

5. Carbon Footprinting and Exposure Metrics

The tables below provide descriptions, formulas, and additional information for common carbon footprinting and exposure metrics. Table 2 provides details on GHG emissions metrics for banks, asset owners, and asset managers. Table 3 (p. 52) provides carbon footprinting metrics that organizations may find useful to report, including weighted average carbon intensity for both investing and insurance underwriting activities.

Table 2

GHG Emissions Metrics for Banks, Asset Owners, and Asset Managers

Asset Class	Description	Formula	Activities	
			Lending	Investing
Listed Equity	Equity that is traded on a stock exchange or another securities exchange and is on the balance sheet of the financial institution.	$\sum_c \left(\frac{\text{Outstanding amount}_c}{EVIC_c} \times \text{Company emissions}_c \right)$ <p>EVIC = enterprise value including cash⁹⁸</p> <p>Note: the value of outstanding listed equity is defined based on its market value (i.e., market price times number of shares). See page 49 of the PCAF Standard.</p>	--	✓
Listed Corporate Bonds	Listed corporate bonds that are traded on a market and are on the balance sheet of the financial institution.	<p>To private companies:</p> $\sum_c \left(\frac{\text{Outstanding amount}_c}{\text{Total equity} + \text{debt}_c} \times \text{Company emissions}_c \right)$ <p>c = borrower or investee company</p> <p>To listed companies:</p> $\sum_c \left(\frac{\text{Outstanding amount}_c}{EVIC_c} \times \text{Company emissions}_c \right)$ <p>EVIC = enterprise value including cash c = borrower or investee company</p> <p>Note: the value of outstanding corporate bonds is defined based on the book value of the debt that the borrower owes to the lender. See page 49 of the PCAF Standard.</p>	--	✓
Business Loans	All loans and lines of credit for general corporate purposes to businesses, nonprofits, and any other structure of organization that are not traded on a market and are on the balance of the financial institution.	<p>To listed companies:</p> $\sum_c \left(\frac{\text{Outstanding amount}_c}{EVIC_c} \times \text{Company emissions}_c \right)$ <p>To private companies:</p> $\sum_c \left(\frac{\text{Outstanding amount}_c}{\text{Total equity} + \text{debt}_c} \times \text{Company emissions}_c \right)$ <p>EVIC = enterprise value including cash c = borrower or investee company</p>	✓	--

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⁹⁸ PCAF Standard aligns with the definition of EVIC as provided by the EU Technical Expert Group on Sustainable Finance's *Handbook on Climate Benchmarks and benchmarks' ESG disclosures*, defined as: "The sum of the market capitalization of ordinary shares at fiscal year-end, the market capitalization of preferred shares at fiscal year-end, and the book values of total debt and minorities' interests. No deductions of cash or cash equivalents are made to avoid the possibility of negative enterprise values" (PCAF Standard, p. 62).

Table 2

GHG Emissions Metrics for Banks, Asset Owners, and Asset Managers (continued)

Asset Class	Description	Formula	Activities	
			Lending	Investing
Unlisted Equity	All equity investments for general corporate purposes to businesses, nonprofits, and any other structure of organization that are not traded on a market and are on the balance sheet of the financial institution.	$\sum_c \left(\frac{\text{Outstanding amount}_c}{\text{Total equity} + \text{debt}_c} \times \text{Company emissions}_c \right)$ <p>c = borrower or investee company</p> <p>Note: the outstanding amount is the outstanding value of equity that the financial institution holds in the private company. It is calculated by multiplying the relative share of the financial institution in the respective investee by the total equity of the respective investee according to its balance sheet. See pp. 61-62 of the PCAF Standard.</p>	--	✓
Project Finance	All loans or equities to projects for specific purposes that are on the balance sheet of the financial institution.	$\sum_p \left(\frac{\text{Outstanding amount}_p}{\text{Total equity} + \text{debt}_p} \times \text{Project emissions}_p \right)$ <p>p = project</p>	✓	✓
Commercial Real Estate (CRE)	On-balance sheet loans and investments for the purchase and refinance of commercial real estate (CRE).	$\sum_b \left(\frac{\text{Outstanding amount}_b}{\text{Property value at origination}_b} \times \text{Energy consumption}_{b,e} \times \text{Emission factor}_e \right)$ <p>b = building e = energy source</p>	✓	✓
Mortgages	On-balance sheet loans for the purchase and refinance of residential property, including individual homes and multifamily homes with a small number of units.	$\sum_b \left(\frac{\text{Outstanding amount}_b}{\text{Property value at origination}_b} \times \text{Energy consumption}_{b,e} \times \text{Emission factor}_e \right)$ <p>b = building e = energy source</p>	✓	--
Motor Vehicle Loans	On-balance sheet loans and lines of credit to businesses and consumers that are used to finance one or several motor vehicles.	$\sum_{v,f} \left(\frac{\text{Outstanding amount}_v}{\text{Total value at origination}_v} \times \text{Distance traveled}_v \times \text{Efficiency}_{v,f} \times \text{Emission factor}_f \right)$ <p>v = vehicle or vehicle fleet f = fuel type</p>	✓	--

Note: PCAF continues to add asset classes. Financial organizations (referred to as financial institutions by PCAF) should refer to the [PCAF Standard](#) for the latest guidance on measuring GHG emissions.⁹⁹

⁹⁹ For further details on these metrics, see PCAF, *The Global GHG Accounting and Reporting Standard for the Financial Industry*, November 2020.