Package ‘r2dii.data’

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Title  Datasets to Align Financial Markets with Climate Goals

Version  0.0.3

Description  These datasets support the implementation in R of
the software ‘PACTA’ (Paris Agreement Capital Transition Assessment),
which is a free tool that calculates the alignment between financial
assets and climate scenarios (<https://2degrees-investing.org/>).
Financial institutions use ‘PACTA’ to study how their capital
allocation impacts the climate. Because both financial institutions
and market data providers keep their data private, this package
provides fake, public data to enable the development and use of
‘PACTA’ in R.

License  GPL-3

URL  https://github.com/2DegreesInvesting/r2dii.data

BugReports  https://github.com/2DegreesInvesting/r2dii.data/issues

Depends  R (>= 2.10)

Suggests  testthat (>= 2.1.0)

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**R topics documented:**

ald_demo .................................................. 2
classification_bridge .................................. 3
data_dictionary ......................................... 4
iso_codes .................................................. 5
loanbook_demo .......................................... 5
overwrite_demo ......................................... 7
region_isos .............................................. 8
sector_classifications .................................. 8

**Index**

ald_demo 10

### Description

Fake data about physical assets (e.g. wind turbine power plant capacities) used to assess the climate alignment of financial portfolios. It imitates data from market-intelligence databases. Demo datasets are synthetic because most financial data is strictly private; they help to demonstrate and test the implementation in R of 'PACTA' ([https://2degrees-investing.org/resource/pacta/](https://2degrees-investing.org/resource/pacta/)).

### Usage

ald_demo

### Format

ald_demo is a data.frame with columns:

- ald_timestamp (character): Date at which asset data was pulled from database.
- country_of_domicile (character): Country where company is registered.
- emission_factor (double): Company level emission factor of the technology.
- is_ultimate_listed_owner (logical): Flag if company is the listed ultimate parent.
- is_ultimate_owner (logical): Flag if company is the ultimate parent in our database.
- name_company (character): The name of the company owning the asset.
- number_of_assets (integer): Number of assets of a given technology owned by the company.
- plant_location (character): Country where asset is located.
- production (double): Company level production of the technology.
- production_unit (character): The units that production is measured in.
- sector (character): Sector to which the asset belongs.
- technology (character): Technology implemented by the asset.
- year (integer): Year at which the production value is predicted.
classification_bridge

See Also
data_dictionary
Other demo datasets: loanbook_demo, overwrite_demo

Examples
head(ald_demo)

classification_bridge  Datasets to bridge (translate) common sector-classification codes

Description
These datasets serve as a translation key between common sector-classification systems and sectors relevant to the 'PACTA' tool (https://2degrees-investing.org/resource/pacta/).
Classification datasets help to standardize sector classification codes from the wild to a relevant subset including 'power', 'oil and gas', 'coal', 'automotive', 'aviation', 'concrete', 'steel', and 'shipping'.

Usage
isic_classification
nace_classification
naics_classification

Format
classification_bridge is a data.frame with columns:
  • borderline (logical): Flag indicating if 2dii sector and classification code are a borderline match.
  • code (character): Original ISIC code.
  • code_level (double): Level of granularity of ISIC code.
  • sector (character): Associated 2dii sector.
nace_classification is a data.frame with columns:
  • borderline (logical): Flag indicating if 2dii sector and classification code are a borderline match.
  • code (double): Formatted NACE code removing periods.
  • code_level (double): Level of granularity of NACE code.
  • original_code (double): Original NACE code.
  • sector (character): Associated 2dii sector.
naics_classification is a data.frame with columns:

- borderline (logical): Flag indicating if 2dii sector and classification code are a borderline match.
- code (double): Formatted NAICS code.
- code_level (double): Level of granularity of NAICS code.
- original_code (double): Original NAICS code.
- sector (character): Associated 2dii sector.

See Also

data_dictionary.
Other datasets for bridging sector classification codes: sector_classifications

Examples

head(isic_classification)
head(nace_classification)
head(naics_classification)

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data_dictionary

Column definitions of all datasets

Description

This dataset provides metadata about all datasets in the package r2dii.data.

Usage

data_dictionary

Format

data_dictionary is a data.frame with columns:

- column (character): The name of a dataset-column.
- dataset (character): The name of a dataset.
- definition (character): The definition of a dataset-column.
- typeof (character): The result of typeof(), one of double, integer, logical, or character.

Examples

head(data_dictionary)
iso_codes

## Countries and codes

### Description

This dataset maps countries to codes.

For information about the ISO standard for country codes see [https://www.iso.org/iso-3166-country-codes.html](https://www.iso.org/iso-3166-country-codes.html).

### Usage

iso_codes

### Format

iso_codes is a data.frame with columns:

- country (character): Country name.
- country_iso (character): Corresponding ISO code.

### See Also

data_dictionary

Other iso codes: region_isos

### Examples

head(iso_codes)

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### loanbook_demo

**A loanbook dataset for demonstration**

### Description

Fake financial portfolio.

Demo datasets are synthetic because most financial data is strictly private; they help to demonstrate and test the implementation in R of 'PACTA' ([https://2degrees-investing.org/resource/pacta/](https://2degrees-investing.org/resource/pacta/)).

### Usage

loanbook_demo
Format

loanbook_demo is a data.frame with columns:

- fi_type (character): Financial instrument name or asset class.
- flag_project_finance_loan (character): Project finance flag denoting whether a loan is given out to a particular asset or not.
- id_direct_loantaker (character): Borrower identifier unique to each borrower/sector combination in loanbook.
- id_intermediate_parent_n (character): Optional input: id of the n-th intermediate parent company within the company structure that can be used for more granular mapping than the ultimate parent. Smaller values of n are closer to the direct_loantaker.
- id_loan (character): Unique loan identifier.
- id_ultimate_parent (character): Ultimate parent identifier unique to each ultimate parent/sector combination.
- isin_direct_loantaker (logical): Optional input: providing the isin identifier of the direct loan taker to improve the matching coverage.
- lei_direct_loantaker (logical): Optional input: providing the lei (legal entity identifier) of the direct loan taker to improve the matching coverage.
- loan_size_credit_limit (double): Total credit limit or exposure at default.
- loan_size_credit_limit_currency (character): Currency corresponding to credit limit.
- loan_size_outstanding (double): Amount drawn by borrower from total credit limit.
- loan_size_outstanding_currency (character): Currency corresponding to outstandings.
- name_direct_loantaker (character): Name of the company directly taking the loan.
- name_intermediate_parent_n (character): Optional input: name of intermediate parent company within the company structure that can be used for more granular mapping than the ultimate parent. Smaller values of n are closer to the direct_loantaker.
- name_project (logical): Required input for loans with the flag_project_finance_loan = TRUE: Name of the project being financed.
- name_ultimate_parent (character): Name of the ultimate parent company to which the borrower belongs. Can be the same as borrower.
- sector_classification_direct_loantaker (double): Sector classification code of the direct loantaker.
- sector_classification_input_type (character): Flag identifying if the sector classification code or character description is used.
- sector_classification_system (character): Name of the sector classification standard being used.

See Also

data_dictionary

Other demo datasets: ald_demo, overwrite_demo

Examples

head(loanbook_demo)
overwrite_demo

A demonstration dataset used to overwrite specific entity names or sectors

Description

Fake dataset used to manually link loanbook entities to mismatched asset level entities.

Demo datasets are synthetic because most financial data is strictly private; they help to demonstrate and test the implementation in R of 'PACTA' (https://2degrees-investing.org/resource/pacta/).

Usage

overwrite_demo

Format

overwrite_demo is a data.frame with columns:

- `id_2dii` (character): IDs of the entities to overwrite.
- `level` (character): Which level should be overwritten (e.g. direct_loantaker or ultimate_parent).
- `name` (character): Overwrite name (if only overwriting sector, type NA).
- `sector` (character): Overwrite sector (if only overwriting name, type NA).
- `source` (character): What is the source of this information (leave as "manual" for now, may remove this flag later).

See Also

data_dictionary

Other demo datasets: ald_demo, loanbook_demo

Examples

head(overwrite_demo)
region_isos

**Description**
This dataset maps codes representing countries to regions.
For information about the ISO standard for country codes see [https://www.iso.org/iso-3166-country-codes.html](https://www.iso.org/iso-3166-country-codes.html).

**Usage**
region_isos

**Format**
region_isos is a data.frame with columns:
- isos (character): Countries in region, defined by iso code.
- region (character): Benchmark region name.

**See Also**
data_dictionary
Other iso codes: iso_codes

**Examples**
head(region_isos)

sector_classifications

**Description**
This dataset lists all sector classification code standards used by 'PACTA' ([https://2degrees-investing.org/resource/pacta/](https://2degrees-investing.org/resource/pacta/)).
Classification datasets help to standardize sector classification codes from the wild to a relevant subset including 'power', 'oil and gas', 'coal', 'automotive', 'aviation', 'concrete', 'steel', and 'shipping'.

**Usage**
sector_classifications
sector_classifications

Format

sector_classifications is a data.frame with columns:

- borderline (character): Flag indicating if 2dii sector and classification code are a borderline match.
- code (character): Formatted code.
- code_system (character): Code system.
- sector (character): Associated 2dii sector.

See Also

data_dictionary.

Other datasets for bridging sector classification codes: classification_bridge

Examples

head(sector_classifications)
Index

*Topic datasets
   ald_demo, 2
   classification_bridge, 3
   data_dictionary, 4
   iso_codes, 5
   loanbook_demo, 5
   overwrite_demo, 7
   region_isos, 8
   sector_classifications, 8

ald_demo, 2, 6, 7

classification_bridge, 3, 9

data.frame, 2–9

data_dictionary, 3, 4, 4, 5–9

isic_classification
   (classification_bridge), 3
iso_codes, 5, 8

loanbook_demo, 3, 5, 7

nace_classification
   (classification_bridge), 3

naics_classification
   (classification_bridge), 3

overwrite_demo, 3, 6, 7

region_isos, 5, 8

sector_classifications, 4, 8