

```
full_data <- food_beverages |>
  full_join(textiles, by = "Year") |>
  full_join(transport, by = "Year")
```

```
full_data |>
  ggplot(aes(x = Year)) +
  geom_line(aes(y = Beer), color = "brown") +
  geom_line(aes(y = Passenger_cars*10), color = "grey") +
  geom_line(aes(y = Cotton_textiles*100), color = "blue")
```

```
full_data |>
  ggplot(aes(x = Year)) +
  geom_rect(aes(xmin = 1914, xmax = 1918, ymin = -Inf, ymax = Inf),
            fill = "lightgrey", alpha = 0.05) +
  geom_rect(aes(xmin = 1939, xmax = 1945, ymin = -Inf, ymax = Inf),
            fill = "lightgrey", alpha = 0.05) +
  geom_line(aes(y = Beer), color = "brown") +
  geom_line(aes(y = Passenger_cars*10), color = "grey") +
  geom_line(aes(y = Cotton_textiles*100), color = "blue") +
  geom_line(aes(y = Raw_silk*1000), color = "pink") +
  geom_vline(xintercept = 1973, color = "black") +
  theme_minimal()
```

```
scale = 10
```

```
full_data |>
  ggplot(aes(x = Year)) +
  geom_rect(aes(xmin = 1915, xmax = 1918, ymin = -Inf, ymax = Inf),
            fill = "lightgrey", alpha = 0.05) +
  geom_rect(aes(xmin = 1940, xmax = 1945, ymin = -Inf, ymax = Inf),
            fill = "lightgrey", alpha = 0.05) +
  geom_line(aes(y = Beer), color = "brown") +
  geom_line(aes(y = Total_yarn*10), color = "blue") +
  geom_line(aes(y = Cotton_yarn*10), color = "purple") +
  geom_line(aes(y = Ethyl_alcohol_1), color = "forestgreen") +
  scale_y_continuous(sec.axis = sec_axis(~./scale, name = "tons")) +
  labs(y = "hecolitres") +
  geom_vline(xintercept = 1973, color = "black") +
  geom_vline(xintercept = 1976, color = "black") +
  geom_vline(xintercept = 1929, color = "black") +
  theme_minimal()
```

```
scale = 10
```

```
full_data |>
```

```
  ggplot(aes(x = Year)) +  
    geom_rect(xmin = 1915, xmax = 1918, ymin = -Inf, ymax = 9e+06,  
              fill = "lightgrey", alpha = 0.05) +  
    geom_rect(xmin = 1940, xmax = 1945, ymin = -Inf, ymax = 9e+06,  
              fill = "lightgrey", alpha = 0.05) +  
    geom_line(aes(y = Beer), color = "brown") +  
    geom_line(aes(y = Total_yarn*10), color = "blue") +  
    geom_line(aes(y = Cotton_yarn*10), color = "purple") +  
    geom_line(aes(y = Ethyl_alcohol_1), color = "forestgreen") +  
    scale_y_continuous(sec.axis = sec_axis(~./scale, name = "tons")) +  
    labs(y = "hecolitres") +  
    geom_rect(xmin = 1972.8, xmax = 1973.2, ymin = -Inf, ymax = 9e+06) +  
    geom_rect(xmin = 1975.8, xmax = 1976.2, ymin = -Inf, ymax = 9e+06) +  
    geom_rect(xmin = 1928.8, xmax = 1929.2, ymin = -Inf, ymax = 9e+06) +  
    geom_text(label = "WWI", x = 1916.5, y = 9.5e+06,  
              family = "Permanent Marker") +  
    theme_minimal()
```

```
scale = 10
```

```
full_data |>
```

```
  ggplot(aes(x = Year)) +  
    geom_rect(xmin = 1915, xmax = 1918, ymin = -Inf, ymax = 9e+06,  
              fill = "lightgrey", alpha = 0.05) +  
    geom_rect(xmin = 1940, xmax = 1945, ymin = -Inf, ymax = 9e+06,  
              fill = "lightgrey", alpha = 0.05) +  
    geom_line(aes(y = Beer), color = "brown") +  
    geom_line(aes(y = Total_yarn*10), color = "blue") +  
    geom_line(aes(y = Cotton_yarn*10), color = "purple") +  
    geom_line(aes(y = Ethyl_alcohol_1), color = "forestgreen") +  
    scale_y_continuous(sec.axis = sec_axis(~./scale, name = "tons")) +  
    labs(y = "hecolitres") +  
    geom_rect(xmin = 1972.8, xmax = 1973.2, ymin = -Inf, ymax = 9e+06) +  
    geom_rect(xmin = 1975.8, xmax = 1976.2, ymin = -Inf, ymax = 9e+06) +  
    geom_rect(xmin = 1928.8, xmax = 1929.2, ymin = -Inf, ymax = 9e+06) +  
    geom_text(label = "WWI", x = 1916.5, y = 9.5e+06,  
              family = "Baloo 2") +  
    geom_text(label = "Great\n Depression", x = 1929, y = 9.5e+06,  
              family = "Baloo 2") +
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geom_text(label = "WWII", x = 1942.5, y = 9.5e+06,
          family = "Baloo 2") +
geom_text(label = "Oil\n crisis", x = 1971, y = 9.5e+06,
          family = "Baloo 2") +
geom_text(label = "Lira\n collapse", x = 1978, y = 9.5e+06,
          family = "Baloo 2") +
theme_minimal()

```

```
scale = 10
```

```

full_data |>
  ggplot(aes(x = Year)) +
  geom_rect(xmin = 1915, xmax = 1918, ymin = -Inf, ymax = 9e+06,
            fill = "lightgrey", alpha = 0.05) +
  geom_rect(xmin = 1940, xmax = 1945, ymin = -Inf, ymax = 9e+06,
            fill = "lightgrey", alpha = 0.05) +
  geom_line(aes(y = Beer, color = "Beer")) +
  geom_line(aes(y = Total_yarn*10, color = "Yarn")) +
  geom_line(aes(y = Cotton_yarn*10, color = "Cotton")) +
  geom_line(aes(y = Ethyl_alcohol_1, color = "Alcohol")) +
  scale_y_continuous(sec.axis = sec_axis(~./scale, name = "tons")) +
  labs(y = "hecolitres") +
  geom_rect(xmin = 1972.8, xmax = 1973.2, ymin = -Inf, ymax = 9e+06) +
  geom_rect(xmin = 1975.8, xmax = 1976.2, ymin = -Inf, ymax = 9e+06) +
  geom_rect(xmin = 1928.8, xmax = 1929.2, ymin = -Inf, ymax = 9e+06) +
  geom_text(label = "WWI", x = 1916.5, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "Great\n Depression", x = 1929, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "WWII", x = 1942.5, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "Oil\n crisis", x = 1971, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "Lira\n collapse", x = 1978, y = 9.5e+06,
            family = "Baloo 2") +
  scale_color_manual(
    values = c(
      "Beer" = "brown",
      "Yarn" = "blue",
      "Cotton" = "purple",
      "Alcohol" = "forestgreen"
    ),
    name = "My Legend Title"
  ) +
  theme_minimal()

```

```
scale = 10
```

```
full_data |>
  ggplot(aes(x = Year)) +
  geom_rect(xmin = 1915, xmax = 1918, ymin = -Inf, ymax = 9e+06,
            fill = "lightgrey", alpha = 0.05) +
  geom_rect(xmin = 1940, xmax = 1945, ymin = -Inf, ymax = 9e+06,
            fill = "lightgrey", alpha = 0.05) +
  geom_line(aes(y = Beer, color = "Beer")) +
  geom_line(aes(y = Total_yarn*10, color = "Yarn")) +
  geom_line(aes(y = Cotton_yarn*10, color = "Cotton")) +
  geom_line(aes(y = Ethyl_alcohol_1, color = "Alcohol")) +
  scale_y_continuous(sec.axis = sec_axis(~./scale, name = "tons")) +
  scale_x_continuous(breaks = seq(1860, 1985, by = 10)) +
  labs(y = "hecolitres",
       title = "Italian Production") +
  geom_rect(xmin = 1972.8, xmax = 1973.2, ymin = -Inf, ymax = 9e+06) +
  geom_rect(xmin = 1975.8, xmax = 1976.2, ymin = -Inf, ymax = 9e+06) +
  geom_rect(xmin = 1928.8, xmax = 1929.2, ymin = -Inf, ymax = 9e+06) +
  geom_text(label = "WWI", x = 1916.5, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "Great\n Depression", x = 1929, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "WWII", x = 1942.5, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "Oil\n crisis", x = 1971, y = 9.5e+06,
            family = "Baloo 2") +
  geom_text(label = "Lira\n collapse", x = 1978, y = 9.5e+06,
            family = "Baloo 2") +
  scale_color_manual(
    values = c(
      "Beer" = "brown",
      "Yarn" = "blue",
      "Cotton" = "purple",
      "Alcohol" = "forestgreen"
    )
  ),
  name = "Product"
) +
theme_minimal()
```