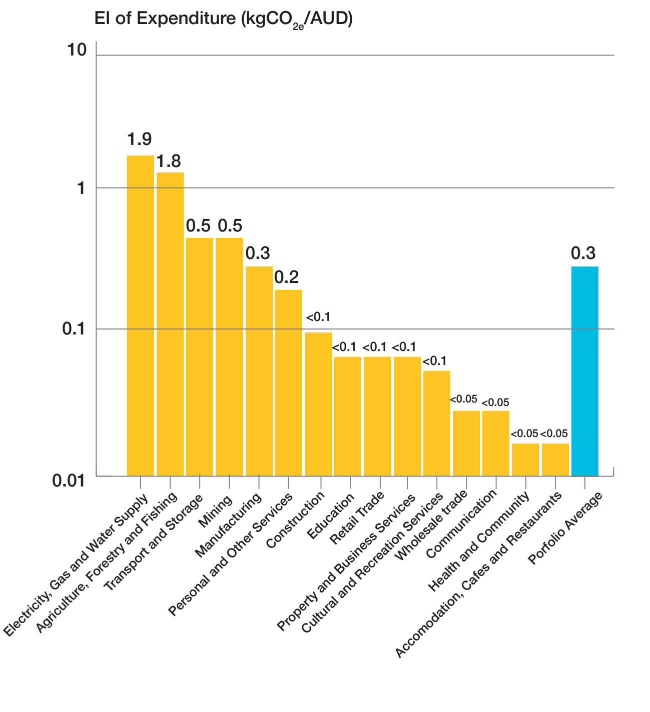
# ASSESSED CARBON EMISSIONS OF THE GROUP'S BUSINESS LENDING PORTFOLIO.

As a major provider of lending services, the Commonwealth Bank plays a crucial role in supporting economic and social development. The projects and industries we lend to also have impacts on the environment, and in accordance with our Environmental, Social and Governance Lending Commitments we are committed to assessing and mitigating these impacts. We have therefore undertaken to assess the carbon emissions arising from our business lending. These insights, and the detailed diagnostics behind them, provide us with a robust quantitative basis to identify and act on key opportunities to reduce the carbon emissions arising from our business lending portfolio.

The Electricity, Gas and Water Supply sector, along with the Agriculture, Forestry and Fishing sector, represent the most emissions intensive part of the CBA lending portfolio.

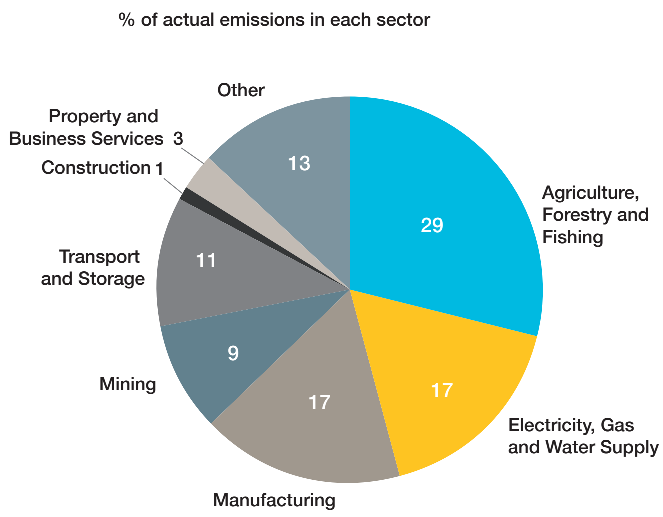
**Figure 1.**
**CBA Group Business Lending Emissions Intensity (EI) of Expenditure**




Weighted average EI of expenditure includes a double count of electricity scope 1 emissions across all sectors. Sector classification defined by ANZSIC main business activity.

CBA's emissions profile (figure 2) shows the industry sectors that account for the majority of CBA's emissions arising from business lending. The Agriculture, Electricity, Manufacturing, Transport and Mining sectors account for over 80% of business lending portfolio emissions.

**Figure 2.**
**CBA Group Business Lending Emissions Profile**




Refer to 2015 Full Year Results presentation – update by CEO and CFO, page 119 for CBA Group Sector Exposures and page 91 for a more detailed focus on the assessed financed emissions of Group Lending to the Energy Sector.

# $CO_{2E}$ EMISSIONS METHOD – BUSINESS LENDING PORTFOLIO.

The financed emissions analysis was conducted by EY, as informed by the principles set out in the GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard. This approach draws on the emerging protocols being discussed through the Greenhouse Gas Protocol and United Nations Environment Programme Finance Initiative (UNEP FI) working group.

## Financed emissions method

In estimating the emissions arising from its lending activities, the Group used client-specific emissions where available, and modelled sector-specific emissions intensity data for its remaining lending exposures.

Client-Specific Emissions - The Group focussed on identifying client-specific emissions for those clients to which the Group has a material exposure, and for emissions-intensive industry sectors. Emissions data were sourced from the Australian National Greenhouse and Energy Reporting scheme, the Australian National Greenhouse Gas Inventory, publicly available reports, subscription data providers or other company disclosures and known performance measures. The proportion of CBA debt exposure for which client-specific emissions data was available differed by sector. For example, in iron and steel manufacturing, client-specific emissions data was available for 90% of CBA debt exposure, compared to Property Operators and Developers where the proportion was 8%.

Sector-Specific Average Emissions – For each Australian and New Zealand Standard Industrial Classification (ANZSIC) code at the class level, an emissions intensity value was derived. This was calculated based on the emissions intensity of expenditure in the sector, through the use of a multi-regional input-output model called Eora, owned by KGM & Associates.  Input-output models use national economic data to model financial (and other) flows within the economy. The Eora model also includes country-specific emissions data to determine an emission intensity value at each ANZSIC class level. Our analysis utilised country-specific data for Australia, New Zealand and the United States of America. Where clients were domiciled in countries other than these, Australia-specific intensity data was used.

## Allocation of emissions to the Group

For larger entities and where emissions and financial data were available, client emissions were allocated to the Group in proportion to June 2014 Group's debt exposure to the client as a percentage of the client's total enterprise value (debt plus equity).

- The Group's debt exposure is defined as the committed exposure of the bank to the client, less adjustments for derivative exposures (which were not included in the debt exposure).
- Total enterprise value was calculated using the equity, and current and non-current borrowings, reported on the balance sheet and through available financial databases.

For other clients where emissions or financial data was not available, a debt-to-expenditure relationship was developed to relate the Eora emissions intensity of expenditure data to the CBA debt exposure data. This was carried out by using data from IBISWorld to establish average debt-to-expenditure relationships for key sectors, and across the economy. This dataset was supplemented with additional data obtained by CBA for high-emissions sectors; however, as publicly available information was utilised, there were different levels of data availability for different sectors. Agriculture in particular had a very low level of data availability. In this case, the debt-to-expenditure relationship was estimated using data from the FY14 Australian Agricultural and Grazing Industries Survey (AAGIS) and the FY14 Australian Dairy Industry Survey (ADIS).

## Measures

$kgCO_{2e}$/AUD expenditure: Sum of CBA's allocated emissions arising per dollar of client expenditure. Client expenditure is the sum of capital and operating expenditure as reported or derived from financial databases.

Percentage of total portfolio emissions: CBA's allocated emissions for key sectors as a proportion of total estimated emissions.

## Limitations and Estimation

Each client loan is assigned to an ANZSIC code based on the main business activity of the client. As such, client-specific emissions and sector-specific emissions are applied against the entity's total financial data, and are not further broken down, for example, by relative percentage contribution of products or services (which could sit within different ANZSIC codes). There were some cases where Group clients were not assigned to a specific ANZSIC code. An uplift amount has been applied to emissions arising from these clients, based on the weighted average emissions-intensity of the total Group portfolio. Debt exposure to the Finance and Government ANZSIC divisions was excluded from the analysis.

Eora sector-specific emissions intensity values are inclusive of both scope 1 and scope 2 emissions. As such, scope 1 emissions created by the electricity generation sector are representative of the total scope 2 emissions across all other sectors. In order to fairly present actual emissions arising within each sector, we have included this 'double-count' within our reporting.

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