



# Collateral valuation in the CESEE region

Prepared by Karlis Bauze, Senior Financial Sector Specialist,  
FinSAC, The World Bank Group



**WORLD BANK GROUP**

Finance, Competitiveness & Innovation

Financial Sector Advisory Center (FinSAC)

## Abbreviations

AQR.....	Asset Quality Review
CESEE .....	Central, Eastern and Southeastern Europe region
DCF.....	Discounted Cash Flow
ECB.....	European Central Bank
EVS.....	European Valuation Standards
IASB.....	The International Accounting Standards Board
IFRS.....	International Financial Reporting Standards
IVSC.....	International Valuation Standards Council
NPL.....	Non-Performing Loans
NPV.....	Net-Present Value
REV.....	Real Economic Value
RICS.....	Royal Institute of Chartered Surveyors
SEV .....	State Equalized Value
SSM.....	Single Supervisory Mechanism
TEGOVA.....	European Group of Valuers' Associations
USPAP.....	USA Uniform Standards of Professional Appraisal Practice

---

## Executive summary

The consequences of the global financial crisis clearly demonstrated that the valuation of assets pledged as collateral against loans is a very important, and often overlooked, aspect of prudential regulation. A proper collateral valuation plays a crucial role in the lending and borrowing processes and is important during many stages of NPL resolution. Imprudent collateral valuation practices leave banks with provisioning shortfalls and additional losses when a loan becomes non-performing.

This document may be used as good practice guidance to assist national authorities review existing collateral valuation practices or introduce improvements by implementing good international practice. It aims to briefly review: i) regulation of collateral valuation in the financial sector; ii) collateral valuation methodology; and iii) good practice and policy options that could be implemented for collateral valuation in countries of the Central, Eastern and South-eastern Europe region (CESEE). According to these aims, the document consists of three parts focused on different aspects of collateral valuation in the financial sector.

The first part outlines the collateral valuation framework, created by relevant national authorities drawing on European and international financial regulation and accounting and asset valuation standard setting. Collateral valuation standards are set by international professional associations. Those most widely used in Europe are issued by the European Group of Valuers' Associations (TEGOVA), the Royal Institute of Chartered Surveyors, or the International Valuation Standards Council. Countries usually follow one of these or use national standards that follow similar valuation principles.

The second part reviews the methodology used for collateral valuation in European and CESEE countries. The most often used standards, in this regard, are TEGOVA European Valuation Standards and International Financial Reporting Standards (IFRS) 13. The standards identify three essential valuation approaches: i) the market approach which is based on comparison with prices and other relevant infor-

mation from market transactions of objects similar to the one under valuation; ii) the income approach which converts future cash flow amounts to a single current amount in a form of investment analysis; and iii) the cost approach which focuses on the replacement value of a property. Different valuation methods are applied for immovable property depending on the type of underlying asset and its use. These include methods based on comparison with sales of similar objects in the market; using an estimated income to extrapolate a capitalization yield; deriving a discount rate based on present value calculations of expected rental income or cash flows projected over a specific time period; using an income approach based on the accounts of a current or theoretical occupier; estimating the value of the land under existing buildings and the theoretical cost of reconstructing similar buildings making adjustments for depreciation and other factors; or estimating the value of potential redevelopment or refurbishment of a vacant site or a building in a developed or redeveloped form. Different methods, alone or in combination, can be used to determine the final value and practices vary across Europe.

The third part provides good practice references focusing mostly on European Central Bank (ECB) guidance to banks on non-performing loans (NPLs). ECB guidance, as part of the strategy to tackle the NPL problem in Europe, includes use of market value or mortgage lending value for all immovable collateral valuation (although with limitations on the use of mortgage lending value). Use of the discounted replacement cost method is explicitly forbidden for real estate valuation purposes. Market comparable and discounted cash flow methods are allowed where there are comparable assets in the market or properties are generating cash flows. Under a "gone concern" scenario, collateral valuation should be adjusted to account for the realistic liquidation costs and market price discount. When the collection of cash flows is slow, the valuation should adjust for the time value of the process using a net-present value (NPV) calculation. NPL portfolio transfers under state aid rules in Europe have been valued using the real economic value (REV) method to provide a benchmark for establishing an NPL transfer price, although this method is not approved by TEGOVA.

---

There is a standard requirement for valuation reviews every year or every three years depending on property type. There should be more frequent valuations if the real estate market drops. Revaluation is required more often for NPLs, the valuation should be updated on classification as non-performing and repeated at least annually while remaining in this category. Institutional frameworks for regulating the appraiser industry differ.

The common problem of overvaluation of assets could be tackled by a clear, legal mandate to allow regulators of financial markets to intervene in the work of appraisers, for example to have more control on the licensing and/or regulation of appraisers. A regulator might maintain a centralized list of appraisers approved to perform valuations in the financial sector. The creation of a centralized database for real estate transaction prices and granular real estate market indexes can help increase transparency.

---

## Introduction

**1. Collateral valuation has proved to be an important factor for prudential regulation and financial stability.** The global financial crisis<sup>1</sup> highlighted that the valuation of assets pledged as collateral against loans is a very important, and often overlooked, aspect of prudential regulation. The consequences were reflected in the slow NPL resolution process in European and CESEE countries.

**2. The aftermath of the crisis revealed substantial gaps in regulatory frameworks.** The financial stability of many countries (e.g., Cyprus, Greece, and Ukraine) has been tested and substantial gaps revealed in their regulatory frameworks, in particular for NPL resolution. Reasons for high levels of NPLs and the difficulties in fully recovering amounts lent by banks include; i) optimistic collateral valuation practices, ii) the indiscriminate use of different valuation methods, iii) the lack of frequent collateral value reviews after adverse real estate market moves, iv) loose regulation of appraisers and NPL provisions, and v) excessive reliance on collateral rather than borrowers' ability to generate cash flows to repay debts. This led to imprudent lending practices and consequently a high NPL rate and low recovery rates on enforced collaterals<sup>2</sup>.

**3. Some of the identified regulatory gaps have now been addressed.** European and international institutions, including the European Commission, ECB, European Banking Authority (EBA), Bank for International Settlements, Basel Committee on Banking Supervision, International Valuation Standards Council (IVSC), and the International Accounting Standards Board (IASB), have been working on streamlining and improving definitions, methodologies, and frameworks for collateral valuation and NPL resolution. The importance of a proper collateral valuation becomes most pronounced during the NPL recognition and resolution processes.

**4. While regional and international institutions are setting minimum standards, national authorities have the option to calibrate and fine-tune their frameworks to best reflect the local situation.**

In countries with an acute NPL and asset valuation problem, local regulators should introduce stricter regulations to facilitate a quicker resolution of the problem.

**5. The objective of this brief is to provide an overview of existing regulation policy options around asset valuation in Europe and CESEE countries.** The document will i) review existing regional and international regulations for asset valuation, with an emphasis on valuation practices in the financial sector, and ii) provide available policy options for national regulators. The paper provides some country examples with specific frameworks introduced and different options available. This report is limited to immovable property valuation and most of the analysis relates to residential and commercial real estate.

## 1. Regulation of collateral valuation in the financial sector.

**6. Collateral valuation is important during many stages of NPL resolution.** A proper collateral valuation plays a crucial role in the lending and borrowing processes, especially in: i) the determination of loan-to-value during loan issuance, ii) monitoring of a loan on the watch list<sup>3</sup>, iii) the evaluation of collateral to decide which route to take to resolve an NPL (e.g., restructure, enforce collateral, legal procedures), iv) selling collateral via auction as part of the enforcement process, v) an agreed sale, and vi) foreclosure and lease back. Imprudent collateral valuation practices leave banks with provisioning shortfalls and additional losses when a loan becomes non-performing. Collateral value is considered when provisions for bad loans are made, thus an overestimated or out of date collateral value distorts a correct accounting and prudential reflection of the situation.

---

<sup>1</sup> The financial crisis of 2007–2008 is considered by many economists to have been the worst financial crisis since the Great Depression of the 1930s.

<sup>2</sup> According to the World Bank Doing Business Index 2018, the asset recovery rate during insolvency process in Ukraine is only 8.9%. <http://www.doingbusiness.org/data/exploreeconomies/ukraine#resolving-insolvency>

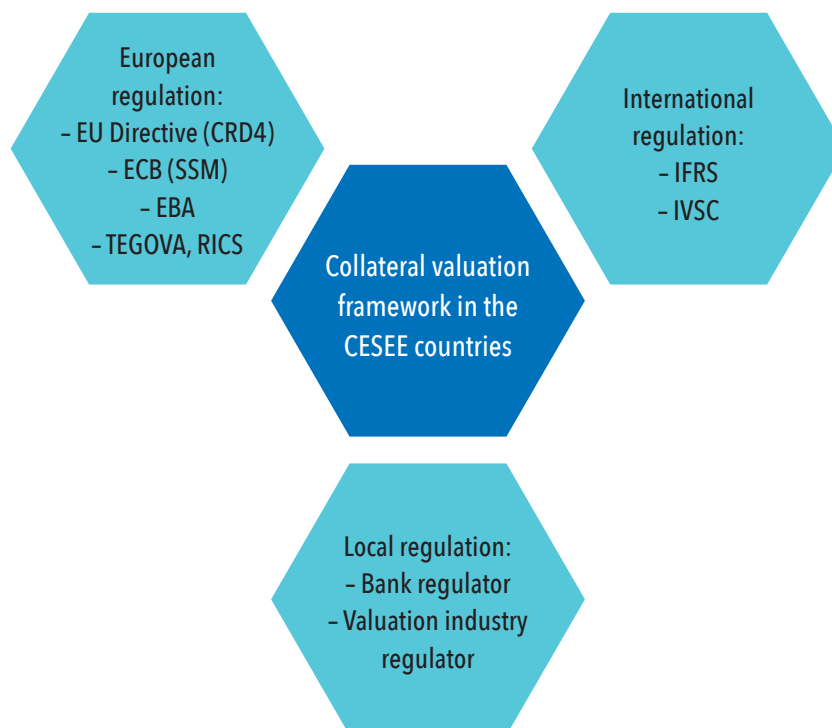
---

<sup>3</sup> A watch list is part of Early Warning System, which should be in place in banks, to monitor loans and/or borrowers that show early signs of potential problems with loan servicing.

**7. Financial sector regulators and valuation standard setters determine the collateral valuation framework.** For countries in the CESEE region the framework for collateral valuation in the financial sector is created by relevant national authorities (i.e., financial sector and appraiser industry regulator and supervisor), European and international financial

regulators, and accounting and asset valuation standard setters. Figure 1 reflects this framework schematically. European financial institutions, i.e., the EBA and ECB (through the single supervisory mechanism (SSM)) play an important role in framework setting in the CESEE region.

**Figure 1. Collateral valuation framework in the CESEE countries.**



**8. Regulation of the appraiser industry at national level varies.** Countries usually try to follow one of the international asset valuation standards, but there are cases where specific local standards are set. For more details see the *Effective enforcement* section below and Annex 2.

**9. European Regulation No 575/2013<sup>4</sup> sets a minimum requirement for the European financial institutions.** Articles 208 and 229 of the European Regulation on Prudential Requirements for Credit Institutions and Investment Firms provide a basic framework for collateral valuation in the European

financial institutions. Para 3 (a) of Article 208 states: *“institutions monitor the value of the property on a frequent basis and at a minimum once every year for commercial immovable property and once every three years for residential real estate. Institutions carry out more frequent monitoring where the market is subject to significant changes in conditions”*. Para 1 of Article 229 states: *“for immovable property collateral, the collateral shall be valued by an independent valuer at or at less than the market value. An institution shall require the independent valuer to document the market value in a transparent and clear manner”*.

<sup>4</sup> The Capital Requirements Directive IV (CRD IV) is an EU legislative package, together with CRR, that contains prudential rules for banks, building societies and investment firms. It is based on Basel regulations. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0575&from=EN>



**10. Collateral valuation (appraisal) standards are set by international professional associations.** There are many international valuation standard setters. ECB Guidance on NPLs requires that valuations adhere to European and international standards. The International Valuation Standards Council (IVSC) is an independent, not-for-profit organization that produces and implements universally accepted standards for the valuation of assets across the world in the public interest. The ECB Guidance mentions standards issued by TEGOVA and by the Royal Institute of Chartered Surveyors (RICS)<sup>5</sup>. These both adhere to the standards outlined by the IVSC but provide more details, including on the licensing and training of appraisers. National standards are acceptable if they follow the main valuation principles set by TEGOVA, RICS, or IVSC.

**11. The acceptance of standards, per se, does not ensure elimination of problems observed during the global financial crisis.** Country experience shows that implementation of good international practice alone does not guarantee effective work of appraisers and fair appraisals. The enforcement of these standards and adjustment to the practical needs of the financial sector is of paramount importance. The most often observed failures are: i) overvaluation of collateral, ii) inappropriate use of valuation methods, iii) failure to adjust collateral values during rapid adverse real estate market movements, and iv) the absence of an efficient mechanism for removing licenses of bad faith appraisers. Policy options and good practice in effective enforcement is discussed in more detail later in this paper.

**12. TEGOVA valuation standards are widely used in the CESEE countries.** TEGOVA<sup>6</sup> is a European non-profit making association composed of 71 valuers' associations from 37 countries, mostly European. In 1981, it developed its own valuation standards<sup>7</sup> and guidance by integrating different national practices across Europe. The European Valuation Standards (EVS), promoted by TEGOVA and known as the "Blue Book"<sup>8</sup>, aim to i) set a standard approach to valuation methodologies and ii) comply with European Commission rules and regulations.

**13. Valuation standards set by RICS are used in the UK and are also common in some other European countries.** RICS<sup>9</sup> originates in the UK and produces mandatory rules, best practice guidance, and related commentary for its members undertaking asset valuations in over 120 countries in a document known as the "Red Book"<sup>10</sup>. Since 2015 the global portion of the Red Book has been issued separately, the latest version is "RICS Valuation – Global Standards 2017"<sup>11</sup>. Few national valuation associations from the CESEE region are active members of RICS.

**14. Collateral valuation standards set market value as the preferred method for valuation.** EVS require the use of market value as the main valuation method. The definition of market value, according to TEGOVA, is: *"The estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without being under compulsion."* This definition is almost the same as that used by both RICS<sup>12</sup> and IVSC, with only minor differences in wording.

**15. IASB set IFRS for asset valuation, including loans. IASB is an independent group of experts setting financial accounting standards in preparing, auditing, or using financial reports.** The latest standard for financial instruments – IFRS 9<sup>13</sup>, effective from January 2018 – establishes the framework for valuation of financial instruments for accounting purposes. The standard requires that: *"At initial recognition, an entity measures a financial asset or a financial liability at its fair value plus or minus, in the case of a financial asset or a financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or the financial liability."*

<sup>9</sup> [www.rics.org](http://www.rics.org)

<sup>10</sup> The Globalization of Real Estate Valuation. John A. Edge. 2002. [https://www.fig.net/resources/proceedings/fig\\_proceedings/fig\\_2002/Js24/Js24\\_edge.pdf](https://www.fig.net/resources/proceedings/fig_proceedings/fig_2002/Js24/Js24_edge.pdf)

<sup>11</sup> [http://www.rics.org/Global/red\\_book\\_2017\\_global\\_pgguidance\\_160617\\_rt.pdf](http://www.rics.org/Global/red_book_2017_global_pgguidance_160617_rt.pdf)

<sup>12</sup> RICS Valuation – Global Standards 2017.

<sup>13</sup> <http://www.ifrs.org/issued-standards/list-of-standards/ifrs-9-financial-instruments/>

<sup>5</sup> TEGOVA is more dominating in residential real estate sector, but RICS in larger scale commercial property (e.g., shopping malls, office blocks).

<sup>6</sup> <http://www.tegova.org/>

<sup>7</sup> Before 1981, UK valuation standards were dominating in Europe.

<sup>8</sup> <http://www.tegova.org/en/p4912ae3909e49;>  
[http://www.tegova.org/data/bin/a5738793c0c61b\\_EVS\\_2016.pdf](http://www.tegova.org/data/bin/a5738793c0c61b_EVS_2016.pdf)

**16. A more precise definition of fair value is described in IFRS 13<sup>14</sup>.** This standard defines fair value as *“the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date”<sup>15</sup>*. It is assumed that market participants would price the asset or the liability under current market conditions, including assumptions about risk.

**17. Opinions differ on the similarity of market value and fair value.** Market professionals and professional literature opinions on the comparability of the two methods differ. Some argue that, in essence, the market value and fair value are very similar. To this end, TEGOVA – EVS 2016 states that *“in most cases market value and fair value are interchangeable, although there may be cases, particularly involving properties with future development potential or hope value, where the two values are not the same”<sup>16</sup>*. Others argue that market value is forward looking but fair value is more backward looking or is referring only to the current situation. Furthermore, some argue that fair value estimation is more prone to interpretation. Another argument stands that market value reflects more the supply and demand situation (e.g., oversupply or deficit) and thus is more volatile.

**18. The value of collateral turns out to be more prominent when a loan becomes non-performing.** While a loan is performing, collateral value does not play a crucial role for loan valuation. For a performing loan, uninterrupted cash flow and the borrower’s credit standing are more important. However, when a loan becomes delinquent (non-performing) the value of collateral becomes more important as the probability of collateral enforcement increases. If the bank’s estimated value of collateral is “optimistic”, the possibility of additional losses looms large for banks as collateral value is considered for provisioning purposes. One of the big lessons learned from the global financial crisis is that lending should be done based on borrower’s repayment capacity. Collateral should be viewed as a safety net and not the main credit risk management tool. In addition, loan-to-value ratio plays a crucial role during the loan underwriting process. It is one of the best single predictors of delinquency.

**19. The value of collateral can be determined by an external or internal appraiser or by a model.** The ECB Guidance to banks on NPLs<sup>17</sup> allows use of appraiser estimates or model (indexed) estimates for the valuation of immovable property. However, ECB sets a threshold of less than EUR 300,000 (gross value) for the valuation update of non-performing loans with modelled estimates. Model valuations are only allowed for loans secured by immovable property collateral and models should be: i) regularly reviewed, ii) sufficiently granular, and iii) based on sufficient observations (empirical evidence from actual property transactions).

**20. The latest EU regulation requires the recognition of NPL in full amount without accounting for collateral.** The EBA<sup>18</sup> and ECB<sup>19</sup> both require recognition of the full amount of a loan when it falls into the NPL category. Any type of collateral, including guarantees, should not be taken into account at this stage, even when a loan is fully collateralized. However, for provisioning purposes, the amount of available collateral and application of appropriate haircuts (e.g., amount and time of enforcement) is considered.

**21. ECB supervisory expectations require a phase out of the amount of collateral used for provisioning purposes after a certain time.** The Addendum to the ECB Guidance to banks on non-performing loans<sup>20</sup>, as part of the prudential framework, requires banks to provision NPLs in full amount, irrespective of any collateral, gradually over a period of seven years. The ECB argues that a bank should realize any available credit protection in a timely manner. In case of difficulties in realizing available collateral over a long period, for internal or external (e.g., a lengthy collateral enforcement process) reasons, it would be prudent to consider a loan as unsecured at origination.

<sup>14</sup> <http://www.ifrs.org/issued-standards/list-of-standards/ifrs-13-fair-value-measurement/>

<sup>15</sup> IASB IFRS 13, par. 1. Came into force from 1 January 2013.

<sup>16</sup> TEGOVA – EVS 2016. Page 346.

<sup>17</sup> [https://www.bankingsupervision.europa.eu/ecb/pub/pdf/guidance\\_on\\_npl.en.pdf](https://www.bankingsupervision.europa.eu/ecb/pub/pdf/guidance_on_npl.en.pdf)

<sup>18</sup> EBA Implementing Technical Standards on Supervisory reporting on forbearance and non-performing exposures under article 99(4) of Regulation (EU) No 575/2013. Issued in July 2014, page 13. <https://www.eba.europa.eu/documents/10180/449824/EBA-ITS-2013-03+Final+draft+ITS+on+Forbearance+and+Non-performing+exposures.pdf>

<sup>19</sup> ECB Guidance to banks on non-performing loans. Issued in March 2017, page 51. [https://www.bankingsupervision.europa.eu/ecb/pub/pdf/guidance\\_on\\_npl.en.pdf](https://www.bankingsupervision.europa.eu/ecb/pub/pdf/guidance_on_npl.en.pdf)

<sup>20</sup> Addendum to the ECB Guidance to banks on non-performing loans: supervisory expectations for prudential provisioning of non-performing exposures. Issued in March 2018, page 10 and 11. [https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.npl\\_addendum\\_201803.en.pdf](https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.npl_addendum_201803.en.pdf)



## II. Collateral valuation methodology.

**22. Professional standards identify three basic approaches for valuing land and buildings, the most common form of collateral in CESEE countries.** Both IFRS and EVS<sup>21</sup> propose three essential valuation approaches<sup>22</sup>: i) the market approach, ii) the income approach, and iii) the cost approach. IFRS 13 uses a slightly different term – valuation technique<sup>23</sup>; however, it is, in essence, the same valuation approach used in EVS. Furthermore, according to IFRS 13<sup>24</sup> and EVS, both single valuation and multiple valuation techniques could be used during the price estimation process.

**23. The market approach is based on comparison.** This technique uses prices and other relevant information from market transactions. The comparable(s) used by this technique should exhibit similarities to the object under valuation<sup>25</sup>.

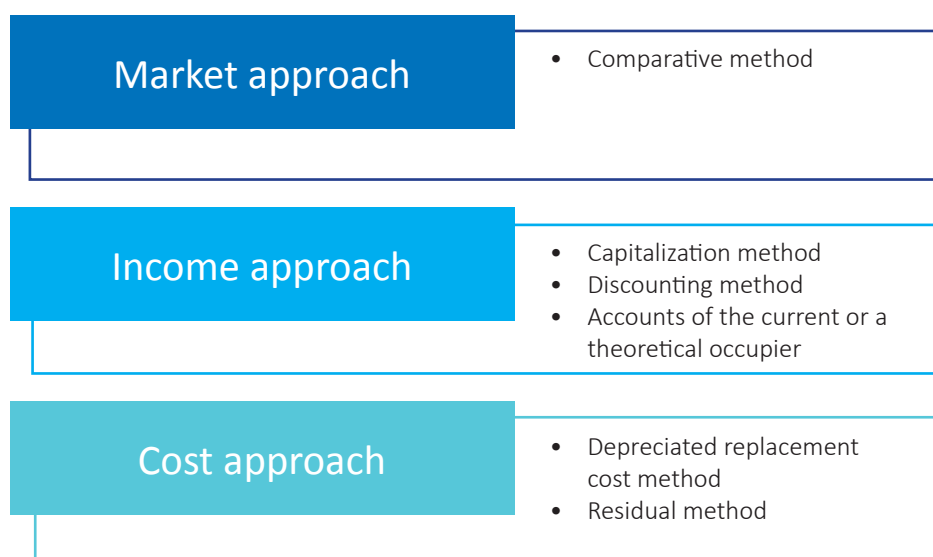
**24. The income approach converts future cash flow amounts to a single current amount.** The value, under this approach, is derived by capitalizing or discounting the estimated future income (cash flows)

to be derived from a property. The income can be generated either from rent or from the cash flows of business done at a property. The income approach is, in general terms, a form of investment analysis.

**25. The cost approach focuses on the replacement value of a property.** Under this technique, the value is estimated by the amount that would be required to replace the service capacity of an asset or to obtain, either by purchase or by construction, a property of equal quality. Proper amortization of an asset should be done while using this method. This method should only be used when i) the comparative method cannot be used due to the lack of frequent data (i.e., sales prices), and ii) the income approach is not suited for the valuation.

**26. Based on the three valuation approaches there are several valuation methods used.** Specific methods use one or a mixture of the three basic valuation approaches. The application of specific methods often depends on: i) the kind of property, ii) available data, iii) the purpose of the valuation, iv) the nature of the client, and v) the local legal framework. Figure 2 provides visualization of this framework.

**Figure 2. Property valuation framework according to TEGOVA.**



<sup>21</sup> TEGOVA – EVS 2016. Page 310.

<sup>22</sup> For valuing land and buildings.

<sup>23</sup> IFRS 13.62.

<sup>24</sup> IFRS 13.63.

<sup>25</sup> Mortgage lending value is a sub-approach of market approach. According to this approach, the value is determined by assessment of the future marketability of the property considering long-term sustainable aspects of the property. Often, the value is derived by applying a haircut (e.g., 10-20%) to market value.

## **27. EVS specifies six distinct valuation methods<sup>26</sup>.**

EVS recognizes the following methods for immovable property valuations: i) the comparative method, ii) the capitalization method, iii) the discounting method, iv) the method based on the accounts of the current or a theoretical occupier, v) the depreciated replacement cost method, and vi) the residual method. The application of specific method depends on the type of underlying asset and its use.

## **28. The comparative method is preferred, according to EVS.**

This method estimates market value by analyzing prices obtained from direct sales or rents of assets like the object under estimation. The value should be adjusted for any differences in the assets as each asset has unique features (e.g., location, physical condition, legal interest, or permitted use). EVS recommends adopting this method whenever it is appropriate or acceptable to do so as it provides the most direct link to recent market transactions. The sub-methods derived from this method are called comparative sales and comparative rental methods. The comparative method should be used only when a property under valuation has a reasonably analogous property to be compared with.

## **29. The capitalization method uses an estimated income from a property expressed as yield and extrapolates it for the future years.**

This method is part of income approach and uses net rental income or net operating income for calculating annual yield from a property. The method, in its sophisticated form, allows for different yields during different time periods to reflect; i) lease ends, ii) rent reviews, or iii) adjustments for major capital expenditure, if required. Adjustments for net or gross rental income should be made during the estimation process.

## **30. The discounting method is based on present value calculations of expected rental income or cash flows projected over a specific time horizon.**

The most prominent method in this group is discounted cash flow (DCF). It is now commonly used by appraisers and investors both in Europe and in the USA. The DCF method assumes a sale at the end of the hold period. The future sale price should reflect the income generating capacity of an asset and should allow for the deduction of appropriate expenses (i.e., sale taxes and costs). A proper discount

rate plays a crucial role as all cash flows (in and out) and the derived future sale price should be discounted to reflect the present value of an asset. The discount rate should reflect the risk inherent in an asset (e.g., country, business project, property type, or location). One method to derive discount rate is adding risk premiums to a “risk-free” investment yield (i.e., long-term (10-year) government bond yield).

## **31. The DCF method is a highly complicated method and should be used with care.**

Many assumptions and predictions (e.g., future economic and property market indicators, interest rate, and risk factors) must be used in the DCF method, thus making it prone to interpretations. The 2014-2015 The United States Uniform Standards of Professional Appraisal Practice (USPAP)<sup>27</sup> state that “*DCF analysis is an additional tool available to the appraiser and is best applied in developing value opinions in the context of one or more other approaches*”. However, the DCF method is widely used in many European countries for different valuation purposes when valuing income generating properties.

## **32. Another method under the income approach is based on the accounts of the current or a theoretical occupier.**

This method is used when comparable sales are not frequently available. The valuation is based on the gross turnover generated by business active in the property<sup>28</sup>. It is used for market or investment valuation of properties adapted for a particular use (e.g., leisure centers, sports stadia, theatres, hotels, restaurants, and clubs). In essence, this method is very similar to the DCF method.

## **33. The most prominent cost approach method is the depreciated replacement cost method.**

This method requires estimating the value of the land under existing buildings and the theoretical cost of the construction of similar buildings. Adjustments should be made for depreciation, age, location, condition, and functionality of the existing buildings. The most sensitive aspect of this method is calibration of the depreciation rate.

<sup>27</sup> USA Appraisal Standards Board, Uniform Standards of Professional Appraisal Practice, 2014-2015 Edition, Statement on Appraisal Standards No.2 (page 89, line 2323). ISBN: 978-0-9798728-9-1. <http://www.appraisertom.com/USPAP-2014-15.pdf>

<sup>28</sup> In the valuation of properties based on operating profits (such as hotels), the valuer will often work on the basis of EBITDA (earnings before interest, tax, depreciation and amortization). EVS- 315.

<sup>26</sup> TEGOVA – EVS 2016. Pages 313-323.

**34. The residual method is another variation under cost approach.** Under this method, the market value of a vacant site or a building in a developed or re-developed form is estimated. It estimates the value of potential redevelopment or refurbishment of an asset. The method includes professional judgement on development potential, which might be subjective and is the most sensitive part of the valuation process. It should be noted that costs associated with redevelopment (e.g., demolition of the existing building, design costs, infrastructure works, construction costs, professional fees, finance and sales costs, or developer's profit) should be accounted for while determining the final value. TEGOVA advises performing sensitivity analysis of the inputs as some of them might dramatically affect the resulting value. The method might be used for valuing real estate development projects.

**35. According to TEGOVA, use of cost approach methods varies across Europe<sup>29</sup>.** Countries with more transparent real estate markets (i.e., available data on price, rental, and yield) tend to avoid cost approach methods. Market volatility is also a factor, the cost approach is better suited to countries with less volatility. The cost approach is more often used to value highly specialized properties, such as an oil refinery or steel works. For these properties there is, generally, limited market, capital, or rental information, thus the use of the cost approach might be justified.

**36. Cost and market value are usually similar when properties are new.** The cost approach provides better estimates for new or relatively new constructions. There are numerous examples (e.g., in countries with sharp economic adjustments) where rental, occupational, or investment markets have changed considerably between the initiation of construction and the conclusion of a project. In these cases, the cost approach may no longer be a good measure of the market value. One example is valuation of retail or office buildings (development projects) before and after real estate booms.

**37. Multiple methods can be used during the value estimation process.** Real estate valuation standards allow using multiple methods in determining the final value. Practices vary across Europe<sup>30</sup> – in some

countries only one method may be used, in others multiple methods are allowed. For example, in Bulgaria<sup>31</sup> banks use multiple methods and weight them, the weighted value is called the market value. See Appendix 2 for methods used in different countries.

### III. Good practice to be implemented.

#### Valuation methods

**38. ECB guidance to banks on NPLs<sup>32</sup> provides input to a framework for collateral valuation in the EU.** The ECB Guidance Note was issued as part of the strategy to tackle the NPL problem in Europe due to the financial and economic difficulties of many European countries. This Note, as part of broader guidance, provides specific recommendations on certain collateral valuation aspects (i.e., methods used, frequency, appraiser's qualifications, governance). It should be noted that the Guidance is mandatory only for banks under direct ECB supervision. As not all banks in the CESEE region are under ECB supervision, it creates a dual regulatory environment – one for banks that follow European regulations (i.e., European bank subsidiaries, and at least three largest banks in the country<sup>33</sup> (for EU countries)) and another for local banks that follow local regulation.

**39. The Guidance requires use of market value or mortgage lending value for all immovable collateral valuation.** In this context, market value is understood as per TEGOVA's definition in EVS 2016. Mortgage lending value<sup>34</sup> is defined in European Regulation No 575/2013<sup>35</sup>: *"mortgage lending value means the value of immovable property as determined by a prudent assessment of the future marketability of the property taking into account long-term sustainable aspects of the property, the normal and*

<sup>31</sup> IMF. Bulgaria Financial Sector Assessment Program. Technical Note on Non-Performing Loans Reduction Strategy. July 11, 2017. <http://www.imf.org/en/Publications/CR/Issues/2017/07/11/Bulgaria-Financial-Sector-Assessment-Program-Technical-Note-NonPerforming-Loans-Reduction-45059>

<sup>32</sup> Effective from March 2017.

<sup>33</sup> The list of ECB supervised banks. [https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.list\\_of\\_supervised\\_entities\\_201712.en.pdf](https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.list_of_supervised_entities_201712.en.pdf)

<sup>34</sup> This value is used for the calculation of the risk-weighted exposures of credit institutions secured by mortgages on immovable property, per the European Regulation No 575/2013.

<sup>35</sup> Article 4, para 74.

<sup>29</sup> TEGOVA – EVS 2016. Page 321.

<sup>30</sup> TEGOVA – EVS 2016.

local market conditions, the current use and alternative appropriate uses of the property”.

**40. For the Asset Quality Review (AQR) conducted by the ECB, limitations on the use of mortgage lending value were imposed.** The AQR Phase 2 Manual, issued by the ECB in preparation for the AQR, is firm on the use of mortgage lending value. The Manual states that “for the avoidance of doubt, mortgage lending value may only be used for real estate in cases where it is explicitly less than market value in all cases”<sup>36</sup>. This might indicate that in certain countries mortgage lending value was higher than real market value and some speculative elements were built into it. A more precise methodology on how to derive mortgage lending value could provide further clarity on the utilization of this valuation concept.

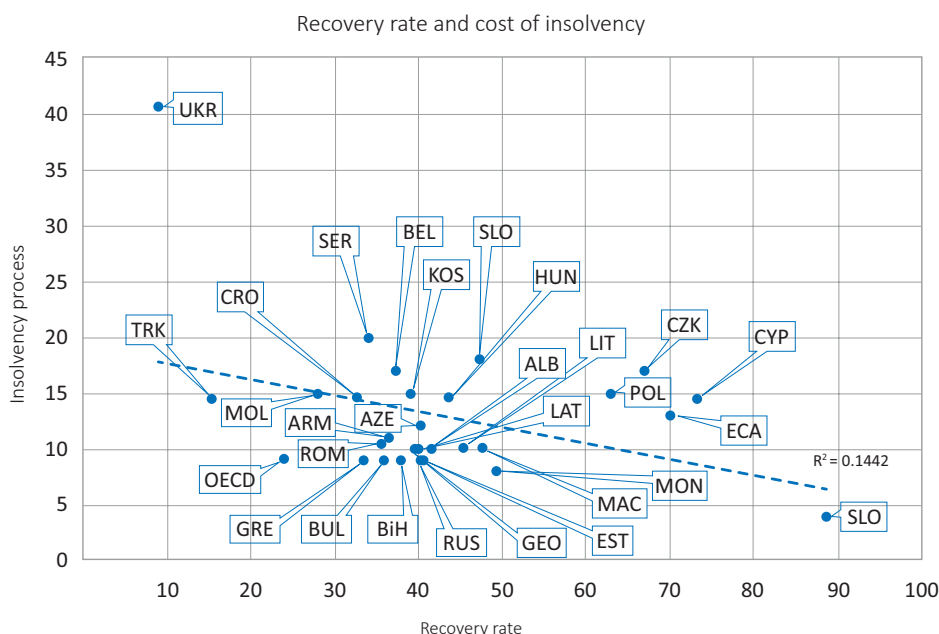
**41. The Guidance explicitly forbids use of the discounted replacement cost method for real estate valuation purposes.** Due to a number of assumptions that could be speculative (e.g., discount rate, depreciation rate), the ECB does not allow this method. The same exclusion was provided in the ECB AQR Phase 2 Manual<sup>37</sup>.

**42. Market comparable and discounted cash flow methods are allowed for income-generating real estate properties.** The Guidance allows use of market comparable and discounted cash flow methods in cases where there are comparable assets in the market or properties are generating cash flows.

#### Box 1.

Resolving insolvency index, as part of the World Bank Doing Business Index, gives a good overview of insolvency processes in different countries. The figure 3 (below) reflects i) costs associated with insolvency and ii) recovery rate during the process. Ukraine and Turkey stand out among other region countries with very low recovery rates – 8.9% and 15% respectively. In addition, in Ukraine the costs associated with an insolvency process are very high 40.5% of an asset.

**Figure 3. Recovery rate and cost of insolvency. WB Doing Business Index 2018.**



<sup>36</sup> ECB AQR Phase 2 Manual. March 2014. Page 145. <https://www.ecb.europa.eu/pub/pdf/other/assetqualityreviewphase2manual201403en.pdf?13dedecf05f2625152ea920d1bc25d59>

<sup>37</sup> Page 150.

**43. Valuation without comparables.** As the discounted replacement cost method is not allowed by the ECB, there might be cases where no immediate comparables and no net income can be attributed to the property. In this case, the ECB AQR Phase 2 Manual suggests: *“to apply the closest available comparable with an additional discount of 20% reflecting the inherent illiquidity of the property. The 20% is a benchmark to be used unless there is a strong reason for a higher discount<sup>38</sup>”*.

**44. The Guidance puts special emphasis on “gone concern” future cash flow valuation.** This valuation is done to estimate the borrower’s loan servicing capability. Under a “gone concern<sup>39</sup>” scenario, the borrower is not able to service the loan with the cash flows from its business and the collateral is executed. In this case, collateral valuation should be adjusted to account for the realistic liquidation costs and market price discount due to time-to sell consider-

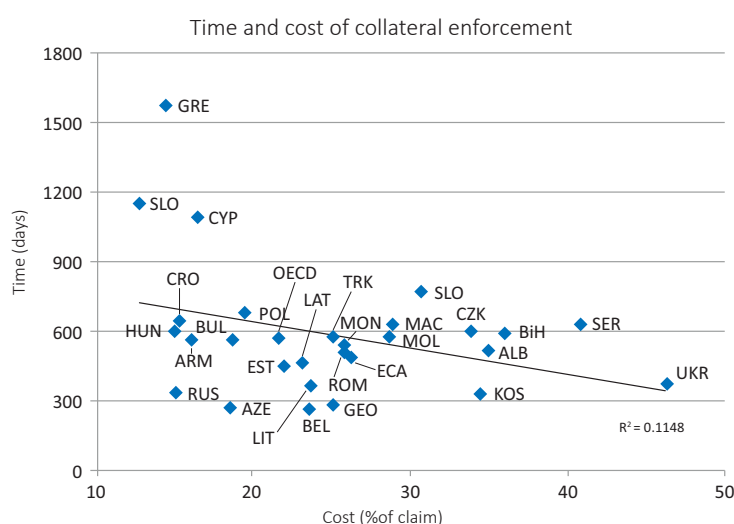
ations (i.e., net-present value)<sup>40</sup>, illiquidity, urgency, or uniqueness of the collateral. The Guidance requires a minimum of 10% discount if the collateral is sold through auction. The following liquidation costs should be accounted for: i) all applicable legal costs, ii) selling costs, taxes, and other expenses, iii) any maintenance costs, and iv) any cash flows till the liquidation date. Boxes 1 and 2 provide specific country estimates on parameters that could be relevant during this valuation process.

**45. Calculation of the present value of future cash flows is of utmost importance when the collection of cash flows is slow.** As the collateral enforcement process can be long, the valuation should adjust for the time value of the collection process. The method to be used for this adjustment is NPV calculation. See Annex 1 explaining the importance of the discount rate used in the NPV calculation.

## Box 2.

The World Bank Doing Business Index 2018 has a specific subsection – collateral enforcement- reflecting i) the cost of claim and ii) the time needed to enforce collateral in a specific country. The chart below (figure 4) shows that in Ukraine and Serbia the cost of collateral enforcement is very high – above 40% of the claim. At the same time, in Greece, Slovenia, and Cyprus the time needed to enforce collateral is close to or above 3 years.

**Figure 4. Time and cost of collateral enforcement. WB Doing Business Index 2018.**



These country specifics should be taken into account when discounts and costs are estimated during the collateral valuation process.

<sup>38</sup> Page 158 of the Manual.

<sup>39</sup> The ECB Guidance to banks on NPLs. Sections 6 and 7.

<sup>40</sup> In some countries, it takes many years to enforce the collateral. The resolution of corporate insolvency in Poland, Romania, and Malta is up to four years, but above four years in Greece and Italy. Source: EBA Report of Dynamics and Drivers of Non-Performing Exposures in the EU Banking Sector. July 2016. <http://www.eba.europa.eu/documents/10180/1360107/EBA+Report+on+NPLs.pdf> (Page 35).



**46. The REV method has been used for NPL portfolio transfers under state aid rules in Europe.** This method is meant for the valuation of an NPL as a whole and not only collateral. The European Commission defines the real economic value as the *“underlying long-term economic value of the assets, on the basis of underlying cash flows and broader time horizons”*<sup>41</sup>. The Commission considers that the REV is an acceptable benchmark for establishing an NPL transfer price under state aid rules. It further specifies: *“The REV is an estimation of the asset value by disregarding the unexpected distresses caused by the crisis. In contrast to the market price, the REV does not include the additional risk premium which private investors require because of the high uncertainty surrounding the value of the concerned assets and because of their illiquidity. The REV is a prudent estimation of the future cash flows which can be generated by the assets, net of all workout costs, and discounted using an interest rate including a certain risk premium. As market conditions improve over time, the market price should in theory converge towards the REV”*<sup>42</sup>. This method is not approved by TEGOVA but has been used for NPL transfers from failing banks to asset management companies (e.g., NAMA, SAREB, DUTB<sup>43</sup>).

## Frequency

**47. There is a standard requirement for valuation reviews every year or every three years depending on property type.** The Guidance requires that individual collateral valuations are updated at least every year for commercial immovable property and every three years for residential immovable property<sup>44</sup>.

**48. For NPLs, the Guidance requires more often re-valuation.** At the time when a loan (non-performing exposure<sup>45</sup>) is classified as non-performing, valuation of the collateral should be updated on an individual basis. While remaining in this category, the collateral needs to be updated at a minimum annually. The individual valuation requires property-specific valuation by an appraiser. Indexations or any other automated processes could not be applied except to NPLs secured with immovable property of less than EUR 300,000 in gross loan value.

**49. If the real estate market drops, banks are required to carry out more frequent valuations**<sup>46</sup>. During previous real estate price adjustments (sometimes sharp), banks in certain European countries did not observe, and supervisors did not enforce, this requirement. The Guidance therefore requires banks to define internal criteria for a significant decline in collateral value. Most often these are quantitative thresholds. For example, a drop of a real estate price index by more than 5%<sup>47</sup>. In case of severe real estate price adjustments (e.g., close to 70% in Latvia in 2008-2010), regulators might i) request more frequent mandatory real estate valuations, and ii) arrange thematic “on-site” or “off-site” supervisory reviews specific to collateral valuation in the banks. The consequence of severe negative real estate market adjustments is a reduction of collateral value, thus increasing the uncollateralized part of a bank’s loan portfolio, which typically leads to provision increase, sometimes significant. The increase in provisioning charges increases losses for the banks, which may already be under stress<sup>48</sup>.

<sup>41</sup> Communication from the European Commission on the Treatment of Impaired Assets in the Community Banking Sector. (Para 40). [http://ec.europa.eu/competition/state\\_aid/legislation/impaired\\_assets.pdf](http://ec.europa.eu/competition/state_aid/legislation/impaired_assets.pdf)

<sup>42</sup> Non-Performing Loans and State Aid Rules. July 5, 2017. Authors: Christophe Galand, Wouter Dutilleul and Emese Vallyon. <http://european-economy.eu/2017-1/non-performing-loans-and-state-aid-rules/>

<sup>43</sup> National Asset Management Agency, Ireland (NAMA); SAREB is the bad bank of the Spanish government; Bank Assets Management Company in Slovenia (DUTB).

<sup>44</sup> Requirement of the ECB Guidance to banks on NPLs and the European Regulation No 575/2013.

<sup>45</sup> EBA definition of non-performing exposure is: *“non-performing exposures are those that satisfy either or both of the following criteria: (a) material exposures which are more than 90 days past-due; (b) the debtor is assessed as unlikely to pay its credit obligations in full without realization of collateral, regardless of the existence of any past-due amount or of the number of days past due”*. EBA Implementing Technical Standards. July 2014. <https://www.eba.europa.eu/documents/10180/449824/EBA-ITS-2013-03+Final+draft+ITS+on+Forbearance+and+Non-performing+exposures.pdf>

<sup>46</sup> Requirement of the ECB Guidance to banks on NPLs and the European Regulation No 575/2013.

<sup>47</sup> World Bank and Bank of Slovenia. Handbook for MSME NPL Management and Workout. Page 15. <https://www.bsi.si/en/publications/other-publications/handbook-for-msme-npl-management-and-workout>

<sup>48</sup> This could accelerate a downturn and create systemic risks for the banking system.

**50. The Guidance requires a robust internal system for identifying outdated valuations.** Banks should have adequate IT systems and process in place to identify, ideally pre-emptively, when new valuation reports should be prepared. In addition, IT systems should ensure an adequate audit trail on the valuation history.

## Effective enforcement

**51. Institutional frameworks for regulating the appraiser industry differ.** Many countries have different institutional frameworks for assessment of asset values. In some countries it is self-regulated by associations (Montenegro, Romania), in others national laws (Bulgaria, Croatia, Poland, Spain) or ministerial regulations (Slovakia, Hungary) determine the rules<sup>49</sup>. The practice of appraiser certification also differs – there is no official certification in, for example, Hungary, Montenegro, or Romania. Certification is issued by the Ministry of Justice in Slovakia and by the Ministry of Finance in Serbia<sup>50</sup>. In Spain, appraisers are certified by the local appraiser regulator; however, only specialized companies (sociedades de tasación) can provide asset assessments for real estate collateral to financial sector entities. These companies must be registered and supervised by the Bank of Spain<sup>51</sup>. In Italy, the appraiser industry is not regulated by one specific regulator; however, the Italian Banking Association has an MoU with all of the professional appraiser associations defining common guidelines for real estate collateral valuation. The Bank of Italy does not require use of specific methodologies for collateral valuation<sup>52</sup>. In Ukraine, the industry is regulated by the State Property Fund<sup>53</sup>, which issues licenses for professional appraiser work. The National Bank of Ukraine has no legal mandate to intervene in work performed by licensed appraisers, despite attempts introducing some rules aimed at improving appraiser performance.

**52. A legal mandate for directly or indirectly regulating the appraiser industry is very important.** There might be cases (Spain) where a regulator wanted to have more control of the licensing and/or regulation of appraisers. Reasons for a more intrusive relationship with appraisers could stem from i) poor appraisals (usually overestimated values), ii) proven criminal actions by appraisers, iii) clear or soft conflicts of interest (e.g., the collusion of interests of banks and appraisers), and iv) a non-transparent market. It should be noted that the financial industry (banks in particular) is the largest customer of appraiser services. There are precedents where central banks wanted more active involvement in the selection of appraisers eligible to perform services in the financial industry but were not allowed on legal grounds. A clear, legally determined mandate (in the law governing the central bank/regulator or national legislation) is required for any intervention in the work of appraisers by a regulator of financial markets.

**53. Requirements for being an appraiser should be prudent.** A licensing body should clearly spell out educational and practical requirements to qualify for the profession. Safeguards should be set in place to ensure independence of the appraiser in the underwriting process<sup>54</sup>. Ideally lenders need to have a quality control system for double checking valuation reports done by independent appraisers.

**54. A regulator might instruct banks to be more prudent in appraiser selection, or create “white” or “black” lists.** In Slovakia, the regulator requires banks to act prudently in dealings with appraisers whose appraisals have previously been found to be incorrect. Such an exercise is a first step towards the practice of creating “white” or “black” lists of appraisers to perform valuations in the financial sector. It is better if a regulator, if their mandate allows, maintains a centralized list of approved appraisers. This avoids potential issues of bias or delays in delisting bad practice performers if banks create their own internal lists.

<sup>49</sup> For more details see Annex 2.

<sup>50</sup> EMF-ECBC Study on the loan valuation of property for lending purposes. Issued September 2017. <https://hypo.org/app/uploads/sites/3/2017/09/EMF-ECBC-Study-2017-FINAL.pdf>

<sup>51</sup> ECB Stocktake of national supervisory practices and legal frameworks related to NPLs. Issued June 2017, Page 266.

<sup>52</sup> ECB Stocktake of national supervisory practices and legal frameworks related to NPLs, page 154.

<sup>53</sup> EMF-ECBC Study on the loan valuation of property for lending purposes. Issued September 2017, page 93-95. <https://hypo.org/app/uploads/sites/3/2017/09/EMF-ECBC-Study-2017-FINAL.pdf>

<sup>54</sup> For example, the appraiser should not be selected by the loan underwriter but rather by an independent credit risk department.

**55. The creation of a centralized database for real estate transaction prices is one solution to increase transparency.**

As part of a national NPL resolution strategy in Serbia<sup>55</sup>, the National Bank of Serbia created a database on real estate valuation for mortgage loans. The database started accumulating data on newly-approved loans after May 2017<sup>56</sup>. Such a database could substantially boost the analytical capacity of supervisors and provide benchmark data for homogeneous real estate market segments. There are examples (Ukraine, Romania, and Croatia) where similar databases are established under the auspices of other national institutions or associations. In these cases, it is of utmost importance that these data bases i) are adequately provisioned (i.e., with enough human expertise, modern hardware and software, and maintenance costs), ii) have adequate access rights (e.g., the financial market regulator should have full or limited access rights), and iii) produce regular public analytical reports. In Serbia, appraisers and banks have some access to the database to benefit from the data stored. The creation of a fully operational and qualitative (with enough data-points and granularity for analysis) database takes time. Thus, the earlier a database is established the sooner authorities will benefit from it.

**56. Improved transparency in the real estate market could be reached through the creation of real estate price indexes.**

Countries with no granular real estate price indexes should consider introducing them. Authorities should decide on institutional framework, i.e., which institution should oversee these indicators (e.g., a central bank, a statistics office, a ministry), and should ensure adequate granularity of data. Indexes should cover not only different residential real estate segments (e.g., land, an apartment, a house), but also different types of commercial properties (e.g., offices, shops). A clear data collection methodology should be publicly available. Ideally, data should be collected on monthly or quarterly basis.

**57. Real estate valuation in some countries is linked to the taxation of real estate assets.**

This aspect might complicate the valuation of collaterals pledged against a loan and in these cases a careful selection of valuation methodologies by the regulator is needed. For example, in Greece the state estimates the tax value (the system of objective value<sup>57</sup>) of real estate which is usually significantly lower than the market value. In cases of property transfer, the transfer tax is calculated on either “objective value” or the value agreed in a contract, whichever is the highest.

**58. Overvaluation of assets is one of the most common problems in the region.**

This problem could be tackled with the following policy responses: i) more frequent valuation during negative real estate market movements, ii) creation of granular real estate indexes, based on national databases, serving as benchmarks for homogeneous collateral segments, iii) introducing clear rules for removing licenses and sanctions for appraisers acting in bad faith, and vi) introducing differing loan-to-value limits for different geographic regions<sup>58</sup>.

## Conclusions

**59. Local regulators are encouraged to go beyond minimum ECB guidance to banks on NPLs in the area of collateral valuation.**

While the Guidance provides minimum standards for collateral valuation in the financial sector, local regulators and supervisors can introduce a more intrusive regulatory framework if this is a problem area. Authorities might consider the following actions: i) create a database on collateral values used in the financial system, ii) create a more prescriptive valuation framework for NPLs (e.g., valuation methods and frequency), iii) set the rules for discount rates used for collateral valuation, iv) ensure that banks are using realistic parameters of time and cost to access and liquidate physical collateral pledged against a loan, and v) give the financial market regulator a broader mandate that includes full or partial control on appraisal industry.

<sup>55</sup> NPL Resolution Strategy. Ministry of Finance of Serbia, 2015, page 24. [http://www.mfin.gov.rs/UserFiles/File/strategija%20krediti/2%20NPL%20Strategija%20\(eng\).pdf](http://www.mfin.gov.rs/UserFiles/File/strategija%20krediti/2%20NPL%20Strategija%20(eng).pdf)

<sup>56</sup> NBS Decision on the context, deadlines and manner of submission of data on the valuation of mortgaged real estate and loans secured by mortgage. RS Official Gazette, No 55/2017, May 2017. [https://www.nbs.rs/internet/english/20/fis/mortgaged\\_real\\_estate\\_and\\_loans.pdf](https://www.nbs.rs/internet/english/20/fis/mortgaged_real_estate_and_loans.pdf)

<sup>57</sup> The system provides for a minimum value of a real estate according to objective criteria such as position, size, public facilities in the area, age of a building etc. The purpose of this arrangement is for the tax authorities to have a reference minimum value for imposing real estate taxes.

<sup>58</sup> For example, South Korea has launched a pilot project for differing LTV limits for different geographic regions based on possibly overheating real estate markets. Authorities in Romania are considering something similar.

---

**60. Regulators and supervisors might undertake banking system stress testing against adverse real estate market movements.** Experience has shown that the stress testing of banking systems identifies systems' weakest links and improves systems' resilience. Authorities should use credible test scenarios with sufficient granularity in terms of different real estate market segments and regions. Even if real estate markets have historically recorded only positive or neutral developments<sup>59</sup>, realistic market adjustments based on other similar country experiences should be used.

---

<sup>59</sup> For example, Greece.

## Annex 1. The net-present value calculation with different discount rates.

The ECB Guidance to banks on NPLs requires use of the net-present value (NPV) calculation to estimate the present value of future cash flows during the collateral liquidation process. Figure 5 reflects the NPV calculation for a 100,000-nominal amount with two discount rates – 5 percent and 15 percent. While a discount rate of 5 percent could be used in stable and mature economies (i.e., most European countries), a rate of, for example, 15 percent is more appropriate for developing countries with high inflation, growth, and interest rates (e.g., Ukraine, Belarus, or Azerbaijan).

**Figure 5. Net-present valuation calculation example.**

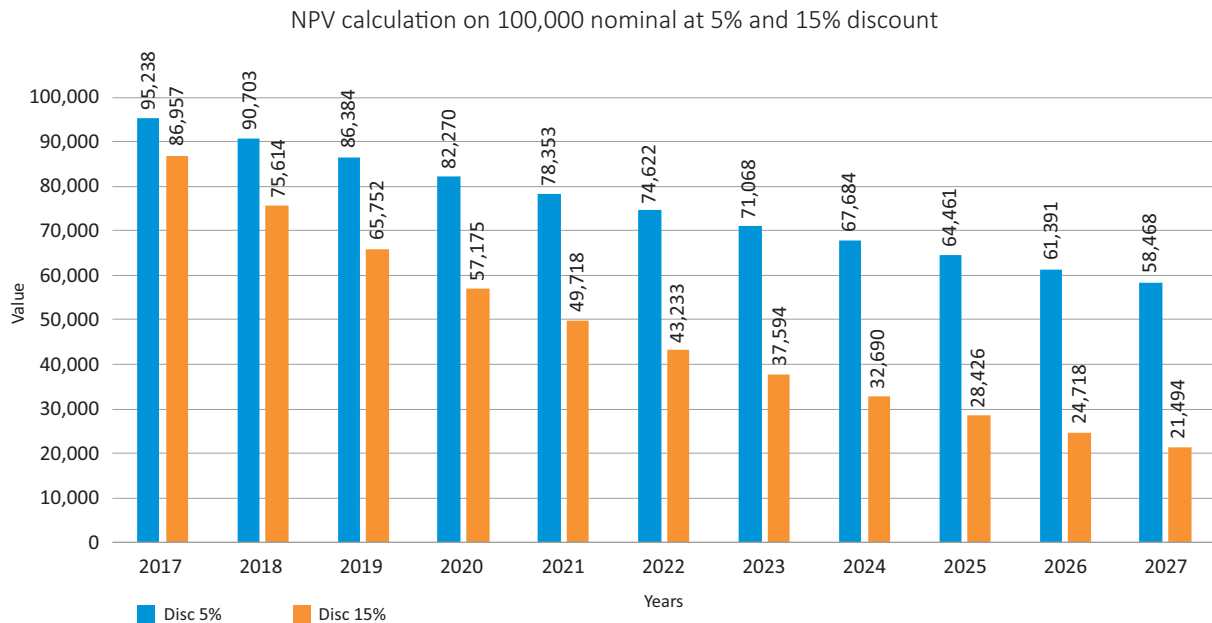


Figure 5 clearly shows that a chosen discount rate makes substantial difference for the present value calculation. Over a period of seven years, the difference between the outcomes under two rates could be around two times.



## Annex 2. Asset valuation frameworks and valuation practices in certain CESEE countries<sup>60</sup>.

Parameter/country	Bulgaria	Croatia	Czech Rep	Hungary	Montenegro	Poland	Slovakia	Serbia	Romania	Ukraine
Institution regulating appraisal industry	The Law on Independent Valuers (effective from Dec 2008) and IVS must be applied	The Real Estate Valuation Act, July 2015	Law 151/1997 and "Standards of Banking Activities - Real Property Valuation Standards for Collateral Valuation Needs of Financial Institutions" issued by Czech Banking Association (CBA)	Ministry of Finance Decree (27/1997).	General Framework is not legislated, EVS (TEGOVA) is used	The Real Estate Management Act	Ministry of Justice Decrees, 2004	Real estate valuation regulated by Law of Valuers of Real Estate Value, Dec 2016. From July 2017, regulated by Ministry of Finance	The Romanian National Association of Chartered Valuers (ANEVAR)	The State Property Fund. Law of Ukraine "On Valuation of Property, Property Rights and Professional Valuation Activities in Ukraine"
Institution issuing appraisers' licenses	The Chamber of Independent Valuers	Court appointed valuers, defined by Courts Act	The Trade Licensing Act	Licenses issued by a number of local appraisers' associations, professionals registered in the official register of Real Estate and Asset Valuers under the Ministry of Internal Affairs	No general certification body, licenses issued by professional associations - the Institute of Chartered Valuers of Montenegro (IOPCG) and the National Association of Valuers in Montenegro (NUPCG).	Ministry of Infrastructure and Construction	Ministry of Justice	Court appointed experts, registered in the Register of Court Experts	ANEVAR	The State Property Fund
Valuation method most often used	Market Value	Market Value	Market Value, Mortgage Lending Value, Pledge Value, and Usual Value	Market Value, Mortgage Lending Value	Market Value	Market Value and Mortgage Lending Value	Market Value	Market Value (RICS definition)	Market Value (state equalized value -SEV- defined)	Market and Liquidation Value methods (usually weighted)
Other methods used	Income, cost, and comparison approaches	Comparison, cost, and income methods	Property replacement value, income approach, and sales comparison value	Comparison, income, and depreciated replacement cost methods	Sales comparison and income methods	Comparison, income, and cost approaches	No info	Comparison, depreciated replacement cost and income methods	Comparison, income, and depreciated replacement cost methods	Comparison, income, and cost methods
National rules for valuation reports	Follows IVSB rules	Yes, defined in the Real Estate Valuation Act	CBA Standards	Yes	No	Yes, defined in the Real Estate Management Act	Yes, defined in Ministry of Justice Decree No.490/2004	Yes, no standardized requirements, but rules are in place	Yes, SEV 103 Valuation Standard	Yes, Cabinet of Ministers of Ukraine
Does the country have a collateral value database? Ownership?	No info	E-Real property is a database of realized property purchases and sale transactions owned by tax administration. Valuers use this data to calculate market value	No info	No info	The Central Bank of Montenegro is considering introducing a database for property market prices	The Polish Financial Supervision Authority issued specific rules for property data collection	No info	The National Bank of Serbia maintains a database on collateral values. Banks and appraisers have access to it	BIG, the collateral value database under ANEVAR supervision. Appraisers are required to register all valuation reports there	State Property Funds maintains a database of real estate values

<sup>60</sup> Based on EMF-ECBC Study on the loan valuation of property for lending purposes. Issued September 2017.



**WORLD BANK GROUP**  
Finance, Competitiveness & Innovation

---

Financial Sector Advisory Center (FinSAC)