YOUR INSIGHT JOURNAL

THE VALUATION PROFESSIONAL

JULY, AUGUST & SEPTEMBER 2023

ICMAI REGISTERED VALUERS ORGANISATION

About ICMAI Registered Valuers Organisation

The Companies Act, 2013 brought into the light the concept of 'Registered Valuers' to regulate the practice of Valuation in India and to standardize the valuation in line with International Valuation Standards. Consequentially,

The Ministry of Corporate Affairs (MCA) notified the provisions governing valuation by registered Valuers [section 247 of the Companies Act, 2013] and the Companies (Registered Valuers and Valuation) Rules, 2017, both came into effect from 18 October, 2017.

In view of the above, the Institute of Cost Accountants of India (Statutory body under an Act of Parliament) has promoted ICMAI Registered Valuers Organisation (ICMAI RVO), a section 8 company under Companies Act, 2013 on 23rd February 2018, which is recognised under Insolvency and Bankruptcy Board of India (IBBI) to conduct educational courses on Valuation for three different asset classes - Land & Building, Plant & Machinery and Securities or Financial Assets and to act as frontline regulator as Registered Valuers Organisation. ICMAI Registered Valuers Organisation is an Academic Member of International Valuation Standards Council.

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(Managing Director)

FROM THE CHAIRMAN's DESK

Dr. Shyam Agarwal
Chairman
ICMAI Registered Valuers Organisation

A key trend trend in business valuations is the rise of ESG factors. These factors include a company's environmental impact, its social responsibility, and its governance practices. Investors are increasingly interested in companies that prioritize ESG factors, and as a result, these factors are becoming more important in business valuations.

India's largest carbon management firm, EKI Energy Services achieved the USD 1 billion valuation milestone within nine months of its debut on the BSE on April 7, 2021 with a market capitalization of Rs 96.23 crore. The company offers strategic solutions to over 2,500 companies across the world enabling them to achieve their climate ambitions. Its offerings span across carbon credit/asset management, carbon footprint management, sustainability audits, training for quality control and management amongst others.The company is expecting a strong growth momentum over the next few years also as the carbon market evolves and witnesses increased demands for carbon credits. The climate change firm is amongst the top five carbon asset management companies in the world and is also the first and only listed company in the carbon market globally. It is a leading developer and supplier of carbon credits in the world.

FROM THE PRESIDENT's DESK

CMA Ashwinkumar G. Dalwadi
Nominee Director
ICMAI Registered Valuers Organisation

President
The Institute of Cost Accountant of India

As we move further into the digital age, the world of business is constantly evolving. One area that is experiencing significant changes is the field of business valuations.

As companies become more complex and the economy becomes increasingly globalized, the traditional methods of valuing businesses are no longer sufficient.

In recent years, there has been a shift towards more sophisticated valuation methods that take into account a wider range of factors. These factors include intangible assets such as intellectual property and brand value, as well as environmental, social, and governance (ESG) factors. The use of these new valuation methods is becoming more common as businesses seek to accurately reflect their true value in a changing economic landscape.

One of the biggest trends in business valuations is the increasing use of technology. AI and machine learning algorithms are being used to analyze vast amounts of data and identify trends that would be difficult for humans to detect. This technology is particularly useful for valuing businesses with complex data sets, such as those in the tech industry.Technology is having a significant impact on the field of business valuations. AI and machine learning algorithms are being used to analyze large amounts of data and identify trends that would be difficult for humans to detect. This technology is particularly useful when valuing businesses with complex data sets, such as those in the tech industry.

FROM THE MD's DESK

Dr. S.K. Gupta
Managing Director
ICMAI Registered Valuers Organisation

The future of business valuations is an exciting and rapidly evolving field. As businesses become more complex and the economy becomes more globalized, traditional methods of valuing businesses are no longer sufficient.

The increasing use of technology, the rise of ESG factors, and the trend towards valuing intangible assets are just a few of the developments that are transforming the field of business valuations.

As 2023 continues, the global economy faces a critical juncture. This includes the legacy of COVID-19, a war in Europe, a huge energy shock, significant inflation, a global monetary tightening cycle, a strong U.S. dollar, the slowest growth in recent history for China, global indebtedness and increasing tensions between the U.S. and China, to name a few. This is to say nothing of the turmoil playing out in financial markets as the decades-long negative correlation between bonds and stocks has broken down, causing both to decline simultaneously. The M&A markets and overall economy have experienced significant changes and challenges. All industries have been impacted by the constantly changing markets caused by a number of factors, including geopolitical uncertainty (e.g., Ukraine war, contentious elections, U.S. – China tensions, etc.), economic difficulties such as inflation and rising interest rates, continued strain on supply chains and the difficulties in maintaining a strong workforce. As we look into 2023, and with all of the uncertainties in the market, we still expect the M&A markets to be resilient and continue to be active.

PROFESSIONAL DEVELOPMENT

ICMAI REGISTERED VALUERS' ORGANISATION

Registered Office
The Institute of Cost Accountants
of India 4th Floor, CMA Bhawan
3, Institutional Area Lodhi Road,
New Delhi – 110003

www.rvoicmai.in

PROFESSIONAL DEVELOPMENT PROGRAMS

May'2023 to September'2023	
Date	**PD Programs**
2nd May 2023	ICMAI RVO in association with IBBI Organises Valuation Bootcamp
6th -7th May 2023	2 Days Focused Learning Program of Case Studies (Securities or Financial Assets)
7th May 2023	Learning Session on Valuation
11th -12th May 2023	Master Class on Valuation
17th -18th May 2023	Learning Session on Valuation
20th -21st May 2023	Bootcamp on Valuation
24th -25th26THMay 2023	Online Management Development program on Valuation
27 th – 28 th May 2023	Workshop on Valuation
31stMay 2023 – 1st June 2023	Certificate Course on the Valuation of Intangible Assets
3rd – 4th June 2023	Certificate Course on International Valuation Standards
10th – 11th June 2023	Master Class on Valuation
17th – 18th June 2023	Crash Course Preparation for Valuation Examination
17th-18th& 24th-25th June 2023	Summer Boot camp & Online Certificate Course on Valuation
20th -21st June 2023	Case Studies in Valuation
28th-29th June 2023	Certificate Course in Valuation Standards
4th -5th July 2023	Advanced Certificate Course in Valuation
13th July 2023	Certificate Course on Valuation of Intangible Assets
18th-19th& 25th-26th July 2023	Summer Bootcamp & Online Certificate Course on Valuation
25th-26 th July 2023	Master Class on Valuation
04 th-05 th August 2023	Master Class - Emerging Trends in Valuation
11 th-12 th August 2023	Learning Session on Valuation
12 th-13 th August 2023	Crash Course Preparation for Valuation Examination {S&FA}
17 th-18 th& 24th-25th August 2023	Online Certificate Course on Valuation
22nd - 23rd August 2023	Certificate Course on International Valuation Standards
23rd August 2023	Learning series
29th August 2023	Learning series
31st August 2023	Learning series
01st-02nd& 08th-09th September2023	Online Certificate Course on Valuation
2nd-3rd September 2023	Certificate Course Proficiency in Valuation
03rd September 2023	Learning Series
08th- 09th September 2023	Certificate Course Valuation under the Companies Act
10th September 2023	Financial Modelling for Valuation

50 HOURS TRAINING PROGRAMS

March'2023 to September'2023	
Date	**Programs**
17th Mar to 19th Mar & 23rd Mar to 26th Mar 2023 (Seven Days Program)	50Hrs Educational Course on Valuation in Securities or Financial Assets
7th April to 9th April and 13th April to 16th April 2023 (Seven Days Program)	50Hrs Educational Course on Valuation in Securities or Financial Assets
21st Apr to 23rd Apr & 27th Apr to 30th Apr 2023 {Seven Days Program}	50 Hrs. Educational Course on Valuation (Plant & Machinery, Land & Building
02nd June to 04th June & 08th June to 11th June 2023 {Seven Days Program)	50 Hrs. Educational Course on Valuation (Plant & Machinery, Land & Building
15TH JUNE- 25TH JUNE 2023	50Hrs Educational Course on Valuation in Securities or Financial Assets
07th -09th& 20th-23rd July 2023	50Hrs Educational Course on Valuation in Securities or Financial Assets
30.06.2023 - 09.07.2023	50 Hrs. Educational Course on Valuation (Plant & Machinery, Land & Building)
07.07.2023 - 23.07.2023	50Hrs Educational Course on Valuation in Securities or Financial Assets
21.07.2023 -30.07.2023	50Hrs Educational Course on Valuation (Land & Building)
04.08.2023 -13.08.2023	50Hrs Educational Course on Valuation in Securities or Financial Assets
25.08.2023 -03.09.2023	50Hrs Educational Course on Valuation (Land & Building)
25.08.2023 - 03.09.2023	50Hrs Educational Course on Valuation (Land & Building)

Upcoming Professional Development Programs

DATE	PD Programs
15th -16th & 22nd -23rd September 2023	Online Certificate Course on Valuation
	Certificate Course on Valuation of Intangible Assets
23rd September,2023	Role of Artificial intelligence in Valuation
15th, 16th, 17th, 21st, 22nd, 23rd, 24th Sept 2023	50Hrs Educational Course on Valuation in Securities or Financial Assets


Articles

VALUATION OF A COAL-BASED POWER PLANT

Dr. S K Gupta
Managing Director
ICMAI Registered Valuers Organization

The Perspective

Modern life is unimaginable without electricity. It lights houses, buildings, and streets; provides domestic and industrial heat; and powers most equipment and machinery used in homes, offices and factories. Coal is the most abundant source of electricity worldwide, currently providing more than 36% of global electricity. Coal-fuelled power plants account for nearly one-quarter of the electricity.

Coal is key to alleviating energy poverty. Approximately 860 million people across the globe currently live without access to electricity. Nearly 2.6 billion people do not have clean cooking facilities. The problem is spread across the developing world, but it is particularly severe in sub-Saharan Africa and developing Asia, which together account for 95% of people in energy poverty. Without a commitment to achieve universal energy access, it has been estimated that by 2030 there will be an additional 1.5 million premature deaths per year caused by household pollution from burning wood and dung and through a lack of basic sanitation and healthcare.

Life expectancy, educational attainment and income all correlate with per capita electricity use, and more of the world's electricity is fueled by coal than any other source.

What drives value?

Power generation companies are dependent on the availability and cost of the underlying fuel (e.g. coal) – the single largest cost incurred by the power producers – and the price of the end product (electricity) for their cash flows and value. Power companies usually are price takers, regardless of their size, because the market is so large. Furthermore, power plants have long operational lives, averaging around 25 years. Therefore, the strength and duration of the key agreements such as the PPA and FSA are particularly important drivers of value as they provide visibility on tariffs and fuel costs and how those might evolve over the life of the plant. Most power producers aim to enter into memorandums of agreement or letters of agreement during the construction phase, which are then converted into formal PPAs or FSAs on commissioning. Absent such agreements or expectation of such agreements, risks attaching to the future profits of the power producers might increase. Other key value drivers of a power plant may include:

1) Construction costs given the large outlay of cash up front – often funded in large part by debt – and the time between the construction phase and generation phase. Projects run a risk of exceeding the planned capital expenditures due to project delays and cost overruns. Cost increases might also impact calculation of fixed charge during the bidding phase. The capital expenditure for a project therefore becomes a key consideration for valuing power plants. The recent infrastructure sector slowdown in India including on account of several defaults have further caused banks to be more cautious for funding future projects;

2) Other operating costs which include operations and maintenance expenses, transmission charges and water costs;

3) Applicable taxes and duties which include income tax, excise duty and goods and services tax paid during the project period; and

4) Project, market and country risks that may affect project's cash flow or the discount rate applied to convert future cash flows to present value. These risks include legal, currency and regulatory risks quite prevalent in emerging markets. For example, regulators have to navigate through multiple constraints to satisfy objectives primarily related to access and low cost of electricity supply, while ensuring high quality and reliability.

In recent times, increased focus on environmental and social concerns associated with energy needs have shifted policy directives towards incorporation of cleaner renewable based technologies. Thus, conventional segments like coal-based power generation might be exposed to the risk of introduction of regulations that might impact their profitability.

Valuation approaches

The first step in valuing a power plant is to assess its development state at the date of valuation. Power projects – like other large infrastructure projects – follow a broadly predictable development path, from the identification of project site, to planning and construction, production and, finally, decommissioning.

There are three approaches normally used to value a coal-based power plant: income-based approach, market based approach and cost-based approach. We discuss these below. Income-based approach in valuation theory, after-tax cash flows are of primary importance. The most commonly applied income approach is discounted cash flow ("DCF"), which assesses the value of an asset by reference to the amount, timing and risk of future cash flows.

When implementing a DCF method for long-life assets such as power plants, it is customary to follow two main steps:

(a). Estimate future cash flows over the economic or operational life of the asset; and

(b). Discount the cash flows using a rate that takes into account the riskiness of the cash flows and the time value of money. Then sum those values to arrive at the net present value of the asset

On (a), for a typical power producer, cash flows are usually estimated by reference to forecasts of revenues less costs, taxes and capital investments.

With respect to revenues, the key inputs include: the tariffs agreed under the PPAs between the power company and DISCOMs or those it expects to earn in the absence of the PPAs from the merchant market, and the projected demand for power in the relevant area served by the producer. Future tariffs will depend on the terms of the PPA (i.e. price escalation clauses and inflation rates) and the expected evolution of the wider merchant market (for example, for spot sales).

In general, a power producer will also earn bonuses under CERC regulations for maintaining plant availability of over 90 percent.52 Additionally, DISCOMs are obliged to pay the fixed costs incurred by the power producer if they fail to purchase power agreed under the PPA.53 Absence of PPAs might increase future uncertainty around expected revenues – in turn reducing the value of the project. A valuer should carefully consider the impact of such a scenario on the valuation of the power plant. With respect to costs and investments, the two larger factors include upfront capital expenditure and cost of coal. Upfront investment determines the total cash outflow for the company prior to commissioning (and also impacts the calculation of fixed costs under the PPAs).

The cost of coal is a function of the source of supply (domestic linkage, e-auction or imported), coal grade and transportation costs. While domestic coal is cheaper than imported coal, factors such as calorific value of coal and transportation costs also impact the landed cost of coal. Absent any FSA, risk around availability of sufficient coal and the costs of such coal in the future Might increase. Additionally, cost of coal is an important consideration for generators selling power in the merchant power market as they might not be able to pass-on all increases in costs. A valuer should carefully consider the impact of such a scenario on the valuation of the power plant. Other principal operating expenses include operations and maintenance costs, transmission costs, secondary fuel costs, and water costs. Again, higher increases in some of these costs (e.g., beyond those agreed under the PPA) might have a material impact on the valuation of power plant.

Conversely, cost efficiencies will have the opposite effect. On 2), an estimate of an appropriate discount rate is necessary to translate future cash flows into their present value. Such an estimate recognizes

(i) The time value of money (i.e. an INR today is worth more than an INR certain to be received in a year's time); and

(ii) The risk or uncertainty associated with the expected future cash flows (i.e. the possibility that the cash flow is higher or lower than expected). The discount rate that is generally used to discount an asset's expected future cash flows is the weighted average cost of capital ("WACC") of that asset.

This is the opportunity cost of capital to the firm. If the subject asset is under financial distress (for example, as might be the case for certain stranded power plants) or exposed to greater market or country risk (for example, power plants in India are likely to be exposed to more higher risk than those operating in more mature markets like the US), investors often require higher returns to lend or invest money in the asset. This in turn results in a higher WACC and lower value of the asset. A valuer should properly analyse the risks attaching to the future cash flows of the power plant in calculating the appropriate WACC.

Market-based approach

With this approach, the value is inferred from publicly available information about transactions in assets comparable with the subject asset. While each power project or asset may have its own singular characteristics, value data from reasonably similar projects and assets can be used to determine a range of market values for the subject assets – or to reaffirm the reasonableness of value conclusions reached by other methods, including the income-based approach. When identifying comparable projects or assets, it is necessary to identify companies that share similar economically relevant characteristics to the project or asset that is the subject of the valuation.

Economically relevant characteristics are those characteristics that determine the cash flow prospects and risk of the company.

Examples of economically relevant characteristics include the geographic location of the asset or terms of the underlying agreements. Under this approach, a valuer will calculate price multiples implied by trading in shares of the comparable assets and its benchmark measure of performance. One set of multiples are "profit multiples", that is, the ratio of observed prices to various accounting measures of profitability.

The other set of multiples are "operating multiples", that is, the ratio of observed prices to various quantitative measures of operations or characteristics of the subject asset. Such measures might include capacity expressed in megawatt ("MW"). Multiples based on historical transactions are influenced by the economic conditions (coal prices, price of electricity, etc.) and circumstances (financial condition of the asset sold, etc.) prevailing at the time of those transactions. A valuer should be careful in drawing conclusions from use of such data.

Cost-based approach

In a cost-based approach, the value is based on the principle that a notional purchaser would not spend more on an asset than it would cost to actually construct the asset. Such costs would include the construction costs of the asset. The value calculated this way may in some cases be thought of as a "floor" value, as it would not include any expected future rate of return or cash flows from the investment. It is sometimes necessary to adjust historical costs incurred to construct the power plant including for any physical, functional and economic obsolescence or depreciation to arrive at the appropriate replacement cost at the date of the valuation of the subject power plant or asset.

Additional considerations

Where appropriate and feasible, it usually preferred to apply more than one approach so that final conclusions can be cross checked. The valuation approaches described above are important, but they do not contain the entirety of the valuation process. There may be other unique issues that must be factored in. For example, a distress sale of a power plant will often attract a lower price than an orderly sale. Similarly, a strategic buyer owning multiple power plants can perhaps assign a higher value to a particular power plant or asset, if it has access to sufficient coal (for example, through captive mines). The current situation on account of the COVID-19 pandemic might further complicate valuation of coal-based power plants. The power consumption across the country dropped by 25 percent to 30 percent Primarily on account of reduced manufacturing activities due to the implementation of a nationwide lockdown. The lower demand might put further stress on existing power plants (particularly those with uncontracted capacities that rely on spot or short-term sales).

Similarly, the average unit price (expressed as INR per kWh) based on the Indian Energy Exchange fell to INR 2.15 per kWh in late March, which is cheaper than tariffs signed under majority of the existing PPAs.

The situation is more problematic for under-construction power plants: around 30 percent of India's under-construction coal-based capacity is using Chinese equipment. The delay in procurement of machinery might result in time and cost overruns in these projects. Moreover, the central government has also allowed deferment of payment by DISCOMs to power generating companies by up to three months All these measures might adversely impact the value of power generation companies. In short, the valuation of a coal-based power plant is a large undertaking. It requires an understanding of the overall dynamics of the power sector, regulatory and policy framework, factors and risks impacting the subject asset including the terms of the underlying agreements and the market in which the asset operates, and deep knowledge of the appropriate valuation standards and methods.

Several modelling tools capture market fundamentals using high quality inputs in all types of valuations.

• Virtual Dispatch Models against Recent/Futures Prices: We use our PSO model to dispatch a specific unit against energy and ancillary service price forecasts. We are also able to model the unit dispatch against both day-ahead and real-time prices, which captures a valuable revenue stream that many dispatch models do not account for. The model outputs the expected plant operations and revenues over the modeled time period. We typically develop the energy and ancillary service price series inputs using both recent historical and future settlement prices and accounting for any known shifts in market fundamentals.

• **Nodal** Market Simulation Models: We employ several nodal market simulations tools for asset valuations to simulate the long-term impacts of

Changing market fundamentals, including new limitations on generating resources, variability of fuel prices, and changing transmission capabilities and congestion patterns. This assessment is particularly

Useful to assess the value of assets in light of market changes.

- Long-Term Planning and Capacity Expansion/Retirement Models: These models determine the value of an asset over 20 to 30 years by capturing expected shifts in system resource mix and market trends. We use this valuation method to determine the expected value of an asset over its operating life.

- Coal Plant Economic Viability Model: This model is used to assist clients in assessing the optimal timing of economic retirement and asset valuation for existing coal units. The model takes into account the operating costs, market revenues, replacement power costs and timing of decommissioning for coal plants owned by merchant entities or rate-regulated utilities, and evaluates the retirement economics as a function of optimal unit commitment dispatch against future wholesale power prices.

Conclusions

Coal-based power generation has played a central role in addressing global energy needs over the past century and is projected to continue in its prominent role in the coming decades, more so in the developing countries.

Coal-based power is accompanied by human health and climate change externalities. There is considerable variation in the methodologies used for impact determination and valuation, leading in turn to a wide variation in the valuation of these externalities

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IVS 2023 – EXPOSURE DRAFT

Manish Kaneria

The International Valuation Standards Council (IVSC) is the independent global standard setter for the valuation profession. The principal objective to have and promote standards in any profession is to bring consistency, comparability, reliability, and professionalism. Which results building trust and enhancing faith of the stake holders and overall society at large in the profession. IVS forms the key guidance for valuation professionals globally and emphasis consistency, transparency, and confidence in valuations. There are various boards and committees being formed for the development and functioning of the IVSC. The Standards Review Board and Technical Boards, which consist of leading valuation experts from around the world, working together to enhance the standards has published the exposure draft on the proposed changes in IVS 2022, which is known as exposure draft for consultation. These updates consider various factors, such as ongoing changes in global markets and valuation practices, increasing use of technology and data sources, growing demand for clarity in valuation processes, and the need to address new types of assets and liabilities, including environmental, social, and governance (ESG) factors.

Based upon the Boards' review, the following updates have been proposed to both General Standards and Asset Standards.

• Adoption of structure that better aligns with the valuation process.

• Additions or expansions to the requirements for data and inputs, valuation models, quality controls, and documentation to reflect the increased complexities of valuations.

• Certain requirements have been moved between the General Standards and Asset Standards to ensure that the General Standards

are applicable to all Asset classes

• Certain information has been moved to Appendices to improve readability and to provide flexibility.

• Clarification of the roles and responsibilities of the parties involved in valuation, such as service organizations and specialists.

Valuation is a process, and in this process, there are many stakeholders involve other than valuer. IVSC Exposure Draft is prepared in a manner that it will give more clarity to the stakeholders (other than valuer) who are part of the valuation process or beneficiary of valuation services.

Stakeholders involve in valuation process or beneficiary of valuation services other than value

- Financial Institution (Bank / NBFC)
- Auditor of the companies
- Lawyer, Judicial body
- Government, Regulatory Authority
- Management of the company
- Transaction Advisor, Investment banker
- Merchant Banker
- Insurance Agencies

IVS 100 - Framework: (Newly Added in IVS General Standard)

In former standard of IVS (effective 31 January 2022, say

'IVS-22'), the IVS Framework was covered as a preamble and there was a lack of clarity as to whether it was mandatory to be followed or otherwise. In the Exposure Draft, the IVS Framework has been covered as a part of the General Standards by introducing IVS 100 Framework which clarifies that it is mandatory to be followed in each valuation exercise irrespective of the asset class.

Quality Control section added as a part of IVS 100 Framework to focus on review process to ensure that valuation processes are performed consistently, objectively, transparently and in compliance with IVS and allow for the assessment of the valuation and the resultant value.

Valuation Framework is a structure that valuer must follow which mainly includes:

- Valuer Principles (Ethics, Competency, Compliance, Documentation etc.)
- Valuation Principles (Scope of work, Identification of asset under valuation, Intended user(s), Intended use, basis of value, valuation date, assumption and condition, valuation approach and methods, data and inputs, valuation models, communication of valuation)
- Quality Control: focus on review process which gives clear, complete and provide adequate clarity to ensure compliance with IVS.
- Use of Specialist

- Use of Service Organization
- Compliance

IVS 101 - Scope of Work: Valuation Review scope of work requirements revised.

The scope of work must include whether the review is a valuation process review or value conclusion review.

Valuation Process Review:

- An analysis by a peer applying professional judgement to assess the compliance of a valuation with IVS.

Value Conclusion Review:

- Addresses the reasonableness of a value conclusion applicable at the valuation date.

The scope of for a valuation review must include the Following at minimum:

- Agreed scope for the valuation review.
- Assets and/or liabilities being reviewed.
- The identity of the valuation reviewer
- The identity of the client
- Intended use.
- The identity of the intended users
- Significant or special assumptions and/or limiting conditions pertaining to the valuation to be reviewed.
- The identity of any specialist or service provider, if used, as part of the valuation review
- Procedures to be undertaken, and the documentation to be reviewed.

IVS 104 - Data and Inputs: (Newly Added in IVS General Standard)

The identification and selection of suitable data and inputs is an important part of the valuation. Data and inputs may be observable or unobservable and requiring assessment, judgement and/or adjustments.

Data and inputs should be based on

- Factual information (such as measurements or statistics),
- Include reasoning and analysis to arrive at a numerical input to be used in the valuation.
- Valuer may use either a specialist or a service organization to obtain either data or inputs, (however The valuer responsible for using the data and inputs appropriate for the valuation.)

Characteristics of Suitable Data Inputs:

- Accurate: free from error and bias
- Appropriate: relevant for the asset or liability
- Complete: sufficient to address attributes of asset or liability
- Observable: obtainable and visible to multiple users or market participants
- Timely: reflect market conditions as of the valuation date
- Transparent: can be traced from their origin Data and inputs selected must be consistent with the valuation models being used to value the asset.

The selection and source and use of the data and inputs must be explained, justified, and documented.

Valuer must be aware of relevant legislation and frameworks in relation to the environmental, social and governance factors within their valuation(s).

ESG factors may impact company/and or assets financial performance, operations. Hence, ESG factors

Should be considered in valuations to the extent that

They are measurable and would be considered reasonable by a peer applying professional judgement.

IVS 105 – Valuation Models
(Newly Added in IVS General Standard)

Valuation models can be developed internally or sourced externally and must be suitable for the intended use of the value and consistent with suitable inputs.

It is an acceptable for the value to engage a specialist or service organization.

Characteristics of Suitable Valuation Models:

- Accuracy: free from error and functions
- Appropriateness: suitable for the asset/ and or liability valued, given market condition at valuation date
- Completeness: address all the features of asset and/or liability
- Timeliness: reflect the market condition
- Transparency: preparing and relying how the valuation model works and inherent limitation

Process to incorporate valuation model and its use

- Design and Development: Selecting valuation approaches and techniques
- Implementation: Testing and assessing the model including analyzing outputs and identify
- Limitations with any potential adjustments.
- Validation: review appropriateness, accuracy and output of a model
- Documentation: documenting model development process which consistent with valuation's intended use.

Valuation model documentation must be sufficient:

- Support for the selection or creation of the model
- Description of inputs and outputs
- Significant assumptions
- Limitations
- Quality control procedures and results

IVS 106 – Documentation and Reporting

Documentation is the written record of the valuation or valuation review. May include communications with the client, working papers, or both, used to support the conclusions reached and compliance with IVS.

This standard also incorporate revised requirement on valuation review reporting

A valuation review must state whether the review is a valuation process review or a valuation conclusion review or Both.

Valuation review must convey following at minimum

- Agreed scope of the valuation review
- Asset or liabilities reviewed
- The identity of the valuation reviewer
- The identity of the client
- Intended use
- The identity of the intended users
- Significant or special assumptions or limiting conditions pertaining to the valuation reviewed
- The use of a specialist or service provider (if used)
- Procedure undertaken and documentation reviewed
- The valuation reviewer's conclusions about the work under review, including supporting reasons
- Details of the valuation report that is the subject of the review
- Date of valuation review report
- For a valuation process review, the version of IVS that is being reviewed

Valuation review report must be sufficient to describe the conclusion reached and be considered reasonable by a peer applying professional judgement.

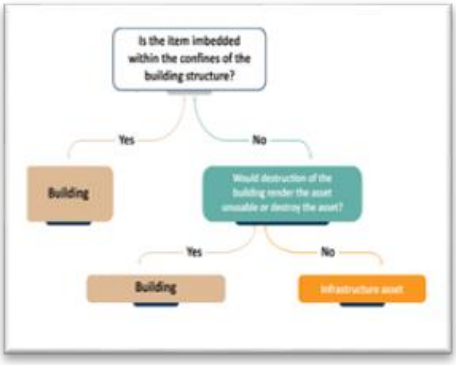
IVS 300 – Plant, Equipment, and Infrastructure

IVS 300 Plant, Equipment, and Infrastructure (PEI) now includes infrastructure. PEI may also include infrastructure assets, which are typically part o f a specialized system or network.

Infrastructure assets:

Criteria to distinguish infrastructure asset from machinery and equipment

Criteria to distinguish infrastructure assets from building

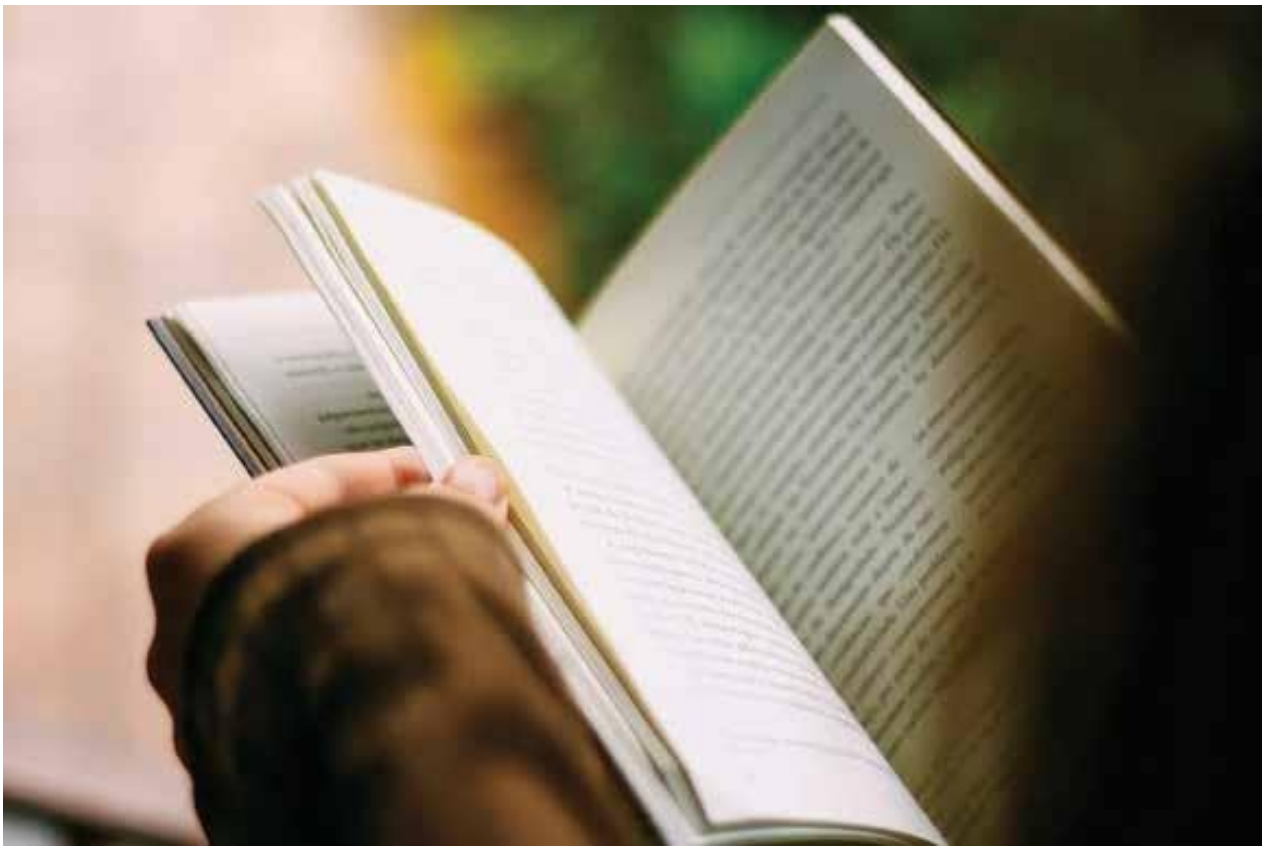


Important Dates

The consultation period on the IVS Draft Exposure 2023 - proposed changes were open from 28 April 2023 for 3 months until 28 July 2023.

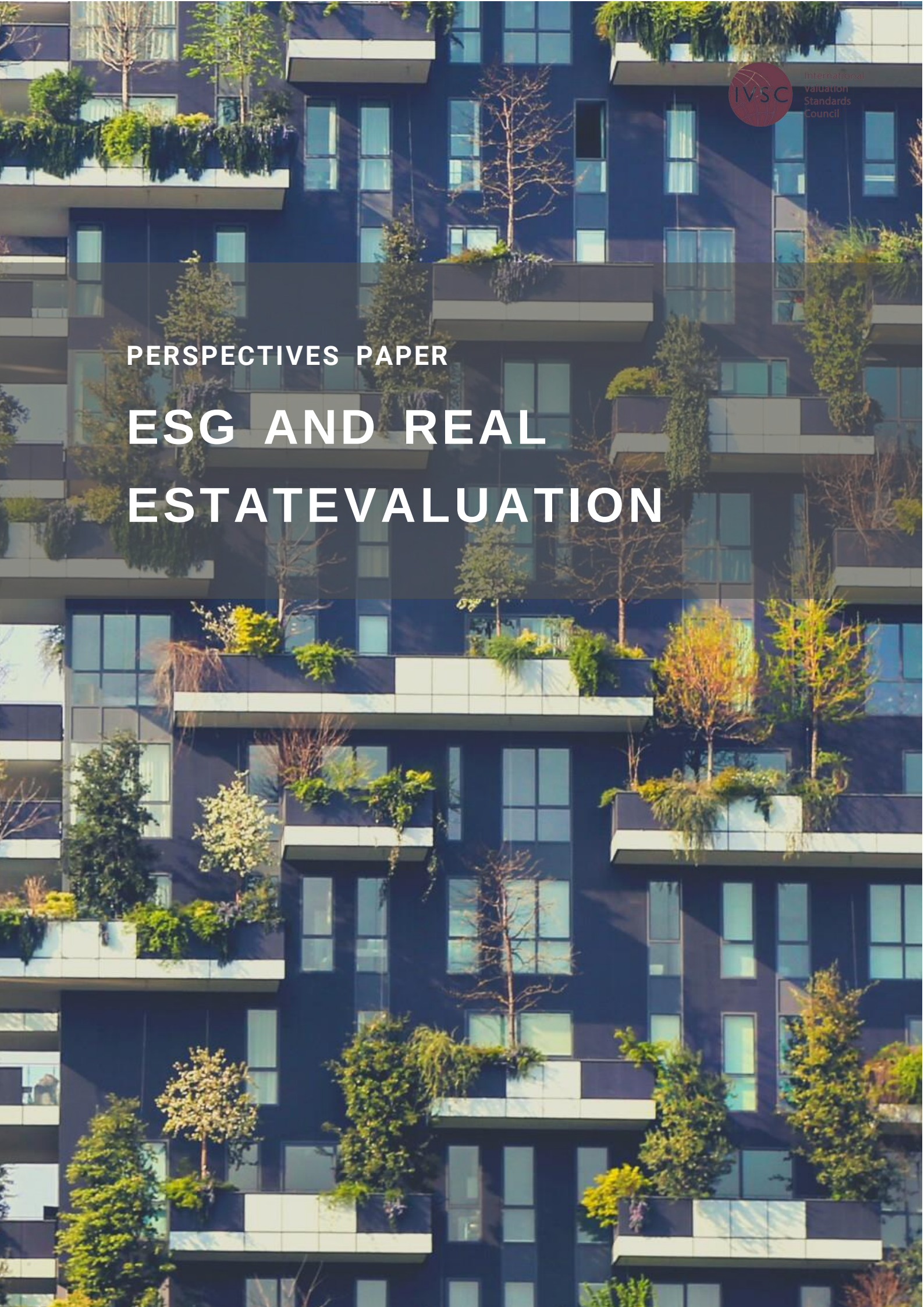
Subject to consultation responses received, the next edition of IVS will be published in January 2024 with an effective date of July 2024.

OTHER READINGS



ICMAI REGISTERED VALUERS' ORGANISATION

Registered Office
The Institute of Cost Accountants
of India 4th Floor, CMA Bhawan
3, Institutional Area Lodhi Road,
New Delhi-110003



International Valuation Standards Council

PERSPECTIVES PAPER

ESG AND REAL ESTATEVALUATION

ESG and Real Estate Valuation

The IVSC issues Perspectives Papers from time to time, which focus on pertinent valuation topics and emerging issues. Perspectives Papers serve a number of purposes: they initiate and foster debate on valuation topics as they relate to the International Valuation Standards (IVS); they provide contextual information on a topic from the perspective of the standard setter; and they support the valuation community in their application of IVS through guidance and case studies.

Perspectives Papers are complementary to the IVS and do not replace or supersede the standards. Values have a responsibility to read and follow the standards when carrying out valuations.

By: Alexander Aronsohn and members of the IVSC Tangible Assets Board and IVSC ESG Working Group

The IVSC has issued this Perspectives Paper as the third in a series designed to initiate discussion and debate on the topic of ESG. Specifically, this paper will focus on Environmental factors that relate to real estate valuations, an example of which is sustainability which is one of many subcomponents of the E in ESG. More specifically, this paper will focus on valuations of existing real estate. Share your thoughts and perspectives with us through LinkedIn

ESG Overview

Environmental, Social, and Governance (ESG) are criteria increasingly used to assess the impact of the environmental, social and ethical practices of companies on their operations, financial performance and attractiveness to investors. The three components; Environmental, Social and Governance which are metrics considered to evidence effective performance, reach beyond the individual organization out to the wider markets, society and world as a whole.

While it is very frequent to have ESG criteria assessed and measured from a company's Perspective, they should also be considered from a tangible asset's perspective as the ESG principles affect not only the behavior of owners and operators of assets, but also other matters related to the physical properties themselves, such as energy efficiency.

Whilst the two prior perspectives papers considered ESG from a business and intangible perspective, this third Perspective Paper explores how ESG can be quantified within valuations of real estate assets. The relationship of ESG to

Proposed/under construction real estate is a distinct topic and is not discussed in detail in this perspectives paper.

This perspective paper will not, in the main refer to the Social and Governance aspects of ESG as these, whilst still relevant to a range of tangible assets, are less developed considerations in real estate valuation. The IVSC TAB consider ESG to be a fluid, developing topic and future perspective papers may consider these elements further.

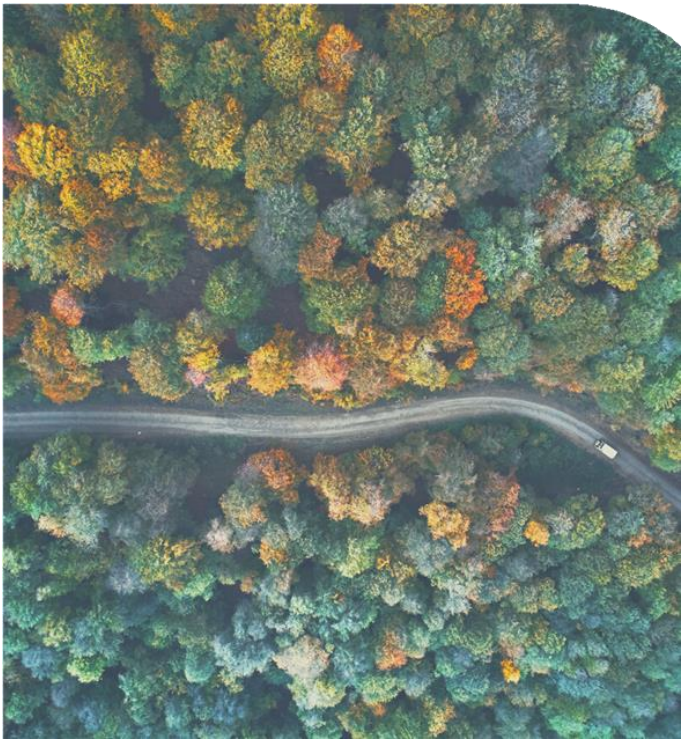
ESG and Real Estate Assets

Some background is in order. The Paris Climate Agreement in 2015 and the UN Climate Targets laid the foundation for a comprehensive consideration of ESG

Capital markets are increasingly recognizing ESG in their decisions, "with the rapid expansion of Environmental Social Governance (ESG) criteria for investment and the number of ESG funds, 'doing nothing' means the value of your asset – no matter where it is or what type – will likely be impacted by long-term sustainability challenges1."

Consequently, capital flows will be increasingly channeled into sustainable economic activities in the future meaning ESG will play an important role in corporate decisions.

In a recent report issued by Morgan Stanley Capital International (MSCI) on Investment Insights 2021 a global survey was taken amongst sovereign wealth funds, insurers, endowments / foundations and pension funds on ESG considerations. Over 73 percent of those surveyed planned to significantly or moderately increase their



Investment allocation in ESG-friendly assets by the end of 2021 with a further 36 percent seeing the "social" aspect as a larger proportion of the mix by the end of 2021.

For insights on how ESG may impact the enterprise value of companies, PricewaterhouseCoopers (PwC) capital markets experts conducted a broad, internal analysis of more than 2,000 companies, to see whether there is a measurable relationship or correlation between a company's ESG rating and its market capitalization, growth expectation and risk assessment by financial markets2. More granular analysis undertaken by PwC as part of this study found that across all sectors, all else equal, companies with a better ESG rating received higher valuations than companies with average ESG ratings. Also, valuation discounts were found (up to -10%) for companies with a comparatively poorer ESG rating relative to a company with an average ESG rating.

To dig into the specific impact on real estate assets, we turn to further research in the RICS Sustainability Report published in Q2 2021 showed, as illustrated by the diagram below that "Globally, around half of respondents believe that green/sustainable buildings achieve a rent

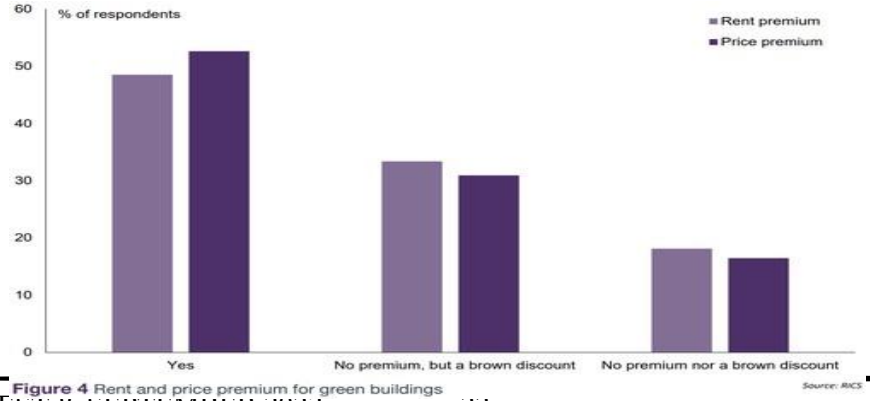


Figure 4 Rent and price premium for green buildings

and a price premium over comparable non-green/sustainable buildings. More than one-third believe that the rent and price premium stands at up to 10%; around 15% judge it to be higher still. Furthermore, over 30% of respondents suggest that, even if there is no rent or price premium, buildings not classed as green or sustainable are subject to a brown discount.3"

As the impact of ESG on companies continues to become clearer, the question has evolved from whether ESG factors impact real estate markets to how we can measure ESG impacts in real estate valuations.

ESG and IVS

At this time, the obligation to consider ESG within the tangible asset valuation process is implicit in IVS. More specifically, under IVS 101 20.1 "all valuation advice and the work undertaken in its preparation must be appropriate for the intended purpose." This is further referenced in IVS 102
20.1 where it states that "investigations made during the course of a valuation assignment must be appropriate for the purpose of the valuation assignment and the basis(es) of value".

Moreover, within IVS 105 50.36 through 50.4, the adjustments for additional risks within the cash flow projection require detailed consideration and this will include ESG elements. Furthermore, IVS 410 Development Property section 100 provides the following requirements in relation to the Asset: -

"(c) Whether there are other non- financial obligations that need to be considered (political or social criteria),

(k) Sustainability and any client requirements in relation to green buildings,"

As part of the valuation process the valuer needs to understand trends and developing issues. The real estate industry will have to make a significant contribution to the implementation of ESG and as a result will face major challenges around both incorporation and providing transparency as part of the valuation reporting process.

ESG and the Global Real Estate industry

From a real estate perspective, Environmental issues are especially important as the built environment contributes approximately 39% of the world's carbon dioxide emissions 4 and 40% of the energy consumption 5. An increasing number of occupiers, both in the residential and commercial environment, are seeking to occupy buildings with green credentials.

Responsible valuers need to be aware of steps taken by governments which will affect real estate. Several examples follow.

- Australia - there is the National Australian Built Environment Rating System (NABERS), which provides comparable sustainability measurements across building sectors (e.g. hotels, shopping centers, apartments, offices, data centers).

- China — environmental requirements are gradually increasing and although there is a long way to go, positive change is taking place, especially for the "E" constituent. The Chinese government has prioritized improving attaining environment goals and achieving ecologically more sustainable economic growth with a target to have CO2 emissions peak before 2030 and achieve carbon neutrality before 2060.

- Europe – In non-EU countries environmental requirements are still in the early stages of development but as environmental requirements develop within the EU other European countries will face increasing pressure from potential investors and occupiers to meet EU requirements.

- European Union - European Union - the EU has committed itself to ESG's and "the 2050 vision is for all buildings (new and existing) to be net zero carbon across the whole lifecycle. As an interim ambition, all new buildings should be able to achieve zero carbon in operations and aim to reduce carbon emissions by 40% in 2030.

- Similarly, many other governments as well as global corporations are seeking to achieve a net zero position by 2030 through measures such as reducing energy, resource optimization and switching to renewables with any residual emission being neutralized through carbon offsetting

- Hong Kong – Hong. Kong Stock Exchange has issued mandatory requirement of ESG reporting for listed companies with a guidance on subject areas, aspects, disclosures and KPI to address in the report.

- India – environmental requirements are increasing and there are new mandatory reporting requirements from 2022 that promote transparent, standardized disclosures on ESG parameters and sustainability-related risks and opportunities among listed companies in India.

Even though the decline in operational and embodied carbon is a leading industry priority the market is more concerned with resolving local environmental matters such as: water consumption, materials resilience and waste.

- South America – environmental requirements are usually contained within urban master or development plans (e.g., Brazil, Colombia, Mexico) with some South American countries having potential property tax benefits for sustainable buildings. In South America there is already a considerable stock of commercial properties that are adherent to LEED and similar certifications, in main markets and many development companies that went public have incorporated ESG practices in their everyday business.

- United Kingdom – the precise nature and scope of ESG and related regulation in the UK continues to develop and as per the EU the UK is also committed to meeting net zero requirements. In the UK Energy Performance Certificates (EPCs) are required whenever a property is built, sold, or rented and the government has consulted on further changes and proposed administration. Moreover, UK businesses which maintain access to the EU may opt to comply with the more rigorous governmental expectation should the UK and EU frameworks diverge.

- ·United States - In the U.S. there is the C-Pace Alliance which enables private capital to finance energy efficiency and renewable in existing commercial and residential buildings which may need retrofitting to meet future ESG requirements.

It is a reasonable expectation that governments in other markets will also adopt measures pertaining to ESG regarding real estate. While it would clearly be optimal for governments to provide consistent ESG measures following a global standard this likely won't happen in the near term and consequently valuers must remain alert for such measures in the specific property's market and gauge the market reaction to them.

ESG and Real Estate Valuation

When it comes to valuing real estate, the impact of ESG is not to be found in any white paper or think tank study; it is to be measured from the market and is to reflect the actions of market participants, buyers, sellers, tenants and landlords, developers and lenders. The impact of ESG will evolve over time as both it becomes increasingly more evident in a world-built market and is better understood by those active in the market.

Valuers may use one or more of three accepted approaches to consider the impacts of ESG in the valuation of real estate.

Cost Approach

In the Cost Approach, the valuer considers the cost to construct the improvements, accrued depreciation and obsolescence and adds in the estimated value of the land. However, cost does not always equal value and while the Cost Approach could be used for part of the valuation to calculate the retrofitting costs to make buildings more ESG compliant, it would not be recommended as the main approach for quantifying ESG considerations within a valuation.

Sales Comparison Approach

The Sales Comparison Approach considers prices achieved for transactions of similar properties. At this early stage of market recognition and adoption of ESG practices, there is not yet full transparency regarding ESG characteristics for buildings making it very challenging to find comparable market transactions reflecting full ESG adoption, or to objectively know and compare the level of ESG adoption of the comparable used. This factor makes the Sales Comparison Approach more difficult to apply for the time being.

Nonetheless, it is for the valuer make inquiries to better understand the level of ESG adoption of any comparable used and try to assess the impact of these characteristics in market prices.

Income Approach

In the Income Approach, the valuer estimates the rental income the building can generate, the extent it will be vacant, expenses the landlord will pay for and then the relationship observed in the market between the generation of net income and what price buyers are willing to pay.

As both tenants and investors are increasingly sensitive to ESG, they will be increasingly attracted to occupy space in buildings or invest in buildings with higher

ESG ratings to improve their own overall ESG rating. It has been further noted that in some instances companies and investors will only consider buildings with sufficient energy performance ratings.

For buildings with better ESG ratings, this may result in higher rents, lower vacancies, and shorter void periods between tenants. To the extent this occurs, this increases the price investors would pay to acquire such real estate.

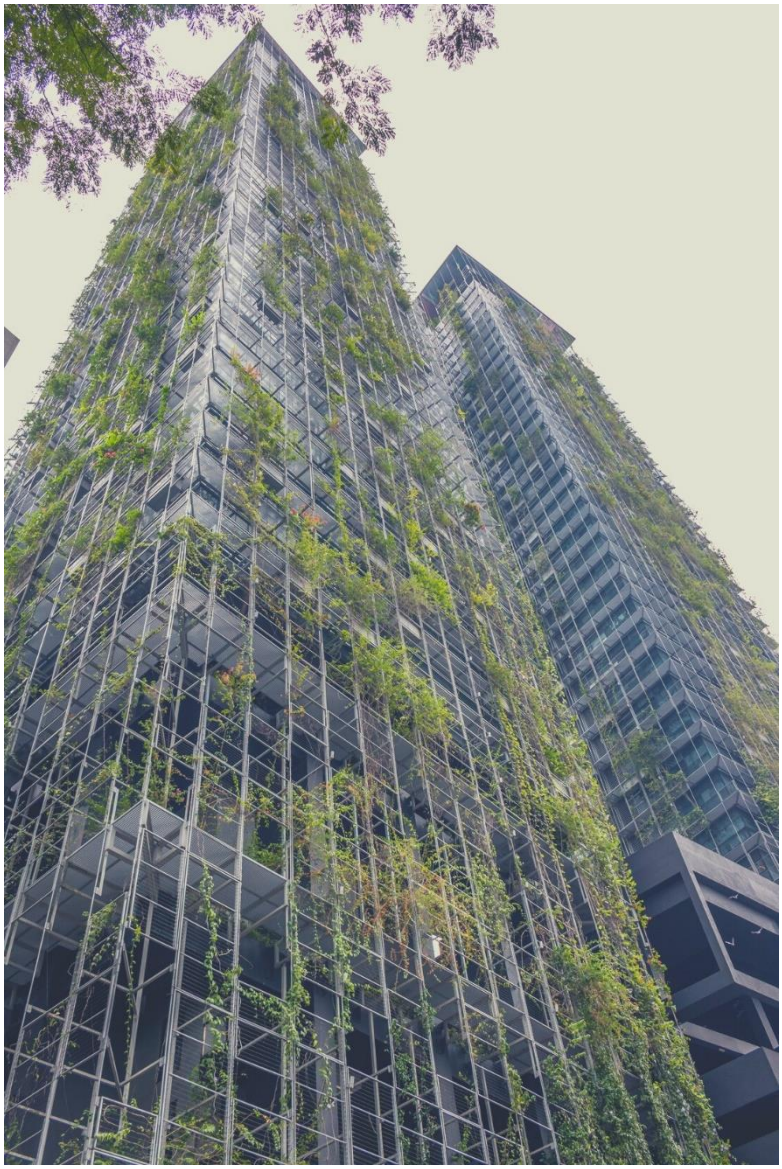
As decreased energy consumption is a primary goal of ESG, buildings with higher ESG ratings should have lower operating expenses. In markets where energy expenses are paid by tenants, this will further enhance the building's attractiveness. In markets where energy expenses are paid by the building owner, lower energy consumption will enhance the net cash flow. Another important part of ESG is resilience. To the extent that successful implementation of ESG considerations makes the building more resilient, this will give potential buyers higher confidence in the future cash flow to be expected from the building which would increase the amount a buyer is willing to pay for the asset.

As mentioned above, the Income Approach includes consideration of rental income, vacancy, operating expenses and the relationship between the resulting net income and a sales price. These components can be analyzed as a single year in an Income Capitalization Analysis, or over a multiyear forecasted holding period using a Discounted Cash Flow Analysis.

Discounted Cash Flow Analysis is very well suited to quantifying ESG factors within a real estate valuation because a DCF can explicitly reflect specific assumptions which relate to income, expense, capital expenditures and exit yields and vacancies over a period of years. This method allows the valuer to transparently project expected trends and changes in income and expenses.

Financing or fully considering financing. This is important as lenders have already become sensitive to ESG and further differences in financing may emerge such as energy efficient mortgages.

In addition, if the valuer already knows the purchase price of the real estate, it would be possible for the valuer to run the cash flow for different scenarios or levels of ESG compliance and solve for the internal rate of return (IRR) which can then be compared against anticipated IRR of other potential investments.



ESG and DCF's

When using a DCF analysis, the forecasted cash flow is discounted back to the valuation date, resulting in a present value.

As stated in IVS 105 Valuation Approaches and Methods the key steps in the DCF Method are as follow:

(a) choose the most appropriate type of cash flow for the nature of the subject asset and the assignment (i.e., pre-tax or post-tax, total cash flows or cash flows to equity, real or nominal, etc.),

(b) Determine the most appropriate explicit period, if any, over which the cash flow will be forecast,

(c) Prepare cash flow forecasts for that period,

(d) Determine whether a terminal value is appropriate for the subject asset at the end of the explicit forecast period (if any) and then

determine the appropriate terminal value for the nature of the asset,

(e) Determine the appropriate discount rate, and

(f) Apply the discount rate to the forecasted future cash flow, including the terminal value, if any.

For a visual example of this approach refer to the JLL Valuation Insight on "Valuing Net Zero and ESG for Offices."

DCF Inputs

It is believed that the impact of ESG will be observable in several inputs commonly used in real estate valuation.

Income - The influence of ESG on the rent a building can generate can be significant. Many markets, such as the UK have seen that there is a limited supply of appropriately specified ESG buildings, and they are receiving increasing demand from occupiers with ESG requirements. In contrast, buildings which are not seen as ESG compliant and have low, for example, BREEAM, GRESB or LEED ratings are achieving lower rents in many markets. Recent studies from JLL11 and Knight Frank12 have directly correlated rental premium to higher BREEAM ratings.

The valuer needs to have a keen understanding of the market for the real estate asset and understand the extent to which ESG plays into building selection criteria used by occupiers. Buildings with higher ESG ratings may well receive both higher rent and/or higher occupancy levels compared with buildings with poor or no ESG ratings. Valuers must understand the selection criteria used by tenants for the type of building they are valuing and based on those criteria, analyses comparable carefully and make adjustments as needed for the presence or absence of ESG factors

Non-recoverable operating expenses - In respect of non-recoverable management costs borne by the property owner, these costs should not be significantly different for sustainable buildings. In relation to maintenance costs, several studies suggest that buildings with modern building technology and control systems induce partially higher maintenance costs.13 On the other hand, more efficient systems will generate savings in operation, therefore for the moment it could be assumed that the overall effect on non- recoverable operating costs is not material. However, in future it could be argued that user behavior in increasingly complex controlled buildings will influence management costs.

Vacancies - In some markets it appears that in some instances buildings that meet sustainable and ESG criteria may receive higher demand from occupiers and rent more quickly than similar class alternatives that do not meet this criterion. As a result, the valuer will need to carefully consider the vacancy and downtime projections within the cash flows based on the building's competitive position to probable tenants.

Capitalization Rate - The capitalization rate reflects the risk-return profile of the underlying property, and numerous aspects must be taken into account (location, type of use, occupancy rate, year of construction, tenant-mix, etc.) including the most probable buyer.

As returns are earned in the future, active buyers are forced to be future facing. In some markets investor groups are already targeting ESG compliant buildings as they see these assets as having lower risks in generating income streams, through a higher market rent and a greater occupancy rate as well as higher prices from a potential sale. Therefore, the influence of ESG on the capitalisation rate can be significant. Valuer knowledge of investor preferences is critical.

Discount Rate - As stated in IVS 104 Valuation Approaches and Methods the rate at which the forecast cash flow is discounted should reflect not only the time value of money, but also the risks associated with the type of cash flow and the future operations of the asset. Real estate is frequently valued using discounted cash flows with projections five to ten years or more, so investors active in this space are forced to make forward looking projections. Less sustainable buildings may inherently have a higher discount rate reflecting the risks outlined in relation to potential increased capital expenditure over time, potential additional taxation, longer voids, rental decline and higher exit yields. These associated risks could result in a higher discount in pricing to reflect the increased risk of obsolescence whereas lower discount rates could be applied to more sustainable assets to reflect the increased demand and cheaper debt through preferential financing. The potential difference in discount rates can be shown through scenario testing1.4

Terminal Capitalisation Rate - A DCF forecasts cash flows during a holding period and then forecasts the sale of the building to another buyer using a terminal capitalisation rate to estimate the future price of the building in the last year of the cash flow. The terminal capitalisation rate selected reflects the forecasted investment appeal of the building at the end of the forecast period, which is often 10 years. As a result, when performing a DCF, one needs to think both of how a current investor will evaluate the building in the current market, but also how the next buyer will evaluate the building in a future market. Given the increasing importance of ESG, less sustainable buildings may have a higher terminal capitalisation rate resulting in a lower forecasted residual value which in turn lowers the current value.

Beyond these typical DCF inputs there are other aspects of real property valuation to consider.

Capital Expenditure - Refurbishment and retrofitting of buildings are usually conducted after careful analysis because such actions are capital intensive with a return on the expenditure only occurring over several years in the future. Consequently, owners considering such capital expenditures must be forward looking and consider evolving regulatory requirements and forecast future rental incomes based on amenities that could be offered to occupiers. Given the increasing role of ESG considerations, many may decide that it would be financially advantageous to upgrade existing buildings to improve energy efficiencies thereby improving ESG ratings.

There is a potential risk that delaying such a capital expenditure could lead to lost revenue if the building is less attractive to ESG sensitive occupiers and higher operating expenses as energy efficiencies are not Realized. There is the potential for future taxation penalizing excessive carbon emissions or operational inefficiency within a building.

Therefore, in terms of the cash flow, the question is whether to commit additional costs at the start of a retrofit process to take advantage of the short- term dearth of high rated ESG buildings in certain markets, or lower upfront costs, with the anticipation of further significant refurbishment costs over the forecast period, as ESG legislation and market demand becomes more evident in the market.

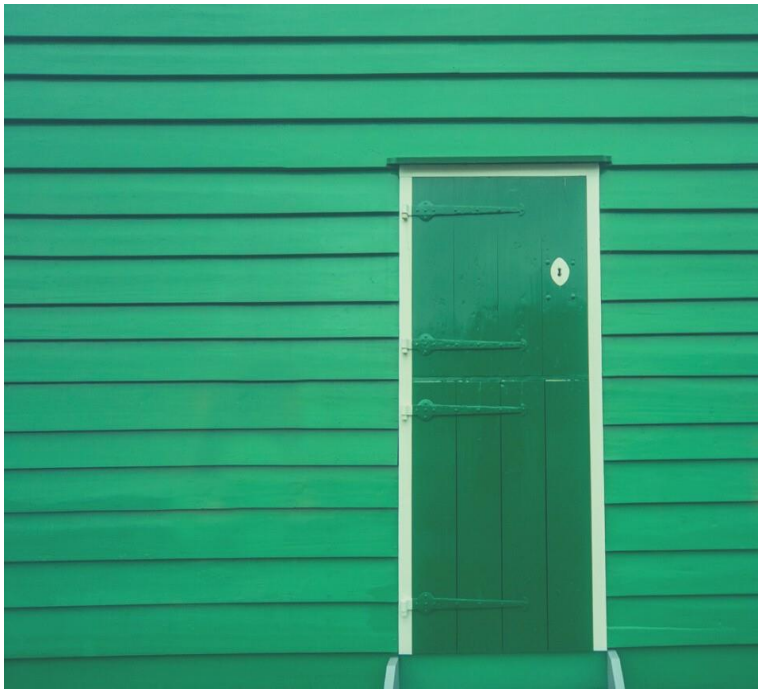
Other Inputs

Finance

While many valuations of real estate assets are performed before consideration of financing, there are an increasing number of green loans available within markets where lower finance costs are offered to buildings where sustainability Key Performance Indicators are achieved. This results in lower costs of debt and enhanced equity returns to the property owner.

Useful Life

In some markets such as the Netherlands, there is a legal restriction on the useful life of buildings that don't meet certain ESG compliant criteria. The valuer must be aware of this and consider the relevant legislation in the locality and when appropriate. In doing so, they must restrict the forecast cash flows to the remaining useful life of the building, or until the building is made more ESG compliant.



ESG and Valuer Requirements

The most important skill for a valuer is to recognize market changes and to do that, one must be in close touch with their particular market. There is risk in relying on older data and as the pace of change continues to accelerate, a valuer who is aware of ESG changes and keeps up with new technical skills will be in high demand.

In order to account for ESG factors within the valuation process the IVSC anticipate that the valuer will need to;

- Monitor the continued evolution of ESG and what building aspects result in higher or lower ESG ratings.
- When evaluating a building in its market, be aware of applicable governmental ESG measures.
- Maintain a keen understanding of leasing and other market requirements to accurately reflect supply and demand considering ESG.
- Liaise with construction and build cost professionals to understand components that enhance ESG factors and their cost.
- Understand ESG features of comparable used and determine how much emphasis market participants place on such features.
- Understand whether favorable financing is available for buildings with a higher ESG rating

Conclusion

The Tangible Assets Board believes that investor and occupier ESG requirements will accelerate the number of new and refurbished buildings, and current demand and supply imbalances will potentially result in green premiums for well specified buildings and increased obsolescence for buildings that do not meet these criteria. The Tangible Assets Board expect the regulatory and policy environment to continue the focus on climate change and targets towards net zero.

Valuation necessarily involves comparison. As the impact of ESG is at early stages consequently, there is less market data. Nonetheless valuers need to stay abreast of their markets to accurately consider ESG within the valuation process as this is a rapidly evolving issue.

Valuation methodologies have been well developed and tested over years and are capable of beginning to reflect market participant attitudes toward ESG factors – as long as valuers are knowledgeable of what those market participant preferences are. Currently, market behaviors can best be measured using the Income Approach. As ESG recognition in the market matures and there are more transactions of buildings with varying and transparent levels of ESG involvement, the Market Approach may become more applicable.

In future the valuer will need to adopt more of a consultancy role and in addition to providing a valuation service, positioning themselves to provide detailed strategic advice with scenario testing. In order to meet these challenges valuers will need to continually develop their skills to meet developing market needs.

Next Steps

The IVSC Trustees and the IVSC Standards Review Boards and its Technical Asset Boards (Business Valuation Board, Financial Instruments Board and Tangible Assets Board) have prioritized the quantification of ESG's within the valuation process to meet increasing market expectations and global public interest. In the immediate future, the IVSC will continue to work with key stakeholders and issue Perspectives Papers such as the recently published perspectives papers on "A framework to Assess ESG Value Creation" and on "ESG and Business Valuation" to fully explore and understand the issues in relation to the quantification across all specialisms. In addition to the publication of these papers and the market feedback received around the quantification of ESG's, the IVSC is planning to more clearly delineate ESG valuation requirements within future editions of IVS.

Perspectives Paper:

Defining and Estimating 'Social Value'

DEFINING AND ESTIMATING 'SOCIAL VALUE'

Perspectives Paper

The IVSC issues Perspectives Papers from time to time, which focus on pertinent valuation topics and emerging issues. Perspectives Papers serve a number of purposes: they initiate and foster debate on valuation topics as they relate to the International Valuation Standards (IVS); they provide contextual information on a topic from the perspective of the standard setter; and they support the valuation community in their application of IVS through guidance and case studies.

Perspectives Papers are complementary to the IVS and do not replace or supersede the standards. Valuers have a responsibility to read and follow the standards when carrying out valuations.

Introduction

The concept of 'Social Value' is an area of growing government, public and commercial interest. However, its meaning is often clouded in uncertainty, with many definitions, and the lack of an internationally recognized measurement framework and standards of practice.

In this perspectives paper we explore some of the concepts surrounding Social Value and seek your comments to determine whether standards or guidance material are required.

Background

Whilst the concept of Social Value has relevance to both for-profit and not-for- profit entities, its growing importance is principally driven by investment or financial management decisions associated with entities with a not-for- profit focus including:

i. Governments, NGOs and Charities desire or need to select, or assess the performance of, investments or projects.

ii. Corporates seeking to justify investments, particularly where planning permission or licences are required, not solely on commercial merits but also on the benefits to the wider community.

iii. Governments, NGOs and Charities seeking to administer valuations for financial reporting purposes to adhere to financial management standards and regulations.

The problems and challenges for valuers in the for-profit sector are, perhaps, better understood than they are in the not-for- profit sector. However, the lack of an internationally recognised valuation framework has the potential to result in jurisdictions and/or valuers developing their own divergent approaches and definitions. This has the potential to lead to reduced consistency, transparency and comparability across borders and asset classes, creating significant debate and reducing the credibility of such valuations amongst stakeholder groups.

As was once the case for discounted cash flow methods, the concept of Social Value is in its infancy in many jurisdictions, and as such is prone to challenges as the practice develops. However, with an increased focus on governance and transparency we anticipate that in the longer term it has the potential to become a more prominent part of the standard reporting framework for investments and financial management decisions.

In the following sections we address the concept of Social Value and consider the implications for framework development

Defining Social Value

During our research we identified several definitions of Social Value, however, while there were some consistent themes there was also a lack of common language. At times it would be possible to draw quite different conclusions by applying two different definitions of Social Value.

On further analysis it appeared that much of the difference in the definitions arises from the perspective applied, specifically from whose perspective Social Value was being considered.

In a commercial valuation, the perspective is accounted for upfront and forms part of the Basis or Standard of Value. This might consider the value from the perspective of a particular buyer or seller, a market participant or even a hypothetical market participant where no observable market exists.

In the case of Social Value, the breadth of perspectives is vast as an asset may have different value to different stakeholders. It is therefore imperative that the definition of Social Value i) does not constrain the valuer to considering only one particular element and that ii) the valuer is able to specify the group or groups from whose perspective it is being considered.

We believe that the following definition of the concept of Social Value best encapsulates each of the elements described above:

'Social Value' includes the social benefits that flow to asset users (social investment) and the wider financial and non-financial impacts

Including the wellbeing of individuals and communities, social capital and the environment, that flow to non-asset users.

What do we mean by Social Value?

One approach to assist in visualizing the concept of Social Value is to consider the following three elements:

1. Monetary benefit to the asset owner: the cash flows derived from the use of the asset that flow to the asset owner(s).

2. Social benefit to asset users: the benefits derived from the use of the asset that flow to the asset users.

3. Social benefit to non-asset users: the benefits derived from the asset that flow to the non-asset users including the wellbeing of individuals and communities, social capital and the environment.

There are well-defined bases of value and valuation approaches to measure the monetary benefit to the asset owner(s). However, the measurement of social benefits can be challenging

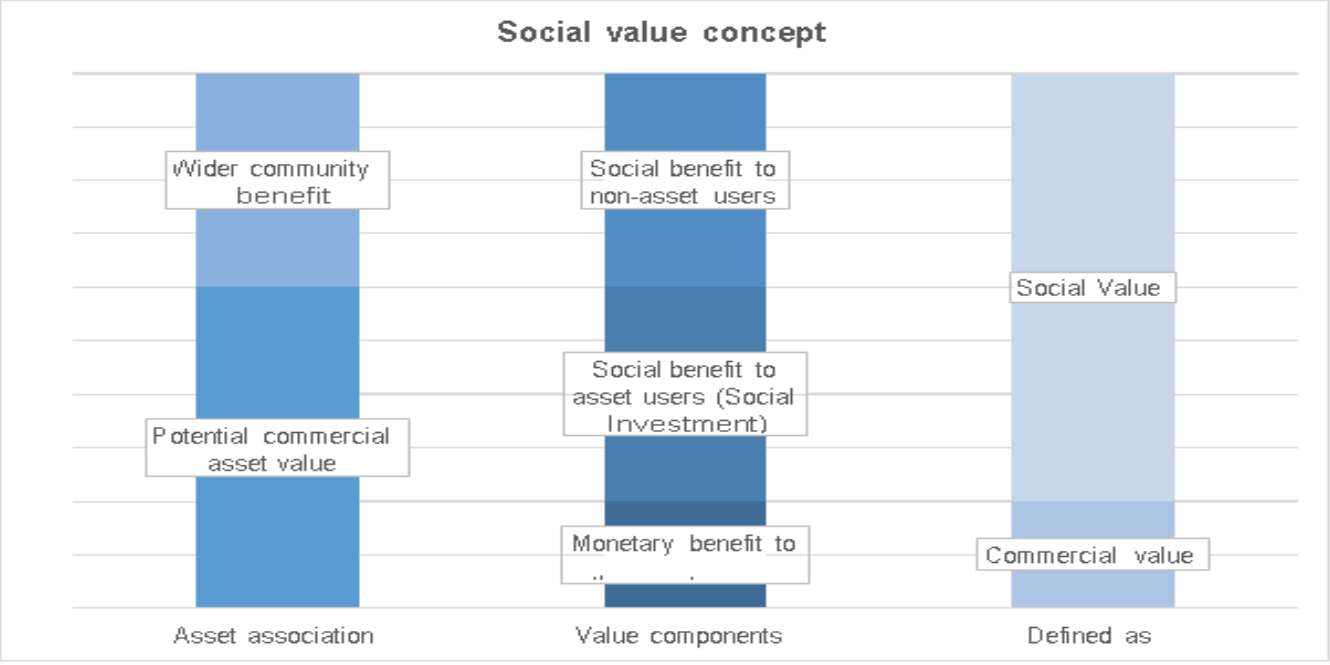
With regard to the benefits that flow to the asset users, examples might include:

- Cash flows foregone by the asset owner, in the form of subsidised, reduced, or minimal access fees in relation to the assets employed.

- Value foregone by the asset owner, in the form of sub-optimal (from a commercial perspective) uses of the assets employed.

For the purpose of this paper we have adopted the term "social investment" to encapsulate these benefits.

With regard to the wider social benefits that flow to non-asset users, these can include economic and non-economic components such as increased economic activity, as well as improved social and environmental outcomes.



In the case of for-profit entities (entities whose principal objective is to generate a commercial return), the monetary benefit to the asset owner, is likely to be the dominant element. That is not to say that social benefits to asset users and non- asset users cannot also exist, however, these are likely to be secondary rather than primary objectives.

However, in the case of not-for-profit entities (entities whose principal objective is not the generation of a commercial return but the provision of a public service), the social benefits to asset users and non-asset users are likely to be the dominant elements. That is not to say that there can be no monetary benefit to the asset owner, however this is likely to be a secondary, rather than a primary objective.

Where might we see these various elements of Social Value at play in the community?

The following examples are provided to help illustrate the concept of Social Value:

Example 1: Rail Line

A not-for-profit public sector entity builds a new rail line connecting an outlying township to a major city. To encourage the community to use this new rail transportation infrastructure rather than travel by private vehicle, the government, as the asset owner, determines that fares will be recovered on a subsidised basis.

By the government foregoing a large portion of the potential monetary benefit, the asset users are receiving a social benefit in the form of reduced train fares. Furthermore, the social benefits to non- asset users, in the form of increased economic activity in the township and reduced air pollution, are also likely to be significant.

In this case the monetary benefit to the government as the asset owner is likely to be secondary and the social benefits to asset and non-asset users, are likely to be the primary objective.

Example 2: Residential Development

A for-profit entity is seeking planning permission for a mixed-use residential development. The developer would maximize its return by maximizing the footprint of the construction. However, the developer has determined that its chances of obtaining planning consent will be improved by the inclusion of additional social improvements (e.g. an element of low-cost social housing and green public space).

By foregoing some of the potential monetary benefit it might have obtained from the development, the developer is effectively transferring that benefit to the asset users, who will benefit in terms of wellbeing from the low cost social housing and green public space.

In this case the monetary benefit to the asset owner is likely to be the dominant element. The social benefit to asset users whilst important, is likely to be secondary. The social benefits to non-asset users, in the form of increased economic activity and amenity, may also be significant, but are likely to be secondary to the monetary benefit to the asset-owner.

Example 3: Cemetery

A government not-for-profit public sector entity acquires a large parcel of rural farming land for the purpose of creating a new cemetery. The price paid to acquire the rural farming land reflects a market rate at this time.

The permitted use of the land is subsequently amended to the specific public use as a cemetery. On one interpretation of highest and best use principles, this has the effect of materially diminishing the value of the land (from a commercial perspective), because those

Alternative uses are no longer permissible.

The cemetery will only seek to recover costs associated with the operation of the cemetery and will not generate a return on the initial acquisition of the land; as such the net cash flow to the government as the asset owner is nil. By the government foregoing the entire monetary benefit associated with the asset, the asset users are receiving a benefit in the form of reduced burial fees. Furthermore, the social benefits to the broader community, in the form of having a place to pay respect to the deceased, are also significant.

In this case the monetary benefit to the government as the asset owner (nil) is clearly secondary and the social benefits to asset users and non-asset users, are likely to represent the primary objective.

The concept of Social Value outlined above includes implicit assumptions that need to be tested during the valuation process. For example, it assumes that the decision to use the asset for a given activity was because value, inclusive of Social Value (to the wider community), is greater than or equal to its commercial highest and best use value (to the owners). However, it represents a helpful cross check for the assessment of value, particularly since existing valuation methods can be applied to determine the monetary benefit to the asset owner and an approximation of the social benefit to the asset users.

The fact that a not-for-profit entity is prepared to expend public funds on social investment is entirely consistent with acting with the objective of providing social benefit to the community rather than focussing on the monetary benefit to the asset owner. However traditional value measurement methods and principles may not recognise these benefits adequately, and as a result, tensions can arise as to the appropriate way to measure value, especially from a financial reporting perspective.

Further, identifying and quantifying the wider financial and non-financial impacts of assets that flow to non-users of the assets, including the wellbeing of individuals and communities, social capital and the environment, is important when considering the business case for, and effectiveness of, the deployment of public funds.

Setting the scene for why Social Assets exist

As can be seen from the foregoing, the decision to hold an asset with the primary objective of providing monetary benefit to the asset owner or of providing social benefits to asset users and non-asset users, can have a material impact on the relative significance of the elements of Social Value. Where an asset is held with the primary objective of providing social benefits to asset users and non-asset users, the asset can be described as a Social Asset.

'Social Assets' are assets or projects that exist primarily for the social benefit they provide. The value of these assets rarely accrues solely to the providers of capital.

All assets, projects and organisations have to some degree, a social impact. The impact may range from being significantly negative to extremely positive, and the quantum will often depend on the stakeholder being considered.

For example, in addition to the wider health benefits delivered to the community, the development of a large private hospital will have a positive social impact extrinsic to the asset in the form of significant job creation. This can have further beneficial impacts on parties other than those employed by the hospital. For instance, the government may benefit from increased income taxes. Public hospitals in the area may also enjoy a reduced patient load resulting in shorter waiting lists. However, there may be others in the same community who are negatively impacted, for example public hospitals in the area who must now compete for staff.

In this example, the primary objective of the private hospital is to generate a return on the capital it has invested, while its social impact is a function of how it operates. Notwithstanding that both public and private hospitals provide similar services, a public hospital run on a not-for-profit basis would have a reduced focus on generating a return on the capital it has invested (or monetary benefit). As such, the public hospital would be described as a Social Asset, whereas a private hospital run on a for- profit basis would not.

Entities that primarily create, hold, or operate Social Assets include governments, charitable, not-for-profit, non-profit and non-government organisations. Social Assets exist for a variety of reasons, but incorporate at

Least some, if not many, of the following characteristics:

- They are generally acquired, built, held, and managed by not-for- profit entities, acting as trustees in the public interest.
- They are often essential services, recreational or monopolistic assets in nature, but may also service a greater public interest from an environmental or social perspective.
- These assets often have planning overlays, covenants, regulatory regimes or the like attached to them that ensure that they are used in the manner in which they are intended.
- They are often acquired or built using capital generated in the form of public taxes or private, philanthropic or public contributions.
- In some cases, they may be acquired or built to facilitate a foreseeable use where the private sector cannot justify the investment on a risk-adjusted basis.
- In many cases, there are much wider benefits to the community that go beyond the asset itself, creating an ecosystem where further industry is created, or social benefits realized.
- Access fees are typically either free or discounted in some way.
- As a result of these low access fees, they will often have impaired profitability from a commercial economic perspective relative to the assets that they employ.

Transport & utilities	Governance, Safetyand Security	Social	Cultural, sports & recreational
Roads	Parliament buildings	Schools	Stadiums / Theatres
Railways	Law courts	Universities	Museums
Ports	Prisons	Hospitals	Arts centres
Electricity	Emergency services	Cemeteries	City parks & gardens
Gas	Armed forces	Care & social housing	Wilderness areas
Water/wastewater	Arbitration centres	Sanitation	Memorials
Airports	Communications	Libraries	Sporting precincts
Launch facilities	Mediation centres	Youth centres	Skate parks
Waste management		Health clinics	

Social Assets are many and vary by jurisdiction, but may include the following:

Of course, many of the above assets may not meet the definition of a Social Asset, if held for the primary objective of generating a commercial return for the asset owner. A critical feature of Social Assets is that the value generated by the asset does not solely accrue to the owners, but rather to a much larger group of stakeholders. Consequently, traditional valuation models that assess the value accruing to the providers of capital are likely to understate the wider value of the Social Asset. In contrast, estimates of Social Value extrinsic to the asset seek to capture the benefit that accrues to non-owners.

What makes Social Value difficult to determine?

It is in this setting that Social Value can be confusing for a valuer because the traditional theories of value are challenged for the following reasons:

- Social Assets or commercial assets with social attributes are often unique and are rarely, if ever, traded in the open market.
- Transactions that do occur may only price in the value to a certain owner, not the wider

community benefits.

- The wider community benefits associated with the assets are often difficult to measure.

- In some instances, the present owner may be the only buyer.
- Where sales do take place, they may not represent an arm's-length sales process.
- The assets often generate either nil or impaired cash flows.

This requires the valuer to think deeply about the concept of Social Value, and importantly what the value of these assets and benefits are to both the owners and wider stakeholder groups (i.e. public).

Give us your feedback on the concept of Social Value

Much of the above has considered the qualitative areas of Social Value. Who might use it, what does it mean, why is it difficult to determine, in what settings is it used? As we begin to unpack the concept of Social Value, there will be various quantitative areas that we will seek to discover.

But before we do this, the IVSC would be interested to hear your thoughts on the concept of Social Value discussed in this paper. This is the first of a series of Social Value perspectives papers, where the second paper is intended, subject to feedback, to explore the quantification and other issues in relation to the measurement of Social Value.

Any feedback in relation to the following questions would be welcomed:

Social Value:

1. Do you agree with the three- component model of Social Value described above? If not, why not and what components would you propose?
2. What components of the Social Value model described above do you value in your jurisdiction, and what valuation methods or applications do you apply in doing so?
3. Do you think there are appropriate standards and guidance in your jurisdiction relating to the concept of Social Value?
4. Do the International Valuation Standards provide a strong enough framework for valuers and users of valuations to consider the concept of Social Value?
5. Do you agree with the definition of Social Value provided above? If not, why not and what alternative or amendment would you propose?
6. How should the valuer think about highest and best use as it relates to Social Value?

Social Assets:

7. Do you think a definition of Social Asset is helpful? Do you agree with the definition of Social Asset proposed above? If not, what alternative or amendment would you propose?
8. Do you value Social Assets within your jurisdiction and if so, for what purpose and

under what standards, guidance or legislation?

9. Do you think the valuation of Social Assets is important, or will become increasingly

   Important, for Governments, NGOs and Charities as part of good governance processes as the public seek greater accountability from the trustees of these assets?
10. For those that are actively involved in the valuation of Social Assets, what areas or concepts prove the most difficult that could benefit from improved clarity or guidance?
11. What elements, if any, identified in the Social Value model, do you feel might provide

    Useful information to users of financial statements?
12. Are planning overlays, covenants or regulatory regimes that are often attached to Social Assets inhibitors to value or complementary to them achieving their highest and best use in the public interest?
13. Are there additional highest and best use considerations that are important in the consideration of Social Asset valuation?

The IVSC will continue to consider the topics in this article, and feedback outside our formal consultations is always welcome. You can share your thoughts with the Board or contribute to the discussion through the IVSC LinkedIn group page.

Nature in Green Finance

Bridging the gap in environmental reporting

Executive summary

One-fifth of ecosystem services are at risk of collapse. Recognizing nature-related risks and opportunities has become critical, with over half of the world's total GDP highly dependent on nature and its services. Climate change and the degradation of nature are inextricably linked, and therefore must be addressed in an integrated manner.

Standards such as the Task Force on Climate-related Financial Disclosures (TCFD) have paved the way for nature-related disclosures such as the Kunming-Montreal Global Biodiversity Framework (GBF) and the forthcoming Taskforce on Nature-related Financial Disclosures (TNFD).

As nature-related disclosures are set to become a business norm, this report assesses the readiness of financial institutions to build on their climate reporting towards holistic climate and nature disclosures. The report analyzes the current state of environmental reporting by financial institutions with a focus on climate change, forests and water security.

In 2022, 556 financial institutions disclosed environmental data through CDP's climate change questionnaire, a 67% increase since 2020. In reviewing the data disclosed by these financial institutions in 2022, we categorized the findings in accordance with the four base pillars of the TCFD and TNFD: Governance, Risk and Opportunities, Strategy and Implementation, and Metrics and Targets. The findings underscore the urgent need for financial institutions to integrate nature-related risks and opportunities into financial decision-making. While climate change is now widely considered within financial institutions' strategies, disclosure and action on forests, water, and broader nature-related issues lag significantly behind. However, several trends indicate a gradual shift in financial institutions moving beyond tackling climate change in isolation, to addressing nature in tandem.

556 FIs

Disclosed environmental data through CDP's climate change questionnaire in 2022, a

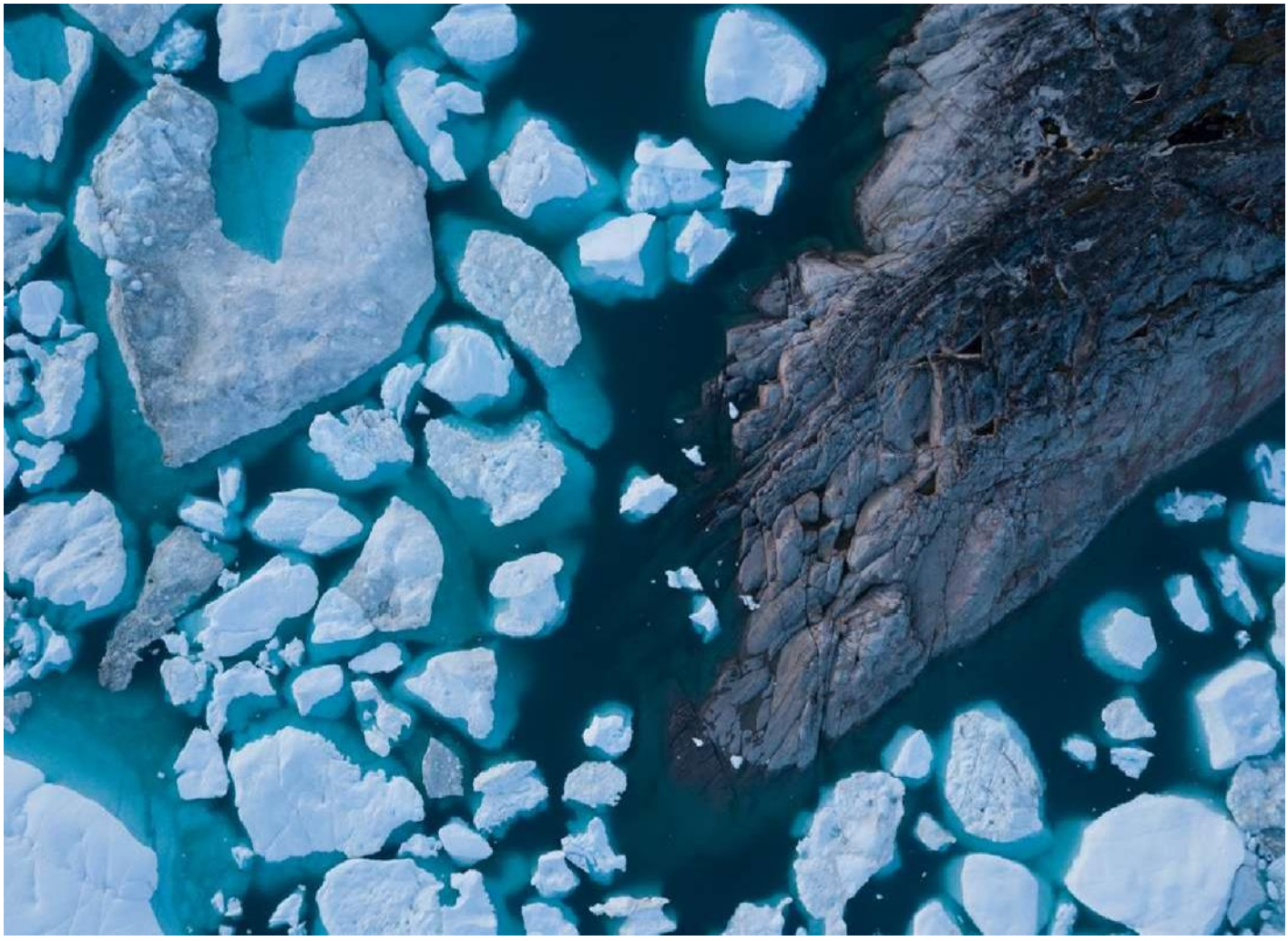
67%

Increase since 2020.

Urgent action, based on a holistic approach, is needed to avoid tipping points and ecosystem collapse, and to reach net-zero emissions by 2050.

The initial efforts of financial institutions to disclose their forests and water-related impacts demonstrate the intent of the sector to act on climate change in synchrony with nature. However, the persistent and significant gap in actions to address climate and nature-related risks and opportunities is concerning. Urgent action, based on a holistic approach, is needed to avoid tipping points and ecosystem collapse, and to reach net-zero emissions by 2050.

Financial institutions, regulatory bodies and standard setters play vital roles in facilitating a system-wide transformation to address these risks and opportunities together. The forthcoming disclosure guidelines and recommendations from the TNFD, due for release in September 2023, will significantly influence the future of nature- related financial disclosures. Financial institutions making their first cross-theme disclosures through CDP are positioning themselves to implement recommendations, proactively manage nature-related risks and capitalize on emerging opportunities.



SUMMARY & 'KEY FINDINGS'

In 2022, CDP's portfolio- focused, TCFD-aligned questionnaire for FIs was expanded to cover nature- related issues.

Introduction

Limiting warming to 1.5°C is unachievable without protecting and restoring nature. Encouraged by the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, voluntary and mandatory climate-related disclosures have not only become mainstream, but are also helping to usher in new frameworks for financial institutions on nature-related disclosures.

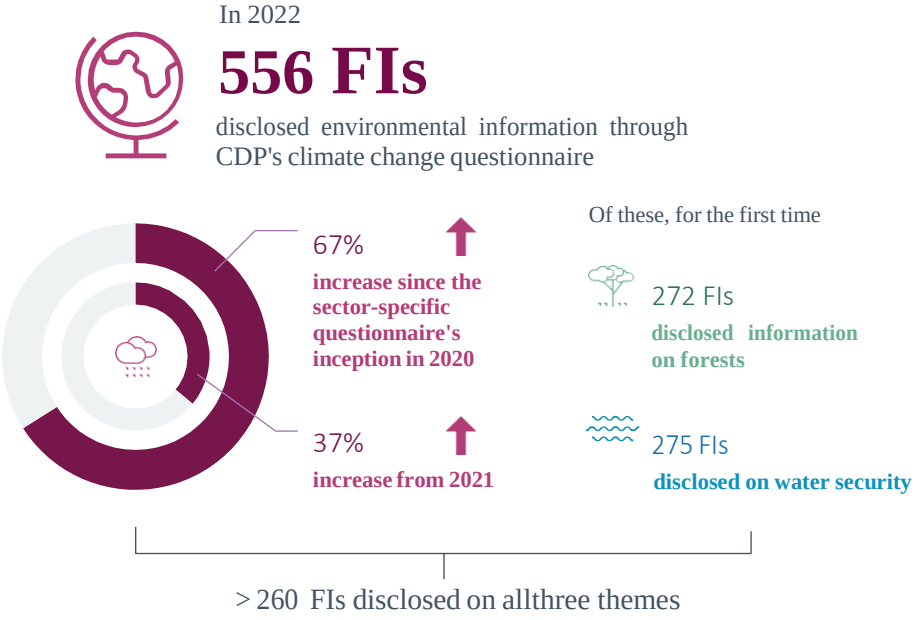
The growing desire and recognition of the need for a holistic approach to building a resilient and green financial system is most recently evident in the Kunming-Montreal Global Biodiversity Framework (GBF). An outcome of COP15, the GBF commits governments worldwide to protect 30% of the planet's land and sea; cut, phase out, and otherwise reform environmentally harmful subsidies; and increase finance flows for protecting and restoring nature.

As the definition of a 'green, resilient' financial system evolves, corporate disclosure must reflect the interconnectedness of all nature-related impacts and crises. With the World Economic Forum estimating that US$44 trillion of economic value generation - over half of the world's total GDP - is moderately or highly dependent on nature and its services, nature-related risks and opportunities are materially significant for FIs. Recognizing this, the Global Biodiversity Framework's Target 15 commits governments to take measures to encourage and enable companies to assess and disclose their risks, impacts, and dependencies on nature by 2030.

Further, the Taskforce on Nature-related Financial Disclosures (TNFD) is preparing to roll out recommendations akin to the TCFD, setting the stage for nature-related disclosures to become a business norm. The TNFD builds on the synergies in framework design of the TCFD, with their draft disclosure recommendations using the four pillars of Governance, Strategy, Risk Management, and Metrics and Targets of the TCFD as a base. Therefore, we structure our findings of FIs' climate and nature-related disclosures in this report according to these pillars, acknowledging that once the TNFD recommendations are final, there may be some changes and adaptations to this approach.

CDP has helped FIs prepare for this imminent shift in disclosure standards and requirements. In 2022, our portfolio-focused, TCFD- aligned questionnaire for FIs was expanded to cover nature-related issues, including commodity-driven deforestation, water security, and high-level questions on biodiversity, offering FIs an opportunity to get ahead of the curve.

This report presents insights into the initial state of environmental reporting and action by FIs, based on disclosures by FIs through CDP – the first year that FIs have been asked to disclose on these environmental issues together.



CDP found that while addressing climate change is widely considered within business strategies and the asset allocation process of FIs, disclosing on forests, water security, and broader nature-related issues lags considerably behind. One of the primary reasons cited for not addressing forests or water security is that FIs see these issues as important, but not an immediate priority. Many FIs do not yet recognize that addressing climate change effectively necessitates consideration of nature-related issues.

By focusing on a variety of TCFD-aligned disclosure indicators for climate change, and parallel indicators for forests and water security, a summary of our findings is as follows, presented in accordance with the TCFD four base pillars. **There are several trends that indicate an initial shift towards addressing nature impacts holistically:**

- Over 270 FIs voluntarily disclosed some information about their current level of action on forests, water security and biodiversity.

- Some leading FIs have started to implement processes to address nature-related risks and opportunities alongside climate change.

26-28% of boards have business strategies or financial planning influenced by nature-related risks and opportunities.

- Many more FIs are aware of the strategic significance of doing so, signaling their intention to address nature-related risks and opportunities within the next two years.

Board oversight and assessments of nature-related risk exposures rise to 51% and 45-47%, when including those FIs that intend to address these issues within the next two years.

- Across many disclosure metrics, the current level of action on forests and water is quite similar – where there is competence and leadership on one aspect of nature, this may be indicative of action on nature more broadly.

Key findings

1. **Only a small group of leading FIs currently have the top-down leadership to oversee the integration of climate and nature in financial decision-making processes.**

- 91% of FIs reporting to CDP have board-level oversight of climate- related issues, compared to 32% with oversight of forests and/or water-related issues.

- Even fewer FIs have at least one board member with competence on climate (68%) and/or nature-related issues (24%), underscoring the need to enhance board-level competence on environmental issues as a whole.

- Board-level oversight focuses significantly more on the impact that environmental risks and opportunities have on FIs' financing activities, than the impacts of their financing on the environment.

- Where climate-related management processes are in place, these mainly report directly to the board at regular intervals. In contrast, the majority of FIs that have nature-related management processes do not report directly to the board and are noticeably irregular - usually reporting "as important matters arise".

2. **At present, most FIs do not have the processes in place to adequately assess the size of nature-related risks and opportunities that their portfolios are exposed to. Critically, the majority of those FIs that are beginning to assess their portfolio exposure are identifying financially material risks and opportunities.**

- 85% of FIs are assessing their portfolio exposures to climate- related risks and opportunities, compared to 20% assessing their nature-related risk exposures.

- These numbers rise to 95% assessing climate-related risks, 47% forests and 45% water security

When including the number of FIs that plan to do so within the next two years.

◥ Whilst a subsequent 72% of FIs have identified climate-related risks in their portfolio with the potential to have a substantive financial or strategic impact on their business, 10% and 13% FIs have done so for forests and water security – meaning that over half of those that are assessing their portfolio exposures are identifying material risks.

A rising tide of FIs are identifying greater climate and nature-related opportunities than risks – signaling that the momentum behind green financing solutions could be a vital catalyst for FIs to take nature seriously.

◥ across climate change, forests, and water security, more FIs have identified more financially substantive opportunities than risks.

◥ FIs estimate on average that the potential upside from opportunities is 4.5x greater than the potential downside stemming from risks they face from climate change, forests, and water, with FIs disclosing that they find opportunities aggregating up to US$5.35 trillion in value, compared to reported risks totaling up to US$1.20 trillion.

◥ Over 50% of the identified financial opportunities related to forests and water are directly tied to the development of financing products and solutions that support sustainable forest risk commodity supply chains, water security, or resilience. Examples include the facilitation of green and sustainability-linked bonds and loans, and building resilience through innovative and tailored insurance products.

These initial evaluations underestimate the scale of nature-related risks, especially when compared with the scale of risks recognized by real economy companies. However, this acknowledgment of the financial materiality of nature by leading FIs represents a positive first step in the industry, indicating a desire for tools, guidance, and consensus on assessing the nature-related risks and opportunities they face.

3. Climate change now has an influence on business strategies or financial planning of nearly all FIs (95%), and an increasing minority of FIs' strategies are also influenced by broader nature-related risks and opportunities (26% and 28% for forests and water security respectively).

◥ Furthermore, most FIs are capitalizing on opportunities to provide products and services that enable their clients to mitigate climate change (81%). In contrast, only 23% and 26% do so for forests and water security, highlighting an untapped opportunity to support businesses to halt and reverse nature loss.

Many FIs undertake climate-related scenario analysis to effectively assess the financial impacts of climate change on risks and returns. Despite the comparative lack of mainstream guidance to include nature in scenarios analysis, some leading FIs are already expanding their climate-related scenario analysis by incorporating forest and water-related factors.

◥ 65% of FIs conducted climate-related scenario analysis in 2022, up from 57% in 2020, whilst 7% and 10% did so for forests and water security in 2022 respectively. Most of these nature-related scenario analyses are being conducted as part of climate-related scenario analysis, indicating that FIs are taking an integrated approach. This is promising, as market leaders are aligned with the TNFD's goal to work towards using scenarios that fully integrate considerations of climate and nature.

Nature-related financing policies and engagement strategies are yet to be established and comprehensively implemented.

◥ For climate change, 59% of FIs have a policy framework which includes climate-related requirements that their clients/investees need to meet. For forests and water security, this drops to 26% and 19% respectively, or 46% and 40% when including FIs that intend to introduce a relevant policy framework within the next two years.

◥ A growing number of banks (53%) are starting to include climate-related covenants in some of their financing agreements. An emerging 23% of banks have started including forest-related covenants and 21% have some covenants related to water security. The majority of their associated credit and lending policies are focused on the direct operations of their clients.

Disclosure of climate-related portfolio impact metrics has become increasingly mainstream, in part driven by clear guidance from the Partnership for Carbon Accounting Financials (PCAF).

- 66% of FIs measured their portfolio impacts in 2022, up from 51% in 2020. Similarly, 219 FIs (39%) disclosed a figure for their absolute financed emissions in 2022, up from 84 FIs (25%) in 2020.

- 79% of FIs that are disclosing financed emissions through CDP (173 of 219 FIs) referenced PCAF and/or PCAF's Global GHG Accounting and Reporting Standard for the Financial Industry as their chosen methodology for calculating financed emissions.

Disclosure of nature-related portfolio impact metrics for FIs remains nascent in the absence of clear guidance on tools and methodologies to use. 10% of FIs currently measure their portfolio impact for forests and water security and, encouragingly, an additional 30% plan to do so within the next two years.

- Presently, most FIs are reporting dependency and risk-based portfolio exposure metrics on nature instead of portfolio impact metrics. Planned developments by the Partnership for Biodiversity Accounting Financials (PBAF) and guidance from the TNFD will be critical to support FIs to report their portfolio impacts on nature.

- Some leading FIs are using bespoke methodologies – for example, calculating their financed water withdrawal footprints or assessing the total land under sustainable management. In other instances, regulation is driving the calculation of water and biodiversity- related impacts, such as the EU SFDR regulation to disclose against relevant Principle Adverse Impact indicators.

Financed emissions – those associated with FIs' investments and lending activities – are 750x larger than reported operational emissions on average, underscoring the need for FIs to prioritize driving real-economy emissions reductions across their portfolios. This figure varies significantly across regions, from 250x in Europe, to 270x in the Asia-Pacific region, to 11,000x in North America.

- The quality of financed emissions reporting is still in its infancy – key sectors and asset classes are often excluded from calculations, and the methodological assumptions and underlying data quality are seldom disclosed.

Setting meaningful targets remains a serious hurdle for many FIs. Only 29% (159 FIs) have set portfolio targets for climate change. The remaining majority focus solely on reducing their operational emissions (46%, 258 FIs). Only 11% (59 FIs) of those setting portfolio climate targets are committed to or have secured validation from the Science-based Targets Initiative (SBTi).

- Science-based targets for nature have launched for corporates. FIs should encourage portfolio companies to work towards setting Nature SBTs.

- To further enable the disclosure of their environmental targets beyond climate change, CDP has introduced a question in 2023 allowing FIs to disclose targets for deforestation-free and/or water-secure financing.

Calls to action

Financial institutions (FIs) are acknowledging the importance of climate-related considerations and the interconnectedness of forests and water security in overall climate resilience.

However, the current gap in actions on addressing climate and nature-related risks and opportunities must urgently be addressed in order to achieve the target of reaching net-zero emissions by 2050, whilst also preventing ecosystem collapse.

CDP calls on the following actors to facilitate a system-wide transformation to address these together.

Call to action for financial institutions (asset managers, asset owners, insurers and banks)

1. Disclose detailed portfolio impact metrics (in line with the PCAF Standard and emerging PBAF standards).

2. Integrate nature-related considerations into their strategies and financial planning and establish governance processes to oversee environmental issues and impacts holistically.

3. Prepare for likely mandatory disclosure requirements by implementing the forthcoming recommendations from the TNFD, including Sector-specific guidance for FIs and continue using CDP's questionnaire to comprehensively report across environmental issues.

4. Proactively identify and manage portfolio exposure to nature-related risks and opportunities through qualitative and quantitative risk management processes.

5. Engage with real economy companies and industry initiatives, signaling demand for nature-related disclosures and data to be able to assess their portfolio risk exposures.

6. Set portfolio emissions reduction targets in line with the latest climate science, and disclose commitments and targets on environmental issues more generally, going beyond climate change.

7. Influence and engage their clients and support them on their journey to a net-zero, nature-positive future, futureproofing their clients' businesses as well as their own profit and loss statements (P&Ls).

Call to action for governments, central banks, regulators, supervisors and stock exchanges

1. Introduce High Quality Mandatory Disclosure requirements for corporates and FIs1.

2. Create an enabling environment to encourage all corporates and FIs to assess and disclose their risks, dependencies, and impacts on nature.

3. Align financial and fiscal policies with a broader set of environmental sustainability objectives.

Call to action for standard setters

1. Ensure standards are in place to streamline reporting, enable comparable data to inform capital allocation decision-making, and to maximize global alignment for meeting global environmental goals.

2. Work towards incorporating full environmental impacts across sustainability reporting standards to improve transparency, accountability, and meaningful action toward a nature-positive world.

3. Coordinate efforts to ensure harmonization and interoperability of standards to avoid market confusion.

In summary, this report underscores the urgency and opportunity in redefining holistic environmental action, incorporating all nature related impacts. While challenges persist, initial efforts are promising and indicative of a paradigm shift in the financial sector towards a sustainable, nature-inclusive approach. The rest of this report provides a more detailed analysis of financial institutions 'current environmental disclosures, along with practical insights and recommendations for all stakeholders.

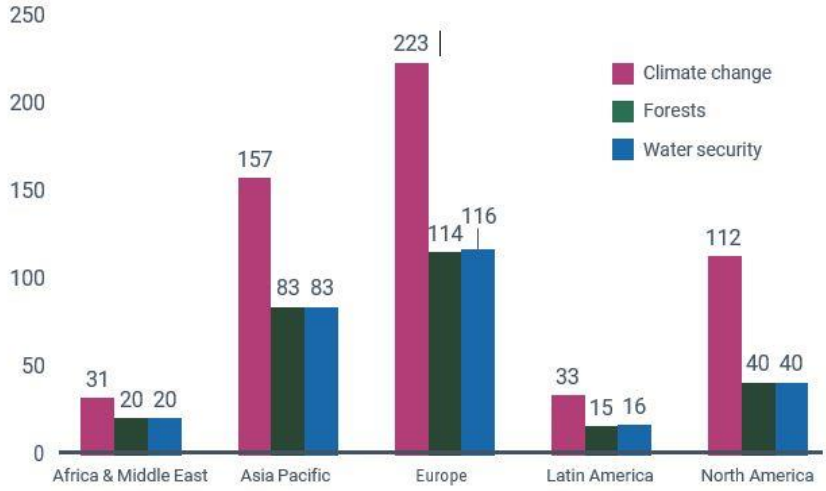
Sample overview and detailed findings disclosingfinancial institutions

The sample of FIs that we base these findings on, disclosed through CDP between April and August 2022. In 2022, 556 FIs disclosed through CDP's climate change questionnaire for Financial Services (FS) companies.

This represents a 37% increase from 2021, and a 67% increase from 2020, when the sector-specific questionnaire was launched. Of the 556 disclosers, 272 FIs disclosed information on deforestation, whilst 275 disclosed on water security2.

Over 75% of these disclosing FIs are publicly listed companies, including some of the world's largest banks, asset managers, asset owners and insurers, representing over US$8 trillion in market capitalization.

Figure 1: Regional breakdown of responders



Financial institutions, including investors, banks and insurers are all at different stages of action on nature, with different drivers and tools available to meet their requirements. This report does not aim to compare these sub-sectors with one another.

Detailed findings

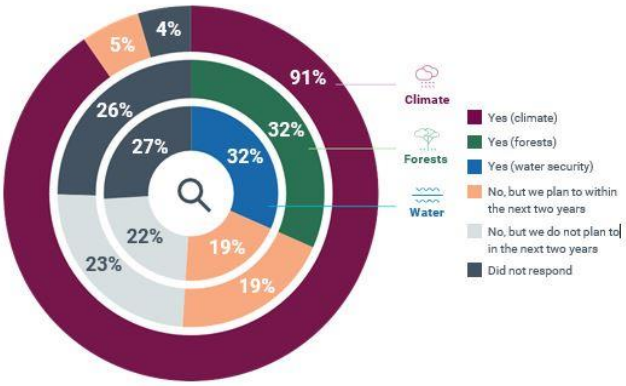
1

Establishing nature-related oversight in organization-wide governance processes is critical to the systematic integration of nature-related issues across FIs. Only a small group of leading FIs currently have the top-down leadership to oversee this integration. Disclosures underscore the need for the sector to enhance board-level expertise and governance mechanisms that consider nature-related risks and opportunities, alongside climate change.

Board-level oversight

Board oversight is a key indicator of how seriously a business is taking environmental concerns as part of their oversight of risk and performance management. Almost all (91%) financial institutions reporting through CDP have board-level oversight of climate-related issues. However, only 32% of financial institutions disclose that they have oversight of forests and/or water-related issues, and an additional 19% do not, but are currently planning to have this oversight within the next two years.

Figure 2: Is there board-level oversight of the issues within your organization?



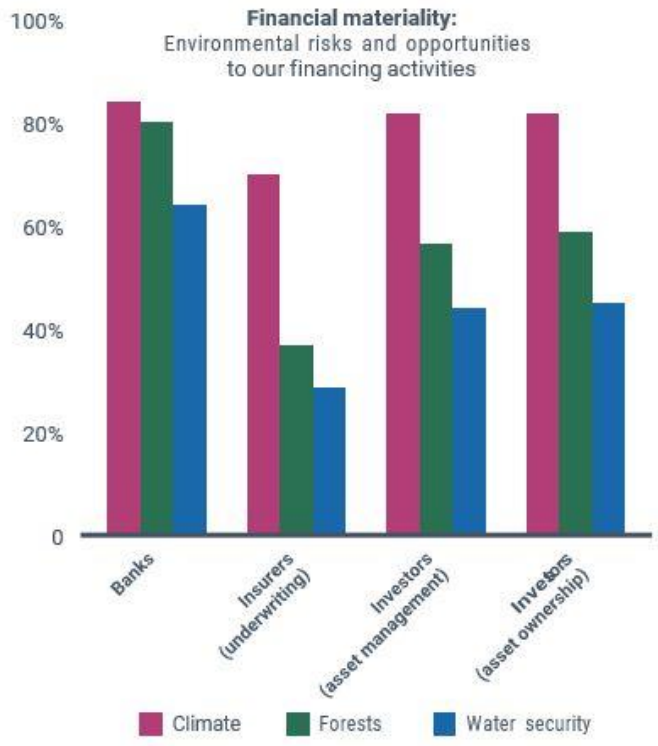
Board-level oversight: Competence

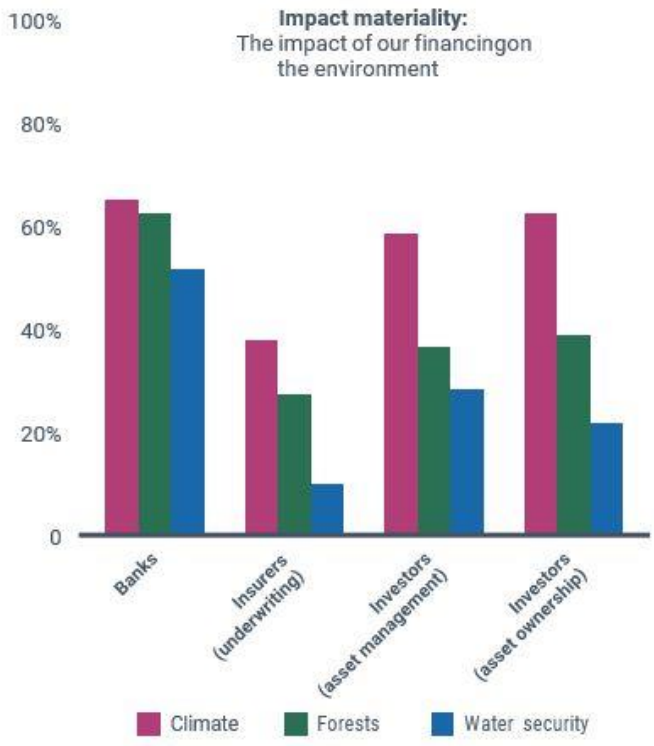
Another key indicator of the strength of governance processes is the skills and competence of the board to assess climate and nature- related risks and opportunities. When asked if their organizations have board members with competence on environmental issues, 68% disclose having at least one board member with competence for climate-related issues. That number drops significantly to 24% for forests and water security. The majority of FIs that do not have this competence on their board indicate that they see the issue as important, but not an immediate priority.

Board-level oversight: Materiality

The scope of board oversight varies significantly. We find that where there is board-level oversight, 81% of FIs have oversight of climate-related risks and opportunities that pertain to their financing activities (financial materiality), whilst 63% have the same for forests, and only 50% for water security. There are significant differences across those that have activities spanning banking, insurance, and/or investing (either as an asset manager and/or an asset owner), and across environmental themes.

Figure 3: Scope of board-level oversight (where applicable)





We see a significant drop in the number of FIs that currently considerthe impacts of their financing activities on the environment (impact materiality) – across all portfolios the scope is 58% (climate), 45% (forests), and 33% (water security). The EU's sustainable finance legislation (including the European Sustainability Reporting Standards (ESRS), and Principle Adverse Impact Indicators included as part of the Sustainable Finance Disclosure Regulation (SFDR)) requires that companies report on impact materiality, as part of an assessment of double materiality. In their draft guidelines for standard setting, the European Financial Reporting Advisory Group (EFRAG) notes that:

Impact materiality and financial materiality assessments are intertwined and interdependencies between the two dimensions should be considered.

The evidence of this interconnectedness to broader environmental issues at a macro-scale is clear – with over half the world's total GDP being moderately or highly dependent on nature and its services.

CDP data shows that banks are leading the way, with the majority of banks disclosing through CDP demonstrating board-level oversight of climate and nature-related issues, whilst also considering both financial materiality and their own environmental impacts. There is a noticeable decline in considering the impact materiality of nature across underwriting and investing activities. As the understanding of the financial implications of nature loss evolves, especially with respect to the compounding relationship between climate change and nature, and as disclosure of environmental impacts becomes normalized, we can anticipate increasing pressure on boards to take stock of their impacts.

Management processes

In addition to board-level oversight, robust management processes are necessary to effectively assess and manage climate-related risks and opportunities. 93% of FIs disclosed that they have an individual or committee with responsibility for climate-related issues, whilst 49% have the same for forests and/or water-related issues.

Over half of management-level positions or committees with responsibility for climate change report directly to the board (61%) or to the CEO (54%), but this reporting line drops to less than 30% for forests and water-related management processes (30% to the board, 25% to the CEO). Furthermore, while the reporting of climate change through these management processes occurs at regular intervals (at least annually, if not more frequently), most report nature-related issues infrequently, "as important matters arise".

As we find in the subsequent section on risk and opportunity management, there is currently a gap in the number of FIs that have nature-related risk management and due diligence processes in place. This means that

There is likely an under-representation of nature-related risks coming to the attention of most boards.

2

Risk and opportunities

Financial institutions must incorporate nature-related risk and opportunity assessments into their strategiesand financial planning. At present, most FIs do not have the processes in place to adequately assess the nature-related risks and opportunities to which their portfolios are exposed. This gap in awareness means that most FIs remain vulnerable to unanticipated financial impacts. Critically, the majority of those that are beginning to assess their portfolio exposure to nature-related risks and opportunities are identifying financially material risks and opportunities.

As summarized by the Cambridge Institute for Sustainability Leadership, ecosystem collapse and nature loss increases risk exposure for all financial institutions across their portfolio and operations. Growing awareness and action by central banks on nature-related risks, largely steered by the Network for Greening the Financial System (NGFS),
is mainstreaming this topic as part of recent efforts to improve environmental risk management practices across banks and insurers.

For example, many banks face significant credit and reputational risks stemming from nature-related exposures eg through project finance in high-risk industries, and/or lending to SMEs in locations that are exposed to a greater level of risk3. Similarly, insurers are impacted by increased insurance claims following intensifying environmental disasters that lead to business disruptions, and pose other physical, transition and liability risks4. While there is increased acknowledgment of the materiality of nature-related risks, most insurers are not assessing these risks in their underwriting, according to a global survey and an NGFS-INSPIRE report.

There is substantial room for wider adoption and robust risk assessment processes. Encouragingly, an increasing number of FIs are identifying opportunities linked to forests, water security and biodiversity, signaling an exciting frontier of sustainability-driven innovation in the sector.

Risk and opportunity management and due diligence processes

Investors bear a fiduciary duty towards their beneficiaries, requiring that they identify and evaluate relevant and material risks to their investments while implementing measures to control these risks. This responsibility is judiciously upheld by financial institutions, who employ a multitude of risk management strategies to bolster the robustness of their financing and to secure the associated returns.

The decline of nature damages ecosystem services that companies rely upon, making nature loss a financial risk to companies and governments, financial markets, and even the physical assets of financial institutions:

- Physical risks to investors, lenders, insurers, governments will lead to financial instability, credit, market, liquidity, and business risks5.
- Transition and liability risks emerging from current and future regulation aimed at protecting nature loss might economically impact certain companies and related financial institutions.
- Nature loss materializes as a financial risk when these risks affect companies and governments, financial markets, and even the physical assets of financial institutions, leading to credit, market, liquidity, and business risks6.
- Climate change, in addition to posing its own physical and transition risks, is a key driver for nature loss and exacerbates the risks stemming from issues such as deforestation and water insecurity.

It is therefore critical that financial institutions have processes in place, such as portfolio risk assessments or transactional due diligence, to identify, assess, and manage all forms of risks across their financing portfolios.

Disclosures indicate a noticeable gap in risk assessment practices among FIs. 85% are assessing their portfolio exposures to climate-related risks and opportunities, compared to 20% assessing their forests and/or water-related risk exposures. These numbers rise to 95%, 47% and 45% (on climate change, forests and water security respectively) when including the number of FIs that plan to assess their portfolio exposures within the next two years.

This breaks down by sub-sector as follows:

Figure 4: Are FIs assessing their portfolio's exposure to climate-, forest- and/or water-related risks and opportunities?

In total, over 90% of these portfolio assessments for climate change are at least in part, quantitative. In comparison, 60% of the assessments for forests and water involve quantitative aspects, with a much greater reliance on the use of qualitative-only assessments. This is partly due to the maturity of the landscape of tools and data available to FIs to assess climate and nature-related risks. Moreover, the nature of risk assessments is predominantly qualitative due to the challenge of obtaining relevant quantitative data. Although this brings complexity to nature-related risk assessments, it also emphasizes the value of qualitative analyses. These analyses, while not yet widespread, can offer vital insights into potential nature-related risks and serve as a strong foundation for the development of quantitative metrics in the future.

Risk assessment processes are often focused on high-emitting and/or high-risk sectors and companies. In cases of best practice, risk assessment processes are being guided by robust materiality

Assessments to identify relevant companies and sectors within their portfolios. Most commonly, environmental considerations are integrated into a multi-disciplinary company-wide risk management process (climate change, 72%; forests, 63%; and water, 66%). Leading FIs tend to have a specific climate or ESG-related risk management process to address the unique characteristics of climate-related risks.

Of those FIs that are conducting due diligence assessments:

◥ The most common source of this information is directly from clients/investees, indicating the importance of these companies themselves collecting relevant environmental data and the significance of taking action. The next most frequent source is public data sources, highlighting the value of public disclosures to their stakeholders.

◥ FIs are most frequently focused on the following types of information per theme (see table below). These are therefore key areas for real economy companies to advance the quality and quantity of the data they collect and disclose. It indicates the growing demand by financiers of their clients/investees to have climate transition plans in place, as well as having forests and water-related policies.

Table 2: The most frequently considered types of information during the due diligence and risk assessment processes of FIs

	Climate change	Forests	Water security
1	Emissions data	Scope and content of forests policy	Scope and content of water policy
2	Emissions reduction targets	Commitment to eliminate deforestation/ conversion of other natural ecosystems	Water withdrawal and/or consumption volumes
3	Climate transition plans	Certification of forests risk commodities	Breaches to local water regulations
4	Energy usage data	*Other*	*Other*
5	*Other*	Origin of forest risk commodities	Water withdrawn from water stressed areas

Risk management case studies*

Upon analysis of the descriptions of these portfolio exposure assessments and due diligence processes, we see some examples of leading practice:

Banco Santander – Water stress calculator

Banco Santander acknowledges water is becoming scarcer for some of its clients and it must consider monitoring their vulnerability to this issue, especially in those regions where this concern is of relevance, such as in Brazil.

Santander Brazil incorporates water stress into its Environmental, Social and Climate Change rating system for companies that it reviews. This model includes assessments of supply chain practices, fines, land degradation exposures, and a profile of the companies' environmental and social management processes. Water stress is explicitly included in the calculator used by Santander Brasil, factoring in the economic activities being undertaken, the river basin(s) that a company is exposed to, and the measures that those companies are adopting to save water.

Aegon – Responsible investment policy

Aegon7 includes biodiversity in their Responsible Investment Policy, which drills down to the individual investment policies of their subsidiary firms. In practice, they expect investee companies to assess and manage various risk drivers that could threaten biodiversity or drive deforestation in their direct operations as well as their supply chains. Aegon also engages directly with companies identified as being in high-risk sectors.

WHEB Asset Management – Thematic investing in water

Proprietary ESG screens and scorecards are used by some FIs, to identify vulnerable sectors and operating regions that may be designated as high risk or high impact to specific climate, forests and water security issues. These then have a broad range of implications for portfolio management, ranging from exclusion policies, to tilting of portfolio exposures, or in some cases a thematic, opportunistic approach such as that of WHEB Asset Management, who have a specific water management theme to some of their investments, investing in companies that derive at least 50% of their revenues from solutions to water pollution and water scarcity.

Risks and opportunities identified

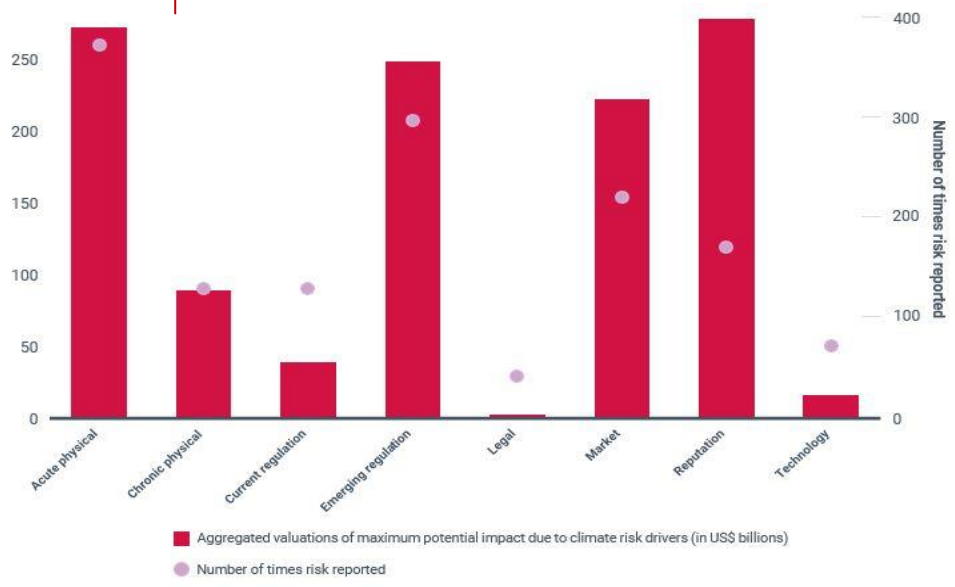
Whilst 398 (72%) of FIs have identified climate-related risks in their portfolio with the potential to have a substantive financial or strategic impact on their business, only 35 (10%) and 48 (13%) have done so for forests and water respectively. It is a similar picture for opportunities, though a greater number are finding opportunities. Given that only 20% of portfolios are being assessed for their exposure to any nature-related risks or opportunities, this indicates that a majority of FIs that have conducted these assessments are already beginning to identify financially material risks and opportunities.

Risks

FIs identified climate-related risks with the potential to be financially substantive, totaled up to a maximum of US$1.17 trillion, or on average (across the 260 FIs disclosing financial impact figures), US$4.5 billion per FI.

There is growing understanding across FIs as to how both physical and transition climate risk can be assessed across portfolios. Transition risks drive the majority (70%) of risks valued, with 30% driven by physical risks.

Figure 5: Aggregated valuations of maximum potential impact due to climate risk drivers



In comparison to climate change, of the 10-13% of FIs detecting forests and water-related risks with the potential to be financially substantive, even fewer are able to calculate and disclose a figure indicating the size of those risks.

- 11 FIs disclosed that they face an average of US$325 million of potential risks each, due to deforestation*. Some of these relate to the increased insurance claims liabilities and increased operating costs for their portfolio companies, whilst another common concern is the reduced demand and/or profitability of their products and services due to reputational damage associated with deforestation.

- 22 FIs disclosed an average of US$268 million in potential risks each, due to water insecurity. These predominantly focus on acute and chronic physical risk drivers (flooding, drought, and water scarcity) that could increase operating costs, reduce production capacities, increase insurance claims liabilities, and lead to stranded assets.

Reputational climate-related risk drivers are on average the most costly risks perceived by FIs. Primarily, this is related to decreased revenues due to access to capital along with reduced demand for products and services, and it is driven by the increased concern from stakeholders.

There is an increasing appreciation among FIs that forest-related reputational risks are also material. However, there is currently a significant gap between the perception of climate and nature-related reputational risks by FIs. As public understanding between climate change and nature loss grows, stakeholder concern may drive up nature-related reputational risks.

BNP Paribas – Forest risk assessment*

Notably, one financial institution is leading the way. BNP Paribas disclosed that through the increasing awareness of deforestation, critical feedback from NGOs and civil society, and increasing risk of litigation as a financier of industries that may contribute to deforestation, they face sizeable potential financial risks driven by reputational concerns – in the order of 25% of their market value. This follows on from a detailed natural capital assessment that they have been running since 2017.

Climate and nature-related risk drivers

The gap in FIs' current level of risk assessment is further outlined when compared with the scale of risks reported by real economy companies in their disclosures through CDP. The following graphs highlight the most frequently reported risk drivers of financially material climate risks, as a proportion of the number of FIs that identified any material climate, forests, or water-related risks.

Opportunities

An increasing number of FIs are identifying greater opportunities than risks across climate change, forests and water security, demonstrating that acceleration of green financing solutions could bolster FIs ability to prioritize nature as a factor in financial decision-making.

In total, FIs reported that they find opportunities aggregating up to US$5.35 trillion in value across climate change, forests, and water*. Over 50% of the identified financial opportunities related to forests and water are directly tied to the development of financing products and solutions that support sustainable supply chains for forest risk commodities, and water security or resilience. Examples include the facilitation of green and sustainability-linked bonds and loans, and building resilience through innovative and tailored insurance products. This is similar for climate change, where over 80% of the opportunities are seen to be the creation of products and services.

These opportunities are diverse, spanning various sectors and categories such as the creation of innovative environmental products and services.

Opportunities case studies*

Garanti BBVA – Water footprint loan

BBVA has created a new sustainable loan that focuses on reducing companies' water footprint, a key priority in many companies' sustainability policies. The water footprint loan considers specific water indicators and CDP's Water score.

Citi – Supplier finance program

Banks are able to play a role in helping their clients decarbonize their supply chains by incentivizing emissions disclosures, which may help to facilitate improving transparency in Scope 3 emissions and supply chain resilience.

Citi supported Vodafone's initiative to add environmental data reported via CDP as an additional factor to access preferential financing rates through Vodafone's Supply Chain Finance Programme (SCF). Eligible suppliers to Vodafone may now be able to access preferential SCF rates from Citi by disclosing environmental data through CDP and demonstrating improvements to their performance. This helps Vodafone meet its Scope 3 emissions targets, whilst rewarding suppliers that take environmental action.

The acknowledgement of the financial materiality of nature by leading FIs represents an important first step in the industry, indicating a desire to start using available tools and guidance to assess and properly value nature-related risks and opportunities. Even though the relative capacity and awareness of FIs to assess the different transmission channels and the extent of nature-related risks is still lagging in comparison to climate-related risks, there are green shoots in the sector. FIs that identify nature-related financial risks are better positioned to seize opportunities to develop products and solutions to halt and reverse nature loss. As the difficulties associated with valuing nature and ecosystem services are being resolved in time, FIs will be able to identify precise valuations of new available opportunities.

3

Strategy and implementation

Climate change now influences the business strategies or financial planning of nearly all disclosing FIs (95%), and an emerging minority of FIs' strategies are also influenced by broader nature-related risks and opportunities(26% and 28% for forests and water security respectively).

Climate strategies are essential for future-proofing portfolios and operations. A robust and well-informed strategy can be the difference between FIs that are aware of and able to address potential risks stemming from climate change and nature loss, and those that are not. A robust strategy can enable FIs to benefit from opportunities arising from the transition to a net-zero, nature-positive global economy.

To effectively assess the financial impacts on climate-related risks and opportunities and plan ahead, many FIs undertake climate- related scenario analysis. This is often employed alongside traditional bottom-up due diligence of companies as part of the portfolio construction process.

Scenario analysis

Scenario analysis uses various climate scenarios to stress test how potential risks and opportunities could evolve and impact a business. The models that underpin commonly used scenarios are tied to nature-related outcomes. However, most of the IPCC's global modelled mitigation pathways that reach net-zero are predicated on the assumption that forestry and land use change, reach net-zero emissions earlier (via reduced deforestation and reforestation) than sectors such as buildings, industry, and transport8. There is therefore a need to develop and implement tools and methodologies that adequately account for nature when conducting scenario analysis.

Despite the comparative lack of mainstream guidance to include nature in scenario analysis, some leading FIs are already expanding their climate-related scenario analysis by incorporating forests- and water-related factors.

- 65% of FIs (336 out of 516 FIs) conducted climate-related scenario analysis in 2022, up from 57% in 2020, whilst 7% (25 out of 368 FIs) and 10% (38 out of 370 FIs) did so for forests and water, respectively.

- Most of these forests- and water-related scenario analyses are being conducted as part of climate-related scenario analysis, indicating that FIs are taking an integrated approach. This is promising, as market leaders are in alignment with the TNFD's goal to work towards the use of scenarios that fully integrate considerations of climate and nature.

The TNFD framework, set to be released in September 2023, will include guidance for corporates conducting nature-related scenario analysis. Pilot tests conducted by asset owners of the TNFD's draft methods indicate that there are ways in which the guidance could be used and adapted for FIs. This will be accompanied by efforts from the NGFS to develop a framework for identifying and assessing nature-related risks and nature loss scenarios, building on their climate scenarios, which are the most used by FIs disclosing through CDP (46%, or 155 out of 336 FIs currently conducting climate-related scenario analysis using NGFS scenarios). The influence of the work of the NGFS and the increasing prevalence of climate change within central banks' considerations is backed by the data – the sub-sectors conducting the most climate-related scenario analysis are banks and insurers (69% and 71% respectively).

Client and investee requirements and engagement

Engagement is a key lever that FIs can employ to preserve and enhance the value of assets on behalf of their clients and beneficiaries, which includes investees and clients addressing climate- and nature-related risks. To mitigate these risks from the real economy, FIs are including climate and nature-related requirements for their clients and investees across various internal and external- facing policy frameworks.

Nature-related financing policies and engagement strategies are yet to be established and comprehensively implemented.

- For climate change, 59% of FIs have a policy framework which includes climate-related requirements that their clients/investees need to meet. For forests and water, this drops to 26% and 19% respectively, or 46% and 40% when including FIs that intend to introduce a relevant policy framework within the next two years.

FIs include climate-, forests- or water-related requirements of their clients/investees across a variety of policies – some of these are included as part of general investment, lending and risk policies, whilst others are dedicated ESG or responsible investment policies. In many cases, these policies focus on sectors with higher exposures to material environmental risks.

- Asset managers and asset owners most commonly include these requirements in sustainable or responsible investment policies, or in their general investment policies/strategies.

- Banks generally include these requirements in their credit/lending policies, or their risk policies.

- Of the insurers disclosing through CDP, only one disclosed having a forests-related policy, whilst no insurers disclosed any water-related information – on climate change, 70% of responding insurers include such requirements in their insurance underwriting policy.

Table 4: Most commonly disclosed policies which include climate-, forests- and/or water-related requirements that clients/investees need to meet.

Policy	CC	F	W
Banking			
Credit/lending policy	82%	86%	55%
Risk policy	39%	36%	13%
Investing (asset owner)			
Sustainable/Responsible investment policy	70%	83%	55%
Investment policy/strategy	40%	42%	27%
Investing (asset manager)			
Sustainable/Responsible investment policy	84%	69%	42%
Investment policy/strategy	33%	38%	26%
Proxy voting	39%	0%	0%
Engagement policy	42%	0%	0%
Insurance			
Insurance underwritingpolicy	70%	0%	0

Strategy & implementation case studies*

Société Générale – Forest policy

Société Générale disclosed details about their 2022 industrial agriculture and forestry sector policy, outlining how it planned to engage companies in the palm oil and South American soy and cattle sectors to decouple the production of soft commodities from deforestation:

The main driver of deforestation and forest degradation is the expansion of agricultural land. Admitting the inadequacy of previous initiatives to fight deforestation, individual and collective efforts must be pursued
To accelerate the decoupling of soft commodities production from deforestation. The Group is committed to progress on this path. Targeting full traceability is part of the solution. The Group recognizes that not all its clients have 100% traceability over their supply chains at the date of publication of this policy, but it requires that all of them work towards this goal. As such, from publication of this policy until the end of 2022, the Group will engage with its existing corporate clients that are active in the most sensitive sectors, as regards deforestation (palm oil and South American soy and cattle sectors), to assess their strategies to tackle deforestation. After this date, the Group will only provide financial products and services to clients:

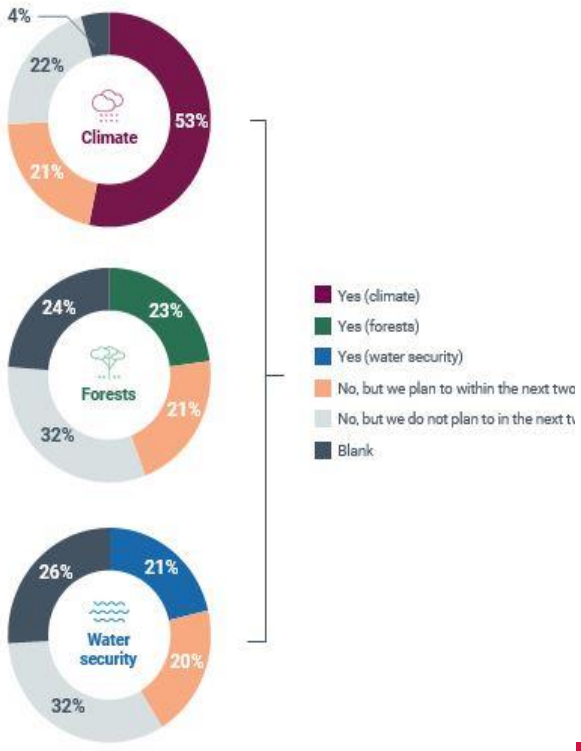
- Committed to deforestation- and conversion-free activities (own operations and supply chain).

- Committed to establish and systematize traceability in their value chain and able to report progress in terms of scope of implementation and/or percentage of achievement on an Annual basis.

In addition, and from the publication date of this policy, the Group will refrain from onboarding prospect companies active in palm oil or South American soy and cattle sectors that are not committed to deforestation- and conversion-free activities (own operations and supply chain) nor committed to establish and systematize traceability in their value chain.

A growing number of banks (53%) are starting to include climate- related covenants in some of their financing agreements. An emerging 23% of banks have started including forest-related covenants and 21% have some covenants related to water. Most of their associated credit and lending policies are focused on the climate-related implications on the direct operations of their clients.

Figure 6: Covenants implemented by banks



Examples of these range from covenants for syndicate loans in co-operation with other financiers, to utilizing the Green Bond Principles or Green Loan Principles to identify standardized requirements on a borrower/issuer's sustainability performance, for the margin/coupon on a sustainability-linked loan or bond. These are usually tailored on a case-by-case basis.

Engagement

FIs are focusing their engagements on clients exposed to greater climate, forests, and/or water-related risks, or non-targeted engagements which implement the policy frameworks detailed above. We see that the aim of these policies generally being to educate clients, enabling and incentivizing changes to their client behavior. This reinforces the importance of FIs in catalyzing real economy change, in this case by creating capacity in the real economy to understand and address material environmental risks and opportunities.

Shareholders' voting rights at Annual General Meetings (AGMs) can send clear signals of their priorities on climate and nature-related issues, including proposals for setting emissions reduction targets, enhancing climate risk disclosure, or integrating nature-related considerations into corporate strategies.

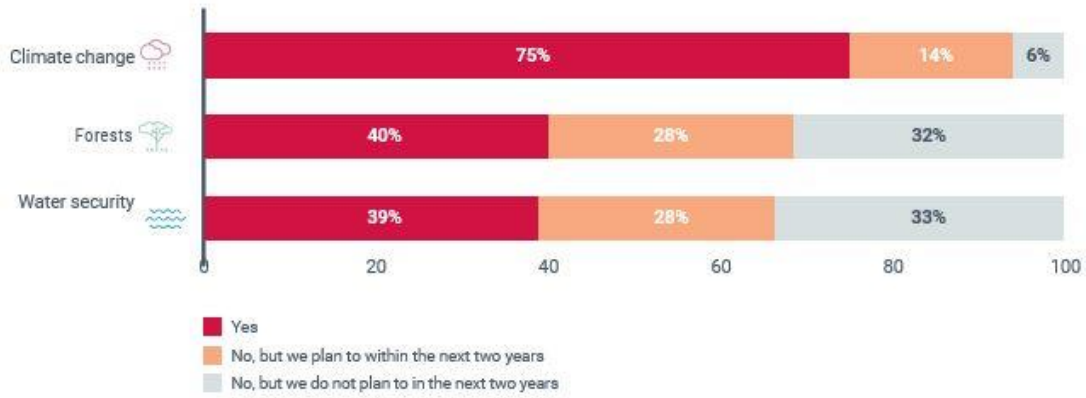
These rights are particularly impactful as they would serve both as a clear signal and as a harmonizing force given the broad scope and reach of most financial institutions.

Voting practices should be complementary to the policies noted above and, as a best practice, FIs will outline their intentions and expectations of companies in advance. However, at present, a gap exists as shareholders are yet to fully exercise their voting rights on environmental issues outside of climate.

Table 5: Primary types of client-related engagements

Types of engagement	CC	F	W
Education/information sharing	56%	42%	35%
Engagement & incentivization (changingclient behavior)	33%	37%	46%
Collaboration & innovation	20%	10%	13%
Information collection (understanding client behavior)	16%		
Compliance & onboarding	10%		
Other	6%	11%	10%

Figure 7: Organizations exercising voting rights as shareholders on climate, forests, and/or water-related issues



This gap represents a missed opportunity for FIs to outline their expectations of companies, and influence and advocate for greater action from companies on climate and nature.

Policy engagement

Oftentimes, FIs cite the need for policies by regulators and governments to support them in integrating environmental issues or to enable real economy companies to competitively mitigate environmental risk and realize opportunities. Despite this, not all FIs engage with policymakers, with 81% of FIs engaging with policymakers on climate change, whilst 26% and 23% do so on forest and water-related issues, respectively.

Table 6: most common forms of engagement in activities that could directly or indirectly influence policy, law, or regulation that may affect climate change, forests, and water security

Many FIs that do not currently engage on forests and/or water cited that the primary reason for this was that they see these issues to be important, but not an immediate priority. This is in contrast with the high levels of engagement on climate change and underscores the capacity gap within FIs to understand and address the interconnected challenges of climate change and nature loss.

Mandatory climate-related reporting regulation was in the top three focus areas for FIs' direct engagements with policymakers (along with adaptation and resilience, and sustainable finance policies), while a much smaller number of FIs directly engage on reporting regulations concerning forests and water. However, some FIs (231) are engaging in activities that can indirectly influence policies, laws or regulations (e.g. through alliances, trade associations or funding organizations/individuals) beyond climate change, that may impact forests and water security.

Engagement case studies

Water crisis - Policy engagement

In 2022, investors with over US$3 trillion in assets signed an open letter to governments from CDP, to enable robust action on water and step up their collective response to the water crisis. This included calls to action on water targets and pathways, as well as mandatory water disclosure requirements and the implementation of suitable domestic policies.

As FIs make strides toward incorporating climate-related risks into their strategies, efforts are underway to do the same for forests and water security. The implementation of effective strategies will support FIs to make climate and nature-informed strategic decisions, thereby bolstering their priority to maintain financial performance.

	Climate	Forests	Water security
Yes, we engage directly with policymakers	242	30	29
Yes, we engage indirectly through trade associations	334	58	52
Yes, we engage indirectly by funding other organizations whose activities mayinfluence policy, law, or regulation that may significantly impact the climate/thisissue area	138	28	27
No or left blank	96	274	284
Total presented with Q (excl QNA)	*516*	*368*	*371*

4

Metrics and targets

Disclosure of climate-related portfolio impact metrics has rapidly mainstreamed, including forward-looking metrics used for risk management. This is in part driven by associated reporting requirements, from the TCFD and clear guidance from the Partnership for Carbon Accounting Financials (PCAF).

Climate-related disclosure metrics – financed emissions

FIs are increasingly measuring their portfolio impacts and financed emissions in particular.

- 66% of FIs measured their portfolio impacts in 2022, up from 51% in 2020. Similarly, 219 FIs (39%) disclosed a figure for their absolute financed emissions in 2022, up from 84 FIs (25%) in 2020.

Of the 219 FIs (39%) that disclosed absolute financed emissions statistics, when comparing those figures to their reported operational emissions (the sum of their scopes 1, 2, and categories 1-14 of scope 3), the data presents a striking comparison: financed emissions are on average over 750x greater than operational emissions. This divergence between financed and operational emissions highlights the profound environmental impact of FIs' financing activities.

This data point varies significantly by region. For FIs headquartered in Europe (109 FIs), financed emissions are more than 250x greater than operational emissions, rising to over 270x for Asia Pacific (66 FIs), whilst for North America (26 FIs) it is over 11,000x greater. Although the size of the disclosing financial institutions in these regions plays some part in explaining this, there is generally a disparity in the quality of reported financed emissions that needs to be addressed:

- Reported emissions figures are often not accompanied by explanations of the extent to which requirements and Recommendations of methodologies influenced their calculations.
- Key sectors and asset classes are sometimes excluded from financed emissions calculations.
- The quality and assumptions of the underlying data are not always disclosed.

This increase in the 700:1 ratio reported in 2021 is largely due to improvements in the underlying calculations, both in terms of enhanced data quality and wider use of the robust PCAF developed methodology. PCAF is made up of over 380 FI signatories representing over US$89 trillion in combined assets that have committed to assessing and disclosing their portfolio impacts, including financed emissions. Of the FIs disclosing financed emissions through CDP, 79% (173 of 219) referenced PCAF or its Global GHG Accounting and Reporting Standard for the Financial Industry as their chosen methodology, indicating the significant uptake of PCAF's Standard across the industry.

Delving further into the question of data quality, 12% of FIs (66 out of 556) disclosed that they had some level of verification for their portfolio impact metrics or financed emissions calculations. In almost all cases, this was limited assurance of the statistics with 37 of these FIs being assured in line with the ISAE3000 standard series. Other standards were also used, such as ISO14064 (9 FIs), AA1000AS (5 FIs) and ASA3000 (5 FIs). In future, greater scrutiny from auditors into the quality of these reported figures will be critical in establishing a comparable baseline across institutions. Additionally, there will be increasingly stringent requirements of key assurance standard setters, if these are to be used to determine whether FIs are on track to meet their portfolio targets.

Nature-related disclosure metrics

Disclosure of nature-related portfolio impact metrics for FIs remains nascent in the absence of clear guidance on tools and methodologies to use. 11% of FIs currently measure their portfolio impact for forests or water security and, encouragingly, an additional 32% plan to do so within the next two years.

Of those that are calculating their portfolio impact metrics, we see that some leading FIs are using bespoke methodologies – for example, calculating their financed water footprints (including water withdrawals, treatments, or water avoided as in the case of WHEB Asset Management and Impact Asset Management) or assessing the total land under sustainable management.

In other cases, regulation is beginning to drive the calculation of water and biodiversity-related impacts, such as EU SFDR regulation to disclose against relevant Principle Adverse Impact indicators. In other instances, impact-oriented investments are being disclosed, such as the Forest Resilience Bond managed by Blue Forest, which deploys private capital to finance forest restoration projects for wildfire prevention. CSAA Insurance Group was one of the first investors in the Forest Resilience Bond.

At present, some FIs that disclose nature-related portfolio impacts are conflating them with dependency and risk metrics i.e., their exposure to sectors with dependencies or risks stemming from nature.

Disclosing FIs often disclose dependency-related exposure metrics. However, the focus should be on indicating a precise amount of financing towards companies with positive or negative impacts on nature (a revenue-based impact metric), or a nature-based footprint metric (the types of impact metrics suggested by the TNFD in their third beta release9 per the table below).

This indicates a need for capacity building, particularly in the move towards disclosure metrics that go beyond risks and opportunities, to comprehensively assess nature-related dependencies and impacts.

Of those FIs that provided reasons for not currently disclosing forests or water-related impact metrics, a significant number cited the lack of available tools or methodologies.

Primary reason	Forests	Water security
Important but not an immediate priority	127 FIs (52%)	128 FIs (55%)
Lack of tools or methodologies available	52 FIs (21%)	52 FIs (22%)
Other	65 FIs (27%)	54 FIs (23%)
Total	244 FIs	234 FIs

PBAF

Planned developments by PBAF and guidance from the TNFD will be critical to support and enable FIs to assess their impacts, and to provide guidance that lends itself to comparability and harmonization across the approaches taken by FIs. The PBAF Standard has been updated in 2023 to provide guidance on portfolio assessments of dependencies on ecosystem services, including recommendations for financial institutions and data providers. An update on the other parts of the PBAF Standard will follow.

Target setting

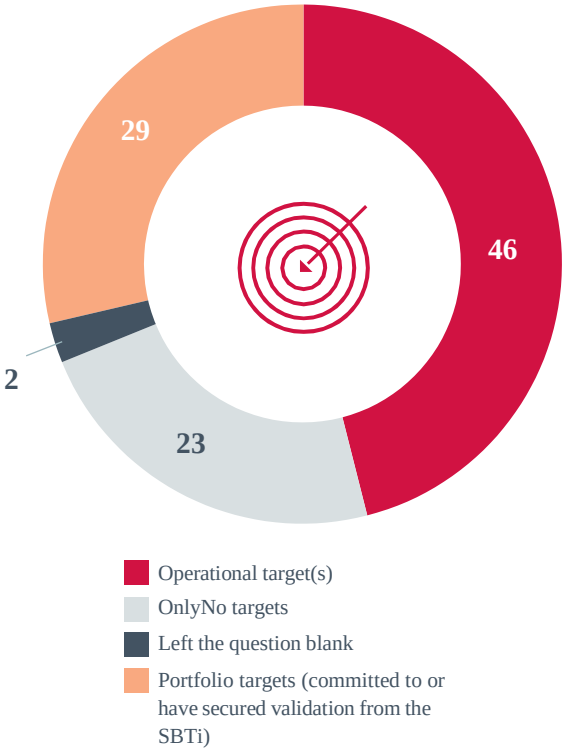
Target setting is a critical aspect of the transition to net-zero. The most important targets for FIs are those that cover their portfolios, as this is the largest source of their emissions and environmental impact.

However, setting targets remains a serious hurdle for many FIs. Only 29% (159 FIs) have set portfolio targets for climate change, while the remaining majority focus solely on reducing their operational emissions. Among those setting targets, only 11% (59 FIs) of those setting portfolio targets are committed to or have secured validation from the Science Based Targets Initiative (SBTi).

The use of various methodologies and frameworks for target setting, such as SBTi-FI, the Net Zero Investment Framework, the Paris Agreement Capital Transition Assessment (PACTA), and the protocols of the Net Zero Asset Owner Alliance and Net Zero Banking Alliance, has led to fragmentation and difficulties in comparing ambition and progress across institutions.

Analysis of the data indicates noticeable improvements in FIs' reporting on their financed emissions. However, there is still considerable ground to cover as only a minority of FIs have set portfolio targets addressing climate change.

Figure 8: Did you have an emissions target that was active in the reporting year?



Measuring and disclosing emissions associated with financial activities is an important first step for FIs in managing risks and identifying opportunities in the transition.

Science Based Targets initiative – FI Net Zero Standard

The SBTi Finance Sector framework, which is being updated through 2023 and beyond, along with their Near-Term target setting framework and a new FI Net Zero Standard, acknowledges some of these challenges, while their upcoming frameworks reference the GFANZ net-zero initiatives to enable interoperability

The key topics addressed by the SBTi in their updates include:

- Defining what it means for an FI to reach a state of
- Net-zero at the portfolio level, and the conceptual framework to establish both near and long-term targets.

- An expanded approach to coverage, introducing materiality and climate relevance principles to better define how different financial asset classes should be addressed over time. Target ambition is expected to be defined across all asset classes within a portfolio-wide target boundary, rather than on an asset-by-asset basis, and FIs will have the flexibility within this boundary to focus on key portfolios that have the greatest impact on greenhouse gas (GHG) emissions, incorporating key milestones that are clearly set out on the road to net-zero.

- Establishing neutralization criteria to define how an FI can eliminate residual portfolio emissions and under what conditions an FI can make a net-zero claim.

- A "maturity scale" approach is introduced, to reflect the different approaches to assessing alignment of an FI's portfolio over time.

- The introduction of compulsory criteria related to an FI's fossil fuel finance activity, the key high GHG-emitting sector.

- The SBTi's FI Net Zero Standard draft criteria on portfolio target boundaries also requires inclusion of scope 3 emissions for Forest, Land and Agriculture (FLAG) sector portfolio companies, thereby aiming to address emissions stemming from land use degradation and deforestation..

SBTN and science-based targets for nature

CDP is a founding partner of the Science Based Targets Network (SBTN), the organization managing development of science-based targets for nature for companies.

To build upon the increasing commitments of FIs to not only disclose nature-related impacts and dependencies, but also set targets, the SBTN is also developing a SBT for Nature-focused finance sector engagement strategy.

The SBTN are also a core knowledge partner of the TNFD, and the two initiatives have worked together to publish joint guidance for corporates setting science-based targets for nature.

In the meantime, on nature-related target setting, CDP recommends that FIs:

- Encourage portfolio companies to set science-based targets for nature and/or complete a TNFD LEAP assessment.
- Refer to the Finance for Biodiversity report, reviewing sectors that are highly impactful sectors on biodiversity.
- Refer to the World Economic Forum's report, reviewing sectors that are highly dependent on biodiversity.
- Use the ENCORE tool from Capital Coalition to support initial portfolio evaluations of impacts and dependencies.

To further enable the disclosure of environmental targets beyond climate change, CDP has introduced question FW-FS3.3a in 2023, allowing FIs to disclose targets for deforestation-free and/or water- secure financing. This development represents a crucial opportunity for FIs to demonstrate their commitment to sustainability in their financing activities.

There is also a need for increased data quality, data availability, and target-setting methodologies, across all asset classes and sectors. This task will require cross-sector collaboration led by leading initiatives and data providers, with input from financial institutions, to avoid fragmentation in approaches and learn from the processes that have taken place so far in the climate metrics and targets space.

Moving forward

How CDP is driving progress for nature

CDP is feeding into the system from various angles, in order to support the system-wide changes needed for disclosure and action on environmental issues, by:

- Developing principles of high-quality mandatory disclosure to guide policymakers in designing comprehensive, high-quality, and coherent environmental disclosure policies, going beyond climate to cover wider environmental impacts.
    - ❖ This supports global efforts to make corporate reporting on nature-related issues a standard business norm and enshrined in policy.
- Continuing to support the development of standards and frameworks pertaining to the nature disclosure ecosystem, in order to work towards interoperability across initiatives and support corporates to develop the capacity to disclose in line with leading practice.
    - ❖ CDP is proud to be supporting the TNFD as a Knowledge Partner, putting our wealth of insights, data and expertise at its disposal. CDP is already playing an active role in using its data to inform TNFD development and when the TNFD is finalized CDP's global disclosure framework is ideally positioned to mainstream the widespread adoption of TNFD recommendations in a structured, comparable format, as CDP did for the TCFD.

Engaging with CDP's Capital Markets Signatory Program allows FIs to find out more about how to:

- Report in line with the PCAF standard and utilize CDP's Full GHG Emissions Dataset which incorporates PCAF Data Quality Scores.

a) CDP and PCAF will continue to explore opportunities to streamline the reporting of portfolio impact metrics through CDP's Financial Services questionnaire.

◥ Use disclosure data from real economy companies on forests and water through CDP, to begin assessing portfolio's exposure to risks and assessments.

a. CDP will continue to work with our disclosers to support them to transparently disclose on biodiversity and nature more broadly, as we have done on climate, forests, and water.

b. CDP conducts forest-related portfolio assessments for FIs using our disclosure data, supporting them to understand the current strengths and area for improvement for companies in their portfolios.

For over 20 years, CDP has brought together FIs to facilitate engagement with companies on an industrial scale. CDP engages with FIs in a variety of ways, including through the CDP Financial Services questionnaire. To engage with companies, reduce risks, and identify opportunities, FIs can access data from companies on climate change, forests and water security, through CDP's investor signatory program. To find out more about the program, please contact your Capital Markets account manager or get in touch with our Capital Markets team via investor@cdp.net, if you are not yet a CDP Capital Markets signatory.

Conclusion

The environmental reporting landscape has seen significant shifts over the years, driven by factors including current standards like the TCFD and emerging regulations.

This gradual transformation demonstrates appetite from financial institutions and other actors within capital markets to build a green and resilient financial system. However, achieving these goals and limiting warming to 1.5°C requires, as a first step, a recognition that climate and nature in entirety are intrinsically linked, and as such halting and reversing nature loss must occur alongside corporate efforts to mitigate climate change.

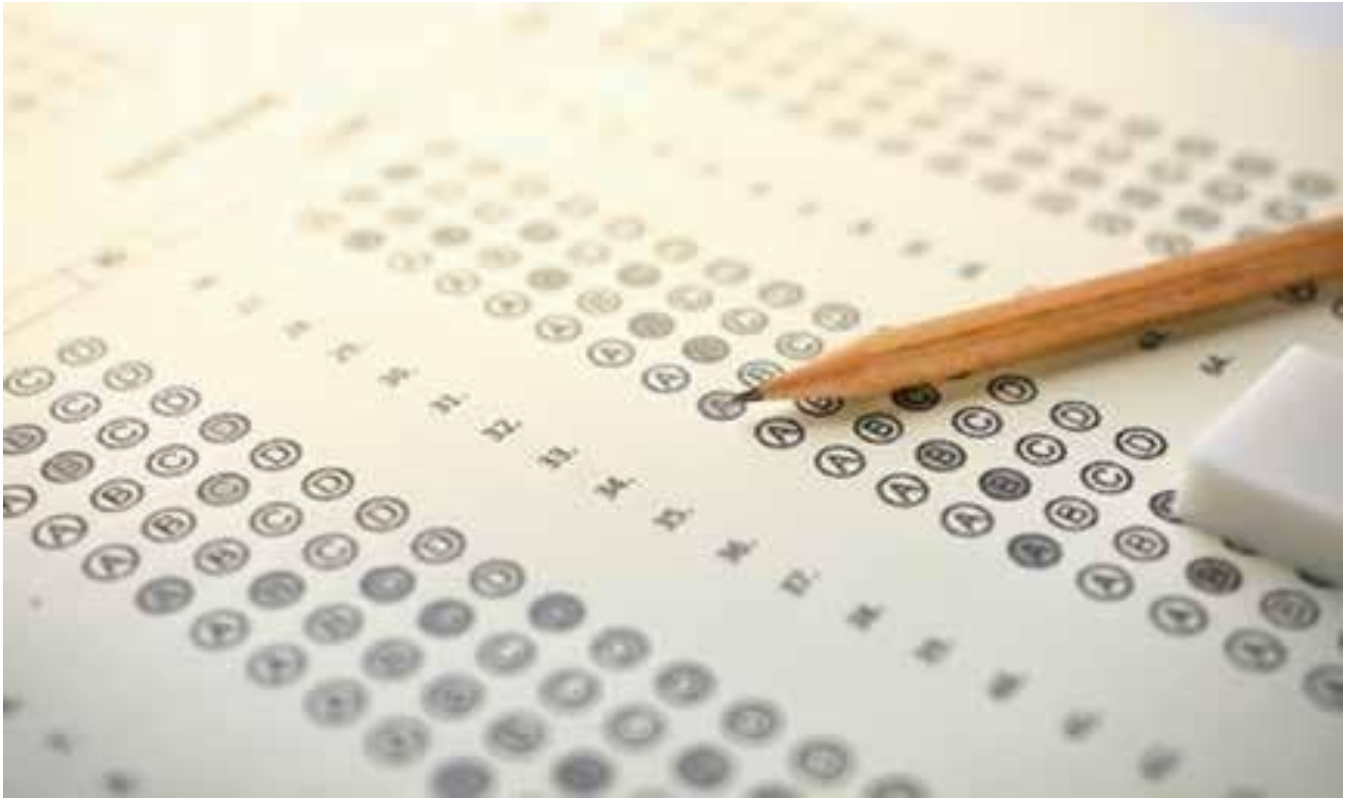
This report assesses the initial level of action on climate change and nature by the global finance sector, drawing insights from climate change, forests, and water security data reported by financial institutions through CDP in 2022. While nearly 95% of FIs' business strategies or financial planning are now influenced by climate change, less than 30% are influenced by forest issues and water security – an indication that consideration of nature is not yet a priority for most. However, some FIs are beginning to consider nature-related issues. While financial institutions remain largely blind to the risks, they acutely focus on the opportunities associated with green financing solutions on both climate change and nature.

Yet, momentum is building to protect nature and address environmental issues holistically. Efforts are underway to translate the goals of the Global Biodiversity Framework into policy and regulatory changes worldwide. This will include introducing reporting requirements on nature for financial institutions, likely in line with the Taskforce on Nature-related Financial Disclosures (TNFD) recommendations.
Financial institutions that are taking steps to identify and assess material risks and are disclosing their impact, dependencies, risks and opportunities related to climate and nature, will be better positioned to get ahead of upcoming reporting requirements.

To accelerate progress, action is required of all stakeholders across the financial ecosystem. Financial institutions must first recognize that their responsibility to demand credible, comprehensive, and timely data is a key component in determining the direction of change within the financial system. To drive the transformation, it is necessary that FIs adopt an integrated approach that weaves nature across governance, risk management, strategy implementation, metrics, and science-based target setting, in addition to engagement efforts.
Governments, regulators, supervisors, and standard setters also play a crucial role in catalyzing change, through streamlining integrated disclosure requirements, enhancing transparency and accountability, in addition to harmonizing standards. For its part, among other contributions, CDP's expanded questionnaire, which includes
nature-related issues, is preparing FIs for forthcoming disclosure standards and empowers them to take steps to understand and manage their corporate impacts, risks and opportunities associated with land use, forestry, water security, and biodiversity.

Financial institutions must prioritize assessment of nature-related risks, opportunities and impacts, and integrate them into decision-making processes alongside climate change considerations. Only through strong leadership by FIs, enabled by action from governments, regulators and standard setters, can the sector transition toward achieving a sustainable and nature-inclusive financial system that safeguards our planet's future.

MULTIPLE CHOICE QUESTIONS



ICMAI REGISTERED VALUERS' ORGANISATION

Registered Office
The Institute of Cost Accountants of India 4th Floor,
CMA Bhawan 3, Institutional Area Lodhi Road, New
Delhi – 110003

www.rvoicmai.in

MULTIPALE CHOICE QUESTION

1. Total value of all final goods and services produced in a country during one year is:
a) NNP
b) GNP
c) GDP
d) NI

Ans) GDP

2. The difference between revenue expenditure and revenue receipts is
a) Revenue deficit
b) Fiscal deficit
c) Budget deficit
d) Primary deficit

Ans) Revenue deficit

3. The difference between total expenditure and total receipts except loans and other liabilities is called
a) Fiscal deficit
b) Budget deficit
c) Budget deficit
d) Budget deficit

Ans) Fiscal deficit

4. Which of the following may not be a part of projected Financial Statements?
a) Projected IncomeStatement
b) Projected TrialBalance
c) Projected Cash Flow Statement
d) Projected Balance Sheet.

Ans) Projected Trial Balance

5. Stock split is a form of
a) Dividend Payment
b) Bonus Issue
c) Financial restructuring
d) Dividend in kind

Ans) Financial restructuring

6. A preliminary prospectus is known as a
a) golden parachute.
b) red herring.
c) blue sky.
d) green shoe.

Ans) red herring.

7. First rating agency of India is
a) CRISIL
b) ICRA
c) SMERA
d) MOODY

Ans) CRISIL

8. The process of protecting oneself against future price changes by shifting some or all of the risk to someone else is called:
a) speculating
b) investing
c) hedging
d) gambling

Ans) hedging

9. Organised markets that enable new issues of equity and debt to be traded.
a) Secondary markets
b) Primary capital markets
c) BSE
d) NSE

Ans) Primary capital markets

10. The rate at which commercial banks make funds available to people is known as:
a) Success Rate
b) Bank Rate
c) Borrowing Rate
d) Lending Rate

Ans) Lending Rate

11 ..... means bailment of goods as security for payment of debt:
a) Hypothecation
b) Overdraft
c) Pledge
d) Consumer Credit

Ans) Pledge

12 Measurement and disclosure do not apply to which of the following?
a) Leasing based transactions
b) Net realizable values/Impairment of Assets
c) Share based payments
d) Price received to sell or buy an asset

Ans) Price received to sell or buy an asset

13. Which of the following statement is true?
a) Debenture holder is an owner of the company
b) Debenture holder can get back its money only on the liquidation of the company
c) A debenture issued at a discount can be redeemed at a premium
d) A debenture holder receives interest only in the event of profits

Ans) A debenture issued at a discount can be redeemed at a premium

14. Belated return can be filed by an assessee earlier or before completion of assessment and:
a) 6 months
b) 1 year
c) 2 years
d) 3 years

Ans) 1 year

15. Which of the following is not a capital receipt?
a) 'Salami' for settlement of tenancy
b) Insurance claim received on machinery lost by fire
c) Lump-sum received on sale of shares
d) Goods sold for cash under 'Patent Rights'

Ans) Goods sold for cash under 'Patent Rights'

16. Compensation for cancellation of a license by the government resulting in cessation of business is:
a) A casual receipt
b) A capital receipt
c) A revenue receipt
d) None of the above

Ans) A revenue receipt

17. Compensation received for loss of trading asset is a:
a) Capital receipt
b) Revenue receipt
c) Casual receipt
d) None of the above

Ans) Capital receipt

18. Which of the following is not a revenue expense?
a) Rent of office building
b) Sales tax and excise duty paid
c) Payment made on dismissal of company
d) Remuneration to employers of a temporary employee

Ans) Rent of office building

19. Any payment made to discharge a revenue liability, if refunded later on, shall be:
a) A revenue receipt
b) A capital receipt
c) A casual receipt
d) None of the above

Ans) A revenue receipt

20. Residential status of taxable entities is:
a) Fixed in nature
b) Can change from year to year
c) Fixed once in 5 years
d) None of the above

Ans) Can change from year to year

21. Income received in India is taxable in the hands of:
a) Resident only
b) Resident and ordinarily resident only
c) Non-resident only
d) All assesses

Ans) All assesses

22. Exempted incomes are defined under section:
a) 15 of Income Tax Act
b) 18 of Income Tax Act
c) 10 of Income Tax Act
d) 20 of Income Tax Act

Ans) 10 of Income Tax Act

23. The basic exemption limit in case of a resident individual of the age of below 60 years is Rs ..... :(AY 2021-22)
a) Rs 2,00,000
b) Rs 2,50,000
c) Rs 3,00,000
d) Rs 5,00,000

Ans) Rs 3,00,000

24. A resident individual (whose net income does not exceed Rs 3,50,000) can avail rebate under section 87A. It is deductible from income-tax before calculating education cess. The amount of rebate is 100 percent of income-tax or Rs ....., whichever is
a) 10000
b) 2500
c) 2000
d) 1000

Ans) 2500

25. Which of the following is an agriculture income?
a) Dividend paid by a company out of its agriculture income
b) Share of Profit by a Partner from a firm engaged in an agriculture operation
c) Income from supply of water by a assessee from a tank in its agricultural land

d) Interest received by a money lender in the form of agricultural produce

Ans) Share of Profit by a Partner from a firm engaged in an agriculture operation

26. Which of the following incomes received by an assessee are exempt under section 10 of the Income Tax Act?
a) Agricultural Income
b) Salary of a partner from a firm
c) Salary received by a member of a ship's crew
d) All of the above

Ans) Agricultural Income

27. If control and management of its affairs was fully in India, a foreign company becomes:
a) Resident in India
b) Ordinarily resident in India
c) Non-resident
d) None of the above

Ans) Resident in India

28. A domestic company is taxable at 30%. However, tax rate is 25% if turnover or gross receipt of the company does not exceed: (AY 2021-22)
a) Rs 250 crore
b) Rs 25 crore
c) Rs 10 crore
d) Rs 200 crore

Ans) Rs 250 crore

29. Which of the following is not included in taxable income?
a) Income from smuggling activity
b) Casual Income
c) Gifts of personal nature subject to a maximum of 50,000 received in cash
d) Income received in kind

Ans) Gifts of personal nature subject to a maximum of 50,000 received in cash

30. Unexplained cash credits are chargeable to tax @ ..... :
a) 0.1
b) 0.2
c) 0.15
d) 0.3

Ans) 0.3

31. Income from subletting of house property is taxable under the head ..... :
a) Income from House Property
b) Profits & Gains from Business or Profession
c) Income from Other Sources
d) Capital Gains

Ans) Income from Other Sources

32. When a price for an identical asset or liability is not observable, an entity measures fair value using another valuation technique that:
a) Maximises the use of relevant observable inputs
b) Minimises the use of unobservable inputs.
c) both (a) and (b)
d) either (a) or (b)

Ans) both (a) and (b)

33. In case of financial assets, an enity needs toidentify the principal market or, in the absence of a principal market, the most advantageous market.
a) TRUE
b) FALSE
c) All of these
d)None of the above

Ans) FALSE

34. The price that would be received is 26, transaction costs in that market are 3 and the costs to transport the asset to that market are 2. Calculate the fair value of the asset, if market it is the principal market.
a) 26
b) 23
c) 21
d) 24

Ans) d

35. The price that would be received is 26, transaction costs in that market are 3 and the costs to transport the asset to that market are 2. Calculate the fair value of the asset, if market it is the most advantageous market.
a) 26
b) 23
c) 21
d) 24

Ans) c

36. Level 2 input does not include
a) quoted prices for similar assets or liabilities in active markets
b) quoted prices for identical or similar assets or liabilities in markets that are not active
c) quoted prices for identical assets or liabilities in active markets
d) market-corroborated inputs

Ans) c

37. Which of the following statement is true?
a) All valuation approaches must be considered
b) All valuation approaches must be applied
c) All valuation methods must be applied
d) Indications of value should be averaged

Ans) All valuation approaches must be considered

38. Which of the following principle of valuation would be more appropriate in respect of M & A
a) Principle of Integration
b) Principle of future Benefits
c) Principle of substitution
d) Principle of substitution,Interation & Future benefits

Ans) Principle of substitution,Interation & Future benefits

39. If the market value of security is above its intrinsic value, it is good_
a) for 'auction"
b) for 'buy"
c) for 'sell"
d) for retain

Ans) for 'sell"

40. While measuring the investment value we may add to the stand alone value of the business the followings:
a) Value premium, price premium
b) Market premium, control premium
c) Synergy premium, market premium
d) The control premium, The synergy premium

Ans) The control premium, The synergy premium

41. As an appraiser and in order to avoid bias in valuation, you would normally use_
a) One approach
b) Two different approaches
c) Better approach
d) Best approach

Ans) Two different approaches

42. Which one of the following methods do Valuators commonly use for valuation of Brands? (choose the nearest definition)
a) Sales multiples
b) Relief from Royalty
c) Real Option methodology
d) P/E multiples

Ans) Relief from Royalty

43. What doesnot valuation report include?
a) General description of the property
b) Resource management
c) Valuation process describing methods used
d) moderate level of assurance

Ans) moderate level of assurance

44. In arbitrage pricing theory, higher required rate of return is usually paid on stock_
a) higher market risk
b) higher dividend
c) lower dividend
d) lower market risk

Ans) higher market risk

45. Which of the following statements is false?
a) The primary assumption of the APT is that security returns are generated by a linear factor model
b) A benefit of the APT is that it does not specify which variables are the best to use as a
common factor
c) The APT is considered to be less restrictive than the CAPM
d) In practice, researchers claim that we need at least two factors for the APT model.

Ans) A benefit of the APT is that it does not specify which variables are the best to use as a
common factor

46. Which of the following is an assumption of the APT?
a) All investors hold the market portfolio
b) Investors are risk averse
c) Short sales are allowed
d) Investors follow the mean-variance rule

Ans) Short sales are allowed

47. According to the APT, the value of the firm-specific factor is expected to be, on average_
a) more important than the value of the common factors
b) zero
c) positive
d) greater than the value of the common factors

Ans) zero

48. Arbitrage opportunity means you can earn a positive return with_
a) low risk
b) positive initial investment and zero risk
c) zero initial investment and zero risk
d) zero initial investment and some risk

Ans) zero initial investment and zero risk

49 Which of the following statements is true according to the theory of arbitrage?
a) Rational investors will arbitrage in a manner consistent with their risk tolerance
b) High-beta stocks are consistently under priced

c) Low-beta stocks are consistently overpriced
d) Positive alpha stocks will quickly disappear

Ans) Positive alpha stocks will quickly disappear

50. In a multi-factor APT model, the coefficients on the macro factors are often called _____.
a) systemic risk
b) firm-specific risk
c) idiosyncratic risk
d) factor loadings

Ans) factor loadings

51. The securities which are providing a fixed income to the investors is known as_
a) Fixed income securities
b) Short term securities
c) Medium term securities
d) Medium & short term securities

Ans) Fixed income securities

52. Yield-to-Maturity on a bond has increased from 8% to 9%. Then, the duration of the bond will_
a) Increase
b) Decrease
c) Remain unchanged
d) Nothing can be concluded from the given information.

Ans) Decrease

53. If coupon rate is equal to going rate of interest then bond will be sold_
a) at par value
b) below its par value
c) more than its par value
d) seasoned par value

Ans) at par value

54. The "modified duration" used by practitioners is equal to the Macaulay duration_
a) times the change in interest rate.
b) times (one plus the bond's yield to maturity).
c) divided by (one minus the bond's yield to maturity)
d) divided by (one plus the bond's yield to maturity)

Ans) divided by (one plus the bond's yield to maturity)

55. Given the time to maturity, the duration of a zero-coupon bond is higher when the discount rate is_
a) higher
b) lower
c) The bond's duration is independent of the discount rate.
d) equal to the risk free rate.

Ans) The bond's duration is independent of the discount rate.

56. The Majority shareholder in CRISIL is _____?
a) Standard and Poors'
b) Poors'
c) Moody's
d) Dun and Bradstreet

Ans) Standard and Poors'

57. Type of rating to which all credit rating agencies does not consider is classified as
a) split rating
b) sinking rating
c) automated rating
d) floating rating

Ans) split rating

58. What is the current rating (as of April 28, 2015) of India by S&P?
a) AA
b) A
c) BBB
d) BB

Ans) BBB

59. CAMEL Model stands for_
a) Capital , Assets, Market, Earnings, Leverage
b) Capital, Action, Market, Earnings, Liquidity
c) Capital, Assets, Management, Earnings, Liquidity
d) Capital, Assets, Management, Earnings, Lliabilities

Ans) Capital, Assets, Management, Earnings, Liquidity

60. Credit Rating is an expression of opinion of an agency, regarding a debt instrument on a specific date, dependent on_
a) Organizational Structure
b) Products & Services
c) Risk Evaluation
d) Products evaluation

Ans) Risk Evaluation

61. Which of the following is not a measure to reduce credit risk in derivatives?
a) Netting
b) Collateralization
c) Downgrade Triggers
d) Upgrade Triggers

Ans) Upgrade Triggers

62. The credit rating of the firm is AAA, the description of the rating is;
a) issuer has missed one or more interest or principal payment."
b) Capacity to pay interest plus Principal is High"
c) Capacity to pay interest plus Principal is slightly susceptible to adverse economic conditions"
d) Significant chances that issuer could miss interest payment."

Ans) Capacity to pay interest plus Principal is High"

63. The credit rating of the firm is A, the description of the rating is;
a) issuer has missed one or more interest or principal payment."
b) Capacity to pay interest plus Principal is adequate Slightly speculative"
c) Capacity to pay interest plus Principal is slightly susceptible to adverse economic conditions"
d) Significant chances that issuer could miss interest payment."

Ans) Capacity to pay interest plus Principal is slightly susceptible to adverse economic conditions

64. The credit rating of the firm is BB, the description of the rating is;
a) . issuer has missed one or more interest or principal payment."
b) Capacity to pay interest plus Principal is adequate. Slightly speculative"
c) Capacity to pay interest plus Principal is slightly susceptible to adverse economic conditions"
d) Significant chances that issuer could miss interest payment."

Ans) Significant chances that issuer could miss interest payment."

65. In binomial approach of option pricing model, last step for finding an option is_
a) price hike
b) price value
c) put price
d) call price

Ans) call price

66. In binomial approach of option pricing model, fourth step is to create_
a) equalize domain of payoff
b) equalize ending price
c) riskless investment
d) high risky investment

Ans) riskless investment

67. Second step in binomial approach of option pricing is to define range of values_
a) at expiration
b) at buying date
c) at exchange closing time
d) at exchange opening time

Ans) at expiration

68. The following statements about simulation models are true except:
a) Simulation models enable the financial manager to analyze
risky projects without estimating the approximate cost of capital
b) Simulation models are complex and expensive to develop
c) Simulation models are specific to the project and every project requires anew simulation model
d) Simulation models usually ignore opportunities to expand or abandon the project

Ans) Simulation models enable the financial manager to analyze risky projects without estimating the approximate cost of capital

69. Monte Carlo simulation is likely to be most useful:
a) For simple problems
b) For problems of moderate complexity
c) For very complex problems
d) Regardless of the problem's complexity

Ans) For very complex problems

70. The following is not among the steps involved in the Monte Carlo method:
a) Modeling the project
b) Specifying the numbers on the roulette wheel
c) Specifying probabilities
d) Simulating the cash flows

Ans) Specifying the numbers on the roulette wheel

71. Which of the following statements are NOT true of simulation?
a) A simulation model cannot prescribe what should be done about a problem
b) The equations describing the operating characteristics of the system are known
c) Simulation models the behaviour of a system
d) Simulation models can be used to study alternative solutions to a problem

Ans) The equations describing the operating characteristics of the system are known

72. Monte Carlo simulation gets its name from which of the following?
a) Data collection
b) Analysis
c) Model formulation
d) Random-number assignment

Ans) Random-number assignment

73. The first step in simulation is to_
a) set up possible courses of action for testing.
b) construct a numerical model.
c) validate the model.
d) define the problem.

Ans) define the problem.

74. The three types of mathematical simulation models are_
a) operational gaming, Monte Carlo, systems simulation.
b) Monte Carlo, queuing, maintenance policy.
c) Monte Carlo, systems simulation, computer gaming.
d) system simulation, operational gaming, weather forecasting.

Ans) operational gaming, Monte Carlo, systems simulation.

75. Simulation should be thought of as a technique for_
a) increasing one's understanding of a problem.
b) obtaining a relatively inexpensive solution to a problem.
c) obtaining an optimal solution to a problem.
d) providing quick and dirty answers to complex problems.

Ans) increasing one's understanding of a problem.

76 Which of the following is NOT an example of a financial asset/liability?
a) Advances received on a construction project
b) A contract that will be settled in the company's own equity
c) Cash
d) Shares

Ans) Shares

77. What is the manner of selling the assets of corporate debtor under the liquidation process, if assets are of perishable nature?
a) Private Sale
b) Auction
c) Sale on standalone basis
d) Sale of asset by any method except on standalone basis

Ans) Private Sale

78. What is an ordinary manner of selling the assets of corporate debtor under the liquidation process_
a) Auction
b) Private Sale
c) Sale on standalone basis
d) Any suitable method adopted by the liquidator

Ans) Auction

79. In Bengal Tea Industries Ltd & Ors. vs. Union of India, a Division Bench of the Calcutta High Court held that:
a) In a scheme of amalgamation of two companies, it is necessary in law to call for a meeting of the creditors and obtain their views on the scheme
b) In a scheme of amalgamation of two companies, it is not necessary in law to call for a meeting of the director and obtain their views on the scheme
c) In a scheme of amalgamation of two companies, it is not necessary in law to call for a meeting of the creditors and obtain their views on the scheme
d) None of the above

Ans) In a scheme of amalgamation of two companies, it is not necessary in law to call for a meeting of the creditors and obtain their views on the scheme

80 Bengal Tea Industries Ltd &Ors. vs. Union of India, a Division Bench of the Calcutta High Court held that:
a) In the event, any shareholder of the Transferee Company had appeared before the Court and had objected to the valuation of the shares or to the exchange ratio, the matter would have taken an entirely different complexion and the Court would have been inclined
b) In the event, any shareholder of the Transferor Company had appeared before the Court and had objected to the valuation of the shares or to the exchange ratio, the matter would have taken an entirely same complexion and the Court would have been inclined
c) In the event, any shareholder of the Transferor Company had appeared before the Court and had objected to the valuation of the shares or to the exchange ratio, the matter would have taken an entirely different complexion and the Court would not have been inclined
d) None of the above

Ans) In the event, any shareholder of the Transferor Company had appeared before the Court and had objected to the valuation of the shares or to the exchange ratio, the matter would have taken an entirely different complexion and the Court would have been inclined

Use the following information to answer Questions 81-82

Sun Pharma is a large pharmaceutical company based in Sri Lanka that manufactures prescription drugs under license from large multinational pharmaceutical companies. Delenga Mahamurthy, CEO of Sun Pharma, is evaluating a potential acquisition of Island Cookware, a small manufacturing company that produces cooking utensils. Mahamurthy feels that Sun Pharma's excellent distribution network could add value to Island Cookware. Sun Pharma plans to acquire Island Cookware for cash. Several days later, Sun Pharma announces that they have acquired Island Cookware at market price.

81. Sun Pharma's most appropriate valuation for Island Cookware is its:
a) sum-of-the-parts value.
b) investment value.
c)liquidation value.
d)none of the above

Ans) investment value.

82 Upon announcement of the merger, the market price of Sun Pharma drops. This is most likely a result of:
a) the unrelated business effect.
b) the tax effect.
c) the conglomerate discount.
d) none of the above

Ans) the conglomerate discount.

Use the following information to answer Questions 83-90

Guardian Capital is a rapidly growing US investment firm. The Guardian Capital research team is responsible for identifying undervalued and overvalued publicly traded equities that have a market capitalization greater than $500 million. Due to the rapid growth of assets under management, Guardian Capital recently hired a new analyst, Jack Richardson, to support the research process. At the new analyst orientation meeting, the director of research made the following statements about equity valuation at Guardian:

Statement 1- "Analysts at Guardian Capital seek to identify mispricing, relying on price eventually converging to intrinsic value. However, convergence of the market price to an analyst's estimate of intrinsic value may not happen within the portfolio manager's investment time horizon. So, besides evidence of mispricing, analysts should look for the presence of a particular market or corporate event— that is, a catalyst—that will cause the marketplace to re- evaluate the subject firm's prospects."
Statement 2- "An active investment manager attempts to capture positive alpha. But mispricing of assets is not directly observable. It is therefore important that you understand the possible sources of perceived mispricing."
Statement 3- "For its distressed securities fund, Guardian Capital screens its investable universe of securities for companies in financial distress."

Statement 4- "For its core equity fund, Guardian Capital selects financially sound companies that are expected to generate significant positive free cash flow from core business operations within a multiyear forecast horizon."
Statement 5- "Guardian Capital's research process requires analysts to evaluate the reasonableness of the expectations implied by the market price by comparing the market's implied expectations to his or her own expectations."

After the orientation meeting, the director of research asks Richardson to evaluate three companies that are retailers of men's clothing: Diamond Co., Renaissance Clothing, and Deluxe Men's Wear. Richardson starts his analysis by evaluating the characteristics of the men's retail clothing industry. He finds few barriers to new retail entrants, high intra- industry rivalry among retailers, low product substitution costs for customers and a large number of wholesale clothing suppliers. While conducting his analysis, Richardson discovers that Renaissance Clothing included three non-recurring items in their most recent earnings release: a positive litigation settlement, a one- time tax credit, and the gain on the sale of a non- operating asset.

To estimate each firm's intrinsic value, Richardson applies appropriate discount rates to each firm's estimated free cash flows over a ten- year time horizon and to the estimated value of the firm at the end of the ten- year horizon. Michelle Lee, a junior technology analyst at Guardian, asks the director of research for advice as to which valuation model to use for VEGA, a fast-growing semiconductor company that is rapidly gaining market share. The director of research states that "the valuation model selected must be consistent with the characteristics of the company being valued." Lee tells the director of research that VEGA is not expected to be profitable for several more years. According to management guidance, when the company turns profitable, it will invest in new product development; as a result, it does not expect to initiate a dividend for an extended period of time. Lee also notes that she expects that certain larger competitors will become interested in acquiring VEGA because of its excellent growth prospects. The director of research advises Lee to consider that in her valuation.

83. Based on Statement 2, which of the following sources of perceived mispricing do active investment managers attempt to identify? The difference between:
a) intrinsic value and market price.
b) estimated intrinsic value and market price.
c)intrinsic value and estimated intrinsic value.
d)none of the above

Ans) intrinsic value and market price.

84. With respect to Statements 3 and 4, which of the following measures of value would the distressed securities fund's analyst consider that a core equity fund analyst might ignore?
a) Fair value
b) Liquidation value
c) Fair market value
d) none of the above

Ans) Liquidation value

85. With respect to Statement 4, which measure of value is most relevant for the analyst of the fund described?
a) Liquidation value
b) Investment value
c) Going- concern value
d) none of the above

Ans) Going- concern value

86. According to Statement 5, analysts are expected to use valuation concepts and models to:
a) value private businesses.

b) render fairness opinions.
c)extract market expectations.
d)none of the above

Ans) extract market expectations.

87. Based on Richardson's industry analysis, which of the following characteristics of men's retail clothing retailing would positively affect its profitability? That industry's:
a) entry costs.
b) substitution costs.
c) number of suppliers.
d) none of the above

Ans) number of suppliers.

88. Which of the following statements about the reported earnings of Renaissance Clothing is most accurate? Relative to sustainable earnings, reported earnings are likely:

a) unbiased.
b) upward biased.
c) downward biased
d) none of the above

Ans) upward biased.

89. Which valuation model is Richardson applying in his analysis of the retailers?
a) Relative value
b) Absolute value
c) Sum- of- the- parts
d) none of the above

Ans) Absolute value

90. Which valuation model would the director of research most likely recommend Lee use to estimate the value of VEGA?
a) Free cash flow
b) Dividend discount
c) P/E relative valuation
d) none of the above

Ans) Free cash flow

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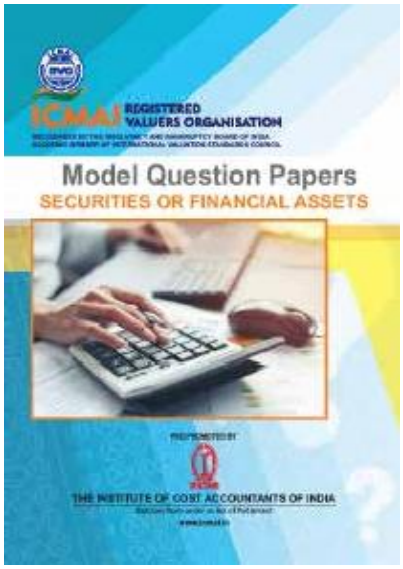

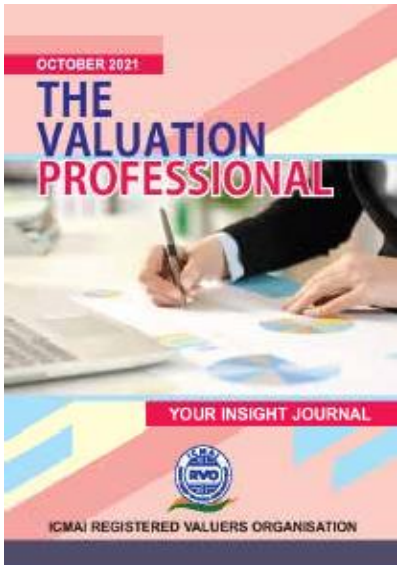

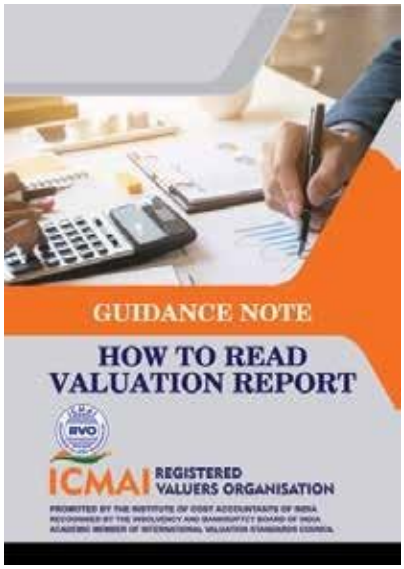

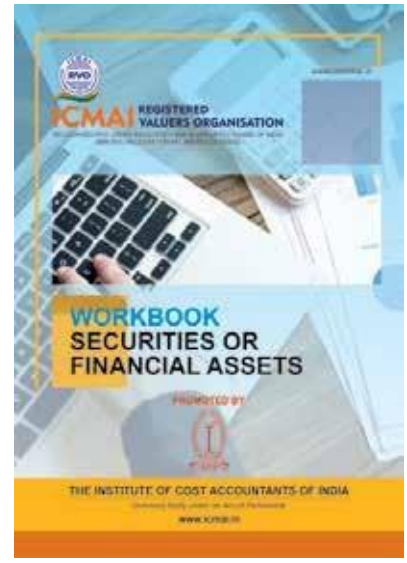

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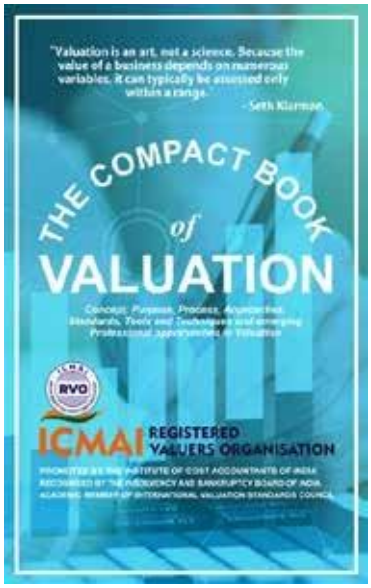

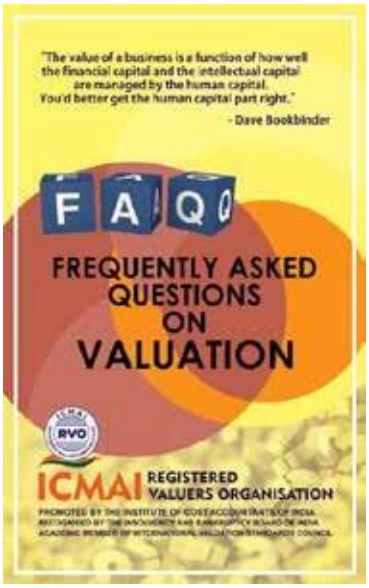

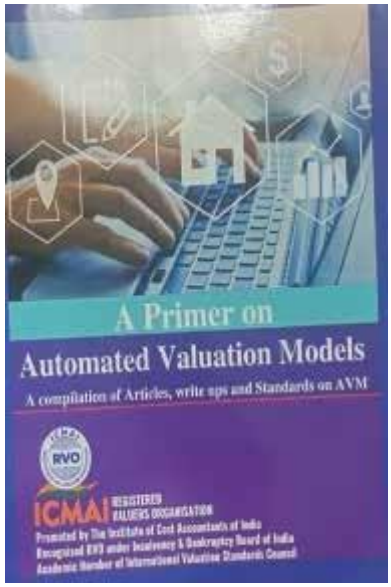

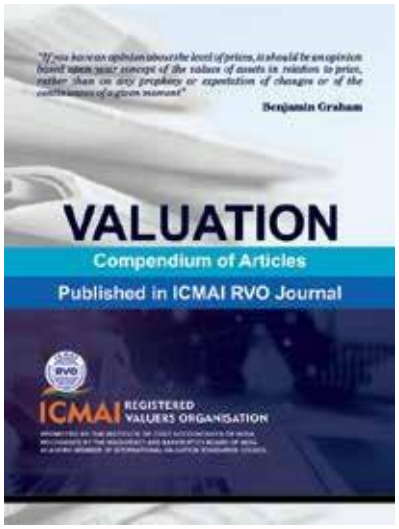

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GLOSSARY OF TERMS USED IN VALUATION

M

Majority Control—the degree of control provided by a majority position.

Majority Interest—an ownership interest greater than 50% of the voting interest in a business enterprise.

Market (Market-Based) Approach—a general way of determining a value indication of a business, business ownership interest, security, or intangible asset by using one or more methods that compare the subject to similar businesses, business ownership interests, securities, or intangible assets that have been sold.

Market Capitalization of Equity—the share price of a publicly traded stock multiplied by the number of shares outstanding.

Market Capitalization of Invested Capital—the market capitalization of equity plus the market value of the debt component of invested capital.

Market Multiple—the market value of a company's stock or invested capital divided by a company measure (such as economic benefits, number of customers).

Marketability—the ability to quickly convert property to cash at minimal cost.

Marketability Discount—see Discount for Lack of Marketability

Merger and Acquisition Method—a method within the market approach whereby pricing multiples are derived from transactions of significant interests in companies engaged in the same or similar lines of business.

Mid-Year Discounting—a convention used in the Discounted Future Earnings Method that reflects economic benefits being generated at midyear, approximating the effect of economic benefits being generated evenly throughout the year.
Minority Discount—a discount for lack of control applicable to a minority interest.
Minority Interest—an ownership interest less than 50% of the voting interest in a business enterprise.
Multiple—the inverse of the capitalization rate.

N

Net Book Value—with respect to a business enterprise, the difference between total assets (net of accumulated depreciation, depletion, and amortization) and total liabilities as they appear on the balance sheet (synonymous with Shareholder's Equity). With respect to a specific asset, the capitalized cost less accumulated amortization or depreciation as it appears on the books of account of the business enterprise.

Net Cash Flows—when the term is used, it should be supplemented by a qualifier. See Equity Net Cash Flows and Invested Capital Net Cash Flows

Net Present Value—the value, as of a specified date, of future cash inflows less all cash outflows (including the cost of investment) calculated using an appropriate discount rate.

Net Tangible Asset Value—the value of the business enterprise's tangible assets (excluding excess assets and non-operating assets) minus the value of its liabilities.

Non-Operating Assets—assets not necessary to ongoing operations of the business enterprise. {NOTE: in Canada, the term used is "Redundant Assets"}.

Normalized Earnings—economic benefits adjusted for nonrecurring, noneconomic, or other unusual items to eliminate anomalies and/or facilitate comparisons.
Normalized Financial Statements—financial statements adjusted for nonoperating assets and liabilities and/or for nonrecurring, noneconomic, or other unusual items to eliminate anomalies and/or facilitate comparisons.

O

Orderly Liquidation Value – liquidation value at which the asset or assets are sold over a reasonable period of time to maximize proceeds received.

P

Premise of Value—an assumption regarding the most likely set of transactional circumstances that may be applicable to the subject valuation; e.g. going concern, liquidation.

Present Value—the value, as of a specified date, of future economic benefits and/or proceeds from sale, calculated using an appropriate discount rate.

Portfolio Discount—an amount or percentage deducted from the value of a business enterprise to reflect the fact that it owns dissimilar operations or assets that do not fit well together.

Price/Earnings Multiple—the price of a share of stock divided by its earnings per share.

R

Rate of Return—an amount of income (loss) and/or change in value realized or anticipated on an investment, expressed as a percentage of that investment.

Report Date—the date conclusions are transmitted to the client.

Replacement Cost New—the current cost of a similar new property having the nearest equivalent utility to the property being valued.

Reproduction Cost New—the current cost of an identical new property.

Required Rate of Return—the minimum rate of return acceptable by investors before they will commit money to an investment at a given level of risk.

Residual Value—the value as of the end of the discrete projection period in a discounted future earnings model.

Return on Equity—the amount, expressed as a percentage, earned on a company's common equity for a given period.

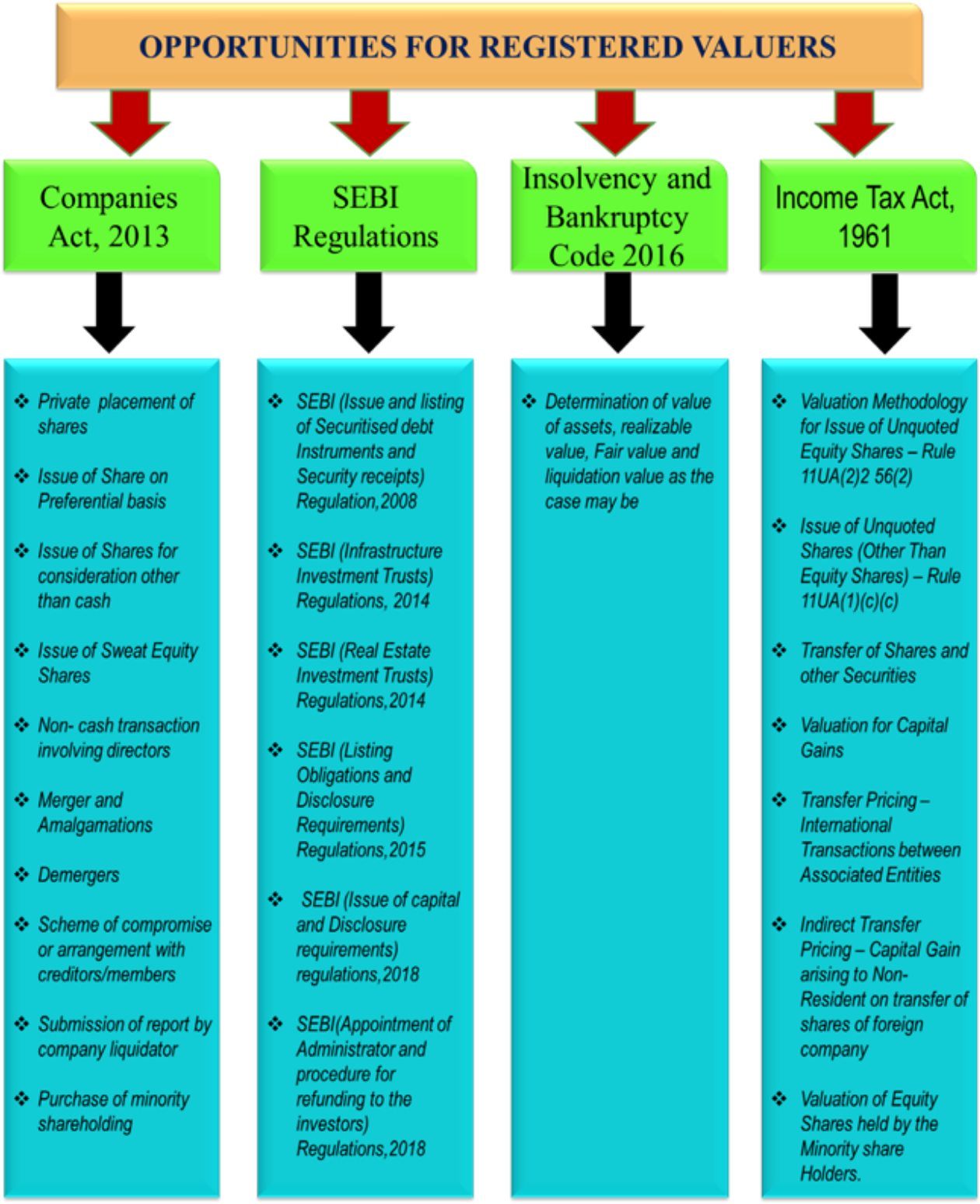
Return on Investment—see Return on Invested Capital and Return on Equity.

Return on Invested Capital—the amount, expressed as a percentage, earned on a company's total capital for a given period.

Risk-Free Rate—the rate of return available in the market on an investment free of default risk.

Risk Premium—a rate of return added to a risk-free rate to reflect risk.

Rule of Thumb—a mathematical formula developed from the relationship between price and certain variables based on experience, observation, hearsay, or a combination of these; usually industry specific.


OPPORTUNITIES FOR REGISTERED VALUERS
Companies Act, 2013
SEBI Regulations
Insolvency and Bankruptcy Code 2016
Income Tax Act, 1961
Private placement of shares
Issue of Share on Preferential basis
Issue of Shares for consideration other than cash
Issue of Sweat Equity Shares
Non- cash transaction involving directors
Merger and Amalgamations
Demergers
Scheme of compromise or arrangement with creditors/members
Submission of report by company liquidator
Purchase of minority shareholding
SEBI (Issue and listing of Securitised debt Instruments and Security receipts) Regulation,2008
SEBI (Infrastructure Investment Trusts) Regulations, 2014
SEBI (Real Estate Investment Trusts) Regulations,2014
SEBI (Listing Obligations and Disclosure Requirements) Regulations,2015
SEBI (Issue of capital and Disclosure requirements) regulations,2018
SEBI(Appointment of Administrator and procedure for refunding to the investors) Regulations,2018
Determination of value of assets, realizable value, Fair value and liquidation value as the case may be
Valuation Methodology for Issue of Unquoted Equity Shares – Rule 11UA(2)2 56(2)
Issue of Unquoted Shares (Other Than Equity Shares) – Rule 11UA(1)(c)(c)
Transfer of Shares and other Securities
Valuation for Capital Gains
Transfer Pricing – International Transactions between Associated Entities
Indirect Transfer Pricing – Capital Gain arising to Non-Resident on transfer of shares of foreign company
Valuation of Equity Shares held by the Minority share Holders.

Process for becoming Register Valuer

PROCESS FOR BECOMING REGISTERED VALUER

1. Meet eligibility requirements, qualification and experience prescribed under Rule 4 of the Companies (Registered Valuers and valuation) Rules, 2017
2. Seek enrolment as a valuer member of ICMAIRVO
3. Complete 50 Hours Educational Course
4. Register and pass computer based Examination conductedby IBBI
5. Submit required Form along with fee in favourof IBBI and supporting documents to ICMAI RVO
6. ICMAI RVO shall verify Form& other Requirements and forward the same along with its recommendation to IBBI
7. On receipt of Form along with recommendation of ICMAI RVO, fee and other documents,IBBI shall Process the application for registration
8. After registration with IBBI, take up COP training with ICMAI RVO
9. On completion of training ICMAI RVO shall issue a Certificate of Practice to the Registered Valuer
10. Valuation certificate can be issued only after obtaining Certificate of Practice

ICMAI REGISTERED VALUERS ORGANISATION

RECOGNISED RVO UNDER INSOLVENCY AND BANKRUPTCY BOARD OF INDIA

GUIDELINES FOR ARTICLES

The articles sent for publication in the journal "The Valuation Professional" should conform to the following parameters, which are crucial in selection of the article for publication:

- The article should be original, i.e. Not Published/ broadcasted/hosted elsewhere including any website.
- A declaration in this regard should be submitted to ICMAI-RVO in writing at the time of submission of article.
- The article should be topical and should discuss a matter of current interest to the professionals/readers.
- It should preferably expose the readers to new knowledge area and discuss a new or innovative idea that the professionals/readers should be aware of.
- The length of the article should not exceed 2500-3000 words.
- The article should also have an executive summary of around 100 words.
- The article should contain headings, which should be clear, short, catchy and interesting.
- The authors must provide the list of references, if any at the end of article.
- A brief profile of the author, e-mail ID, postal address and contact numbers and declaration regarding the originality of the article as mentioned above should be enclosed along with the article.
- In case the article is found not suitable for publication, the same shall be communicated to the members, by e-mail.