only one bank, the HRE group, the strategic importance of one of its subsidiaries, PBB, as one of the main issuers on the Pfandbriefe bond market, made its rescue imperative. The bank was sold in 2015 and continues with its restructuring plan, generating new business, while the rest of the HRE group is in wind down. The German banking sector is also still dealing with issues stemming from the financial crisis, such as the slow reform of the Landesbanken and is facing subdued private sector credit growth ⁽⁴²⁾.

⁽³⁹⁾ In 2015, FMS generated pre-tax profits of EUR 413 million from ordinary activities. This was driven by a net interest income of EUR 540 million and a reversal of risk provisions of EUR 35 million. According to the GAAP accounting framework, changes in market valuation of assets, negative (hidden losses) or positive (hidden reserves), are not incorporated in FMS's annual profit and loss report. For instance, the balance of the market values of all derivative positions was negative EUR 34.7 billion at end-2015, compared to the initial value at end-2010 of negative EUR 14.6 billion, revealing a hidden loss of over EUR 20 billion.

⁽⁴⁰⁾ For more details, see Post-programme surveillance reports on Spain and Ireland by the European Commission.

⁽⁴¹⁾ See, for example, Detzer and Heine (2014) or the IMF's 2010 Article IV staff report on Germany.

⁽⁴²⁾ For more details, see ECFIN Country reports for Germany (2015 and 2016) by the European Commission.

Box 5.1: Recent Italian initiatives for asset quality issues: GACS and the Atlante fund

In February 2016, the Italian authorities reached an agreement with the Commission on the setup of a state-aid-free securitisation framework with state guarantees, the so-called *Garanzia Cartolarizzazione Sofferenze* (GACS). This scheme has been designed in a way which does not contain State aid, and therefore it does not fall under the scope of the BRRD or the 2013 Banking Communication. It allows the set-up of special-purpose vehicles (SPVs) to facilitate the transfer of bad loans out of bank's books, including by a state guarantee on the SPVs investment-grade rated *senior* notes. The SPVs' bad loan purchases are to be funded by the issuance of senior- and junior-ranked notes. A bank setting up such an SPV is required to initially hold and eventually sell a minimum of 50% plus one share of the junior tranche to private investors at market prices. This requirement is both a condition for the bank in question to have the bad loans derecognized from its balance sheet, as well as for the Italian state to issue a guarantee on the SPV's senior tranches. In exchange for providing the guarantee, the state would receive a market-priced fee that increases over time to encourage a speedy work-out. The GACS entails a trade-off between the need to ensure sufficient attractiveness for junior investors (i.e. resulting in lower prices and increased attractiveness for bad loan portfolios, including prospects for upside return) and the potential eroding impact of such lower transfer prices (i.e. below the loans' net book value on banks' balance sheets) on banks' profitability and capital positions.

Against this background, Italy's new private bank stabilisation fund, Atlante, was established in April 2016. It may invest part of its financial capacity in SPVs' junior tranches and as such stimulate the creation of a market for these assets. The fund pools EUR 4.25 billion in equity contributions from 67 key Italian investors comprising larger banks (including Unicredit and Intesa Sanpaolo with EUR 1 billion stakes each), insurers and pension funds. Its primary goal is to support recapitalisation operations of weaker Italian banks by buying unsold shares from public offerings ⁽¹⁾. The EUR 1.5 billion cash call by Banca Popolare di Vicenza at the end of April 2016 was fully subscribed by Atlante after private investors showed insufficient interest. Atlante's remaining capacity would be available for investment in junior tranches issued by SPVs under GACS. Atlante could also purchase junior tranches of securitised NPL structures, trying to spur interest for mezzanine and senior tranches by institutional investors ⁽²⁾.

Atlante has limited funds and the largest share may end up being used to support bank recapitalisations. Thus it is unlikely to contribute to a substantial reduction of the bad loans stock in the Italian banking system, though it also aims to help develop the secondary market for NPLs. Moreover Moody's, while noting the benefits of Atlante for the smaller banks, also warns of it potentially exposing the contributing investors to weaker capital positions as the 'smaller banks to be rescued are at risk of resolution' ⁽³⁾.

The Italian government has complemented the steps above by reforms to shorten lengthy bankruptcy and foreclosure processes to raise the market value of bad loans as a further support to the development of a private secondary distressed debt market. In addition, the Bank of Italy has launched a bank survey on bad loans, collateral and recovery procedures to boost the disclosure of information to foster the development of the NPL market.

⁽¹⁾ These banks must undertake a capital increase at the request of the supervisory authorities.

⁽²⁾ Atlante's funds would be used to create an SPV with the capacity to buy EUR 50 billion or more of junior tranches of securitised NPLs, depending on the amount of funds available after the purchase of bank shares.

⁽³⁾ See Moody's Sector Comments: 'Italian Bank Rescue Fund Is Credit Positive for Weaker Banks, but Not a Systemic Fix'; April 18, 2016, and 'Large Italian Banks' Stake in Rescue Fund Is Credit Negative'; April 25, 2016.

Widening of AMC mandates

NAMA and to a lesser extent Sareb have embraced social roles which seem to go beyond their primary mandates. NAMA became more active in the residential property market, where a supply shortage has arisen. While emphasizing the enhancement of the value of its assets, as of May 2016 NAMA had funded the delivery of 2,042 social housing units and funded the completion of 2,768 new houses and apartments throughout the country. It aims to fund the delivery of 20,000 residential units by 2020. It has done this either by funding its debtors or receivers, or through commercial joint funding arrangements with developers, where it holds minority stakes. These actions are also linked to the broad objective of socio-economic development of the NAMA Act. In 2015, a number of Irish developers filed a complaint with the Commission regarding the involvement of NAMA in property development, allegedly for breaching State-aid rules. Although this is not listed as one of its official objectives, in response to social pressure, Sareb also aims to provide up to 4,000 social housing units for rent under a social responsibility mandate. As of January 2016, it had transferred almost 1,800 units. It also has plans to provide affordable units for entrepreneurs.

6. LESSONS AND CONCLUSION

The examples of NAMA, Sareb and FMS clearly show that the *type of assets* transferred is one of the key determinants that can make an AMC effective. If the assets are rather homogenous and more easily realisable, their management will be easier as their administrative and legal considerations will be more aligned, allowing for economies of scale on the staffing and technical level. This is clearly the case of NAMA whose portfolio consists of almost exclusively commercial real estate. Although Sareb only holds real-estate related assets, it has proved more cumbersome to offload them in part due to the portfolio mix of smaller residential assets and larger commercial assets. The case of FMS further confirms that a highly heterogeneous and complex portfolio poses more challenges for asset sale.

The *macro-economic environment* is very important for enabling the sale of assets. This is particularly the case for real-estate assets, as NAMA's and Sareb's experience reveals. If assets are located in areas where there is an economic recovery, this often drives an increase in market demand for that asset, making the disposals much easier. Part of NAMA's portfolio was located in the UK where initially demand was not an issue, so there was no immediate pressure to dispose of Irish assets. Eventually, the Irish market also recovered, enabling NAMA to shift its resources to domestic sales. On the other hand, Sareb's portfolio is all in the Spanish market, whose recovery, apart from being more recent, has been more modest than the Irish. The fact that macroeconomic developments and the type of assets transferred are exogenous factors, to some extent beyond the control of policy makers, highlights the need to be conservative with macro-economic assumptions when setting the AMC's business plan and during asset valuation.

The key operational factors supporting a good 'bad bank', arising from the experience of the three AMCs analysed, are as follows:

- The importance of *clean asset data*. The lack of and inadequacy of data has proved problematic in countries such as Ireland, where a substantial amount of important documentation was missing or flawed, or Spain where Sareb has had issues with insufficient documentation for some assets. Only accurate and complete data can be the basis of an objective valuation. In addition, they facilitate the creation of optimal portfolios for sale.
- An adequate *legal framework*, including sufficient *legal powers* to restructure or enforce on their assets is paramount for AMCs' effectiveness. In NAMA's case, it signalled a clear break of the toxic lender-debtor relationship. A special legal status also supports a speedier preparation of the assets for sale. Insolvency, bankruptcy and foreclosure laws need to be robust in order to ensure that the AMC as well as prospective asset buyers can access insolvent debtors' collateral under fair terms and a reasonable timeframe. Had NAMA acquired Irish residential mortgage loans, where access to collateral remains problematic, it may have been less successful in their disposal. Moreover, as can be seen on the recent Italian case (Box 5.1), when national legislation is deemed weak, it reflects negatively on the pricing of the loan portfolios.
- *Skilled management* is essential, be it for valuation, development of a successful asset disposal strategy, collections or sale decisions. This necessitates a comprehensive yet expedient recruiting of specialized staff, often on competing terms with the private sector. Recruiting efforts need to be matched with retention policies and an incentivising compensation system given the AMC's temporary nature.
- An appropriate *servicing of assets* always supports an effective AMC. In the Spanish case, changes and delays in this area have negatively impacted the pace of asset disposal. NAMA and Sareb outsource these activities, in part because it is more cost-effective. FMS, on the other hand, opted for creating its own servicing entity in order to be more cost-effective by avoiding numerous contracts with different servicers given the different types of assets it has.

- The experience of Sareb demonstrates that after the initial pricing of the impaired assets, it is desirable for the AMC to operate under a stable *valuation framework*. The release of the Bank of Spain's asset valuation framework for Sareb was delayed and issued in October 2015. The revaluation of the portfolio caused higher impairments and a write down of assets which contributed to Sareb's losses in 2013-14. The new accounting valuation framework may result in additional provisioning needs. Having it in place from the start would have introduced more certainty on Sareb's financial performance. The different accounting frameworks of the three AMCs make the comparison of their financial performance less straightforward than if they had the same ones.

In the European context, much can be learned from the experience of the three AMCs analysed. Given the systemic nature of the banking crises and the large value of impaired assets, the choice of a *centralised structure* was appropriate for NAMA and Sareb. Its benefits include a consolidation of scarce work-out skills and resources in one entity as well as a centralised control over collateral which provides more leverage over debtors, ensures better management and facilitates public oversight. As it took over assets from only one bank, FMS was set up as a single-purpose entity, though it still enjoys many of the benefits of a centralised structure such as the pooling of staff. The governance structures of all three AMCs are solid, while their transparency is high with the publication of regular reports, audits and news releases.

Mixed *private-public ownership* has brought benefits to Sareb and NAMA. Attracting private capital was important for the AMCs. Sareb drew 26 private financial entities to invest in its equity structure that reflected, to some extent, confidence in the AMC. Moreover, a majority privately-owned structure has allowed keeping the NAMA and Sareb senior bonds as contingent liabilities, and thus off the general government balance sheets. This has helped overcome fiscal limitations at a time when Ireland and Spain were under fiscal pressure due to the bank bailouts. In order to be considered majority privately-owned, the then applicable Eurostat 2009 rules required a large discount on the transfer value of the assets, which led to a crystallisation of losses for the participating banks. On the other hand, significant public sector involvement in Sareb and NAMA has shown that the governments were politically committed to resolving the problem of a large quantity of impaired assets in their banking system and more broadly to achieving financial sector stability.

The FMS case indicates that the strong fiscal position of a country can have a strong influence on the type of ownership of the AMC, in this case *full public ownership*. Though FMS also aims to maximise the value of its assets, this is harder as the transfer price was set at book value, limiting any upside and making it more difficult to attract investors. The rather illiquid and complex nature of FMS's remaining assets, as well as their very long maturities, led to the removal of a fixed time frame for asset disposal and increased the risk of FMS becoming a public repository of bad assets taken from the HRE group. How long it will remain profitable under current terms is unclear. FMS's debt is already on the German government's balance sheet, though its potential hidden losses may also end up burdening the government. Similarly, Sareb's ongoing losses are also of concern as part of its senior debt (totalling about 4% of GDP) may end up being absorbed by the Spanish government, if Sareb cannot repay it.

NAMA in particular illustrates that the active or *'factory' model* to asset disposal can contribute towards maximising the assets' recovery value over a fixed time span, and generating fiscal returns to the government in order to (partly) compensate for the public financial support received. In Ireland, a single AMC purchased a large share of total commercial real-estate assets. 'Adding value' to the assets has been extended in some cases to the inclusion of new development projects, beyond the mere completion of already existing projects. This could potentially distort the ordinary functioning of the commercial property market. Combining original goals with additional socio-economic activities like providing social housing or new development projects can risk leading to conflicting objectives and can deter from the primary mandate. As Sareb also undertakes activities to deliver affordable housing for rent, it should be cautious not to distort the market or interfere with its ability to dispose of real-estate assets and its financial performance. Overall, when these AMCs were created, limited thought was given to the urban policy implications of their significant real-estate purchases. AMCs are essentially a form of state

intervention and can politicise the tension between the usage of real estate and its financial value (Byrne 2015).

The three case studies show that an AMC can be effective in helping *stabilise the financial sector*, however it remains only one tool among many. In the case of NAMA and Sareb, the transfer of assets at discounted values to the book price made banks recognise losses upfront so that their remaining core business could focus on consolidation and the resumption of lending. In addition, the creation of NAMA and Sareb helped improve the banks' liquidity as it replaced their distressed loans (with little collateral value) with the AMC's senior bonds eligible as collateral for Eurosystem funding. FMS helped stabilise the German banking system by ensuring the continuity of the Pfandbriefe market. NAMA and Sareb have also helped develop a functioning secondary market for distressed assets by sending a price signal through the sale of impaired assets ⁽⁴³⁾. The creation of NAMA, Sareb and FMS alongside public recapitalisations of concerned banks signalled to investors that the authorities were taking strong policy actions to safeguard their financial sectors, even at a fiscal cost. The financial backing of the authorities has been key to these AMCs' effectiveness.

Ultimately, full financial sector repair can only partly be aided by an AMC. In this regard, the State-aid measures, including bank restructurings, that had to accompany NAMA and Sareb, have helped address banking competition issues that are also crucial for financial stability. Still, financial sector challenges remain. For example, Ireland still has a very high NPL ratio that requires sustained policy actions, while in Spain the privatisation and restructuring of state-owned banks has to advance further. In both countries banking sector lending to the private sector remains subdued. Hence, AMCs can best achieve their broader objectives only if they are complemented with other actions aimed at saving viable banks and promptly resolving the non-viable ones.

The recent developments in the EU regulatory framework changed and expanded the toolbox available for addressing acute banking sector problems, introducing a means by which to better address the sovereign-banking loop that drove a number of the crisis response measures in the recent past. It also reduces the value for AMCs that can be drawn from NAMA's, Sareb's and FMS' regulatory experiences. First of all, the Eurostat rules have changed: even if the AMC is mostly privately-owned, it will be classified as part of the general government if its funding structure has a government guarantee, as the sovereign effectively bears the financial risk. Secondly, the burden sharing requirements for private sector creditors have been significantly strengthened with the implementation of BRRD in 2016 in order to reinforce shareholder and creditor responsibility and spread the risk burden: the capital needs of a bank should be covered by private sources, otherwise the full bail-in requirement is triggered and the affected bank is put into resolution. With the BRRD, an AMC involving State aid can only be implemented if the affected bank is in resolution. This is also reflected in Atlante's ownership and operational structure, which is influenced by the BRRD rules. Other countries with NPL issues such as Portugal are looking into potentially introducing similar models. In any case, any future 'AMC-like' initiative should be part of a broader set of policy measures, including bank restructuring and legal reforms, to increase their effectiveness.

⁽⁴³⁾ See also *A Strategy for Resolving Europe's Problem Loans*, IMF Staff Discussion Note, Washington D.C., September 2015.

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ANNEX 1

Details and set up of the AMCs

	NAMA	Sareb	FMS Wertmanagement
1. Overall stated objective	<p>According to Section 10 of the NAMA Act, NAMA's objectives are:</p> <ul style="list-style-type: none"> a) acquire eligible bank assets from participating institutions, b) deal with these assets expeditiously, and c) protect and enhance the value of those assets, in the interests of the state. <p>In addition, the NAMA Board agreed on five key strategic objectives:</p> <ul style="list-style-type: none"> 1) the redemption of senior bonds and recovery of operating costs over its lifetime, 2) active support of a sustained property market activity in Ireland, 3) optimisation of the realized value of its assets, 4) contribution to the socio-economic development in Ireland (an objective of the NAMA Act), and 5) active asset management in order to optimize returns. 	<p>According to Article 3 of Royal Decree 1559/2012 establishing AMCs, Sareb's objectives are:</p> <ul style="list-style-type: none"> a) contribute to the cleaning up of the financial sector by acquiring assets for an effective transfer of their risk, b) minimise public financial support, c) service its debt and bonds issued, d) minimise possible market distortions that could be caused by its actions, and e) dispose of received assets optimising their value, in the required time frame. <p>From Article 17 of Royal Decree 1559/2012, Sareb's social objectives are:</p> <ul style="list-style-type: none"> 1) to hold, manage, acquire and dispose of assets from credit institutions and any future acquired assets while avoiding conflict of interests, and 2) to follow principals on transparency and professional management. 	<p>According to Article 2 of the Charter of FMS, its main function is to take over the transferred assets of the HRE group and realise and unwind them to maximise the asset's value for the purpose of stabilising the HRE group and the financial market.</p> <p>FMS also aims to achieve these strategic goals:</p> <ul style="list-style-type: none"> a) acceptance of non-strategic and at-risk assets, liabilities and derivative from the HRE group, b) profit-oriented wind-up of the assets, c) cost-effective servicing and management of the assets, and d) cost-effective funding and separate market access for FMS's treasury/markets division.
2. Asset type and book value amount	<p>EUR 74.2 billion book value of loans were transferred (44% of 2009 GDP) with properties as security for land & development and associated loans, in addition to a small amount of derivatives. Loans were acquired from five participating banks: Anglo Irish Bank, Allied Irish Banks (AIB), Bank of Ireland (BOI), Irish National Building Society (INBS) and Educational Building Society (EBS). In the case of AIB and BOI, a minimum loan threshold of EUR 20 million was applied in order to</p>	<p>Sareb received almost 200,000 property and financial assets, and 400,000 collateral assets with a book value of EUR 107.4 billion (10% of 2012 GDP) and transferred in two phases. Only real estate properties with a value of over EUR 100,000 and financial assets worth over EUR 250,000 were transferred, all within Spain.</p> <p>The main tranche (EUR 36.6 billion) was transferred on</p>	<p>The nominal value of the original portfolio transferred in October 2010 was EUR 175.6 billion spread over 7,100 individual exposures. This, together with FMS's additional liquidity needs, amounted to about 8% of 2010 GDP. The assets were transferred from the HRE group, which included HRE Holding and its three subsidiaries, pbb Deutsche Pfandbriefbank AGG (PBB), DEPFA Bank plc (DEPFA) in Ireland and</p>

	<p>cap the number of borrowers.</p> <p>The portfolio transferred in nine tranches consisted of about 12,000 loans from 800 debtors, with approximately 60,000 properties as security. The transfer of the first bundle of tranches (EUR 15.3 billion in nominal value) was completed in May 2010, that of the second in August 2010 (EUR 11.9 billion), the third tranche of EUR 44 billion completed during the last quarter of 2010 and the remaining EUR 3 billion in March 2011. 71% of the acquired loans' collateral were completed properties, 20% was land and 9% were properties in some stage of development. About 56% was in Ireland and about a third in the UK.</p> <p>As part of the liquidation of IBRC, NAMA was also directed by the government to acquire the EUR 12.9 billion IBRC floating charge in exchange for senior bonds from the CBI in early 2013. These bonds were all redeemed by 2014.</p>	<p>31 December 2012, from the five nationalised banks: Bankia, Catalunya Banc, Banco de Valencia, and Novagalicia Banco, Banco Gallego. The second transfer (EUR 14.1 billion) took place on 28 February, 2013 from the four banks that received state funding: Liderbank, Banco Mare Nostrum (BMN), Banco Caja3 and Banco CEISS.</p> <p>About 23% of the value of the assets were real estate assets in Spain, mostly plots of land and housing (vacant and rented) with some industrial warehouses and retail units. 77% of the value of the transferred portfolio was property development loans, including loans for plots of land, projects under construction and completed properties. However, over time property assets are gaining more weight in the portfolio as current loans are repaid and as property collateral is accessed in the case of loans in arrears.</p>	<p>HRE Finance BV in Liquidation.</p> <p>FMS purchased risk positions and non-strategic assets, liabilities and derivatives from HRE. They are divided in four main portfolios: public sector bonds and loans (49% of the initial total), structured products such as ABS, RMBS, CMBS and CDO (25%), commercial real estate (15%) and infrastructure (10%). Infrastructure and public sector holdings have longer average maturities (2030 and later).</p> <p>In 2014 FMS took over DEPFA for wind-down. The wind-down of Depfa's remaining portfolio (about EUR 40 billion) was not transferred to FMS and is being managed by Depfa as a separate institution.</p>
3. Ownership	<p>The NAMA SPV (NAMAIL) is 51% owned by private investors (Walbrook Capital, New Ireland Assurance Co. plc and Percy Nominees Ltd) and by 49% owned by NAMA. NAMA also has a veto power over all decisions taken by the SPV.</p>	<p>45% of Sareb's share capital is owned by the Fund for Orderly Bank Restructuring (FROB), the public entity created to manage the banking sector restructuring process. 55% of Sareb's equity is held by the following private shareholders: 14 national banks (Santander, Caixabank, Banco Sabadell, Banco Popular, Kutxabank, Ibercaja, Bankinter, Unicaja, Cajamar, Caja Laboral, Banca March, Cecabank, Banco Cooperativo Español and Banco Caminos); 2 foreign banks, (Deutsche Bank and Barclays Bank), a utility company (Iberdrola); and ten insurance companies (Mapfre, Mutua Madrileña, Catalana Occidente, Axa, Generali, Zurich, Reale, Pelayo, Asisa and Santa Lucía).</p>	<p>FMS is 100% publicly-owned as the German Financial Market Stabilisation Fund (SoFFin) owns FMS. The German Financial Market Stabilisation Fund (SoFFin) was established in 2008 by the German parliament as a measure of stabilization for the financial system. The Financial Market Stabilisation Agency (FMSA) was set-up at the same time to manage SoFFin. SoFFin has been closed for new applications for assistance since end-2015, while FMSA's functions are undergoing a reorganization process with the new set-up set to be in place from 2018.</p>
4. Funding	<p>Funding consisted of EUR 30 billion in state-guaranteed senior bonds, EUR 1.6 billion in subordinated bonds and EUR 100 million in equity. NAMA senior bonds are</p>	<p>Original funding was EUR 50.8 billion in state-guaranteed senior debt with maturity of one to three years and EUR 3.6 billion in subordinated debt (15-year</p>	<p>Funding originally was EUR 124 billion of SoFFin (government) bonds that were transferred to FMS together with the assets purchased from the HRE. The</p>

	<p>guaranteed by the Minister for Finance and pay a flat coupon of 6-month Euribor. The redemption value of NAMA subordinated debt payments depends on its performance. While the payment of the coupon is discretionary, the interest rate is the 10-year Irish Government Bond rate on the day of first issue plus a margin of 0.75%. The interest was paid in 2014, 2015 and 2016.</p> <p>The government would benefit from any profits made by NAMA while potential end-losses, after burden sharing by subordinated debt holders, would be borne by banks by the imposition of a levy. NAMA first became profitable (after impairment charges and taxes) in 2011. As of June 2016, it expects to make a cumulative profit of up to EUR 2.3 billion by the time it winds down in 2020.</p>	<p>callable bonds convertible into equity). In 2015, Sareb's initial shareholders' equity of EUR 1.2 billion was wiped out due the need to provision an additional EUR 2 billion following the new Bank of Spain accounting valuation framework, but the capital was restored by the conversion into equity of EUR 2.2 billion in subordinated debt. Following this, Sareb had EUR 953 million in equity and EUR 1.4 billion in subordinated debt. Since its creation in 2012, Sareb has recorded pre-tax losses.</p>	<p>SoFFin bonds were replaced by own funding by 2011. The annual funding plan is based on EUR 2 billion in expected annual sale proceeds in addition to a mix of money market (short-term funding or commercial paper and repos) and capital market issuances (long-term funding or bonds). In 2014, capital market funding accounted for almost half of total funding (compared to about 14% in 2010/2011). As an issuer, FMS benefits from an explicit sovereign guarantee that results in a ranking equal to that of the Federal Republic of Germany. This ensures favourable funding costs</p> <p>SoFFiN also has to compensate for all losses that FMS may make, however FMS has been profitable since 2012.</p>
5. Structure	<p>Centralised.</p> <p>NAMA established a special purpose vehicle (SPV), NAMAIL, to purchase, manage and sell the assets transferred, NAMAIL is a public-private partnership between the state and private investors.</p> <p>NAMA is divided into six main business divisions: asset recovery, asset management, residential delivery, chief financial officer, strategy and communications, and legal. NAMAIL is not classified as a monetary financial institution or bank.</p> <p>It had about 370 employees at end-2014 and announced to reduce the number to 291 by end-2015 and to 255 by end-2016. As part of its wind-down strategy, in 2015 NAMA introduced a redundancy scheme. However as of June 2016, NAMA had a staff of 341, of which 50 on leave under the Voluntary Redundancy Scheme, reflecting a longer lifetime strategy stemming from its expanded residential delivery programme. The majority</p>	<p>Centralised.</p> <p>Sareb is structured into four main units: the president's unit which handles internal audit, communications, investor relations and corporate social responsibilities; a legal, corporate development unit; a business unit; and a global resources unit. It uses external servicers for the management of assets and administrative services. Sareb does not have a banking license.</p> <p>At end-2014 SAREB had 314 employees, up 62% from 2013. In 2014, the average experience per employee was 16.8 years in various sectors, including notably, the financial and property sectors. Most staff are recruited from the private sector.</p>	<p>Single-purpose.</p> <p>FMS organizes its work around five main areas: risk and finance; treasury/markets; commercial real estate; corporate and asset finance; and operations, legal and support. It uses FMS Service Company for portfolio management and administrative servicers, while DEPFA Bank plc is in charge of unwinding its own assets. FMS is not a credit/financial services institution, a securities firm nor an insurance company.</p> <p>FMS has recruited largely from the private sector, including the HRE group. At end-2014, FMS had 141 members of staff, down four from the year before.</p>

	of staff were recruited from the private sector.		
6. Strategy	<p>The initial debt reduction target was 25% by end-2013, 80% by end-2017, 100% by end-2019. The wind-down was to be completed by 2020 at latest. On the back of the recovery in commercial real estate prices, this was revised in 2014 to a target of 80% of senior bonds (EUR 24 billion) redeemed by end-2016 and all senior bonds by end-2018.</p> <p>NAMA never set exact target rates of return on its investments (beyond the ‘best achievable’ formulation) as the NAMA Board was of the view that this would constrain its flexibility.</p> <p>NAMA has also committed to funding the delivery of a cumulative 4,500 residential housing units by end-2016 through its debtors and through commercial joint funding arrangements with developers, in order to ease the supply shortage in Dublin. In October 2015 this number was revised upwards to a cumulative 5,000 new homes by end 2016 and the delivery of 2,000 social housing units by end 2015. Under its residential funding programme, NAMA aims to fund the delivery of 20,000 housing units between 2016 and 2020.</p>	<p>The divestment plan is over 15 years, the maximum lifespan that the company will have. The original business plan envisaged that 75% of revenues will be generated from the sale of houses and the rest from the sale of loans. It expected that half of its housing portfolio will be sold in the first five years and that some of its residential properties will be let out. It was originally estimated that shareholders will achieve a rate of return of 13-14%.</p> <p>Under the Affordable Housing Transfer Plan, Sareb has signed agreements with various regional governments to temporarily transfer homes to local authorities for a low fee, whom then rent out the homes. Sareb has agreed to provide 4000 homes for this. Sareb is also working on a retail unit plan for entrepreneurs that require an affordable place for their business.</p>	<p>The initial strategy for FMS envisioned a fixed life-span of ten years, after which any residual portfolio was to be sold at book value. FMS revised it to better reflect the long-term average maturities of the assets contained in its portfolio. The business plan and strategy is made for the next ten-years, each year, on a rolling basis. According to FMS, this provides more flexibility for the management to ‘unwind the portfolio whenever it is financially advantageous and thus to achieve the best possible outcome in the interest of the German taxpayer’.</p>
7. Pricing of assets transferred	<p>Assets were priced at EUR 31.8 billion, representing a 57% haircut. The average haircut on banks’ portfolios ranged from 43% (BOI) to 61% (Anglo/INBS). The granular valuation of assets was done separately on the basis of the market value on November 30, 2009, by NAMA and by a panel of private professional property evaluators. In case of disagreement among their assessments, a third independent evaluator was introduced. An upwards adjustment of 0-25% was then applied to reflect the real economic value of the loan to which the haircut could be applied.</p> <p>The valuations had to be made in several tranches. The</p>	<p>Total assets were valued at EUR 50.8 billion, a 52.7% haircut. There was a 46% average haircut for loans and 63% average haircut for foreclosed assets.</p> <p>The transfer price was calculated on the basis on the real economic value of the assets which incorporated the expected losses from the baseline scenario of the stress test calculated by the consulting firm Oliver Wyman in September 2012. Extra haircuts were then applied, 14% for loans and 7% for foreclosed assets, for other factors such as maintenance costs, financing costs, legal and recovery costs.</p>	<p>The portfolio of EUR 175.7 billion was transferred on a book value basis with minimal haircuts.</p> <p>A valuation of the bond portion of the portfolio transferred (about EUR 110 billion) was made shortly after the transfer by FMS’s own portfolio managers who estimated the market value of that portion at about EUR 86 billion</p> <p>In addition to the assets transferred, FMS needed about EUR 25 billion to fund the assets acquired and build-up liquidity buffers. This brought the total fiscal cost to over EUR 200 billion.</p>

	<p>CBI decided that the first tranche was to be representative for the whole developer loan portfolio so the initial haircut was applied across the board in expectation of a full valuation. However, it turned out that higher haircuts had to be applied to subsequent tranches as accurate information emerged later.</p>	<p>In October 2015, the Bank of Spain released new accounting requirements that establish one-by-one appraisal of all assets at market prices by end-2016. This means Sareb must appraise 100,000 properties, 400,000 property collaterals and about 70,000 loans. These valuations resulted in new provision requirements of EUR 2 billion applied retroactively to 2013, 2014 and 2015.</p>	
8. Asset management and disposal	<p>By end-2015, close to EUR 33 billion had been generated by the sale of loans/property and debtors refinancing their debt. EUR 22.1 billion (73%) of the EUR 30.2 billion senior bonds were redeemed. Since the establishment of NAMA, its portfolio has reduced by EUR 23.8 billion or 75.3%.</p> <p>NAMA does not own the properties and is not formally a developer. NAMA uses an active portfolio management strategy: the ‘factory’ model instead of the ‘warehouse’ model. The management strategy envisions about half of the investment being recovered by partial or full restructurings, including by supporting debtors, and the other half by disposals (consensual and enforced).</p> <p>NAMA directly manages 194 largest debtors that account for EUR 60 billion par debt of loans acquired. The debtors propose a business plan for meeting their repayment obligation to NAMA, NAMA can accept it, with or without additional changes, or proceed to enforcement/sale of loans or property collateral. NAMA can advance new funds to debtors from its profits in the interest of a larger or full recovery of the debt owned (i.e. for completion of projects). Debtors, not NAMA, are in charge of managing the underlying property. Properties are usually sold on the open market by private treaty, public auction, public tender and sealed bid. Debtors are not allowed to buy their debt.</p>	<p>By end-2015, Sareb’s assets had declined by 15.4% to EUR 43 billion; it has generated EUR 12.8 billion and had repaid 14.4% of its original senior debt of EUR 50.7 billion.</p> <p>Sareb has acquired the assets it controls. Sales of its assets are undertaken by itself directly but mostly indirectly through its servicers. Sareb decides what assets to sell. In 2014 SAREB worked on the transition from a ‘warehouse’ to a ‘factory’ business model. Thus, Sareb transitioned from being an asset liquidator, focused on selling at the best prices and with more dependence on the economic cycle, to an asset manager focusing more on creating value added, so that the return from the transaction increases when sold.</p> <p>The business plan which defines the divestment process is revised and updated by law annually by Sareb and approved by the board.</p> <p>The divestment strategy targets the retail channel, and the wholesale channel targeting institutional investors. The latter is used to sell packages and portfolios of assets and uses a range of vehicles such as Banks Asset Funds (Fondos de Activos Bancarios or FAB), Asset Leasing Companies (Sociedades de Arrendamientos de Activos) and SOCIMIS. A FAB is a special low-tax fund in which Sareb maintains a share of the capital. SOCIMIS are normally listed commercial companies</p>	<p>At end-2015, the size of FMS’s portfolio was EUR 94.7 billion, a decrease of over 46% from the initial portfolio size. Currency effects have had a negative impact of over EUR 4 billion over this period.</p> <p>FMS undertakes banking and financial services transactions necessary to unwind the portfolio. However, it does not engage in new lending.</p> <p>The portfolio is divided into parts that are more and less actively managed. The three main approaches are hold (when risks/earning are acceptable), sell (risky assets, as opportunities arise) and restructure (commercial real estate and infrastructure assets).</p> <p>The sales process is complicated due to the variety of markets that need to be addressed. Portfolio managers monitor specific markets and sales proposals. The proposals are then scrutinised by the servicers in order to establish whether the estimated sales price would be value-maximising in the context of the overall portfolio wind-down. If this is the case, the sales process is then organized, sometimes with the involvement of the FMSA. Generally the minimum binding sales price is established and a successful bidding involves at least three bidders.</p> <p>FMS’s public sector holdings are often connected to legal disputes with local and regional authorities.</p>

	<p>The residual portfolio (about EUR 13 billion in total, divided over 482 smaller debtors) was managed by AIB, BOI and Capita.</p> <p>By the end of 2013, almost 75% of disposed assets were UK-related, due to a later recovery in the Irish market. At the same time, Irish disposals accounted for only 16%. As the Irish market recovered, in the period from 2014 to end-2015 about 56% of assets sold were Irish. The domestic portfolio sales amount to EUR 11.9 billion cumulative since the beginning. In 2014, NAMA announced its intention to bring at least EUR 250 million in property portfolios to the market each quarter.</p> <p>EUR 2 billion in vendor financing was made available in 2012 for up to 75% of the purchase price of prime investment commercial properties, to help seed demand in the Irish market. The take up has, however, been limited (about EUR 400 million in April 2015), mostly due to sufficient liquidity in the debt markets and the prevalence of international investors.</p>	<p>that invest in real-estate properties, mostly rental business, similar to Real Estate Investment Trusts (REITs). Property-related loans can be disposed of as large syndicated loans, individual loans, sale of the loan collateral to repay the loan, and loan portfolios.</p> <p>Sareb utilises an open competitive tendering process to sell to institutional investors. It also uses a minimum sale price.</p> <p>Sareb has also launched an online sales channel (www.inmuebles-sareb.es) for properties.</p>	<p>A portion of the structured products holdings is highly illiquid and requires a longer period of hold in addition to restructuring when possible.</p> <p>The strategy for the infrastructure portfolio is an individual restructuring approach with the aim of either the debtor (partially) repaying its debt or the sale of the loan.</p> <p>FMS's commercial real estate portfolio shrunk by almost 70% since 2010. Many sales resulted in profits above the book value on the back of the market recovery, especially in the U.S.</p>
<p>9. Governance and transparency</p>	<p>The establishment and governance of NAMA was laid out in the National Asset Management Agency Act 2009 (NAMA Act). The board must carry out its functions independently but is closely guided by its obligations under the Act. The minister for finance can issue binding written guidelines and directions to NAMA.</p> <p>NAMA operates under several codes of conduct/practice for the board, officers, risk management, servicing standards, asset disposals and commercial interests of non-participating institutions.</p> <p>The NAMA board is made up of seven members non-executive and two ex-officio. All members are appointed by the Minister for Finance. The chief executive of NAMA and the chief executive of the National Treasury Management Agency (NTMA) are</p>	<p>SAREB's governance bodies are the general meeting, composed of the shareholders, and the board of directors. The latter in 2014 comprised fifteen members, five of which were independent. The rest of the board is composed of eight proprietary directors, who represent the main shareholders of the company, and two executives, the chairperson and chief executive officer.</p> <p>SAREB is supervised by the Bank of Spain, and is responsible for overseeing compliance with SAREB's objectives and requirements established for AMCs, and regulations relating to transparency and the company's governance. SAREB is also supervised by the Spanish National Securities Market Commission (CNMV) in relation to its business activity as an issuer of fixed-income securities.</p>	<p>FMS has a supervisory board consisting of eight members appointed by the stakeholder that aid with the unwinding of assets. There is also an executive board, with at least two members appointed by the supervisory board with and FMSA's approval. It manages FMS's business and represents it in and out of court.</p> <p>The Federal Agency for Financial Market Stabilisation (FMSA) supervises FMS, including extensive information, controlling, audit and instruction rights. This includes the involvement in strategic decisions and business plan revisions. The Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht - BaFin) is the financial regulator and monitors FMS's compliance with the</p>

	<p>ex-officio members of the Board.</p> <p>In addition to quarterly reports, NAMA is obliged to issue annual statements and accounts to the Minister for Finance and the two houses of parliament. The annual accounts are audited by the Comptroller and Auditor General. All the reports are provided to the parliament and published on NAMA's website (https://www.nama.ie).</p>	<p>There is also an external monitoring committee which analyses the business plan, the divestment plans and plans for the repayment of the secured debt. It is made up of four members and a representative from the European Central Bank also attends meetings as an observer.</p> <p>SAREB prepares half-yearly reports on its activities, which are subject to an annual compliance report by an independent expert. The reports are public via SAREB's website (www.Sareb.es).</p>	<p>German Banking Act, German Securities Trading Act and German Money Laundering Act that are all binding for FMS. Lastly, a parliamentary committee supervises all beneficiaries of SoFFin measures, including FMS.</p> <p>The executive board is required to prepare periodic reports to FMSA including its annual financial statements, quarterly reports, management and audit reports. The annual financial statements are audited. The financial reports are posted on its website (http://www.fms-wm.de).</p>
<p>10. Servicing and other operational and legal issues</p>	<p>The primary servicing (loan administration, charging of interest/fees) loans is outsourced to Capita Asset Services and AIB for a fee (and very little to BOI). All special servicing (case management, interaction with debtors) is now carried out NAMA directly. Until NAMA disposed of the loans of smaller debtors in 2015, special servicing of the loans of smaller debtors had been carried out by Capita, AIB and BOI. Capita has the status of master servicer in charge of collating loan data and providing the consolidated financial and management information on NAMA's portfolio.</p> <p>The NTMA provides NAMA with business and support services, such as human resources, IT and market risk analysis, and gets reimbursed by NAMA for the costs of these services.</p> <p>NAMA had to get the legal documentation of assets in order. Some of the problems reported were defective land registries, missing original documents, unaudited and self-certified documents, unconfirmed guarantees and items of security not actually taken. There were also cases of the originating banks accepting debtors' own valuations of their assets and liabilities as basis for new lending.</p>	<p>Sareb outsources the servicing and management of assets. Initially when Sareb was set up, it used the contributing banks for the management and administration of assets (or as servicers). As the previous servicing contracts expired at the end of 2014, SAREB decided to change the servicing model in order to improve its activity. In late 2014, the AMC hired four new servicing companies, including distressed debt funds, to assist it in managing cash flow, debt servicing, restructuring loans and selling assets. The servicers will also deal with technology, information systems and documentation. These are Haya Real Estate, Altamira, Servihabitat and Solvia. The migration to the new servicers was finalised by end-April 2016.</p> <p>Sareb has also faced problems with the lack of accurate information and documentation of the assets. For example, there were problems with details in the collateral monitoring systems in the original transferring banks. Discrepancies are commonly revealed during the due diligence when an investor wants to buy an asset or portfolio.</p>	<p>The wind-up of the assets is carried out in part by FMS itself and partly by external service providers. Until September 2013, the latter was done by its subsidiary PBB that further outsourced some servicing activities to other companies of the HRE group. Now this servicing is done by FMS's own servicing entity, FMS Service Company, with offices in Germany, UK, Ireland and the US. Due to the complexity of the portfolio, outsourcing the servicing would involve multiple contracts which could have an adverse effect on the overall management of the portfolio. Thus, FMS created its own service provider and recruited a lot of HRE group staff, in this way retaining expertise and business continuity.</p> <p>Key areas of information technology are outsourced to IBM Deutschland GmbH.</p>

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