

STAT 140

Misleading and Confusing Charts

Goal

1. Understand how graphical summaries can be presented in ways that are misleading or confusing

Misleading Charts

For each of the following, inspect the plots. The one on the left is the original plot, and it contains a mistake that makes the plot misleading. The plot on the right is an improved version of the plot, which addresses the mistake. Identify the mistake in the (left) plot and discuss how this mistake impacts the interpretation of the plot. Then, explain how the new (right) plot fixes that mistake.

1. Misleading Chart 1: [url](#)

- (a) Mistake (left):
- (b) How fixed (right):

2. Misleading Chart 2: [url](#)

- (a) Mistake (left):
- (b) How fixed (right):

3. Misleading Chart 3: [url](#)

- (a) Mistake (left):
- (b) How fixed (right):

Confusing Charts

4. Confusing Chart 1: [url](#)

- (a) Mistake (left):
- (b) How fixed (right):

5. Confusing Chart 2: [url](#)

- (a) Mistake (left):
- (b) How fixed (right):

6. Confusing Chart 3: [url](#)

- (a) Mistake (left):
- (b) How fixed (right):

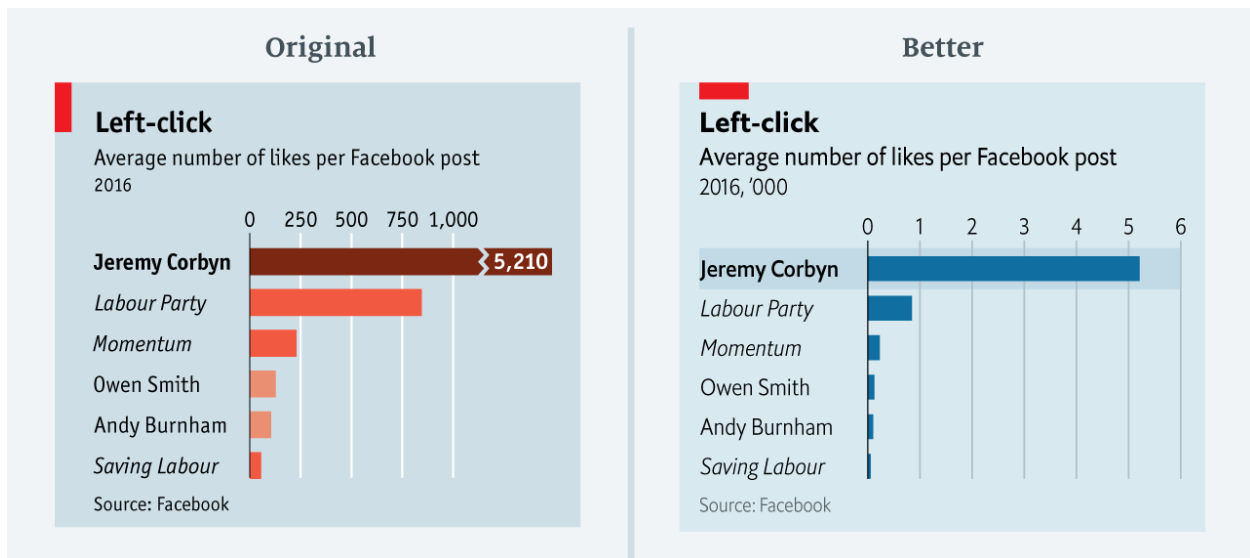


Figure 1: Misleading Chart 1

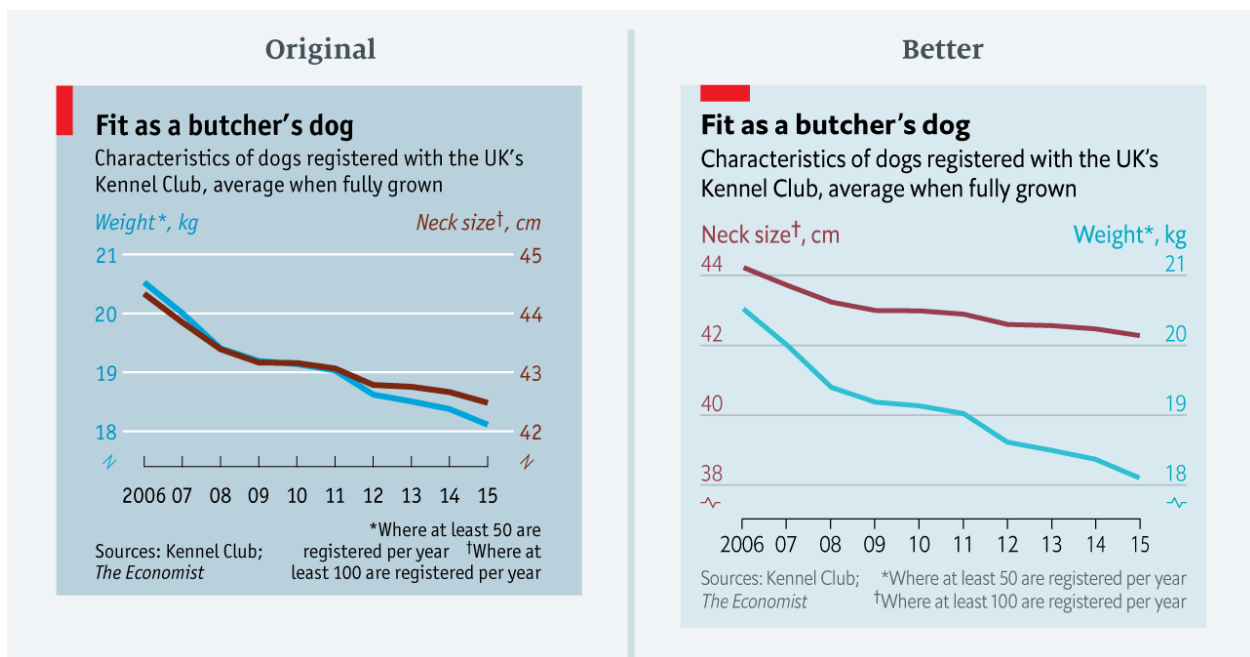


Figure 2: Misleading Chart 2

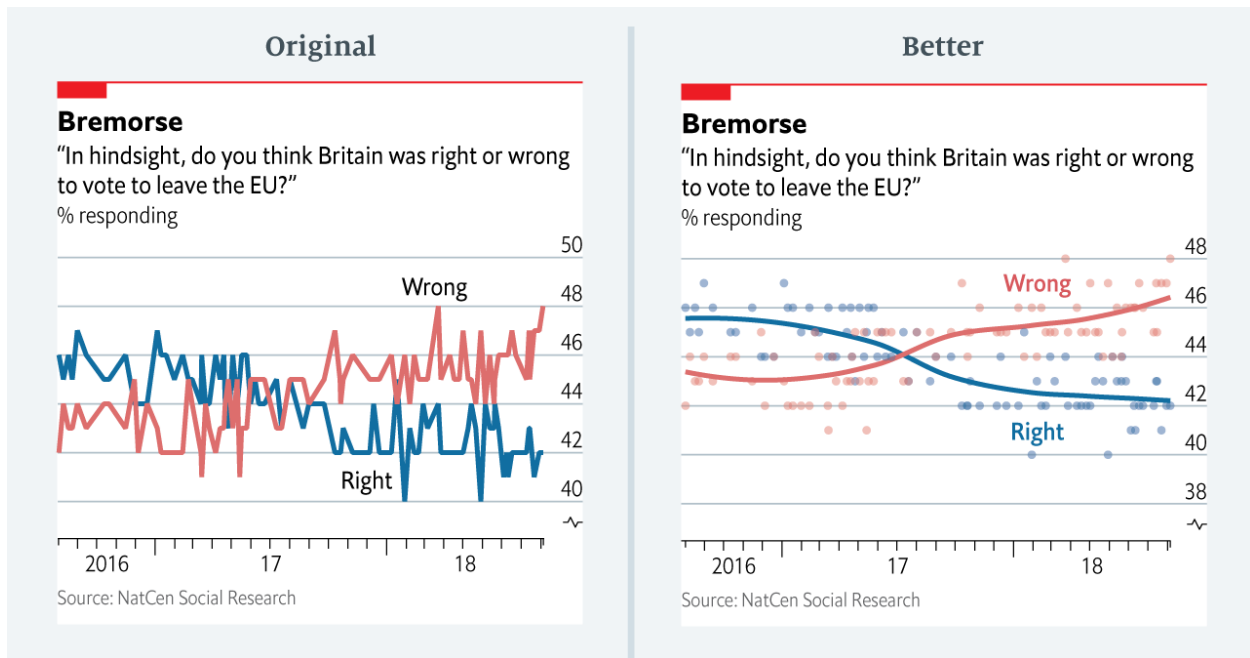


Figure 3: Misleading Chart 3

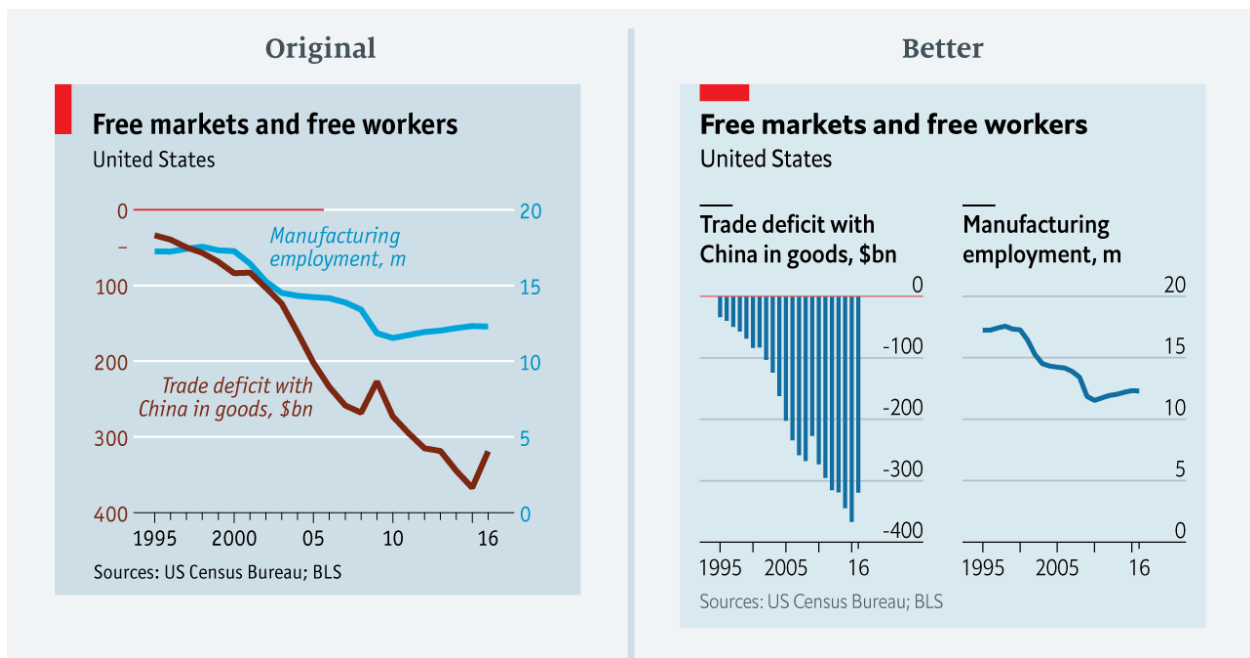


Figure 4: Confusing Chart 1

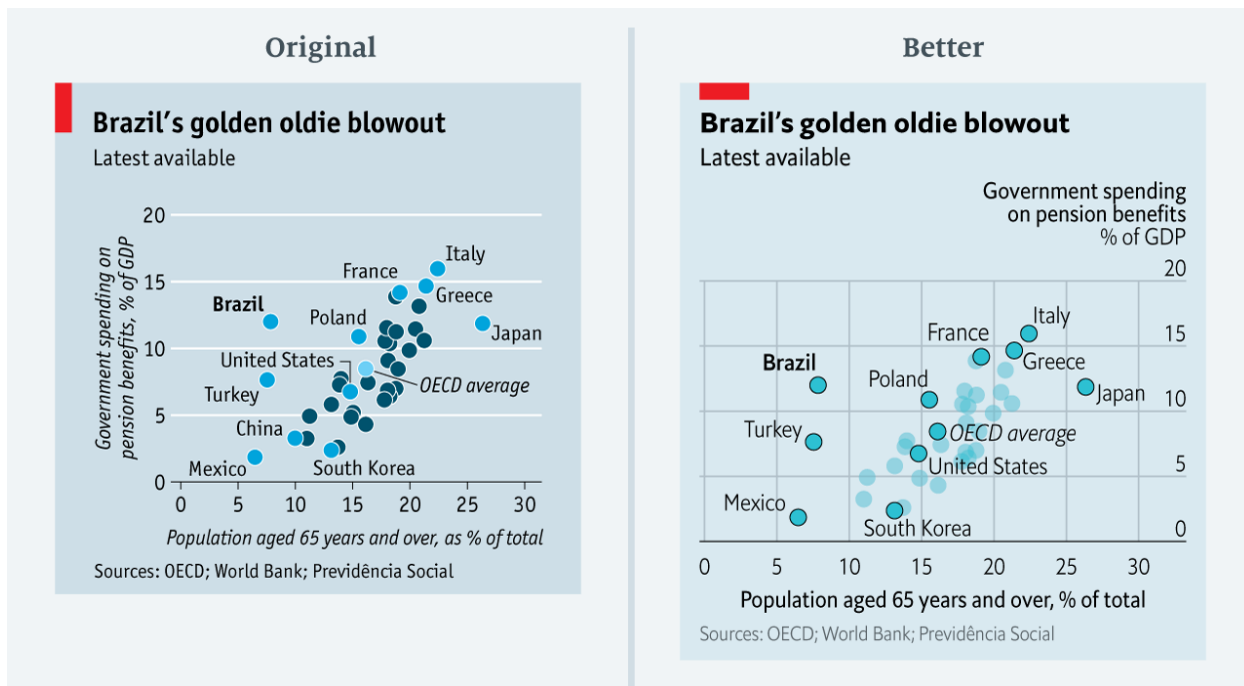


Figure 5: Confusing Chart 2

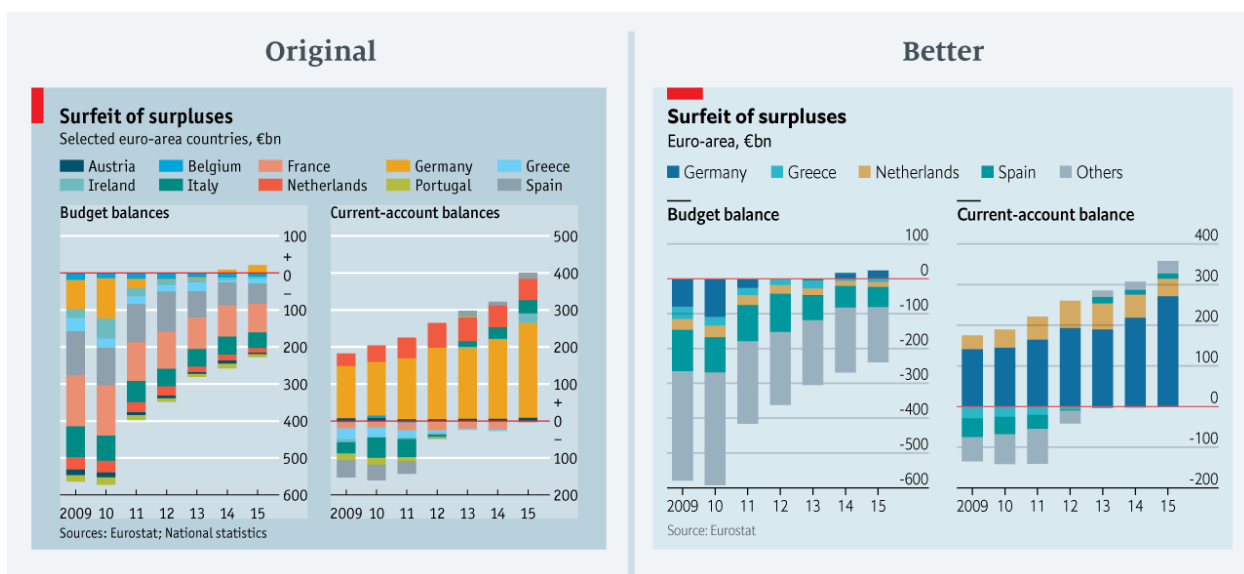


Figure 6: Confusing Chart 3

References

Leo, S. (2019) Mistakes, we've drawn a few: Learning from our errors in data visualization. <https://medium.economist.com/mistakes-weve-drawn-a-few-8cdd8a42d368>.