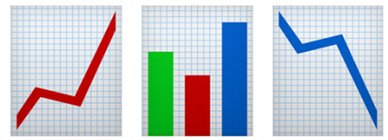
tidyfinance + tibbletime = 

```
FANG_return_monthly ← FANG_return %>%
  collapse_by("month") %>%
  group_by(symbol, date) %>%
  summarise(monthly_return = total_return(adjusted_return))
```

```
# A time tibble: 192 x 3
# Index: date
# Groups: symbol [?]
   symbol date       monthly_return
   <chr>  <date>              <dbl>
 1 AMZN   2013-01-31         0.0318
 2 AMZN   2013-02-28        -0.00463
 3 AMZN   2013-03-28         0.00840
 4 AMZN   2013-04-30        -0.0476
 5 AMZN   2013-05-31         0.0606
 6 AMZN   2013-06-28         0.0315
 7 AMZN   2013-07-31         0.0847
 8 AMZN   2013-08-30        -0.0672
 9 AMZN   2013-09-30         0.113
10 AMZN   2013-10-31         0.164
# ... with 182 more rows
```

Performance summary

Cumulative returns

```
plot_cum_ret ← FANG_return %>%
  ggplot(aes(x = date, y = cum_ret, color = symbol)) +
  geom_line() +
  theme_tq() +
  theme(axis.title.x = element_blank(),
        axis.text.x  = element_blank(),
        axis.ticks.x = element_blank()) +
  labs(
   y     = "Cumulative Return",
   title = "Performance summary: Facebook,
            Amazon, Netflix, Google") +
  theme(legend.position="none") +
  scale_color_tq()
```

Monthly returns

```
plot_month_ret ← FANG_return_monthly %>%
  ggplot(aes(x = date, y = monthly_return, fill = symbol)) +
  geom_col(width = 15, position = position_dodge()) +
  theme_tq() +
  theme(axis.title.x = element_blank(),
        axis.text.x  = element_blank(),
        axis.ticks.x = element_blank()) +
  labs(y = "Monthly Return") +
  theme(legend.position="none") +
  scale_fill_tq()
```

Drawdown

```
plot_drawdown ← FANG_return %>%
  ggplot(aes(x = date, y = drawdown, fill = symbol)) +
  geom_area(position = position_identity(), alpha = .7) +
  theme_tq() +
  scale_x_date(
    date_breaks = "3 months",
    date_labels = "%b %Y") +
  labs(x = "", y = "Drawdown") +
  scale_fill_tq()
```

Patchwork combination

```
plot_cum_ret +
  plot_month_ret +
  plot_drawdown +
  plot_layout(ncol = 1, heights = c(2, 1, 1))
```