Package 'econtools'

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Title Enrich and Analyze Sovereign-Level Economic Data

Version 0.1.0

Description Provides a consistent set of functions for enriching and analyzing sovereign-level economic data. Economists, data scientists, and financial professionals can use the package to add standardized identifiers, demographic and macroeconomic indicators, and derived metrics such as gross domestic product per capita or government expenditure shares.

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Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

URL https://github.com/tidy-intelligence/r-econtools, https://tidy-intelligence.github.io/r-econtools/

BugReports https://github.com/tidy-intelligence/r-econtools/issues

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Repository CRAN

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Contents

`add_gdp_column` *Add GDP to Country Data*

Description

Add GDP to Country Data

Usage

```
add_gdp_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  target_column = "gdp",
  usd = TRUE
)
```

Arguments

`df`	A data frame containing country identifiers.
`id_column`	Name of the column containing country identifiers.
`id_type`	Type of country identifier. Defaults to "iso3_code".
`date_column`	Optional. Name of the column containing dates for time-specific data.
`target_column`	Name of the output column. Defaults to "gdp".
`usd`	Logical. Indicates whether GDP should be in USD or local currency. Defaults to "TRUE".

Value

A data frame with an additional column containing GDP data.

Examples

```
# Add most recent GDP values
df <- data.frame(country = c("USA", "CHN", "DEU"))
result <- add_gdp_column(df, id_column = "country")

# Add year-specific GDP values
df <- data.frame(country = c("USA", "CHN"), year = c(2019, 2020))
result <- add_gdp_column(df, id_column = "country", date_column = "year")
```

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add_gov_exp_column *Add Government Expenditure to Country Data*

Description

Add Government Expenditure to Country Data

Usage

```
add_gov_exp_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  target_column = "gov_exp"
)
```

Arguments

df	A data frame containing country identifiers.
id_column	Name of the column containing country identifiers.
id_type	Type of country identifier. Defaults to "iso3_code".
date_column	Optional. Name of the column containing dates for time-specific data.
target_column	Name of the output column. Defaults to "gov_exp".

Value

A data frame with an additional column containing government expenditure data.

Examples

```
# Add government expenditure
df <- data.frame(country = c("USA", "GBR", "FRA"))
result <- add_gov_exp_column(df, id_column = "country")

# With years
df <- data.frame(country = c("USA", "GBR"), year = c(2010, 2020))
result <- add_gov_exp_column(df, id_column = "country", date_column = "year")
```

`add_gov_exp_share_column` *Add Government Expenditure as Share of GDP to Country Data*

Description

Add Government Expenditure as Share of GDP to Country Data

Usage

```
add_gov_exp_share_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  target_column = "gov_exp_share"
)
```

Arguments

`df`	A data frame containing country identifiers.
`id_column`	Name of the column containing country identifiers.
`id_type`	Type of country identifier. Defaults to "iso3_code".
`date_column`	Optional. Name of the column containing dates for time-specific data.
`target_column`	Name of the output column. Defaults to "gov_exp".

Value

A data frame with an additional column containing government expenditure as share of GDP data.

Examples

```
# Add government expenditure share of GDP
df <- data.frame(country = c("USA", "JPN", "AUS"))
result <- add_gov_exp_share_column(df, id_column = "country")

# With specific years
df <- data.frame(country = c("USA", "JPN"), year = c(2015, 2020))
result <- add_gov_exp_share_column(
  df, id_column = "country", date_column = "year"
)
```

`add_income_level_column` *Add Income Levels to Country Data*

Description

Add Income Levels to Country Data

Usage

```
add_income_level_column(
  df,
  id_column,
  id_type = "iso3_code",
  target_column = "income_level"
)
```

Arguments

`df`	A data frame containing country identifiers.
`id_column`	Name of the column containing country identifiers.
`id_type`	Type of country identifier. Defaults to "iso3_code".
`target_column`	Name of the output column. Defaults to "income_level".

Value

A data frame with a additional columns containing the income level ID and name.

Examples

```
# Add income levels using ISO3 codes
df <- data.frame(country = c("USA", "NGA", "IND"))
result <- add_income_level_column(df, id_column = "country")
```

`add_iso3_codes_column` *Add ISO-3 Codes to Country Data*

Description

Add ISO-3 Codes to Country Data

Usage

```
add_iso3_codes_column(df, id_column, target_column = "iso3_code")
```

Arguments

`df`	A data frame containing country identifiers.
`id_column`	Name of the column containing country identifiers.
`target_column`	Name of the output column. Defaults to "iso3_code".

Value

A data frame with an additional column containing the ISO-3 code.

Examples

```
# Convert country names to ISO3 codes
df <- data.frame(name = c("United States", "Canada", "Mexico"))
result <- add_iso3_codes_column(df, id_column = "name")
```

add_population_column *Add Population Column to Country Data*

Description

Add Population Column to Country Data

Usage

```
add_population_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  target_column = "population"
)
```

Arguments

df	A data frame containing country identifiers.
id_column	Name of the column containing country identifiers.
id_type	Type of country identifier. Defaults to "iso3_code".
date_column	Optional. Name of the column containing dates for time-specific data.
target_column	Name of the output column. Defaults to "population".

Value

A data frame with an additional column containing population data.

Examples

```
# Add population data using ISO3 codes
df <- data.frame(country = c("USA", "CAN", "MEX"))
result <- add_population_column(df, id_column = "country")

# Add population data with specific dates
df <- data.frame(country = c("USA", "CAN"), year = c(2019, 2020))
result <- add_population_column(
 df, id_column = "country", date_column = "year"
)
```

add_population_density_column *Add Population Density Column to Country Data*

Description

Add Population Density Column to Country Data

Usage

```
add_population_density_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  target_column = "population_density"
)
```

Arguments

df	A data frame containing country identifiers.
id_column	Name of the column containing country identifiers.
id_type	Type of country identifier. Defaults to "iso3_code".
date_column	Optional. Name of the column containing dates for time-specific data.
target_column	Name of the output column. Defaults to "population_density".

Value

A data frame with an additional column containing population density data.

Examples

```
# Add population density using ISO3 codes
df <- data.frame(country = c("FRA", "DEU", "ESP"))
result <- add_population_density_column(df, id_column = "country")

# Add population density with year
df <- data.frame(country = c("FRA", "DEU"), year = c(2015, 2020))
result <- add_population_density_column(
  df, id_column = "country", date_column = "year"
)
```

add_population_share_column *Add Population Share Column to Country Data*

Description

Add Population Share Column to Country Data

Usage

```
add_population_share_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  value_column = "value",
  target_column = "population_share"
)
```

Arguments

df	A data frame containing country identifiers.
id_column	Name of the column containing country identifiers.
id_type	Type of country identifier. Defaults to "iso3_code".
date_column	Optional. Name of the column containing dates for time-specific data.
value_column	Name of the column containing the value to divided by population.
target_column	Name of the output column. Defaults to "population_share".

Value

A data frame with an additional column containing a new column with a value divided by population.

Examples

```
# Compute value as a share of population
df <- data.frame(country = c("USA", "CAN"), value = c(1000, 2000))
result <- add_population_share_column(
  df, id_column = "country", value_column = "value"
)

# With year-specific values
df <- data.frame(
  country = c("USA", "CAN"),
  year = c(2019, 2020),
  value = c(1500, 1800)
```

```
)
result <- add_population_share_column(
  df, id_column = "country", date_column = "year"
)
```

---

add_poverty_ratio_column *Add Poverty Ratio Column to Country Data*

Description

Add Poverty Ratio Column to Country Data

Usage

```
add_poverty_ratio_column(
  df,
  id_column,
  id_type = "iso3_code",
  date_column = NULL,
  target_column = "poverty_ratio"
)
```

Arguments

df	A data frame containing country identifiers.
id_column	Name of the column containing country identifiers.
id_type	Type of country identifier. Defaults to "iso3_code".
date_column	Optional. Name of the column containing dates for time-specific data.
target_column	Name of the output column. Defaults to "poverty_ratio".

Value

A data frame with an additional column containing poverty ratio data.

Examples

```
# Add poverty ratio using ISO3 codes
df <- data.frame(country = c("USA", "IND", "BRA"))
result <- add_poverty_ratio_column(df, id_column = "country")

# Add poverty ratio with specific dates
df <- data.frame(country = c("USA", "IND"), year = c(2018, 2020))
result <- add_poverty_ratio_column(
```

```
  df, id_column = "country", date_column = "year"
)
```

`add_short_names_column` *Add Short Names to Country Data*

Description

Add Short Names to Country Data

Usage

```
add_short_names_column(df, id_column, target_column = "name_short")
```

Arguments

`df`	A data frame containing country identifiers.
`id_column`	Name of the column containing country identifiers.
`target_column`	Name of the output column. Defaults to "name_short".

Value

A data frame with an additional column containing the short names.

Examples

```
# Add short names using ISO3 codes
df <- data.frame(country = c("USA", "FRA", "JPN"))
result <- add_short_names_column(df, id_column = "country")
```

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