The reconstruction and development of Ukraine's financial sector after the war[1]

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EXECUTIVE SUMMARY

Before Russia's February 2022 invasion, Ukraine's financial sector was small, fragmented and overly reliant on state banks. The sector has nevertheless weathered the initial shock relatively well, reflecting the central bank's restructuring efforts over the past decade.

Even during the war, the authorities can start preparing for the post-war reconstruction and repositioning of the financial sector. Preparations should include the comprehensive asset quality review that will be needed straight after the war; subsequent bank-specific recapitalisations; and designing a (centralised) mechanism for resolving non-performing loans. State banks should be put on a credible privatisation path while ensuring they become less reluctant to write off or restructure non-performing loans.

Ukraine's EU candidacy will guide its regulatory alignment with European standards and (re)engagement with foreign investors. To develop capital markets, priority should be given to consolidating the fragmented equity market infrastructure; introducing financial collateral legislation and strengthening creditor protection; and legally recognising modern financial instruments to adjust the balance between debt and equity risks.

Ukraine may continue to face elevated geopolitical risks after the war. The financial deepening process will then depend on risk-sharing arrangements with the EU, bilateral donors and multilateral development institutions.

1 We are indebted to many colleagues who generously shared their insights and expertise with us. We would like to thank Engin Akçakoca, Dimitar Bogov, Catherine Bridge Zoller, Oleg Churiy, Pervin Dadashova, Andriy Gostik, John Gordon, Yuriy Gorodnichenko, Namjee Han, Sung-Ah Kyun, Yevgeniya Korniyenko, Francis Malige, Piroska Nagy, Tamas Nagy, Sergiy Nikolaychuk, Aude Pacatte, Matteo Patrone, Tricia Park, Alexander Pavlov, Alexander Plekhanov, Artur Radziwill, Peter Sanfey, Nayoon Seo, Dmytro Sologub, Ilona Sologub, Elena Sulima, Rada Tomova, Dejan Vasiljev, David Vavra, Vitaliy Vavryshchuk, Oksana Yavorskaya and Kateryna Yashchenko for useful comments on earlier drafts and John Gordon and Joseph Sassoon for excellent research assistance. The views expressed in this chapter are the authors' and not necessarily those of the EBRD.

1 INTRODUCTION

A deep, liquid and resilient financial sector can be a powerful engine of long-term economic development (Beck et al. 2000). Well-functioning financial systems mobilise domestic and foreign savings and allocate them efficiently to profitable investments. Strengthening Ukraine's banking sector and developing its capital markets will therefore be an essential part of the post-war reconstruction and development effort.

Very large volumes of domestic and external funds will have to be mobilised. The cost of reconstruction and recovery, as well as the decontamination of mines and explosive remnants of war, is estimated by the World Bank (2022) at over €350 billion as of September 2022 (almost twice the level of Ukraine's pre-war GDP) and is likely to grow. This financing needs to be channelled swiftly to the right projects without compromising financial stability. This will be the balancing act at the heart of Ukraine's financial reconstruction in the short to medium term.

In the longer term, two strategic considerations will guide Ukraine's financial development. First, the country's EU candidacy should provide a useful institutional anchor to guide regulatory alignment and (re)engagement with foreign investors. Second, even after the war, Ukraine's geopolitical situation will likely remain uncertain for a considerable period of time. Financial deepening may therefore benefit from, and initially even depend on, risk-sharing arrangements with the EU, bilateral donors as well as multilateral development institutions.

This chapter consists of three parts. The first part reviews the strengths and weaknesses of Ukraine's financial system at the time of Russia's invasion. The second part briefly discusses the country's wartime financial resilience so far. The third part sets out key reform priorities for Ukraine's post-war financial reconstruction. These specific priorities reflect a few more general objectives, such as ensuring a swift recovery of the banking sector and developing the country's capital and equity markets.

2 UKRAINE'S FINANCIAL SECTOR BEFORE THE INVASION

2.1 Overview

Ukraine's pre-war financial sector was relatively underdeveloped and heavily bank-based. The country's financial underdevelopment is rooted both in its experience during the post-socialist transition and the low quality of its market institutions (Pivovarsky 2016). In the early 1990s, many Ukrainians lost most of their accumulated rouble savings due to the collapse of the Soviet Union and subsequent hyperinflation. The resulting lack of trust in the financial system was exacerbated by the negative experience with

mass privatisation in the mid-1990s. At the time, controlling stakes in companies and banks were quickly accumulated by a small group of people (some of whom subsequently became oligarchs) while minority shareholder rights were violated with impunity (Pivovarsky 2003).

In the early years of the post-socialist transition, some observers expected that institutions supporting financial development would emerge naturally, as new private owners would lobby the state to create them. However, the majority shareholders of private companies turned out not to be interested in this. The deficient legal framework and limited investor protection, especially of minority shareholders, thus remained key impediments to Ukraine's financial development, as has been the case in many other emerging economies (La Porta et al. 1998).

The traumatic transition experience and weak institutions, combined with high economic inequality (and thus a thin local investor base) has held back Ukraine's financial markets. Moreover, the severe macroeconomic (and more recently, security) shocks that Ukrainians have experienced over the past decades, and the associated asset price collapses and devaluations, have contributed to strong risk aversion in society. Many households have resorted to hoarding foreign currency cash, investing in real estate or holding short-term bank deposits (often also in foreign currency).

As a result, firms and investors interested in funding commercial projects had to rely either on internal funding, relatively expensive bank loans, or funding from international markets.

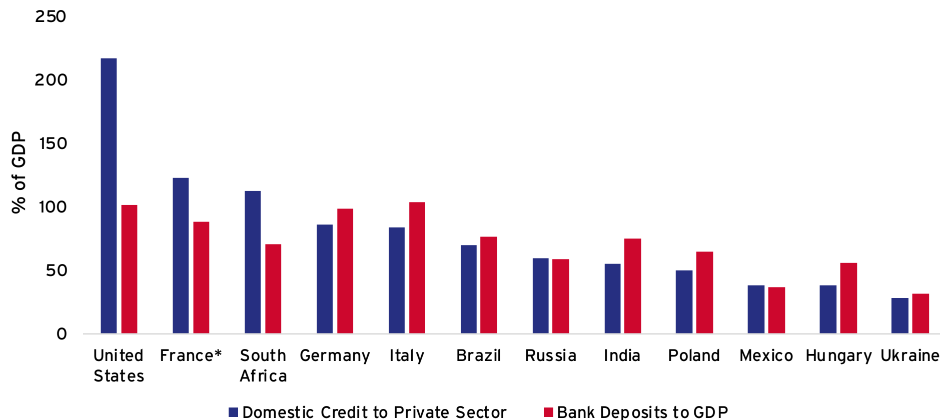
2.2 The banking system

A shallow banking system dominated by state banks

Even though Ukraine's financial sector is predominantly bank-based, the total stock of bank lending to the private sector stood at just 28% of GDP at the end of 2021. This total constituted around one half of the banks' overall assets, with the rest on-lent to the central government. The country's deposit base remained low, too, by comparison with other large emerging markets (Figure 1). There exists therefore substantial scope to deepen Ukraine's banking system in support of private sector development.

Before the 2008/9 global financial crisis, the state controlled two large banks responsible for less than a quarter of all banking assets. During that crisis, the government nationalised and recapitalised several smaller private banks that were deemed to be systemically important. The country's largest bank, PrivatBank, which for a long time had been plagued by unprofitable related-party lending, was nationalised in 2016 as well. Following that nationalisation, the state's share in the banking system increased further to over half of all banking assets.

FIGURE 1 **UKRAINE'S BANKING SYSTEM IN INTERNATIONAL COMPARISON**



Note: Data refer to 2020 except for the French deposit data (which is for 2019).
Source: World Bank.

Already in 2018, the government drew up a strategy for the privatisation of state-owned banks. It invited international financial institutions to acquire significant minority stakes in two state banks to help prepare them for privatisation to strategic investors. At the same time, steps were taken to improve the corporate governance of state banks, including by increasing the share of independent directors on their boards. However, preparing state banks for privatisation turned out to be challenging, and the appetite of international investors has been limited so far. The authorities therefore pushed the privatisation timeline back to 2025.

Non-performing loans and the Deposit Guarantee Fund

For years the Ukrainian banking system suffered from weak risk management, widespread related-party lending and regulatory forbearance. After Russia's annexation of Crimea and the onset of the war in Donbas in 2014, Ukraine experienced a severe economic crisis. The National Bank of Ukraine (NBU) responded by implementing a major programme of internal professionalisation and an overhaul of the banking sector. As a consequence of the crisis and the introduction of proper oversight by the NBU, the share of non-performing loans (NPLs) on banks' balance sheets increased from less than one fifth of the total in 2013 to over half of all loans in 2017.

Following two rounds of asset quality reviews, more than 80 banks – responsible at the time for one third of all banking assets – were closed, and PrivatBank was nationalised. Other large banks were recapitalised and strict limits for their related-party exposures were actively enforced by the central bank. In addition to curbing related-party lending and accelerating NPL restructuring, other reforms included promoting transparency of bank ownership, strengthening macro- and microprudential supervision, and tackling money laundering activities by banks.

As the NBU closed failing banks during the clean-up of 2014–17, many of their liabilities and assets migrated to the balance sheet of the Deposit Guarantee Fund (DGF) created in 1998 with a function to repay depositors of resolved banks that participated in DGF. In 2012, the DGF powers were extendedad it was tasked with not only deposit insurance but also bank resolution. All banks, with the exception of state-owned Oschadbank (the largest bank in terms of personal deposits, which were already explicitly guaranteed by the state), were required to participate in the insurance scheme administered by the DGF.[2]

The DGF's financial buffer was insufficient to handle the full scale of the 2014–15 crisis. To address the shortfall, the fund had to borrow from the NBU and the Ministry of Finance. This was done on market terms, which put additional pressure on the DGF's financial position. Towards the end of 2020, Ukraine's financial stability council approved a procedure for restructuring the DGF's debt and restoring its solvency (put in Law in 2022). The procedure included turning the repayments to the Ministry of Finance into contingent liabilities, using funds recovered from failed banks' previous owners to replenish the DGF. As a result, the DGF was able to honour its obligations to the depositors of failed and liquidated banks. It also established a specialised department for the consolidated sale and management of the banking assets it had absorbed and managed. Over time, the DGF has used the country's electronic procurement and asset sale system, ProZorro.Sales, to sell some of these assets.

The Kyiv Approach

To handle the large stock of NPLs in a way that is relatively favourable to borrowers, including by avoiding drawn out legal processes, the Ukrainian authorities introduced a simplified method for NPL resolution known as the 'Kyiv Approach'. Based on the 2016 Law of Financial Restructuring (LFR), this approach allows for the voluntary out-of-court restructuring of non-performing liabilities. A secretariat set up by several international institutions assists with LFR restructurings.[3]

The goal of the LFR was to assist banks and borrowers with the restructuring of loans, and to salvage viable businesses.[4] Cases involving multi-creditor restructurings, and where borrowers and lenders could not reach amicable agreements, can in principle be submitted for resolution by arbitration. However, before the war, all cases settled under the LFR (equivalent to around 2% of GDP) were handled through the voluntary, bilateral procedure. Furthermore, the LFR was used primarily to restructure loans of state-owned financial institutions, while privately-owned commercial banks preferred workouts outside of the LFR framework (see also Section 4.1).

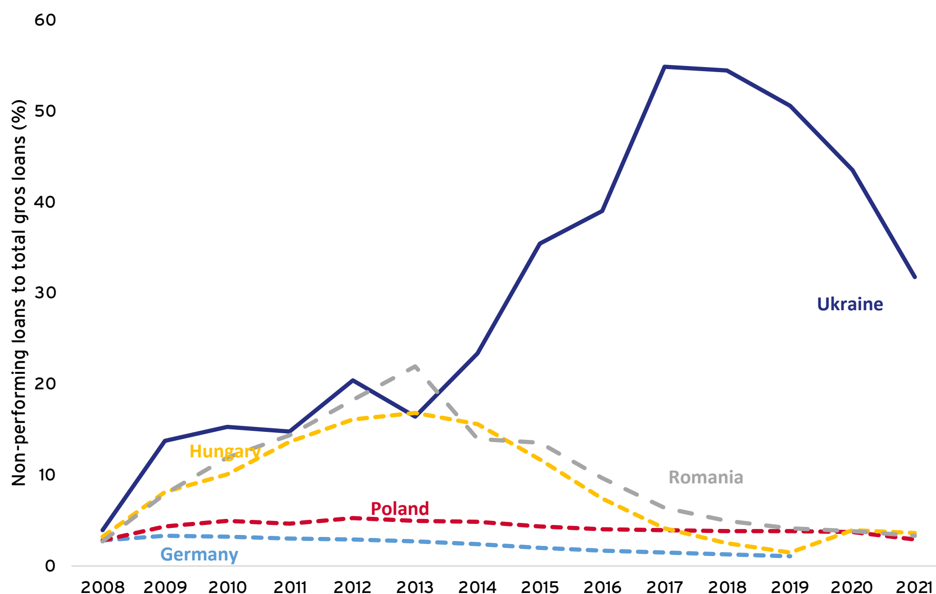
2 Since April 2022, Oschadbank also participates in the DGF.

3 Although the Kyiv Approach was to be phased out in 2022, an amendment to the law was recently signed by Ukraine's president which extends the LFR until 1 January 2028.

4 All Ukrainian enterprises with outstanding debt to at least one Ukrainian or foreign financial institution, and whose business is deemed financially distressed but viable, are eligible to participate in an LFR restructuring. The debtor must obtain the consent of one or more financial institutions holding at least 50% of all claims against the debtor (excluding any liabilities to related parties).

After peaking in 2017, NPLs started to come down as a result of the financial sector clean-up, the writing down of loans and related institutional improvements (Figure 2).

FIGURE 2 **NON-PERFORMING LOANS IN UKRAINE AND COMPARATOR COUNTRIES**



Source: IMF Financial Soundness Indicators.

2.3 Non-bank financial institutions

Non-bank financial intermediation was also underdeveloped before the war. The insurance sector remained highly fragmented and the stock of insurance assets equalled less than 2% of Ukraine's GDP at the end of 2021. The sector was dominated by car insurance while life insurance was only just emerging. Venture and equity funds were few and far between. They also tended to be small and sponsored by international organisations, thus mobilising few domestic or international private savings. Other non-bank financial institutions – including credit unions and payday lenders – were scarce and small as well.

2.4 The money market

For many years, the Ukrainian authorities had a rather ambivalent approach to developing local currency markets. This was in part the result of their commitment to a tight control of the hryvnia exchange rate. However, with the transition of the monetary policy framework from a hybrid regime towards inflation targeting in 2016, and while liberalising the foreign exchange market, the NBU had started to engage actively in

money market development.[5] At end-2021, most activity in the interbank money market was in the unsecured segment, which also formed the basis for calculating the Ukrainian Overnight Index Average (UONIA). UONIA was launched in June 2020 and is published daily.

Pre-war repo market activity was shallow but had been expected to gradually increase on the back of recently established on-exchange anonymous repo platforms. These platforms were supported by the three local stock exchanges, with settlement and clearing executed via Ukraine's clearing house. The NBU had invited international financial institutions to operate in the local currency market, including by offering swap facilities to provide hryvnia funds against foreign exchange for on-lending to businesses and municipalities.

2.5 The bond market

Ukraine's public debt securities market was small but growing steadily, mainly driven by sovereign issuances. The private sector segment was dominated by international issuances. This exposed local borrowers to external vulnerabilities and limited market access for smaller companies. Secondary market trading remained limited too.

The share of domestic bonds in the total stock of marketable securities had been increasing slowly from one third in 2015 to 50% in 2021, mostly on the back of sovereign issuances. A favourable tax treatment and access to settlement through the Clearstream international central securities depository (as of May 2019) attracted significant international inflows into the domestic government securities market. Before the full-scale war, non-residents held about one tenth of the total outstanding volume of local securities. The expectation at the time was that the (imminent but since postponed) inclusion of Ukraine's local currency-denominated sovereign bonds into several benchmark emerging market indices would have further boosted inflows from non-resident institutional investors.

2.6 The equity market and capital market infrastructure

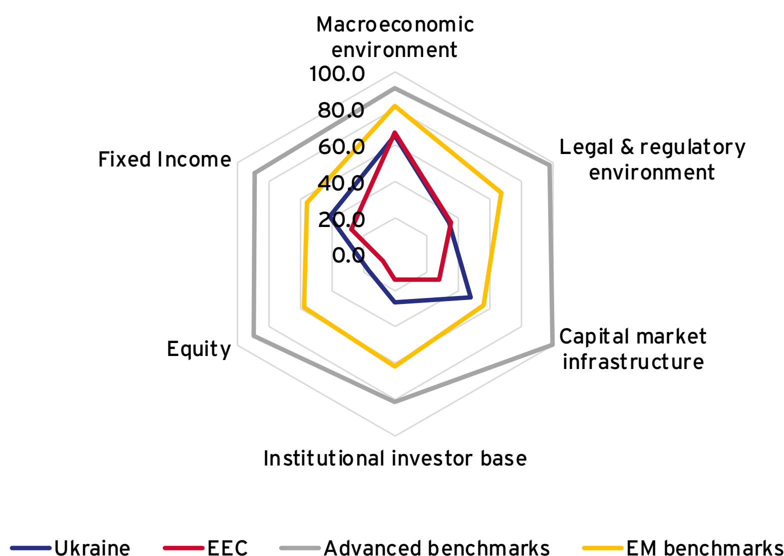
Ukraine's equity market was underdeveloped prior to the full-scale war: total domestic market capitalisation stood at just 5% of GDP in 2021. During the five years before the war, only one initial public offering took place and that was of a regional football club raising less than US$2 million. Reputable companies chose to list their shares internationally – in Frankfurt, London or Warsaw – and liquidity was therefore concentrated in those markets.

5 In August 2015, the NBU announced its transition to inflation targeting and declared the first inflation target (12%) to be achieved in 2016 and a medium-term target (5%) to be achieved by the end of 2019.

Despite the consolidation trend, the country's capital market infrastructure remained excessively fragmented: the small market was scattered across four licensed stock exchanges, each with limited activity. Secondary market activity was limited on each of these exchanges. There were also two securities depositories and a separate clearing house.

Figure 3 summarises the development of Ukraine's financial markets and puts it in an international perspective. The EBRD Financial Markets Development Index (FMDI) combines 54 indicators split across two equally weighted sub-indices covering (1) necessary conditions for sustainable market development, and (2) asset class-specific indicators reflecting the extent of such development.[6] It is clear that Ukraine not only underperformed relative to a benchmark of advanced economies (grey) but also relative to several emerging markets (yellow). Having said that, Ukraine performed slightly better than some of its immediate neighbours in the Eastern Europe and Caucasus (EEC) region (orange).

FIGURE 3 **UKRAINE'S FINANCIAL MARKET DEVELOPMENT INDEX, 2021**



Source: EBRD (2021).

Note: EEC includes Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. Advanced benchmarks include Canada, Cyprus, France, Germany, Japan, Sweden, United Kingdom, and the US. Emerging Market (EM) benchmarks include Colombia, Peru, South Africa and Thailand.

Before the war, the MSCI – a leading international index provider – classified Ukraine as a frontier (standalone) market, the lowest classification. This reflected the small size and liquidity of the market as well as the difficulties in accessing it.

6 See EBRD (2021) for methodological details.

2.7 Financial supervision

Ukraine's financial markets are regulated by two authorities. For many years, the NBU has been responsible for supervising Ukrainian banks, including their securities transactions. In mid-2020, it took over regulatory responsibilities for non-bank financial institutions, including insurance, leasing, financial companies, credit unions, pawnshops and credit bureaus. The NBU also serves as a custodian for government bonds and runs the country's system of interbank payment settlements (SEP).

The National Securities and Stock Market Commission (NSSMC) is the regulatory and supervisory authority for securities and derivatives markets, as well as for non-state pension funds, construction financing funds, real estate funds and their administrators/managers. The NSSMC is less well-resourced than the NBU although it has received substantial advisory assistance to support its functioning.

Prior to the full-scale war, a nascent digital finance sector had started to emerge. During the COVID-19 pandemic, incentive payments for vaccinations were distributed by the authorities via an e-government application (with participation of intermediating commercial banks).

3 THE WARTIME RESILIENCE OF UKRAINE'S FINANCIAL SECTOR

3.1 Banking sector

Ukraine's banks have so far withstood the shock of the Russian invasion relatively well.[7] This reflects the clean-up and recapitalisation of the banking system following the 2014–15 financial crisis (which ensured that by 2022 the remaining banks were relatively profitable, liquid and well-capitalised) as well as the subsequent forbearance policy by the NBU during the war. As of October 2022, deposit runs have not materialised, which reflects an uncapped government guarantee of retail deposits during martial law. In fact, by May 2022, hryvnia retail deposits had increased by about 11% relative to pre-war stocks, though corporate and foreign currency retail deposits decreased.

Since the full-scale invasion, the role of the state in Ukraine's financial markets has increased dramatically. Banks have curtailed private sector lending while loan demand plummeted, too. Under martial law, the NBU is prioritising the continuity of payments and ensuring that the banking system remains operational, stable and liquid. Acting pre-emptively during the first months of the war, the central bank extended unlimited unsecured refinancing to banks, with a maturity of up to one year. Since May 2022, as the situation stabilised, banks could only receive secured loans from the NBU.

7 The liquidation of two Russian-controlled banks (accounting for 2% of sector assets) and the declaration of insolvency of Megabank reduced the number of active banks to 68. In August 2022, Sich Bank was declared insolvent as well.

The NBU's monetary financing of the country budget has, as expected, accelerated inflation. To rein in price increases, protect reserves and create positive real rates of return on hryvnia assets, the NBU raised its key policy rate by 15 percentage points to 25% in June 2022.

3.2 Capital markets

Ukraine's financial markets have been severely disrupted by the full-scale Russian invasion. The imposition of martial law on 24 February 2022 was accompanied by capital controls, a move to a fixed exchange rate, and the start of the NBU's monetary financing of the state budget. All financial market activity, including the repo market, has been suspended except for trade in war bonds and, since August 2022, all state securities. A moratorium on cross-border foreign exchange operations is in place and the release of cash from foreign currency accounts is prohibited for corporations and limited for households.

The government continues to issue domestic bonds which, alongside concessional foreign funding and direct monetary financing, help bridge a substantial monthly financing gap. However, as such issues were offered at below-market rates, they generated little market interest and settled on the NBU balance sheet and, to a limited extent, on the balance sheets of state banks. Over the first six months of the war, the stock of government securities held by commercial banks declined by ten percent.

4 REFORM PRIORITIES AFTER THE WAR

4.1. Overarching objectives

For the financial sector to become an effective growth engine, it will be critical to address Ukraine's long-standing challenges related to the rule of law and corruption (discussed in detail in the chapters in this book on governance by Mylovanov and Roland and anti-corruption by Becker et al.). Other prerequisites include the re-establishment of an effective macroeconomic policy framework, in particular reducing over time the war-time fiscal dominance, as well as a return to inflation targeting. Social policies leading to lower income inequality but also greater self-reliance, including through long-term private savings, would help create a local investor base. Finally, it will be critical for much of the future international reconstruction support to be channelled to commercially viable projects through commercial investors, in many cases with the active involvement of international financial institutions.

The remainder of this chapter outlines several post-war reform priorities based on the following overarching objectives:

1. **Ensuring a swift recovery of the banking sector.** A rapid resolution of non-performing loans and related bank recapitalisations will be key. The country cannot afford a banking sector bogged down for years with problematic legacy loans, thus complicating the funding of new investments.

2. **More market-based finance.** As soon as the war ends, a commercial and market-based allocation of resources will need to be re-established. This recognises the need to privatise state banks and offer domestic tools to mobilise local savings. These steps will be even more important given Ukraine's history of (mis-) allocation of resources by the state and related governance challenges. If the security situation were to remain uncertain after military hostilities cease, it will be critical to mobilise international support for war insurance to back commercial investments (the chapter in this book on trade and FDI by Movchan and Rogoff elaborates on this).

3. **Developing a local investor base and an equity culture.** A balanced and resilient financial sector should not be excessively debt-based but will also offer public and private equity through market channels (EBRD 2015). The war will have erased a significant share of equity in the economy. Hence, the foundations will need to be laid for the development of efficient and liquid capital markets.

4. **Increasing the share of sustainable finance.** The enormous reconstruction challenge presents an opportunity to increase the share of sustainable projects supported by the financial sector. This would let Ukraine contribute to the fight against global warming and to mobilise impact investors.

5. **Fostering financial inclusion.** The deepening of the financial sector should benefit broad segments of Ukraine's society and improve people's lives in a durable way.

4.2. Dealing with the NPL legacy of the war

By mid-2022, the damage to physical assets in Ukraine was estimated by the Kyiv School of Economics to exceed 100 billion euro. Some bank collateral has been damaged or destroyed or is now located in occupied territories. Other enterprises were mainly affected by the economic contraction and dislocations triggered by the war, although their assets are intact and their business models may be viable once peace is re-established. As auditors currently cannot visit many business premises, a comprehensive and detailed evaluation of asset quality can only be completed after the cessation of hostilities. Soon after the war, a comprehensive asset quality review (AQR) will be needed in order to allow the NBU to calibrate bank-specific recapitalisation needs.

After the AQR, a sector-wide and strategic approach to NPL resolution will need to be launched. This process should be efficient and quick, and avoid discriminating across types of banks (for example, state versus private or domestic versus foreign banks). Governments can choose between decentralised, semi-centralised and centralised approaches to debt restructuring (Laeven and Laryea 2009, De Haas and Knobloch 2010). In a decentralised approach, the ownership and management of bad assets remains with the originating banks. Governments then take a hands-off approach and let creditors and debtors work out and restructure problem loans bilaterally, using the existing insolvency legislation and the court system. In the case of Ukraine, the Kyiv Approach would provide an additional tool, although it is yet to be utilised by all banks.

Governments can also follow a more active decentralised approach. For example, they may facilitate large-scale voluntary work-outs between banks and debtors outside of the court system (the 'London approach'). This involves setting up a general framework that groups of creditors can use to organise voluntary out-of-court solutions when a firm defaults. Creditors cooperate in steering committees under the guidance of a lead bank to restructure defaulting firms in a coordinated fashion. The majority of the creditors need to agree on the work-out plan and implement it. When it works well, this approach may allow a relatively large proportion of firms that need financial restructuring but are fundamentally sound, to continue as a going concern. Company failures due to excessively costly, burdensome and lengthy court procedures are avoided. Paradoxically, however, this approach will only work if creditors can at least to some extent threaten defaulting firms with more formal liquidation procedures in case of insufficient cooperation. It is thus not a full substitute for imperfect formal insolvency procedures through the court system.

Fully decentralised approaches are feasible as long as the stock of non-performing assets in the banking system is relatively limited. A crisis may, however, lead to such a widespread rise in distressed debt that systemic stability is threatened. This will particularly be the case if NPLs threaten to overwhelm banks' normal work-out procedures. Moreover, bankruptcy cases may be so numerous that local courts cannot cope with them in a reasonable amount of time. Even if both the banks and the courts would in principle be able to handle a very large number of case-by-case foreclosures of collateral, such an uncoordinated approach may still be suboptimal for the banking system as a whole because collateral prices may be depressed further. A case can thus be made for more centralised debt restructuring programmes if there is evidence that the scale of the problem will lead to economy-wide implications or if there is a clear lack of capacity in the judicial system (or in the banks themselves) to deal with defaulting firms on a case-by-case basis. Ukraine's post-war situation will almost certainly fall within that category.

A second approach the government can follow is a semi-centralised one in which distressed assets of a number of banks are spun off into an equal number of private or semi-private 'bad banks'. The Swedish approach in the early 1990s is an example of this. Most of the large Swedish banks set up their own 'bad bank'. This approach would work reasonably well in concentrated systems with several large banks.

Lastly, a third approach is to set up a centralised and publicly owned asset management corporation (AMC) or 'bad bank.' The centralised approach was chosen by many Asian countries in the aftermath of the 1997–98 financial crisis (Schaefer and Zimmermann 2009) and several EU countries following the European sovereign debt crisis (e.g. Ireland, Spain and Slovenia). See Box 1 for a description of how the centralised approach to NPLs worked in South Korea after the 1997–98 financial crisis.

The main advantage of a centralised approach lies in economies of scale. Centralised AMCs are better able to consolidate and gradually work out similar assets. They can translate their size into greater negotiating power against large and politically influential borrowers. A centralised solution is also more amenable to using international donor funding (as will likely be available in the case of Ukraine). There is also a managerial argument for a centralised approach. Where loan resolution expertise is scarce, it might be easier to coordinate the recruitment and training of qualified people in a single institution rather than having several agencies compete for the same small pool of people.

BOX 1 **KOREA'S EXPERIENCE WITH LARGE-SCALE NPL RESOLUTION**

In 1997–98, the Republic of Korea experienced a severe liquidity crisis that followed a period of rapid financial and capital market liberalisation that was not accompanied by adequate management of prudential risks in the economy. Following the crisis, in order to address the systemic and large-scale NPL stocks, the Korean government adopted a successful centralised approach. In March 1998, the IMF estimated NPLs to peak at 17% of total banks' gross loans (28% of GDP). By end-2002, the NPL ratio had declined to less than two percent.

While the Korean approach involved a government agency to handle the NPLs, it was fundamentally market-based. NPL resolution was part of various financial restructuring measures that the government embarked on to reform both the under-supervised banking sector and the highly leveraged corporate sector under an agreement with the IMF. Out of 33 banks in 1997, five commercial banks with a low capital adequacy ratio and nonviable prospects were liquidated and 11 banks had been merged with others by the end of 2007.

The government established a Non-performing Asset Management Fund (NPAF) which issued commercial bonds guaranteed by the state that would compensate commercial banks for the non-performing assets being transferred to it. The responsibility for operation and management of the fund was delegated to the Korea Asset Management Corporation (KAMCO).

BOX 1 **(CONTD.)**

KAMCO employed a formula for a blanket purchase of NPLs based on readily available market data (such as court auction winning rates for collateral) with an agreement to distribute any residual profits following future resolution while bearing all the losses, if any, post-acquisition (ex post facto settlement). As the overall environment for rational valuation methods had improved over time, KAMCO started calculating the present value of assets since 1999 while standardising the valuation methods. Table 1 provides more detail on the evolving approach to NPL acquisition by KAMCO.

TABLE 1 SUMMARY OF METHODOLOGY FOR ACQUISITION OF NPLS BY KAMCO (1997 TO PRESENT)

Period	**Method**	**Background**	**Benefit**	**Drawback**	**Purchase criteria**
1997	Blanket purchase with ex post facto settlement	Little previous experience, compressed time frame	Easy negotiation for acquiring NPLs	Disputes regarding settlement, accounting issues	75% of valid collateral value for ordinary secured loan
1998	Blanket purchase at a predetermined price	Shortcoming correction of ex post facto settlement	Quick process, no accounting issues	Arguments around the predetermined price	45% of principal balance for ordinary secured loan
1999	Calculating present value with successful bid ratio	Stabilising economy allowed for identifying more realistic prices of NPLs	Reflecting possible market prices	Quasi-discounted cash flow with less appropriate discount rate	NPV with national average bid ratio used in court auctions for collateral sales
Present	Discounted cash flow with credible statistical data	Growth of NPL market, more logical approach	Easy agreement on NPL price, fully reflecting market prices	Higher cost due to the need to engage private accounting firms into the valuation process	NPV with credible statistical data including successful bid ratio

Source: KAMCO.

As soon as the market stabilised, KAMCO started to develop various financial products to maximise the recovery rate from the acquired NPLs. Approaches included pooling of assets and selling them via international bidding as well as issuing asset-backed securities (ABSs). The Korean Financial Services Commission (FSC) supported this process by, for example, drafting legislation on asset-based securitisations. Hence, KAMCO effectively contributed to establishing conditions for a private sector market for NPLs. Subsequently, a high volume of NPL portfolio sales attracted well-known names in the distressed asset business to the Korean NPL secondary market. The successful securitisation of NPLs through ABS issuance also led to the development of an ABS market backed not only by impaired assets but also by sound ones, further developing Korea's local capital markets.

Both semi-centralised and centralised solutions – if applied transparently and accompanied by an adequate recapitalisation of banks – can prevent banks from becoming excessively risk-averse. They can also help avoid that too many staff members continue to be focused on NPL management functions. This should help improve the environment for new lending. In contrast, simply ring-fencing bad assets on banks' balance sheets may not be sufficient to regain investors' confidence. Banks may consequently not be able to raise new capital.

The situation in post-war Ukraine likely warrants either a centralised or a semi-centralised approach given the magnitude of the problems. Moreover, it is important to stress that a (substantial) part of all NPLs may be the direct result of hostilities and occupation rather than economic distress per se. Recovering (some of) the loan value in these cases will be different from traditional post-crisis workouts that involve lawsuits, negotiations and/or the collection of collateral from debtors. Instead, it will resemble the foreclosing of collateral during the 2014–2015 occupation of Crimea.

In particular, loans that lost value due to the war, and that might be recovered later from Ukraine's claims on Russian assets frozen in third countries, could be centralised in a specialised agency. The role of that agency would then be to provide evidence of how the collateral loss is linked to the war. Alternatively, an existing state institution – such as the Deposit Guarantee Fund (DGF) – could be mandated with the responsibility for administering such a centralised approach. The legal procedures related to reparation payments and linking them to collateral loss may take time and will be surrounded by significant uncertainty. Having bad loans concentrated in one institution may then free up capital in the banking system to restart lending in the meantime. Other loans could be worked out through a simplified approach to out-of-court resolution and arbitration, such as through a further revised and improved Kyiv Approach.

Getting the sequencing of AQR, the creation of a new agency (if needed) and recapitalisation right will be crucial. Preparations for an in-depth asset quality review could and should start during the war. Once the war ends, a detailed asset quality review should take place immediately, followed by a swift recapitalisation, using prepared and bank-specific recovery plans. While bank recapitalisation during the war is unlikely, planning should start early to ensure continued confidence in the banks. For those banks that continued to be profitable, initial recapitalisation may already start during the war.

Large-scale equity injections will likely be needed when the war ends and the AQR has been finalised. Recapitalisation can be done through direct injections of capital or subordinated debt by the government; by foreign parents of the remaining international bank subsidiaries; or by private owners of independent local banks. In the case of state banks or any new nationalisations, recapitalisations should be followed by bank commercialisation (introducing independent board members, market-based salaries,

proper risk management and underwriting standards, improved transparency) and, lastly, privatisation. It will be critical to engage early with the European banking groups operating in Ukraine, and their home country regulators, to ensure that the approach to recapitalisation does not lead to their exit from the country.

4.3 Restarting a stable development of the financial sector

Further commercialisation of the banking sector

Ukraine's banking sector has long suffered from the harmful effects of politically motivated lending. Hence, its post-war restart will be an opportunity for the Ukrainian government to clean up not just banks' balance sheets but also their shareholder and management structure where needed and with international support. This will involve implementing even stricter due diligence of bank owners and managers to weed out related lending, building on the positive experience after the 2014–15 crisis.[8]

Deepening Ukraine's banking sector will require the privatisation of most of its main state lenders, which will likely account for an even greater majority of all banking assets after the war. The stage for reforming state-owned banks was set in February 2018, when the authorities approved the key principles of strategic reform of state banks. Four priorities were identified at that time: implementation of strategies to restore commercial soundness and profitability; improvements in corporate governance, discipline and strategy execution; measures to improve the quality of assets and strengthen balance sheets; and exit of the state from the ownership of banks in the medium term.

To increase market-based lending, planning should start to privatise state banks, possibly by selling them to high-quality foreign strategic investors with a long-term interest in the country. In light of the likely high degree of uncertainty immediately after the war, the government could incentivise international banking groups to enter, scale up (or to remain) in Ukraine by offering mezzanine-type funding[9] to them at attractive terms for the post-war period, thus allowing them to (re)generate capital over time. Governments of donor countries and international financial institutions should be mobilised to provide such funding. The government can also (partially) privatise banks by listing them on a domestic or an international stock exchange.

8 Higher due diligence standards with regard to bank owners are especially needed to prevent banks with politically connected owners from becoming systemic in nature. This may also prevent problems like those currently experienced with Alfa-Bank – a subsidiary of Russia's largest private bank and one of Ukraine's largest banks – of which several key shareholders have been sanctioned by Western authorities (as was the parent bank).

9 Mezzanine financing is a hybrid of debt and equity funding that gives the lender the right to convert debt into an equity interest in the company in case of default.

A key problem to be addressed urgently is that state banks remain reluctant to write off or restructure debt in a way that would reduce the value of any (collateralised) state assets. While there is no legal restriction on financial restructuring by state banks outside of the LFR,[10] in practice the perception is that any loan restructuring that entails a (partial) write-off may be challenged by law enforcement agencies and considered as misappropriation or damage to state property.[11] This could lead to criminal charges against management or loan officers in case the Prosecutor's office would want to protect the perceived interest of the state by opening investigations.[12] State banks therefore continue to 'evergreen' loans by substantially extending maturities, thus preventing a more thorough clean-up of their balance sheets. Transferring all state banks' NPLs under management of a centralised AMC should also be considered.

Regulatory alignment with the EU

Ukraine is now an EU candidate country and aims to pursue EU membership as soon as possible. Even before accession, regulatory and institutional alignment with existing EU frameworks can provide important economic benefits. It would help make the Ukrainian regulatory and supervisory framework more robust and the banking sector more resilient over time. Alignment is done against the EU's bank prudential framework, namely, the Capital Requirement Regulation (CRR) and Directive (CRD), through which the Basel Committee standards have been implemented in the EU.[13] The process usually culminates in a positive equivalence opinion issued by the European Commission based on the technical assessment conducted by the European Banking Authority (EBA).

Regulatory and supervisory alignment can help in levelling the playing field for subsidiaries of international banking groups and support long-term sustainability of cross-border activities in Ukraine. For example, alignment of Ukraine's framework for professional secrecy and confidentiality with EU standards will allow Ukrainian representation on joint supervisory and resolution colleges. Moreover, achieving equivalence of supervision with the EU will significantly reduce the regulatory cost of European banks' operations in Ukraine. This will incentivise foreign banks to continue to support their Ukrainian subsidiaries and make it more attractive for other financial institutions to (re)enter the country.

10 Importantly, Article 8 in the LFR states explicitly that in that framework state-owned banks are authorised to participate in financial restructurings and that they can agree to all measures contemplated by the restructuring plan, including haircuts. To date, however, none of the LFR restructurings have involved haircuts on principal or interest, suggesting that even within the relatively protected confines of the Kyiv Approach, state banks feel uncomfortable with any restructuring that would involve reducing the value of assets involved.

11 Based on Article 191 (embezzlement) or Article 190 (fraud) of Ukraine's Criminal Code.

12 In contrast, in the case of private banks, the Prosecutor's office usually only opens investigations if the bank itself asks to investigate actions of specific officer(s), which is rare in practice.

13 Preparations should also be started for the implementation of EU Sustainable Finance Regulations. Awareness and ability to manage climate-related risks can strengthen resilience of banks' business models to physical and transition risks from climate change.

Developing the hryvnia money market

To ensure a return to macroeconomic stability after the war, and a stable recovery of the financial sector, Ukraine will need to revert to the flexible exchange rate regime and inflation targeting framework. Over time, like other EU countries, Ukraine may want to consider adopting the euro. Yet, in the years immediately following the war, it will benefit from a flexible exchange rate to absorb shocks and to manage the inflationary pressures stemming from both a rapid convergence of real wages (starting from a very low base) and expected large international financial inflows.

Hence efforts will need to be undertaken to encourage the development of deep and liquid hryvnia money markets, building on the efforts made before the war. The authorities should encourage the development of new financial products linked to the benchmark UONIA index. The further deepening of domestic repo markets, with risk control through the settlement centre, needs prioritisation, in particular given the constraints faced by banks on bilateral repos amid a tightening of counterparty limits. These actions will also help lay the basis for a deepening of the banking system.

Developing debt and equity capital markets

It will be critical to rebalance the financial sector towards capital markets as Ukrainian companies and entrepreneurs will need a wider range of instruments to support the growth of their businesses. Moreover, many enterprises will have depleted their equity base during the war, thereby also limiting their ability to take on additional debt.

Further regulatory reforms and alignment will be needed to reinvigorate the nascent securities market. Ukraine still lacks a financial collateral law, which is vital and fundamental for banks, corporates and alternative debt providers to raise money efficiently and to utilise derivatives, repo and securities lending and capital market instruments. Reforms of the derivatives markets are needed to ensure Ukraine will obtain a clean legal opinion on netting and close-out netting from the International Swaps and Derivatives Association (ISDA). This will allow all payments owed between two parties to be combined in one net payment, thus reducing overall risk. Additional reforms should enable the issuance of covered bonds as well as securitisations.

As there may be significant interest among a range of social and responsible investors to support Ukraine's economic recovery, the securities market regulator (NSSMC) should prioritise designing and implementing regulations enabling the issuance of corporate and municipal bonds with specific social use of proceeds. Social, sustainability and sustainability-linked bonds can be an important funding source during the post-war recovery. Although they are common bond instruments, their proceeds are used to finance or refinance eligible social and infrastructure projects (such as affordable infrastructure, access to essential services, or food security). To qualify as a social, sustainability or sustainability-linked bond, certain conditions have to be met related to the use of proceeds, the process for project evaluation and selection, and the management of proceeds and reporting.

It will be important to develop a roadmap for the alignment of Ukraine's legislative and regulatory framework related to capital markets with the EU acquis. This would include approximation of laws and regulations in the areas of financial market infrastructure, securities market, and investment services.[14] Priority should also be given to ensuring that legal and accounting/tax frameworks recognise instruments that are widely used elsewhere to adjust the balance between debt and equity risks. Instruments like convertible debt/bonds, warrants, mezzanine and preferred equity are likely to be in high demand during the reconstruction phase.

The government may want to consider creating a pool of capital that would effectively blend donor finance and private capital. Such mixed funding could be deployed in the form of hybrid, self-liquidating equity such as mezzanine instruments or debt combined with warrants. This could be managed by a development finance institution for the purpose of working with selected banks. Such a structure could allow for a relatively simple and large-scale deployment of equity capital.

Moreover, the country may stimulate the development of the local equity market by creating a new and privately managed institution with minority stakes in state-owned companies. This would follow the recent example of a similar fund established and operated effectively in Romania (*Fondul Proprietatea*). This fund could be used to help firms to implement further governance improvements and strengthen their operations and profitability, leading to them ultimately being listed on the local stock market at higher valuations or to transfer them to strategic investors (in the case of state-owned banks, for example).

Further steps could include establishing a trade repository, possibly within the NBU, for over-the-counter (OTC) derivative transactions and exploring digitisation initiatives. These could include, for example, using distributed ledger technology in capital markets services; introducing smart contracts for securities documentation; and developing e-voting frameworks for securities' holders. These reform areas can be pursued in the medium to longer term and should be aligned with the EU.[15]

In parallel with addressing the challenges in the legal and regulatory context, it will be necessary to further expand the local investor base. Policy options include introducing a mandatory accumulation pillar of the pension system, when conditions are right, and incentivising voluntary individual pension savings. For the equity market to take off, it will also be necessary to continue improving legislation related to equity ownership.

14 Specific EU policy frameworks for Ukraine's alignment would include the Directive on Markets in Financial Instruments (MiFID II) and related regulation (MiFIR), the Central Securities Depositories Regulation (CSDR), the Market Abuse Regulation (MAR), the European Market Infrastructure Regulation (EMIR), the framework for harmonising approaches to collective investment schemes (UCITS), the Alternative Investment Fund Managers Directive (AIFMD) and more.

15 The first EU-wide regulations in this field – the Markets in Crypto Assets Regulation (MiCA) – was approved by the European Council in 2022.

It should be quick, easy and inexpensive to be able to prove and transfer corporate ownership. This requires transparent listing, delisting and squeeze-out laws. Lastly, it will be imperative to consolidate the infrastructure for capital markets and consider attracting an international exchange platform to Ukraine.

Housing finance

In the immediate aftermath of the war, the need to conduct extensive asset quality reviews, and the likely recapitalisation requirements of banks, may delay their capacity to deploy large-scale housing-related lending. In this context, the role of well-designed donor and state-supported solutions will be paramount. The government can ensure the long-term sustainability of reconstruction efforts by deploying market-based solutions that assist the financial sector in scaling up housing finance.

Housing guarantees could help to reduce the risks to the credit provider and hence the rate borrowers pay. Guarantees can be provided both to individuals seeking mortgages as well as to builders and developers seeking out project financing or construction loans. The eligibility criteria of these guarantee schemes can help the government to target certain borrowers – for example, veterans or those whose properties were destroyed during the war. First-loss risk-sharing mechanisms, as well as blended finance products, can be used to the same effect.

Though it will take time to develop the required frameworks, the introduction of new financial products will help mobilise additional private resources. Covered bonds and securitisations, for which legal frameworks are currently being developed, can be used by both financial institutions and properly governed state structures deploying the government's lending programmes. Covered bonds and their dual recourse element will reduce risks for outside investors that may otherwise consider the market too risky to enter. In addition, the creation of a comprehensive framework for infrastructure and social bonds will also help attract investors. Combining both, in the form of a social covered bond for example, may help to optimise private sector funding opportunities.

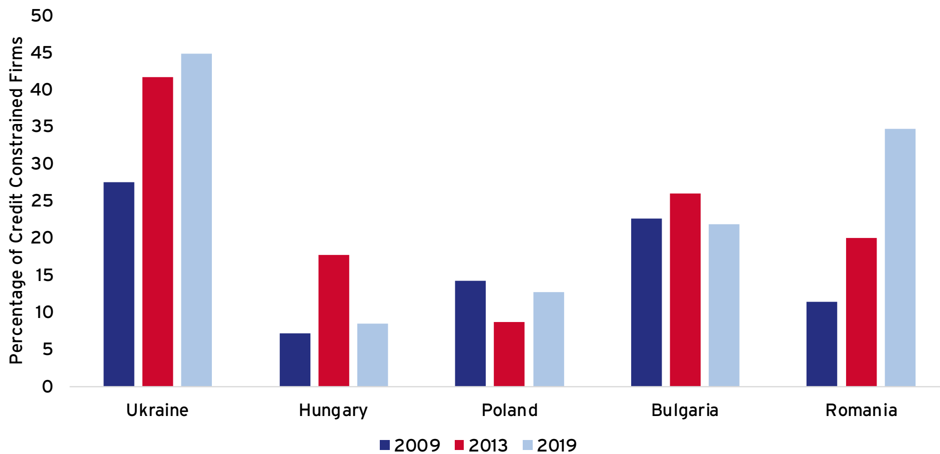
Small business finance and financial inclusion

The deepening of Ukraine's financial sector should benefit broad segments of the country's population, thus helping to restore jobs and livelihoods. Banks – especially those that traditionally have focused on large, state-owned and/or connected companies – will have to adjust their lending practices to become more inclusive and broad-based lenders. This will entail developing a better understanding of the financial and non-financial needs of individuals and small and medium-sized enterprises (SMEs). Even before the war, the share of SMEs that were credit constrained was high and increasing (Figure 4).

The Ukrainian government introduced several SME-focused COVID-19 support policies and programmes, which provided partial interest rate compensation as well as credit guarantees. Some of these programmes may be used again after the war, for example to stimulate banks to lend to underserved market segments such as female-owned SMEs and to segments with a higher risk profile, such as start-ups and new sole proprietorships

with limited credit history. Delivering prompt financial support to war-affected businesses will enable successful entrepreneurs to maintain their entrepreneurial and organisational capital. Replacement and reestablishment costs can be especially high for women and young entrepreneurs who tend to have less access to networks and face disproportionate barriers in accessing credit even in normal times.

FIGURE 4 **CREDIT CONSTRAINED SMES IN UKRAINE AND IN COMPARATOR COUNTRIES**



Note: A firm is defined as credit constrained if it had a loan application rejected or was discouraged from applying for a loan. Reasons for discouragement include complex application procedures, unfavourable interest rates, too high collateral requirements, the offered loan was too small or the maturity was too short, expectation that the loan would not be approved. A firm is defined as an SME if it employs between 5 and 99 people.

Source: EBRD-EIB-World Bank Enterprise Surveys.

In line with attempts to rebalance Ukraine's financial system towards a greater use of equity instruments, the government can explore tax incentive schemes to support firms that would like to raise equity. The government can also strengthen the role of Factoring Hub, created in 2020, to make factoring services available to a broader group of SMEs. Lastly, donor-sponsored advisory support for SMEs can help war-affected but viable companies scale up and, where appropriate, digitalise their operations. Small-scale exporters can be supported in meeting EU standards. This will be especially important for businesses that were reliant on trade with Russia and Belarus and that need to access new markets.

The digitalisation of banks' delivery mechanisms may be crucial to make their products and services more accessible to underserved individuals and businesses. Special attention should be paid to improving remittances and cross-border payment services, in order to financially connect a new foreign diaspora with friends and family back home. Remittances inflows should be harnessed to support people's livelihoods, including through facilitating new entrepreneurial initiatives. Digital tools can also be used to improve financial literacy among the general public, drawing on practices introduced in other Eastern European countries, such as Estonia.

Mobilising external financing while maintaining financial stability

After the war, Ukraine will to a large extent need to be financed with external funding, which will involve large-scale financial inflows for an extended period of time. Great care should be taken to maintain macroeconomic stability during this period, in particular by avoiding excessive inflows of foreign funding to low-productivity investments or consumption. Earlier episodes of rapid financial inflows have been followed by busts, thus undermining popular support for a market-based financial and economic system.[16]

Dollarisation of bank loans and deposits has declined since the recent highs of almost 60% in 2014, for the most part because of new NBU regulations prescribing that new credit to households is to be extended in local currency. Foreign currency loans nevertheless remain high, at around 30% immediately before the full-scale war, although this to a large extent reflects legacy foreign currency loans to households as well as foreign currency lending to (oftentimes hedged) corporates.

As international donors assist Ukraine with its rebuilding efforts after the war, it will be critical to ensure that donor inflows are predictable over time and progressively rely on commercial solutions with the goal to establish a vibrant financial and capital market in Ukraine once the reconstruction period ends. Setting aside a large pool of resources to offer risk insurance via specialised agencies – such as the World Bank's Multilateral Investment Guarantee Agency (MIGA) – would be critical to mitigate political and war risks. This may be needed for an extended period of time as the durability of any peace agreement will need to be tested.

Strengthening the supervisory authorities

The regulatory and enforcement powers of the National Securities and Stock Market Commission (NSSMC, the regulatory and supervisory authority for securities and derivatives markets) and its funding modalities need further strengthening. This will make it easier for the NSSMC to comply with international best practices and allow Ukraine to sign the International Organization of Securities Commissions (IOSCO) Memorandum.

The NBU's supervision of the insurance sector needs strengthening too. By-laws will need to be finalised following the adoption of the new law on insurance and the 'umbrella' law on non-bank financial institutions. The NBU should also prepare for a post-war and long-overdue clean-up of the insurance sector, similar to the 2014 overhaul of the banking sector. This would allow the healthier players in the sector to grow and, once the situation stabilises, to attract new credible global investors into Ukraine's nascent insurance sector.

16 Ukrainian households that were more deeply affected by the 2008-09 global financial crisis became more disillusioned with market-based economic systems and private ownership (De Haas et al. 2016).

Once the banking and non-bank financial sectors are stabilised, supervisory capacity re-established, and public finances permit, the authorities should restart discussions about tax-efficient individual savings accounts; encouraging the uptake of the voluntary pillar of the pension system (pillar III); and in time consider the introduction of mandatory private pensions (pillar II).

Financing the green transition

The post-war reconstruction will provide an opportunity to accelerate the 'greening' of Ukraine's economy and delivering on Ukraine's commitment under its Nationally Determined Contribution (NDC). Since Ukraine became a candidate to the EU, over time it would have an obligation to deliver on the EU common binding obligations in this area (the Copenhagen criteria).

The financial sector will be central to channelling finance towards sustainable investments, especially if the authorities were to allocate some reconstruction funds towards this goal or work with international financial institutions offering green incentives (such as unfunded risk participation, first loss risk coverage, and trade facilitation instruments). The NBU is a member of the Network for Greening the Financial System (NGFS), a network of central banks and regulators on greening of the financial systems. Such fora should present an opportunity to identify best practices in this area and, if needed, to obtain support with their deployment in Ukraine.

4 CONCLUSIONS

The financial sector can play a crucial role in supporting the recovery of Ukraine's economy after the war and, ultimately, its convergence with that of the EU. Even while the war is still ongoing, the authorities should start preparations for a clean-up and turnaround of the commercial banks. This includes planning for a comprehensive asset quality review and the subsequent recapitalisation of the sector as well as setting up processes for simplifying and perhaps centralising the resolution of non-performing loans.

Given Ukraine's unsatisfactory experience with establishing good governance in state banks and companies, soon after the war it will be critical to prepare for a full or partial privatisation of state banks to credible private investors, possibly with support from bilateral donors and international financial institutions.

As European integration is Ukraine's key overarching strategic objective, it will be important to ensure that any policies adopted align well with those in the EU. The ongoing alignment efforts should proceed promptly and include both the banking sector and the capital markets. Indeed, Ukraine's nascent capital markets require special attention. There is a long pipeline of laws and regulations that need to be adopted to establish the

regulatory frameworks needed for issuance of capital market securities. For the equity market to emerge and thrive, efforts to improve governance, eliminate corruption and protect minority shareholders will be key. The country's fragmented capital market infrastructure requires consolidation and partnering with a major (European) exchange.

International financial institutions will need to play a critical role in Ukraine's reconstruction and recovery process, similar to their role in fostering the modernisation and EU convergence in more advanced post-socialist countries. Immediately after the war, the role of those institutions will likely be outsized given their local know-how, commercial orientation, focus on good governance and ability to mobilise talent and, ultimately, trust of their leading shareholders with a strong interest in supporting Ukraine. It will be important to establish an effective process for their coordination to ensure that the enormous funds needed to support recovery after the war are channelled efficiently and without delays.

Equally importantly, it should be recognized that Ukraine and its financial sector will continue to face elevated geopolitical risks after the war. Longer-term country risk cover, for example by the EU or by multilateral development banks, may therefore remain necessary for an extended period of time.

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