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## Trends of Nonperforming Loans in Asia and Europe

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### 1.1 Introduction

Nonperforming loans (NPLs) are an almost permanent feature of any banking sector. But in certain conditions, they become a serious problem for financial sectors and economies. Indeed, rapid credit growth followed by persistently high NPLs often accompany financial crisis. In East and Southeast Asia, NPLs rose sharply during and after the Asian financial crisis in the late 1990s, whereas the peak of the European NPL problem—particularly the euro area—was associated with the global financial crisis starting in 2008 and the subsequent euro area sovereign debt crisis, which began in 2010.

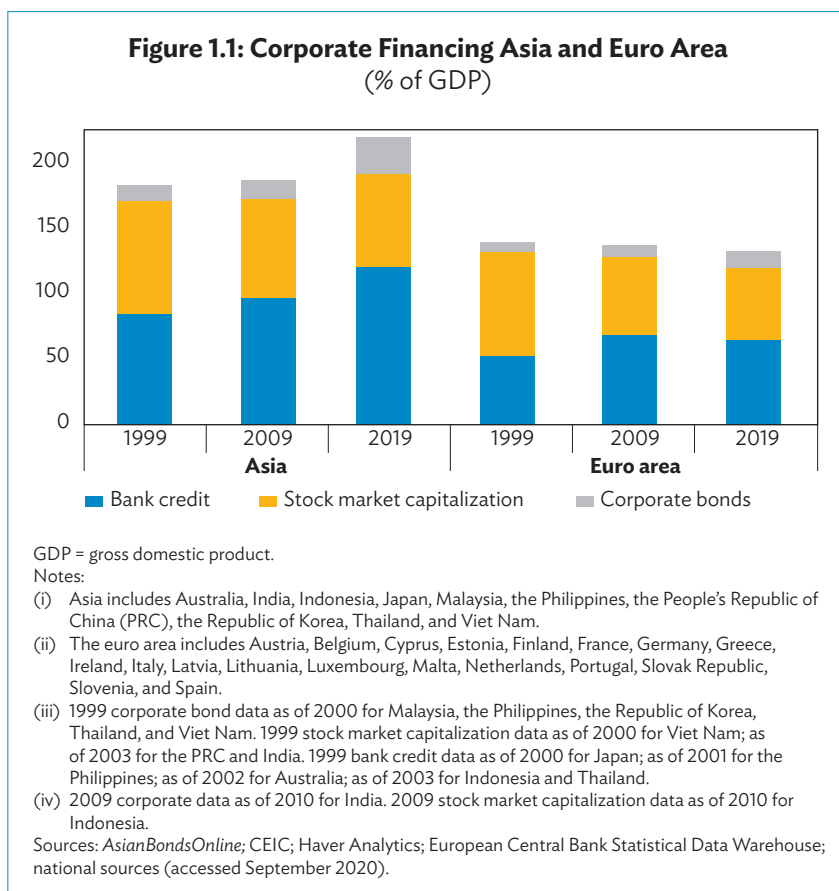
This chapter highlights the main features of NPL developments in Asia and Europe over the last 3 decades, examining both their commonalities and considerable heterogeneity between and within the regions.

NPLs are an unavoidable part of the banking business, although prudent bank lending standards can go a long way in making sure that only a small fraction of loans become nonperforming during their lifetime. Trying to avoid NPLs completely, however, appears almost impossible and would likely result in undesirably low levels of credit and economic activity, notably in most Asian and European economies, which are still characterized by relatively bank-centric financial systems.

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<sup>1</sup> The views expressed are those of the authors alone and do not necessarily reflect the view of the Eurosystem or its members, the Joint Vienna Institute, or the Asian Development Bank. The authors thank Monica Melchor and Alyssa Villanueva for their excellent research assistance.

Banks are the main providers of corporate finance, both in Asia and in the euro area. In 2019, bank credit to firms relative to gross domestic product (GDP) stood at over 120% in Asia, exceeding the combined contributions of corporate bonds and stock markets to corporate financing (Figure 1.1). In the euro area, loans to nonfinancial firms fluctuated around 65% of GDP for most of the last decade, having increased from just over 50% in 1999. Despite having more than doubled in terms of GDP over the last 20 years, the corporate bond market remained a small part of corporate finance in both regions.



The dominance of bank finance in Asia and the euro area underpins the importance of efficient NPL resolution frameworks in these regions. Banks burdened with high NPLs may be unable to financially intermediate and thus support economic activity, while market-based finance may not yet be sufficiently well-developed to substitute for them. As other chapters show,

empirical evidence from both Asia and the euro area suggests that high NPLs tend to reduce bank lending and economic activity. Preventing elevated NPLs, particularly over an extended period, is therefore an important public policy objective.

The chapter provides a high-level review of NPL developments across Asia and the euro area over the last few decades. More specifically, the two regional sections of this chapter look at correlations between NPLs and key economic indicators (such as GDP growth and interest rates), at the structure of the NPL stock in Asia and the euro area, and at key features of the regional secondary NPL markets. It thus provides a background for the subsequent analytical and policy-oriented chapters of the book.<sup>2</sup>

We find that regional economic crises played a key role in the buildup and subsequent decline of NPLs in the two regions. Asia experienced a major peak in NPLs in the aftermath of the Asian financial crisis, and it took nearly a decade for NPLs to return to pre-crisis levels. In the euro area, the surge in NPLs was related to the global financial crisis and the subsequent euro area sovereign debt crisis, which started in 2008 and 2010, respectively, and severely affected several euro area countries, mainly in Southern Europe. Underneath these high-level NPL trends, however, are often very heterogeneous context-specific NPL developments, shaped by a range of idiosyncratic economic and political factors.

## 1.2 Developments in Asia

The Asian financial crisis of 1997–1998 was a watershed moment for NPLs and financial sector development. In a little over a year after the outbreak of that crisis, the aggregate GDP of Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand fell by 30%. Consequently, NPL ratios in Southeast Asia rose significantly, with Indonesia and Thailand experiencing NPL ratios higher than 40% in 1998 (Table 1.1). NPL ratios in the crisis-hit economies came down to considerably lower levels in a decade, due to strong post-crisis reforms, a combination of micro- and macroprudential policies, and sound macroeconomic conditions. In most other Asian economies, NPL ratios were also under control by the late 2000s.

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<sup>2</sup> Comparative analyses of NPLs over long periods are constrained by a lack of comparable data across countries as well as changes in the definition of NPLs over time. For most Asian and European countries, NPL data series start in the 1990s, although there are often material differences in the definitions used (for example, see the metadata for NPL figures collected as part of the International Monetary Fund's Financial Soundness Indicators [IMF 2006]). The European Banking Authority (EBA) in 2013 published a harmonized NPL definition for the member states of the European Union (EBA 2013). No comparably uniform definition exists for the chapter's Asian economies.

**Table 1.1: Evolution of Bank NPLs in Asia**  
(% of gross loans)

Economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Central Asia</b>																								
Afghanistan													49.9		4.7	5.0	4.9	7.8	12.1	11.1	12.2	8.9		
Armenia	6.0	8.0	17.5	24.4	9.9	5.4	2.1	2.0	2.4	2.4	2.4	4.3	4.9	3.0	3.4	3.7	4.5	7.0	8.0	6.7	5.4	4.8	5.1	
Azerbaijan							28.0	21.5	15.1	9.5	7.2			3.5	4.7	6.0	5.7	4.5	4.4	5.3	13.8	12.2		
Kazakhstan							11.9	8.4	4.3	3.3	2.4	2.7	7.1	18.9	20.9	20.7	19.4	19.5	12.4	8.0	6.7	9.3	7.4	8.1
Kyrgyz Republic	10.1	30.9	30.9	13.4	13.3	11.2	8.0			6.2	3.6	5.3	8.2	14.8	9.4	6.6	5.1	4.2	6.7	8.5	7.4	7.3	7.7	
Tajikistan				5.2	3.0	5.1	5.2	3.6	3.3	1.1	0.7	2.3	44.3	7.6	6.8	6.4	8.6	11.6	17.2	26.6	21.6	21.2		
<b>East Asia</b>																								
Korea, Rep of.					2.8	1.9	2.0	1.6	1.0	0.7	0.6	0.9	0.8	1.1	0.9	1.0	1.2	1.0	1.0	1.1	0.9	0.7	0.6	
Mongolia	19.7	31.0	50.5	21.9	6.7	5.1	4.8	6.4	5.8	4.9	3.3	7.2	17.4	11.5	5.8	4.2	5.3	5.0	7.4	8.5	8.5	10.4	10.1	
PRC			28.5	22.4	29.8	26.0	20.4	13.2	8.6	7.1	6.2	2.4	1.6	1.1	1.0	1.0	1.0	1.2	1.7	1.7	1.7	1.8	1.9	

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Table 1.1 (continued)

Economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
<b>South Asia</b>																									
Bangladesh		40.7	41.1	34.9	31.5	28.1	22.1	17.5	13.2	12.8	14.5				5.8	9.7	8.6	9.4	8.4	8.9	8.9	9.9	8.9	8.9	
India	14.4	14.7	12.8	11.5	10.4	9.1	7.2	4.9	3.3	2.5	2.3	2.5	2.3	2.2	2.7	3.4	4.0	4.4	5.9	9.2	10.0	9.5	9.2	9.2	
Maldives																20.9	17.6	17.5	14.1	10.6	10.5	8.9	9.4	9.4	
Pakistan	24.0	23.0	26.0	24.0	23.0	22.0	17.0	12.0	9.0	7.3	7.4	9.1	12.2	14.8	16.2	14.5	13.0	12.3	11.4	10.1	8.4	8.0	8.6	8.6	
<b>Southeast Asia</b>																									
Cambodia	7.2	16.2	14.5	12.4	8.4	14.8	13.9	10.3	7.8	9.9		3.4	3.7	4.8	3.1	2.3	2.2	2.3	1.6	1.6	2.1	2.1	2.0	1.6	1.6
Indonesia		48.6	32.9	34.4	31.9	24.0	6.8	4.5	7.3	5.9	4.0	3.2	3.3	2.5	2.1	1.8	1.7	2.1	2.4	2.9	2.6	2.3	2.4	2.4	2.4
Malaysia	4.1	18.6	16.6	15.4	17.8	15.9	13.9	11.7	9.4	8.5	6.5	4.8	3.6	3.4	2.7	2.0	1.9	1.7	1.6	1.6	1.6	1.5	1.5	1.5	
Philippines	4.7	12.4	14.6	24.0	27.7	14.6	16.1	14.4	10.0	7.5	5.8	4.6	3.5	3.4	2.6	2.2	2.4	2.0	1.9	1.7	1.6	1.7	2.0	2.0	
Thailand		42.9	38.6	17.7	11.5	16.5	13.5	11.9	9.1	7.8	7.6	5.6	5.2	3.9	2.9	2.4	2.3	2.3	2.7	3.0	3.1	3.1	3.1	3.1	

NPL = nonperforming loan, PRC = People's Republic of China.

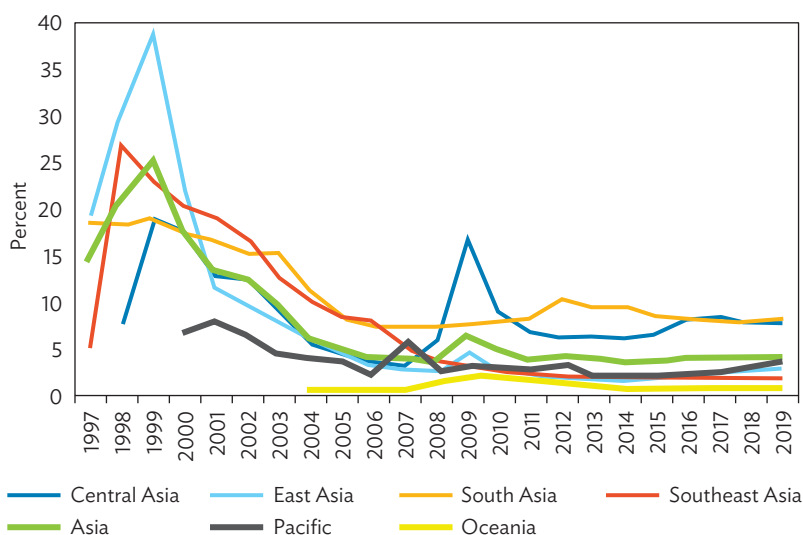
Note: White cells denote nonperforming ratios less than 5%, yellow between 5% and 10%, and orange higher than 10%. Blank cells mean data are not available.

Sources: Asian Development Bank calculations using data from Bank of Mongolia; CEIC Database; International Monetary Fund Financial Soundness Indicators. <https://data.imf.org/>; and World Bank World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators> (accessed June 2020).

However, in the aftermath of the global recession of 2008, distressed assets and the accompanying elevation in default risks and financial vulnerabilities increased in some countries, particularly in Central and South Asia, and in Mongolia. The NPL ratio reached 10.1% in Mongolia, due to a fall in prices of coal and natural resources after the global recession. A resurgence in these economies' NPL ratios was a cause for concern, as high NPLs can destabilize banking systems and undermine economic growth.

Examination of how NPL ratios evolved over the past 3 decades reveals two distinctive peaks during the Asian financial and global financial crises, especially for subregions affected directly by each crisis (Figure 1.2). The Asian financial crisis hit Southeast Asia hardest, while the euro area sovereign debt crisis a decade later hit Central Asia hardest.

**Figure 1.2: NPL Ratio by Subregion, 1997–2019**



NPL = nonperforming loan.

Notes: Central Asia includes Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan. East Asia includes Hong Kong, China; Japan; Mongolia; the People's Republic of China; and the Republic of Korea. Oceania includes Australia. The Pacific includes Fiji and Papua New Guinea. South Asia includes Bangladesh, India, Maldives, Pakistan, and Sri Lanka. Southeast Asia includes Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. Simple averages are reported.

Sources: Asian Development Bank calculations using data from Bank of Mongolia; CEIC Database; International Monetary Fund Financial Soundness Indicators. <https://data.imf.org/>; State Bank of Viet Nam; and World Bank World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators> (accessed September 2020).

On average, NPL ratios are lowest in East and Southeast Asia, at around 2%, together with Oceania and the Pacific. In Central and South Asia, NPL ratios remain relatively high, at 8%–10%, although they came down from the peak during the global financial crisis and the recession.

Notably, NPL ratios showed different patterns subregionally as they declined. In East Asia, the initial reduction was fast (falling from 39.5% to 11.9% in only 2 years) reflecting decisive post-Asian financial crisis reforms and political commitments. But in Southeast Asia, ratios went down more gradually (falling from 27.7% in 1998 to 12.8% in 2003 and taking another 5 years to come down to 3.6% in 2008), underscoring challenges of addressing high NPLs. Without direct crisis impact (and possibly no urgency and political will), NPL problems tend to persist even longer. In South Asia, the NPL ratio peaked at 19.4% in 1999 but was brought down to only 15.4% in 2003 and again to 7.5% in 2008. In Central Asia, the NPL ratio also came down slowly from its peak of 19.5% in 1999 to 9.0% in 2003 and again to 3.3% in 2007, before resurging to 17.4% in 2009 in the aftermath of the euro area sovereign debt crisis and a global recession. These experiences altogether also highlight the importance of timely resolution of NPL problems to avoid NPL overhangs.

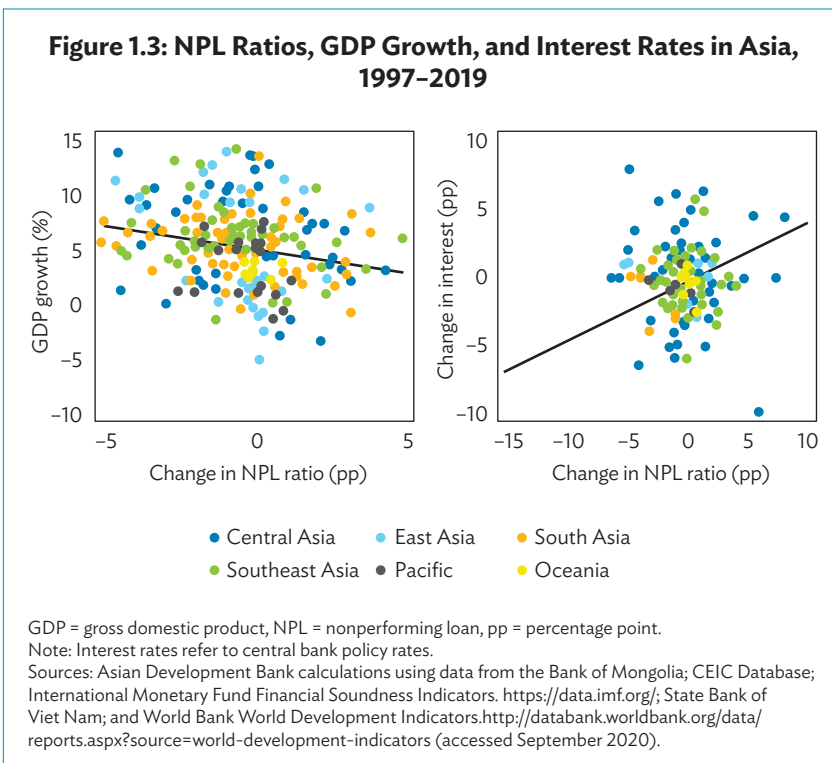
In most economies that experience high NPLs, adverse macroeconomic conditions are important factors. The global financial crisis and the recession that followed exposed the vulnerabilities of the banking systems in many countries in Central Asia. Bank credit also grew rapidly in many of them in the years before the global financial crisis, spurred by favorable macroeconomic conditions. In 2008–2009, global oil prices fell sharply, however, undermining corporate profits and economic outlooks. NPLs rose sharply, compromising banking sector health and slowing the recovery with credit constraints.

These crisis episodes highlight the importance of macrofinancial linkages. Credit risks rise as macroeconomic conditions deteriorate and interest payments rise. Conversely, a deterioration in banks' balance sheets may feed back into the economy as banks tighten credit conditions. While the macroeconomic impact is significant for NPL ratios, bank-specific factors cannot be overlooked.

The coronavirus disease (COVID-19) crisis magnifies concerns over NPL overhangs. Countries' NPL ratios are expected to rise significantly with the unfolding of the pandemic and may well persist beyond the crisis period

unless managed in a timely manner. These expectations call for policy measures to cushion the impact of COVID-19 on the banking sector and the economy in general.

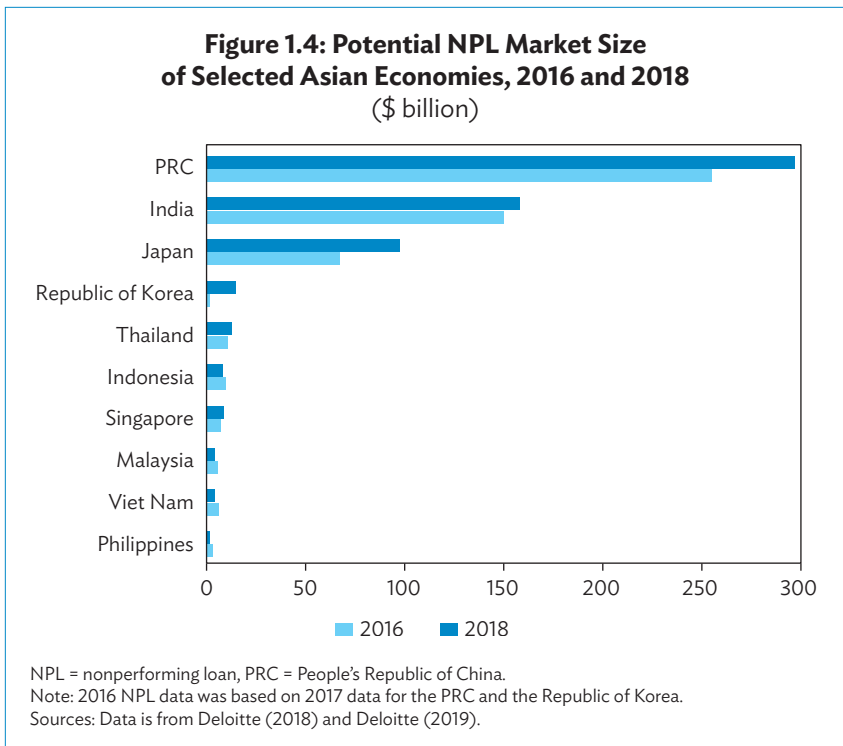
Figure 1.3 illustrates the negative relationship between NPLs and economic growth, hinting at the possible harmful real economic effects associated with NPLs. From 2000 to 2017, changes in NPL ratios and GDP growth across different Asian subregions were negatively correlated. During the same period, Asian economies saw a positive relationship between the change in the NPL ratio and the change in interest rates.



Persistently high NPLs in some Asian economies might be attributed to various impediments to NPL resolution, which later chapters detail. Among these is the lack in Asia of well-developed NPL markets in which banks can dispose of distressed assets. While some economies have set up NPL markets to allow financial institutions, private asset management companies, and NPL investors to trade distressed assets, most Asian economies lack such markets due to legal, accounting, and institutional deficiencies.



A few economies have established and nurtured the growth of domestic NPL markets, however, such as the People's Republic of China (PRC), where, in 2018, the value of NPLs traded in secondary markets exceeded \$56 billion (Deloitte 2019). This is comparable to values traded in the euro area. Figure 1.4 illustrates the stock of outstanding NPLs held by banks in selected Asian economies in 2016 and 2018, indicating their potential for growing NPL markets.

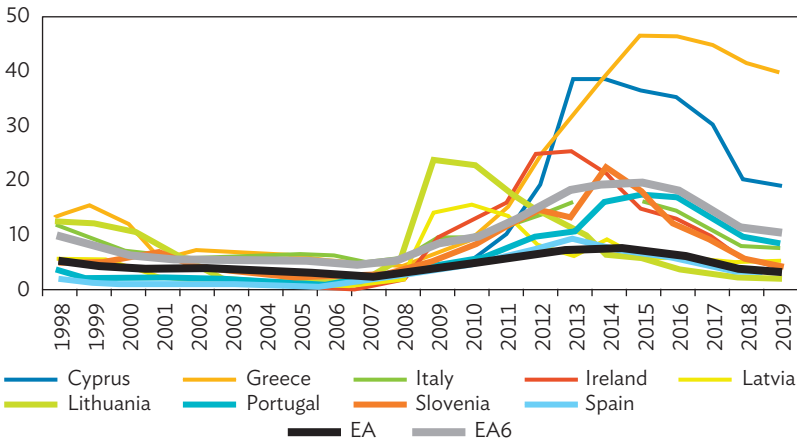


### 1.3 Developments in the Euro Area

NPL levels in the euro area ranged between 2.5% and 5% for most of the last 2 decades, reaching their lowest levels in 2006 and 2007 (Figure 1.5). The declining trend in euro area NPLs reversed with the beginning of the global financial crisis, while the euro area sovereign debt crisis contributed to the rise from 2011. The ratio peaked in 2014 at just over 8% before gradually falling back to 2.9% by 2020.

For most of the period under review, the euro area NPL ratio remained substantially above NPL ratios in other large, advanced economies, such as the United States (US) and the United Kingdom. This suggests—as in Asia—the presence of long-standing structural weaknesses in the NPL resolution regimes in several euro area countries, e.g., relatively less efficient insolvency and debt recovery regimes. Despite recent positive developments, the euro area NPL ratio in 2020 remained about three times above equivalent ratios in Japan, the United Kingdom, and the US.

**Figure 1.5: NPL Ratios in the Euro Area and Selected Member Countries, 1998–2019**



EA = euro area, NPL = nonperforming loan.

Notes: The individual country series are shown only for countries where the NPL ratio exceeded the euro area average for more than 2 years. EA refers to the euro area in the constant 2019 composition. EA6 is the weighted average figure for Cyprus, Greece, Ireland, Italy, Portugal, and Slovenia. Other highlighted countries in the chart are Latvia, Lithuania, and Spain.

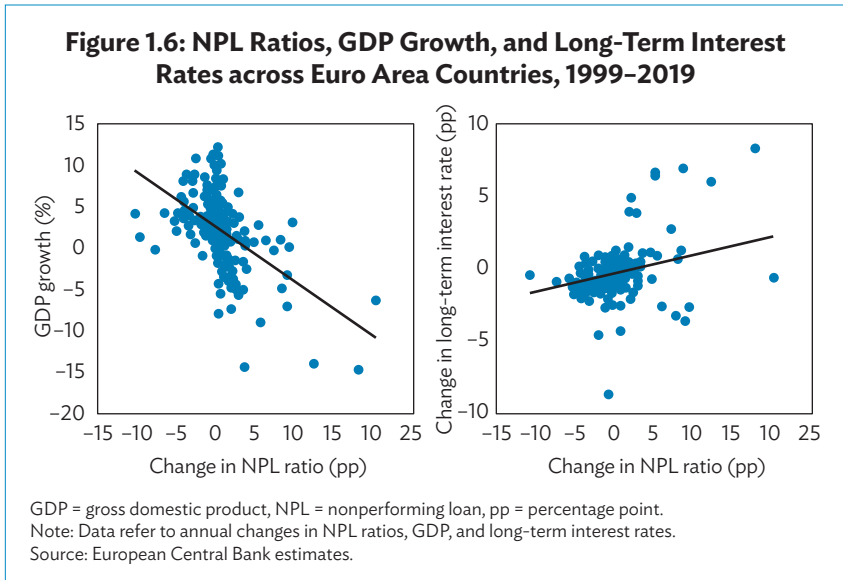
Sources: International Monetary Fund and European Central Bank data.

The euro area average NPL figure masks substantial differences across the 19 euro area countries. After the euro area sovereign debt crisis started, shares of nonperforming assets increased rapidly in several euro area countries. Cyprus, Greece, Ireland, Italy, Portugal, and Slovenia (the EA6 countries) all experienced double-digit NPL figures, peaking at close to 50% in Greece and close to 40% in Cyprus.<sup>3</sup> Spain came close to an NPL

<sup>3</sup> Latvia and Lithuania were not members of the euro area when they experienced a large increase in NPLs, starting in 2008. They adopted the euro in 2014 and 2015, respectively. Similar to other Central, Eastern, and Southeastern European countries, the global financial crisis hit them hard (see Gardó and Martin 2010). The steep rise of NPLs in these economies was swiftly reversed, as the Baltic economies recovered and proved to be rather flexible.

ratio of 10%. Starting in 2014, NPL ratios started to decline again in all these economies, but the speed of decline varied significantly. In 2020, Cyprus, Greece, Italy, and Portugal still had NPL ratios of more than 5%.

Turning to macrofinancial conditions, Figure 1.6 illustrates correlations between GDP growth, long-term interest rates, and changes in the NPL ratios of euro area countries between 1999 and 2019.



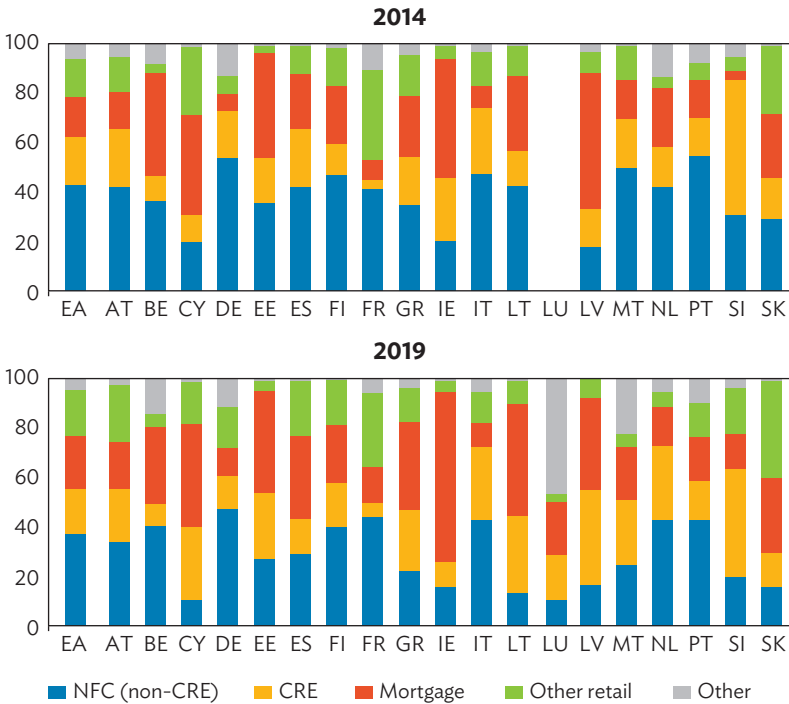
As expected, the left-hand panel shows a strong negative correlation between annual changes in NPL ratios and annual GDP growth rates. Moreover, the correlation between changes in economic development and credit defaults appears to be rather fast, given that there is no lag structure in Figure 1.6. The right-hand panel shows a positive correlation between annual changes in NPL ratios and changes in long-term interest rates. The link between increasing interest rates and rising credit defaults is, however, relatively weaker than the correlation between GDP growth and NPLs. The European patterns are in line with those in Asia.

To understand NPL patterns across euro area countries, it is useful to look in more detail at the structure of the NPL stock in the euro area—in particular, the sector composition, the age of the NPLs, and the extent to which NPLs are covered by provisions and collateral.<sup>4</sup>

<sup>4</sup> On a comparable basis across all euro area countries, such detailed information is only available from 2014.

Figure 1.7 looks at the NPL composition by main asset classes—nonfinancial corporations, commercial real estate, mortgages, other retail loans, and other loans, which can be seen here as a residual item. The left- and right-hand panels show the situation in 2014 and 2019, respectively.

**Figure 1.7: NPL Ratios—Contributions by Sector, 2014 and 2019**



AT = Austria, BE = Belgium, CRE = commercial real estate, CY = Cyprus, DE = Denmark, EA = euro area, EE = Estonia, ES = Spain, FI = Finland, FR = France, GR = Greece, IE = Ireland, LT = Lithuania, LU = Luxembourg, LV = Latvia, MT = Malta, NFC = nonfinancial corporations, NL = Netherlands, NPL = nonperforming loan, PT = Portugal, SI = Slovenia, SK = Slovakia.

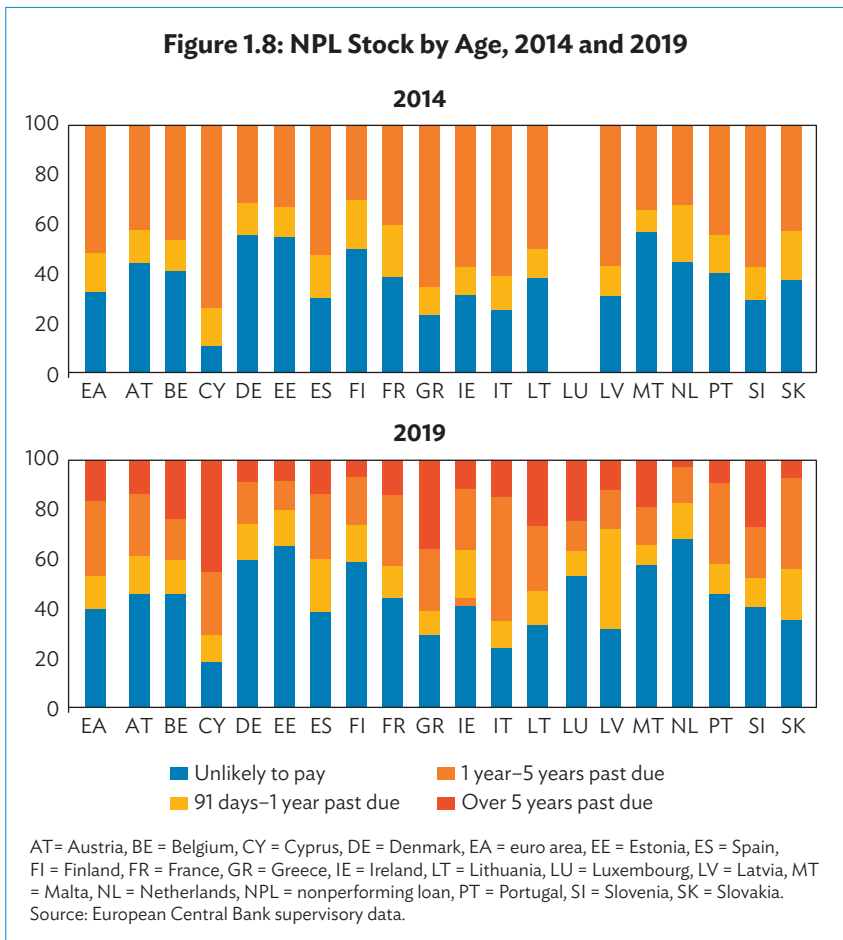
Note: 2014 data for Luxembourg is not available.

Source: European Central Bank supervisory data.

For the euro area as a whole, corporate lending—including loans backed by commercial real estate—accounted for nearly two-thirds of the NPL stock in 2014, but its share declined to about 55% by 2019. The share of mortgages, which are more challenging to work out, increased somewhat between 2014 and 2019. Differences between the euro area countries are pronounced. The share of nonfinancial corporation loans ranges from around 10% in some smaller euro area countries to above 40% in many larger economies. Comparable wide-ranging differences can be observed

for the other categories, despite their smaller average share in the euro area average. Overall, the contributions by sector are very heterogeneous and suggest a need for country-specific resolution strategies.

Turning to the age structure of NPLs across the euro area, Figure 1.8 shows different NPL age brackets: (i) “unlikely to pay” loans, (ii) loans that were in arrears between 3 months and 1 year, and (iii) loans that were in arrears for more than 1 year.<sup>5</sup> An additional category, loans in arrears for more than 5 years, was released in 2019.

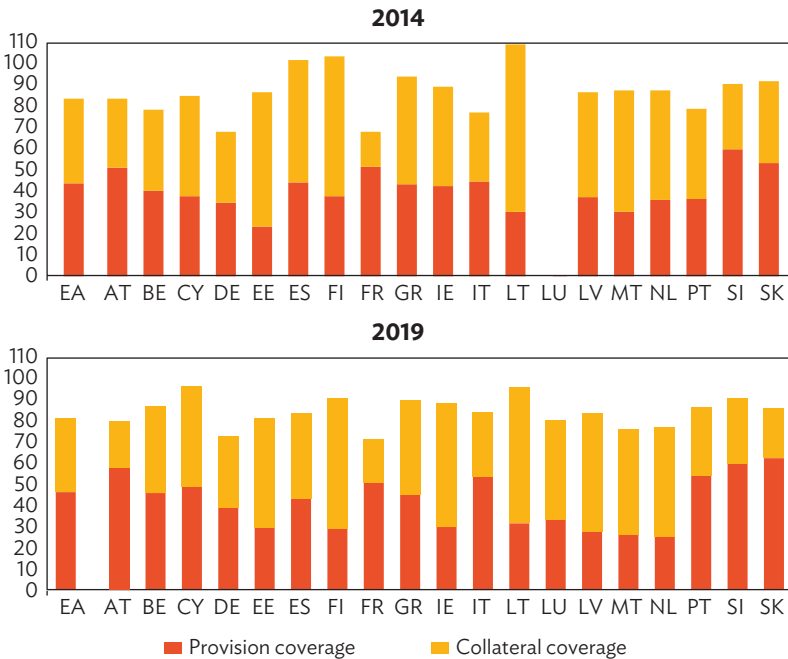


<sup>5</sup> Loans classified as unlikely to pay continue to be serviced with a delay of less than 90 days and are considered nonperforming on the basis of other data about the borrower’s expected ability to repay the loan. For example, classification as unlikely to pay may be triggered by a reduction in the borrower’s cash flows, initiation of insolvency proceedings, or extension of forbearance measures, which would not normally be granted to a performing borrower.

Looking at the euro area as a whole, around half of the NPL stock has been in default for more than 1 year—and around 17% for more than 5 years. As the overall NPL stock halved, the share of old NPLs declined slightly between 2014 and 2019, whereas the share of unlikely to pay and recent NPLs increased slightly. Moreover, differences between euro area countries are pronounced. The share of unlikely to pay in total problem loans ranges from under 20% to almost 70%. Swift measures to cure these loans can effectively prevent a subsequent increase in the NPL ratio. In Cyprus, Greece, Italy, and Latvia, however—with NPL levels above 5%—more than half of the NPL stock is older than 1 year, suggesting that the NPL resolution process in these countries is slow and the likelihood that these loans will be resolved is particularly low.

The final structural NPL indicator is the share of NPLs covered by provisions and collateral (Figure 1.9).

**Figure 1.9: Share of NPLs Covered by Provisions and Collateral, 2014 and 2019**



AT = Austria, BE = Belgium, CY = Cyprus, DE = Denmark, EA = euro area, EE = Estonia, ES = Spain, FI = Finland, FR = France, GR = Greece, IE = Ireland, LT = Lithuania, LU = Luxembourg, LV = Latvia, MT = Malta, NL = Netherlands, NPL = nonperforming loan, PT = Portugal, SI = Slovenia, SK = Slovakia.  
Source: European Central Bank supervisory data.

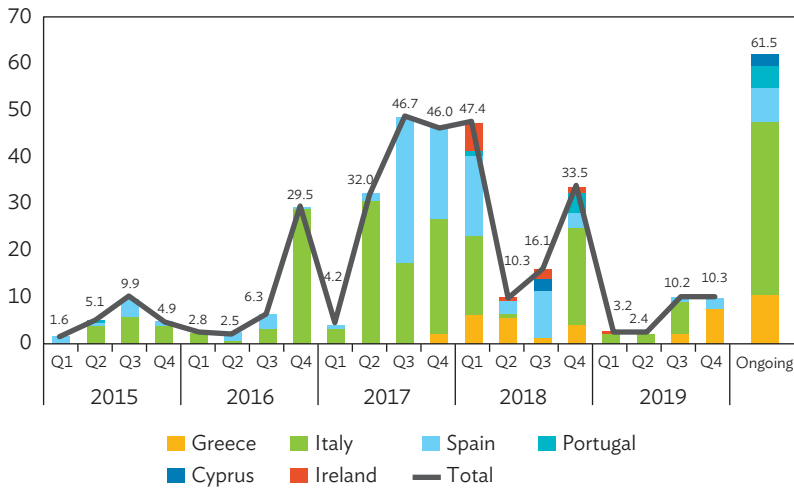
The overall coverage of euro area NPLs by provisions and collateral remained relatively stable over time. In 2019, provisions stood at around 46% of NPL gross book value, with a further 34% of gross book value covered by collateral. From a bank management perspective, provisions represent a measure of incurred losses on the NPLs, while collateral provides additional protection and a source of intrinsic value of NPLs. However, the presence of collateral exposes banks to the valuation risks, often related to the state of the property market, and to uncertain costs of enforcing and disposing of collateral.<sup>6</sup> The relative importance of provisions and collateral differs across countries. The cross-country heterogeneity is, however, less pronounced than for other structural indicators. The share of gross book value covered by provisions has significantly increased in most euro area countries with elevated NPL ratios, suggesting that the resolution of these loans will be easier for the affected banks.

An important indicator for the agility of NPL resolution frameworks is the level of activity of the secondary NPL market—i.e., the amount of NPLs that banks are selling to other (normally nonbank) market participants. During the early years of the peak NPL period in the euro area, starting around 2009, secondary NPL markets were not very active. Even around the time when NPLs peaked in the euro area, Deloitte (2016) and KPMG (2016) highlighted that despite a stock of some 2 trillion euros in noncore assets on bank balance sheets (of which about 50% were NPLs), annual transactions only amounted to slightly more than 100 billion euros.

Figure 1.10 looks at recent secondary market NPL transactions in euro area countries with elevated NPL ratios.<sup>7</sup> Starting from still very low levels in 2015, NPL transactions gained traction in the second half of 2016, driven, among other things, by the strong cyclical upswing in the euro area economy from around 2015, before declining again in 2019. Most of the transactions took place in the largest NPL markets—by absolute size rather than by NPL share—Italy and Spain. Some transactions, however, were also recorded in the other high-NPL euro area countries. Regulatory pressure, which forced banks to develop NPL reduction strategies, and—in the case of Italy—government support to NPL securitizations, contributed to the increase in NPL sales.

<sup>6</sup> Collateral is highly dependent on timely and accurate valuation. Moreover, the time needed and costs incurred to liquidate collateral vary substantially by country, depending, in particular, on the quality of the legal system and insolvency frameworks, as well as on loan documentation.

<sup>7</sup> Figure 1.10 data are based on publicly available information and may thus, to some extent, underestimate the true activity on the euro area secondary NPL market.

**Figure 1.10: NPL Market Transactions, 2015–2019**

NPL = nonperforming loan, Q = quarter.

Note: Amounts in billions of euros. “Ongoing” refers to transactions which were in progress at end-2019.

Source: European Central Bank staff calculations.

Various reasons explain the lack of agility in the secondary euro area NPL market, ranging from the pricing of NPLs on banks’ balance sheets, through the market structure, to framework conditions such as the length of insolvency procedures or even outright prohibitions to sell loans to nonbanks. All of these factors contribute to a gap between the price investors are willing to pay for NPLs and the price for which banks are willing to sell (e.g., see Fell et al. 2016). This so-called “bid-ask spread,” along with policy options, is discussed in more detail in Chapter 7 (euro area) and Chapter 8 (Asia).

## 1.4 Conclusions

The regional financial and economic crises of recent decades severely affected Asian and European financial markets. Over 2 decades ago, the Asian financial crisis triggered an increase in NPLs, particularly in East and Southeast Asia. A decade later, elevated NPLs across Europe, particularly Southern Europe, followed the global financial crisis. Possible macroeconomic implications associated with a buildup in distressed assets call for investigation, as NPLs are negatively correlated with GDP and positively correlated with interest rates. This pattern played out both in Asia and in Europe.



A decade after the Asian financial crisis, NPLs declined substantially in Southeast Asia, largely owing to strengthened financial regulation, favorable economic development, and generally enhanced banking sector resilience. While NPL ratios stabilized at low levels across most of Asia during the economic boom around the mid-2000s, they spiked after the global financial crisis in many economies, especially in Central and South Asia and in Mongolia. NPL ratios also increased significantly in Europe, due to the euro area sovereign debt crisis, and have not yet returned to the pre-crisis levels, highlighting the strong persistence of NPL ratios.

NPL market development is slowly progressing as policy makers start to address the impediments to NPL management and resolution. At present, secondary markets across developing Asia are still largely underdeveloped and progress in NPL resolution is uneven. In Europe, a regional NPL market—while better developed—lacks agility, calling for policy makers to address issues in bid-ask spreads.

The current COVID-19 pandemic casts a shadow over the global economy. It exposes Asia and Europe to financial vulnerabilities, with looming problems associated with deteriorating debt quality. Policy makers need to pay close attention and prepare for possible buildups in NPLs triggered after the pandemic passes. As temporary relief measures are lifted, corporate defaults may materialize, heightening bank exposure to distressed assets. Potential rises in the NPL ratios, alongside elevated debt and default risks, are significant risks to banking sector health, which could slow economic recovery post-COVID-19.

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