FIMSummary

Manuel Alcalá Kovalski

10/16/2020

```
## Warning: package 'tidyverse' was built under R version 4.0.2

## Warning: package 'ggplot2' was built under R version 4.0.2

## Warning: package 'tibble' was built under R version 4.0.2

## Warning: package 'tidyr' was built under R version 4.0.2

## Warning: package 'readr' was built under R version 4.0.2

## Warning: package 'purrr' was built under R version 4.0.2

## Warning: package 'dplyr' was built under R version 4.0.2

## Warning: package 'stringr' was built under R version 4.0.2

## Warning: package 'forcats' was built under R version 4.0.2

## Warning: package 'reshape2' was built under R version 4.0.2

## Warning: package 'zoo' was built under R version 4.0.2

## Warning: package 'quantmod' was built under R version 4.0.2

## Warning: package 'xts' was built under R version 4.0.2

## Warning: package 'TTR' was built under R version 4.0.2

## Warning: package 'data.table' was built under R version 4.0.2

## Warning: package 'lubridate' was built under R version 4.0.2

## Warning: package 'Hmisc' was built under R version 4.0.2

## Warning: package 'survival' was built under R version 4.0.2

## Warning: package 'magrittr' was built under R version 4.0.2
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## Warning: package ’readxl’ was built under R version 4.0.2

## Warning: package ’writexl’ was built under R version 4.0.2

## Warning: package ’ggthemes’ was built under R version 4.0.2

## Warning: package ’ggtext’ was built under R version 4.0.2

## Warning: package ’gridExtra’ was built under R version 4.0.2

## Warning: package ’wesanderson’ was built under R version 4.0.2

## Warning: package ’tinytex’ was built under R version 4.0.2

## Warning: Missing column names filled in: ’X1’ [1]

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## Warning: The ‘x‘ argument of ‘as_tibble()‘ can’t be missing as of lifecycle 3.0.0.
## This warning is displayed once every 8 hours.
## Call ‘lifecycle::last_warnings()‘ to see where this warning was generated.

## Warning: Missing column names filled in: ’X1’ [1]

## Warning in mask$eval_all_filter(dots, env_filter): Incompatible methods
## (">.Date", "Ops.data.frame") for ">"

## Warning: Problem with ‘mutate()‘ input ‘..1‘.
## i Incompatible methods (">=.Date", "Ops.data.frame") for ">="
## i Input ‘..1‘ is ‘across(...)‘.

## Warning in if_else(date >= mpc_lag & date <= Q4_2021,
## mpc_health_outlays_CRN19(.x), : Incompatible methods (">=.Date",
## "Ops.data.frame") for ">="

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## "Ops.data.frame") for ">="

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## Warning in if_else(date >= mpc_lag & date <= Q4_2021,
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```
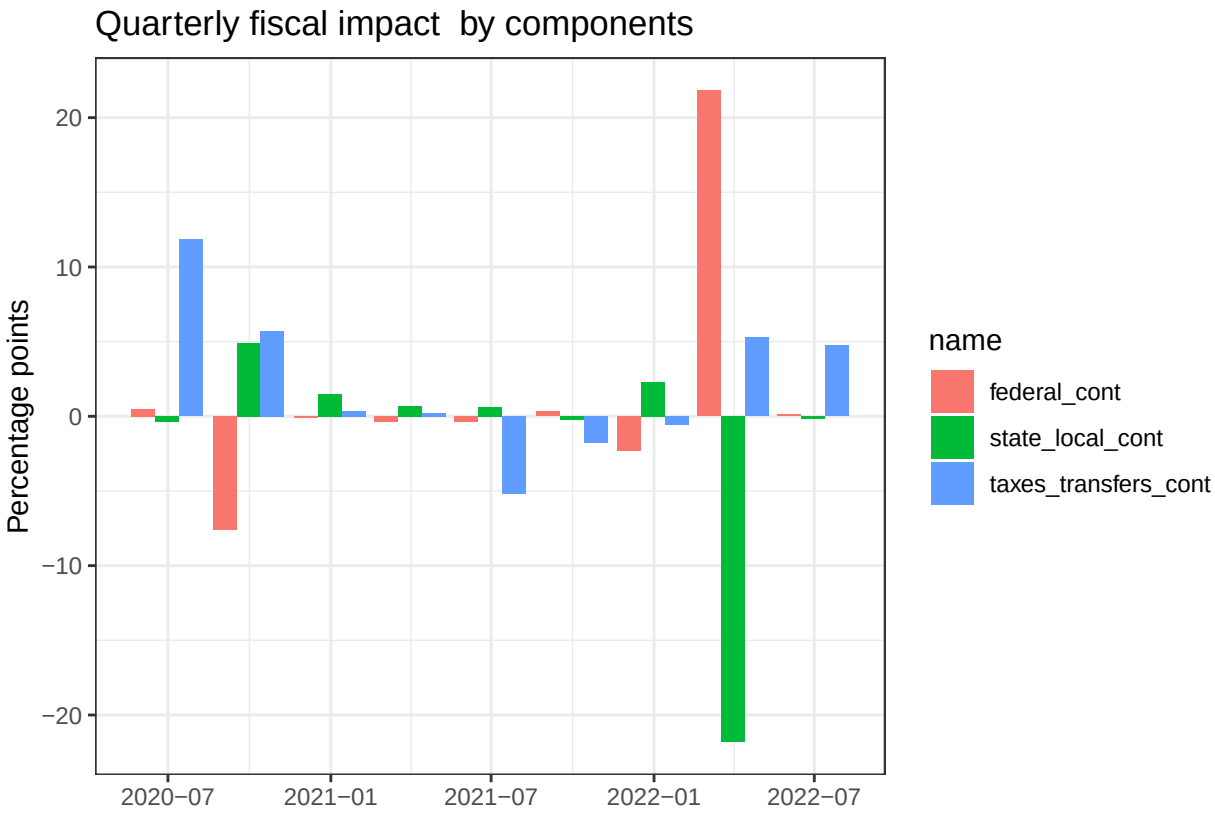

Components

Our quarterly fiscal impact measure is:

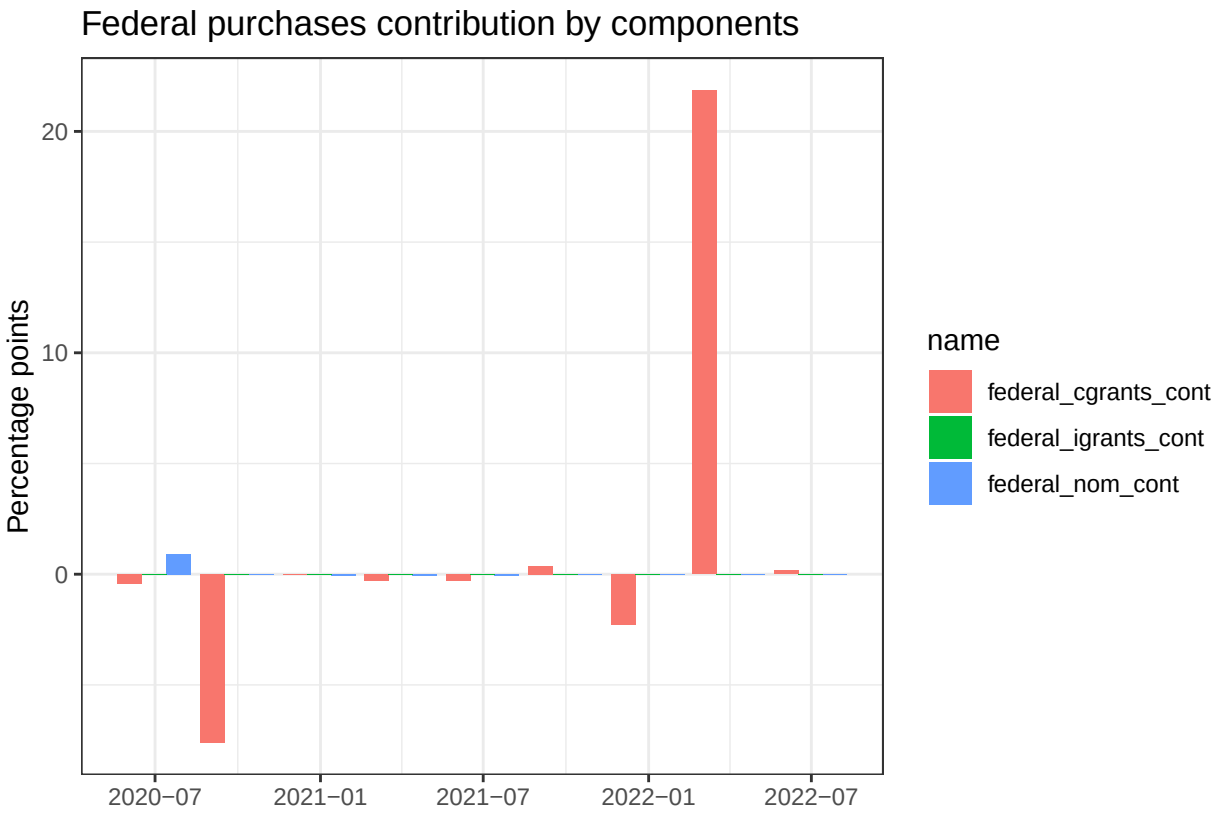
$$FIM_t = FIM_t^{Fed} + FIM_t^{S\&L} + FIM^{Taxes\ \&\ Transfers}$$



Federal purchases

The contribution of federal purchases is the sum of the contributions of federal spending, consumption grants, and investment grants to GDP.

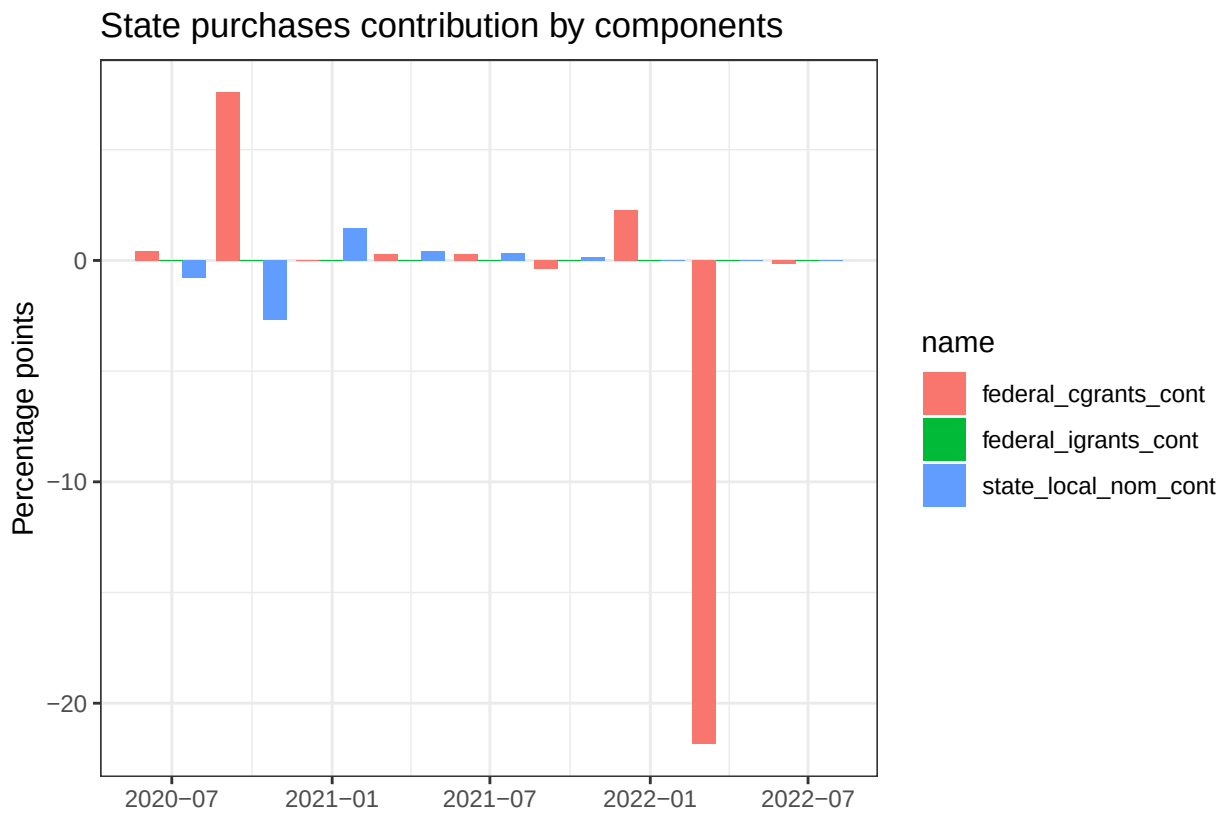
$$FIM_t^{Fed,\ Purchases} = FIM_t^{Fed,\ Spending} + FIM_t^{Fed,\ Consumption\ Grants} + FIM_t^{Fed,\ Investment\ Grants}$$



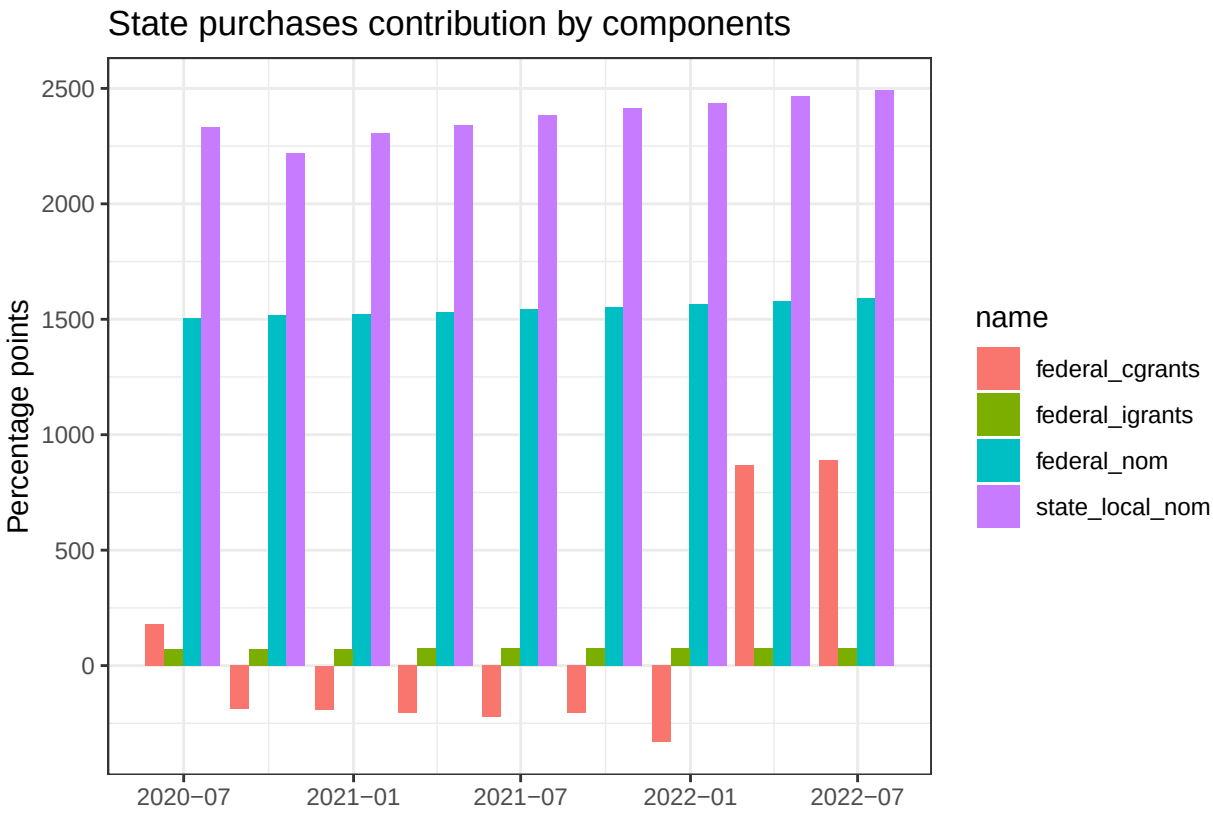
State purchases

Similarily, the contribution of state & local purchases is the sum of the contributions of State & Local spending minus consumption grants, and investment grants to GDP. That is,

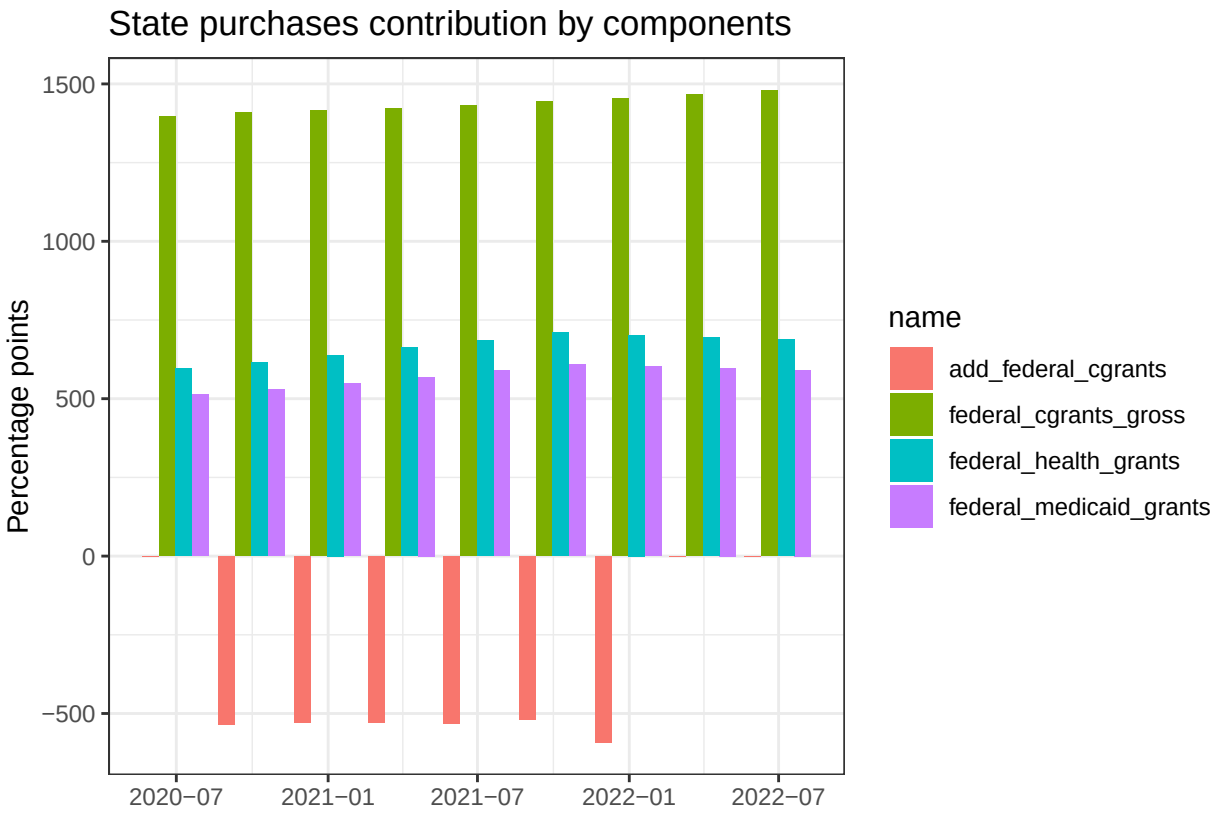
$$FIM_t^{S\&L,\ Purchases} = FIM_t^{S\&L,\ Spending} - FIM_t^{Fed,\ Consumption\ Grants} - FIM_t^{Fed,\ Investment\ Grants}$$



The pieces used to calculate these contributions were nominal federal and S&L spending, federal consumption grants, and investment grants. Federal consumption grants consist of federal consumption grants to state net of Medicaid grants.

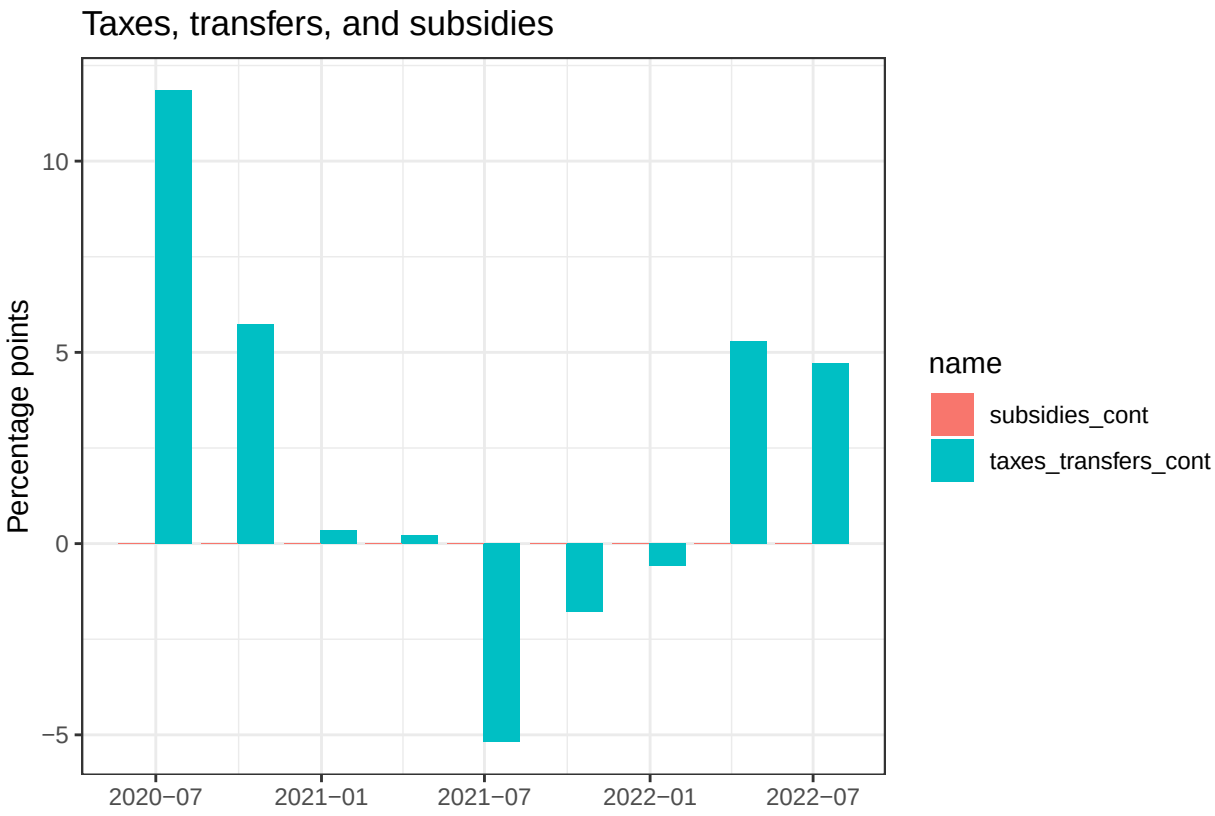


To understand the level of our federal cgrants we must know the levels for gross consumption grants, medicaid grants, health and hospital grants. Because of COVID legislation, we also need to know our add factor for net consumption grants.



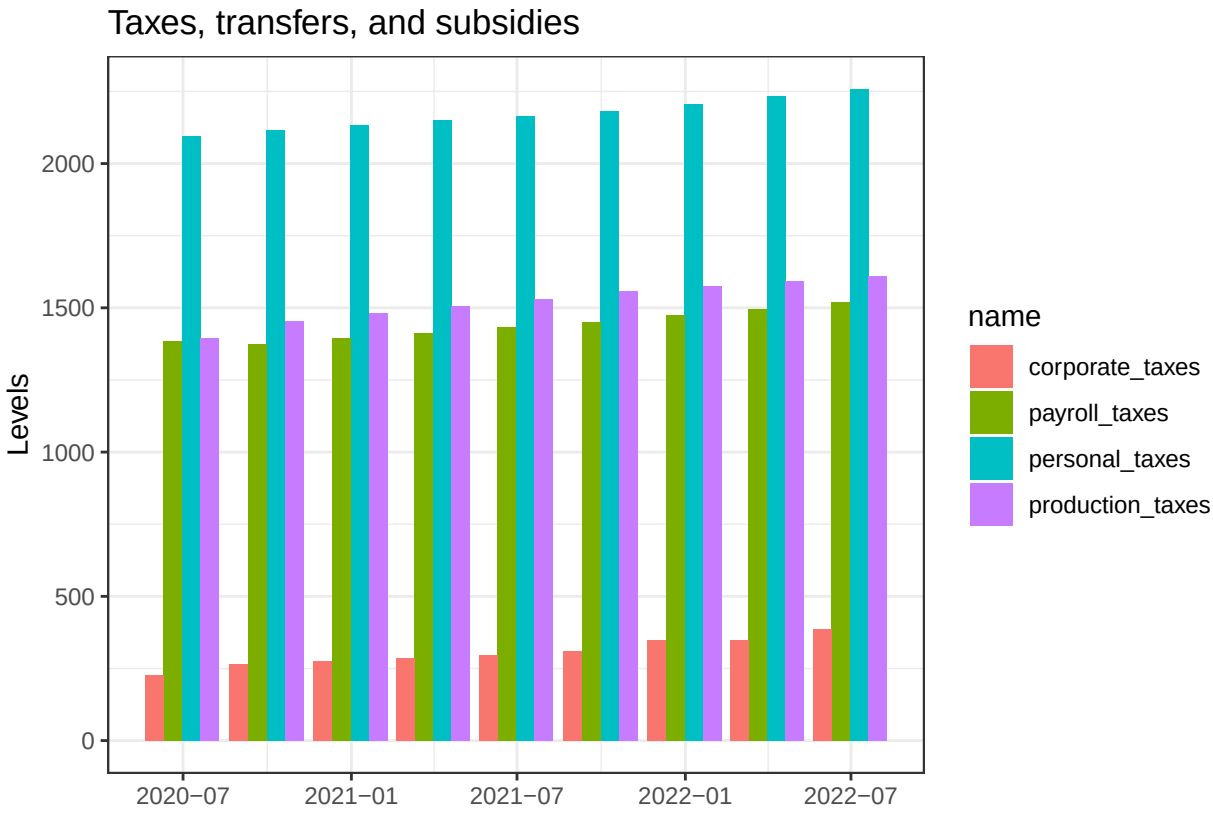
Taxes, transfers and subsidies

$$FIM^{Taxes\ \&\ Transfers} = FIM^{Taxes\ \&\ Transfers} + FIM^{Subsidies}$$

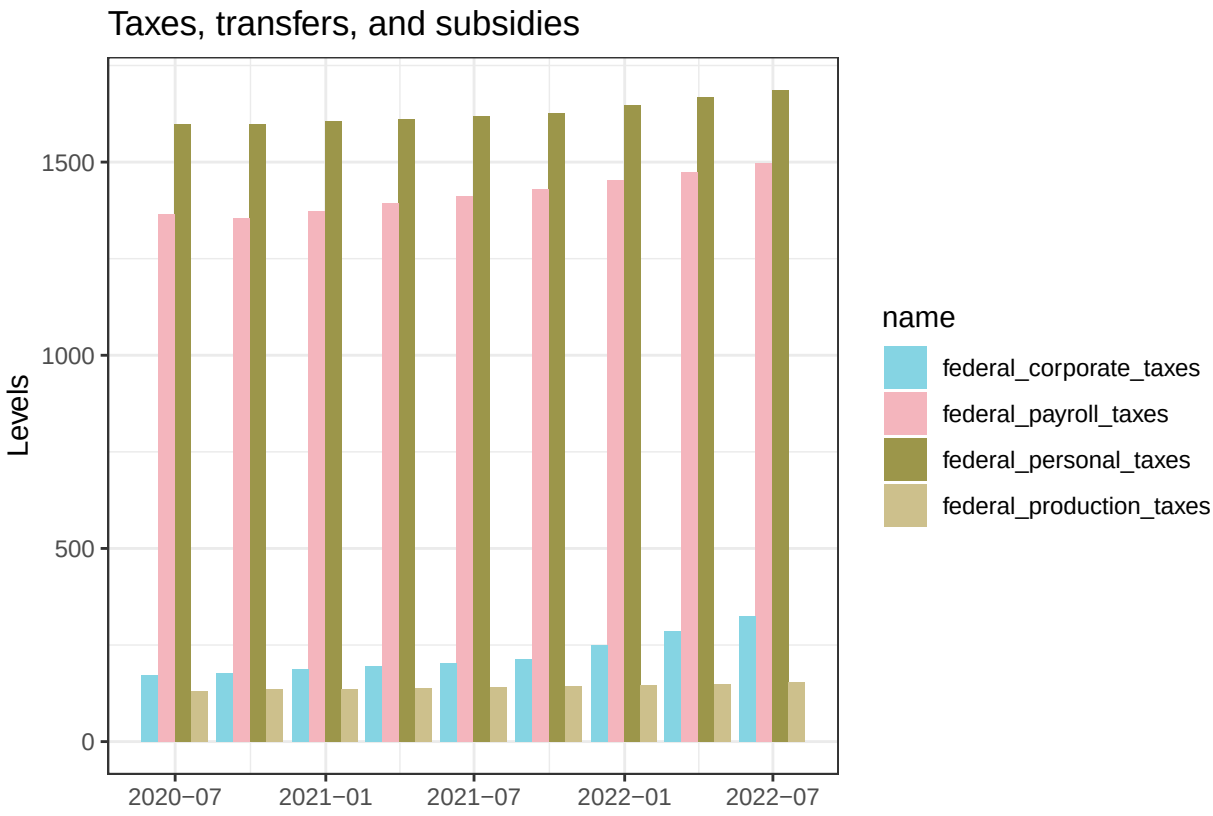

Taxes, transfers, and subsidies
Percentage points
10
5
0
−5
2020−07
2021−01
2021−07
2022−01
2022−07
name
subsidies_cont
taxes_transfers_cont

Taxes, transfers, subsidies by level of government

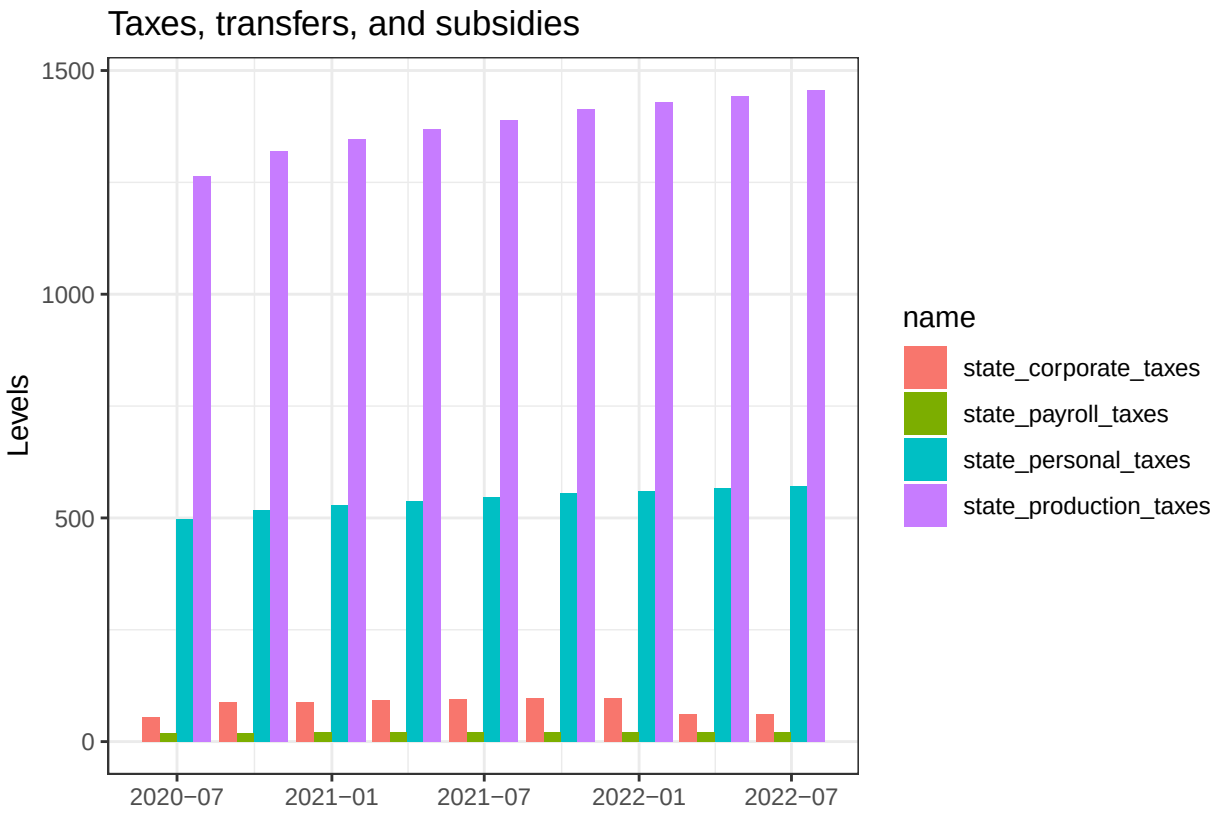
Government Taxes



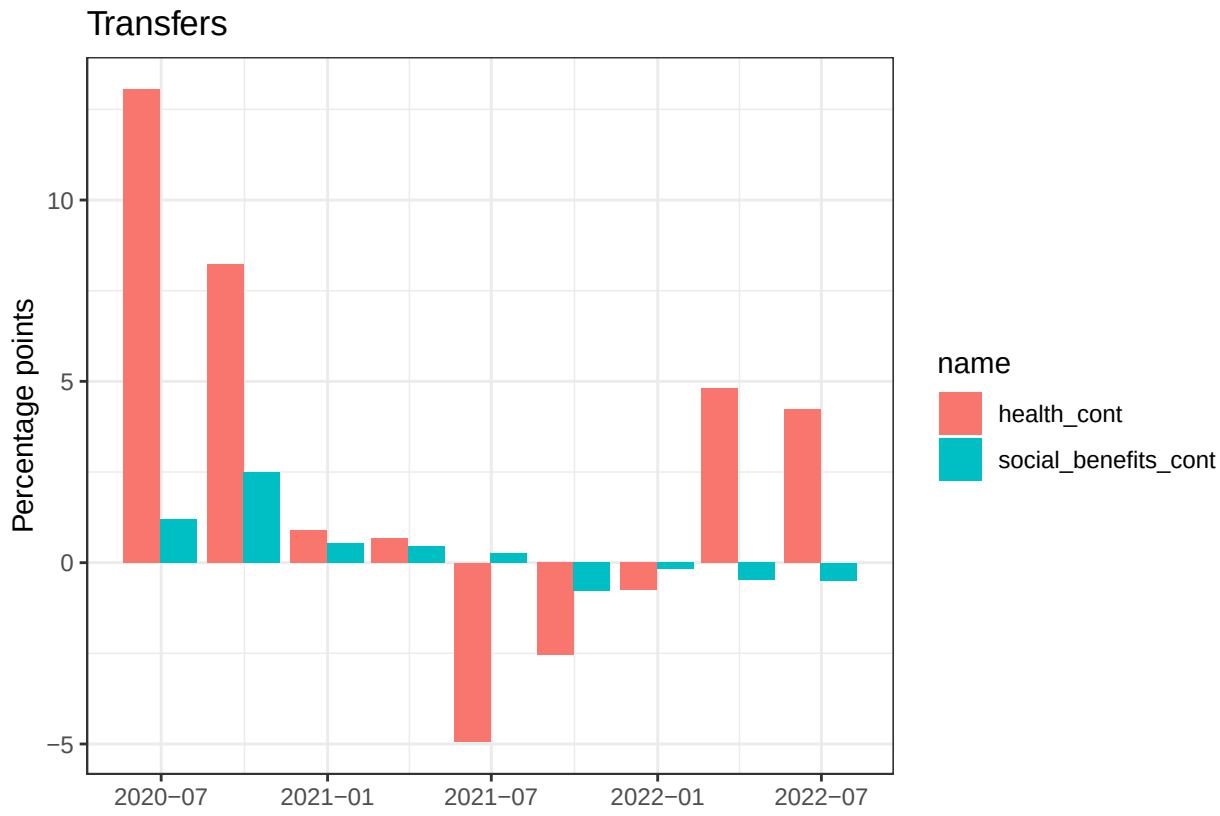
Federal Taxes



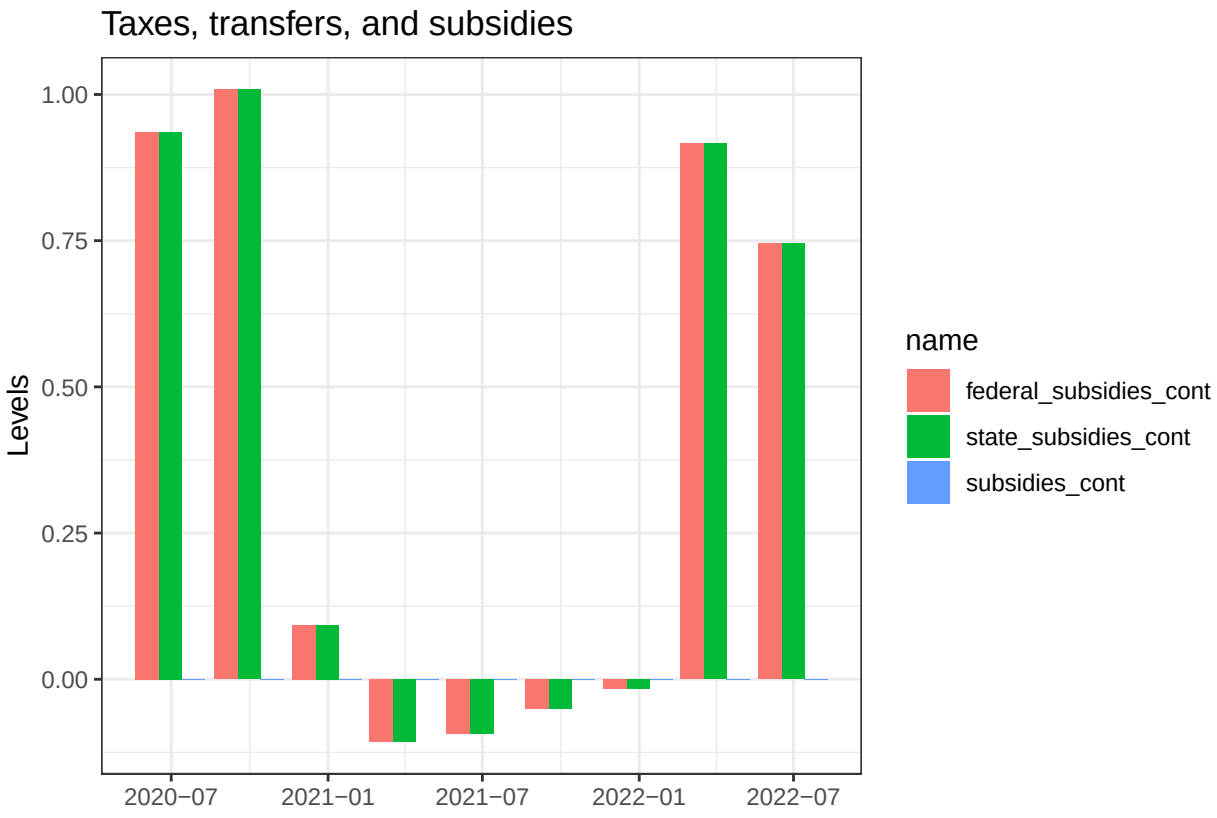
State & Local Taxes



Government Transfers



Subsidies


Taxes, transfers, and subsidies
Levels
1.00
0.75
0.50
0.25
0.00
2020−07
2021−01
2021−07
2022−01
2022−07
name
federal_subsidies_cont
state_subsidies_cont
subsidies_cont