Sources of Real Economic Growth - PDF and LaTeX

See discussion on the RStudio Community Table Gallery

This is adapted from this LinkedIn Post, by Mike Jadoo.

Table - Sources of Real Economic Growth

```
gt_tbl <-
  readxl::read_excel("sources_of_real_economic_growth.xlsx", sheet = "data") %>%
  dplyr::select(Years, Output, LaborC, CapitalC, TFP) %>%
  gt() %>%

  #center align columns
  cols_align(align = c("center"), columns = everything()) %>%

  # Add column labels
  cols_label(
    Years = "Periods",
    Output = "Real GDP",
    LaborC = md("Labor Input • (*a*)"),
    CapitalC = md("Capital Input • (1 - *a*)"),
    TFP = "Total Factor Productivity"
  ) %>%

  # resize Capital Input column
  cols_width(CapitalC ~ pct(20)) %>%

  # resize font size.
  tab_options(
    table.width = pct(80),
    table.font.size = "smaller",
    column_labels.font.size = "small"
  ) %>%

  # Add table title and subtitle
  tab_header(
    title = "Source of Real Economic Growth",
    subtitle = "Private Non-Farm Business"
  ) %>%

  # Add and title a column label spanner
  tab_spanner(
    label = html("= Labor Input* + Capital Input* + TFP"),
    columns = matches("LaborC|CapitalC|TFP")
  ) %>%
```

```
  # Add and format footnotes
  # Note the md() function to handle markdown, will convert this to HTML,
  # LaTeX or other, defined by yaml output parameter.
  tab_source_note(md("\\* Contribution points towards output growth.")) %>%
  tab_source_note(md("Here, *a* is the average labor cost share.")) %>%
  tab_source_note(md("Source: Bureau of Labor Statistics.")) %>%
  tab_footnote(
    footnote = "Excludes Nonprofits, Private Households, Owner-occupied Housing,
    Government and Government Enterprise.",
    locations = cells_column_labels(columns = Output)
  ) %>%
  tab_options(source_notes.multiline = FALSE)

gt_tbl
```

Source of Real Economic Growth

Private Non-Farm Business

		= Labor Input* + Capital Input* + TFP		
Periods	Real GDP[1]	Labor Input • (a)	Capital Input • (1 - a)	Total Factor Productivity
1987-2020	2.7	0.8	1.2	0.7
1987-2021	2.8	0.8	1.2	0.8
2000-2007	2.8	0.2	2.3	1.3
2007-2019	2.0	0.4	1.6	0.5
2020	-4.3	-3.3	1.0	-2.0
2021	7.4	3.4	0.7	3.2

[1]Excludes Nonprofits, Private Households, Owner-occupied Housing, Government and Government Enterprise.
* Contribution points towards output growth. Here, a is the average labor cost share. Source: Bureau of Labor Statistics.

LaTeX Output

In the code chunk above we created out `gt` table. Suppose we want to export this into a format we can put into a LaTeX document, how would we approach that?

The `as_latex` function takes a `gt()` table object as input, and returns a `knit_asis` object which an R Markdown document, which makes it easy to include in R Markdown documents that are knited to PDF.

If you'd just like the LaTeX code, for example to paste that into a separate LaTeX document, use `cat()`, see below. Use `as.character()` instead of `cat` if you'd like this in a single line.

```
gt_tbl %>% as_latex() %>% cat()
```

```
\captionsetup[table]{labelformat=empty,skip=1pt}
\setlength{\LTpost}{0mm}
\begin{longtable}{ccccc}
\caption*{
{\large Source of Real Economic Growth} \\
{\small Private Non-Farm Business}
} \\
```

```
\toprule
 &  & \multicolumn{3}{c}{= Labor Input* + Capital Input* + TFP} \\
\cmidrule(lr){3-5}
Periods & Real GDP\textsuperscript{1} & Labor Input • (\emph{a}) & Capital Input • (1 - \emph{a}) & Tota
\midrule
1987-2020 & 2.7 & 0.8 & 1.2 & 0.7 \\
1987-2021 & 2.8 & 0.8 & 1.2 & 0.8 \\
2000-2007 & 2.8 & 0.2 & 2.3 & 1.3 \\
2007-2019 & 2.0 & 0.4 & 1.6 & 0.5 \\
2020 & -4.3 & -3.3 & 1.0 & -2.0 \\
2021 & 7.4 & 3.4 & 0.7 & 3.2 \\
\bottomrule
\end{longtable}
\begin{minipage}{\linewidth}
\textsuperscript{1}Excludes Nonprofits, Private Households, Owner-occupied Housing,
    Government and Government Enterprise.\\
* Contribution points towards output growth. Here, \emph{a} is the average labor cost share. Source: Bu
\end{minipage}
```