

Data Visualization & Design

Week 12

Announcements

Final Project Due Date:
April 22nd, 11:59PM

10-Minute Presentation Guidelines:

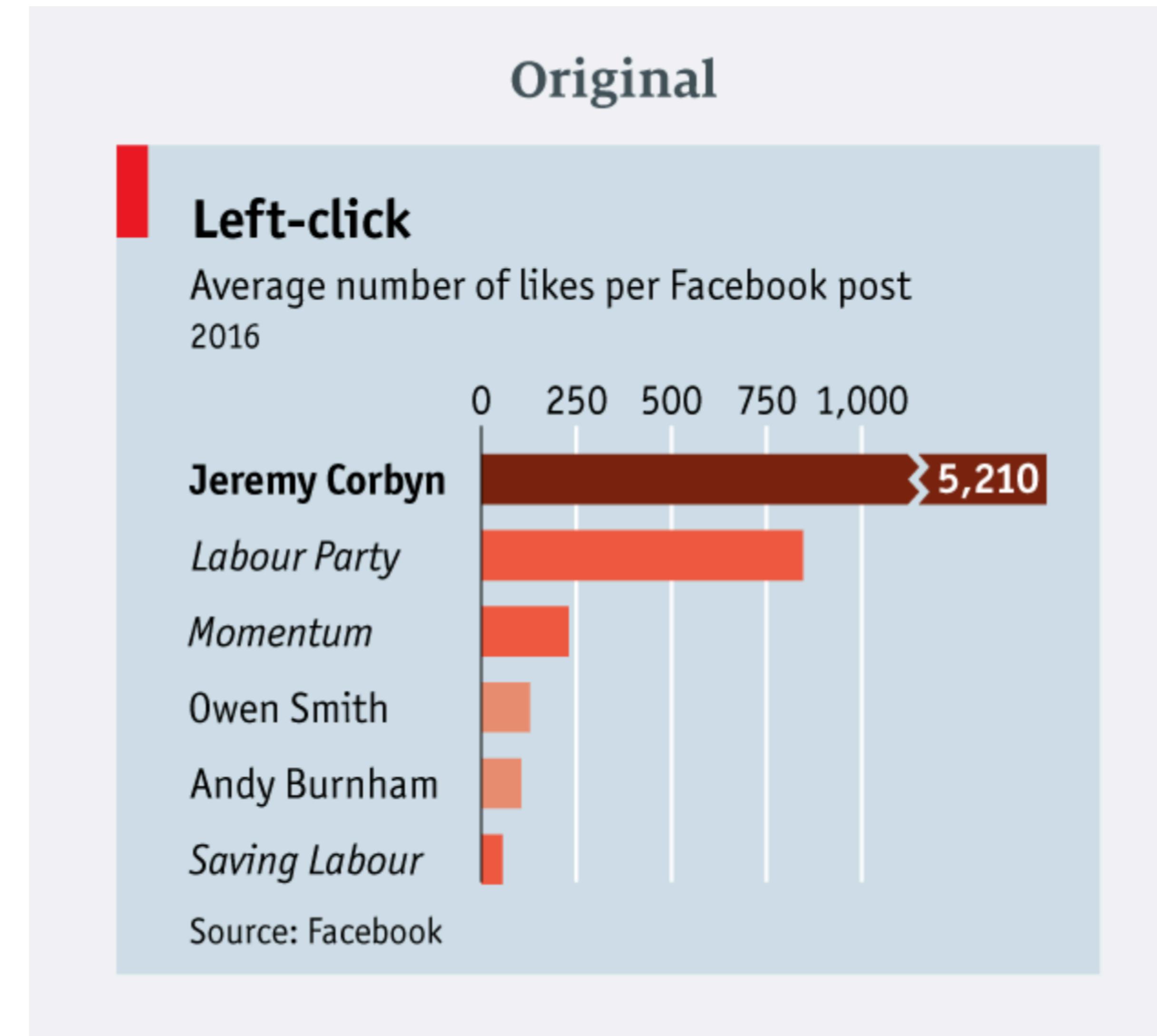
1. Motivation
2. Process
3. Visualization Decisions
4. Design Walkthrough

1. **Discussion:** *The Economist*, “Mistakes, We’ve Drawn A Few”
2. **Critique**
3. **Studio:** Creating a Hexmap in Tableau

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Six examples of charts that
benefited from a redesign.

PURPOSE: Show the disparity between Mr. Corbyn's posts and others.

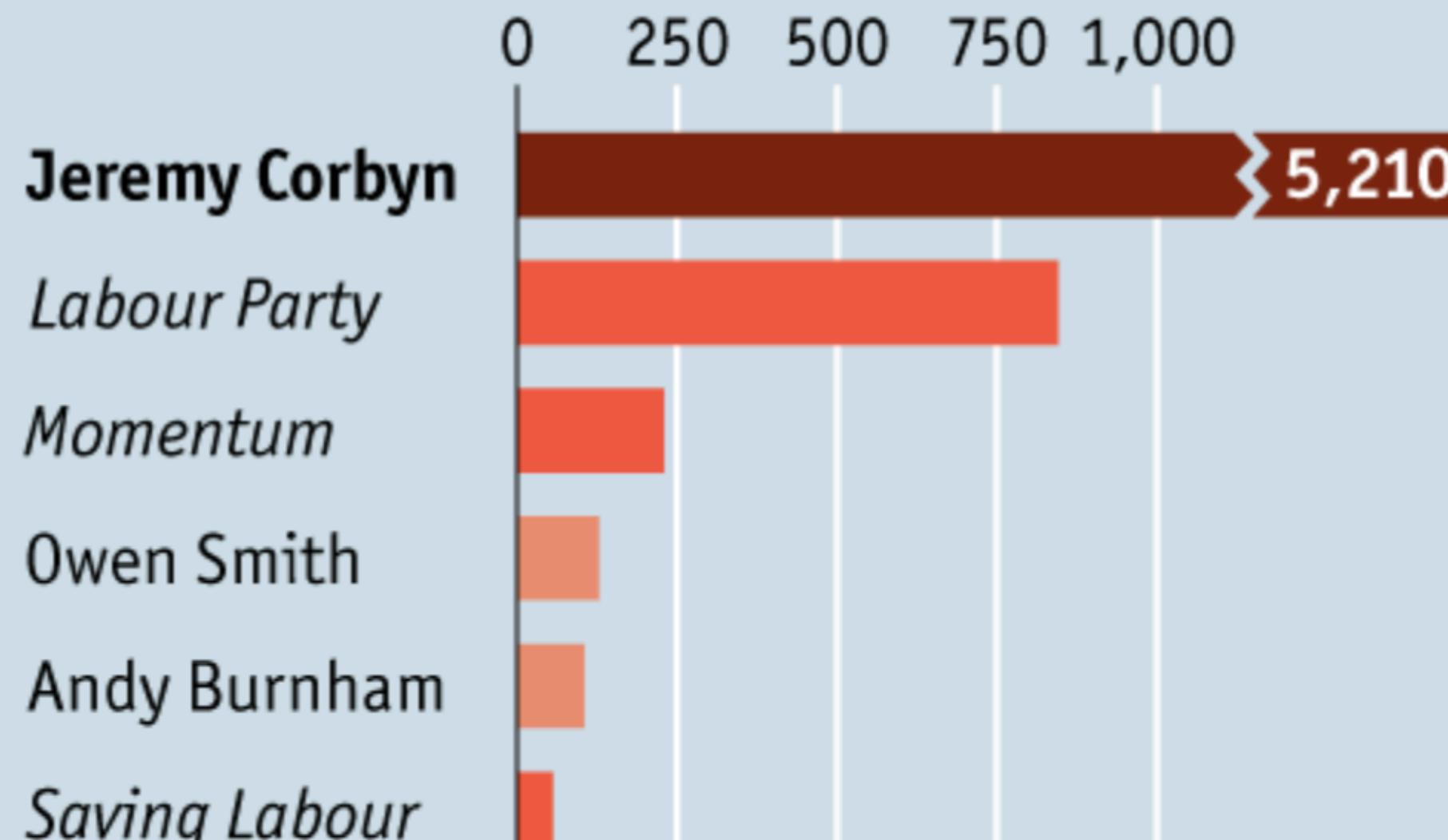


PURPOSE: Show the disparity between Mr. Corbyn's posts and others.

Original

Left-click

Average number of likes per Facebook post
2016

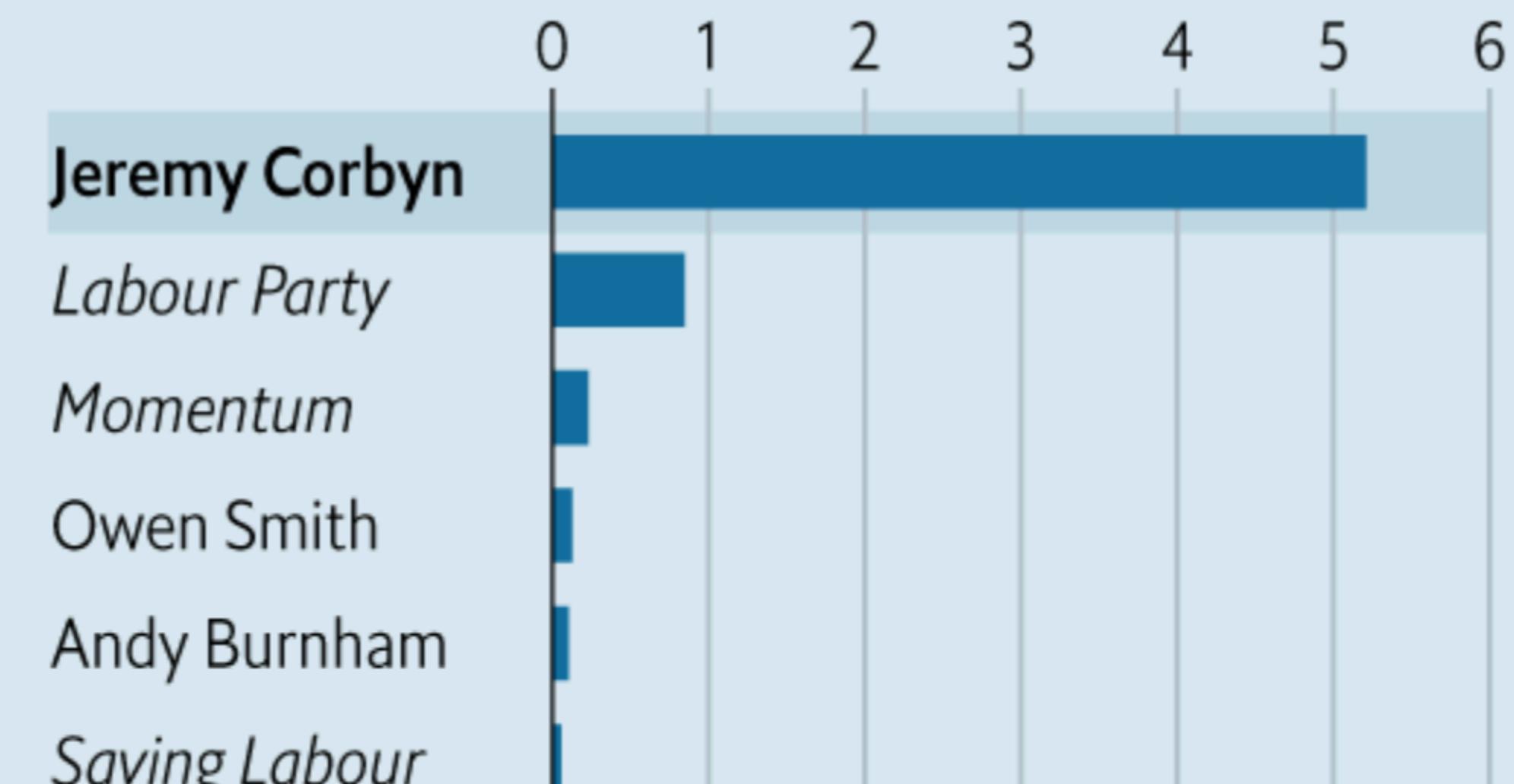


Source: Facebook

Better

Left-click

Average number of likes per Facebook post
2016, '000

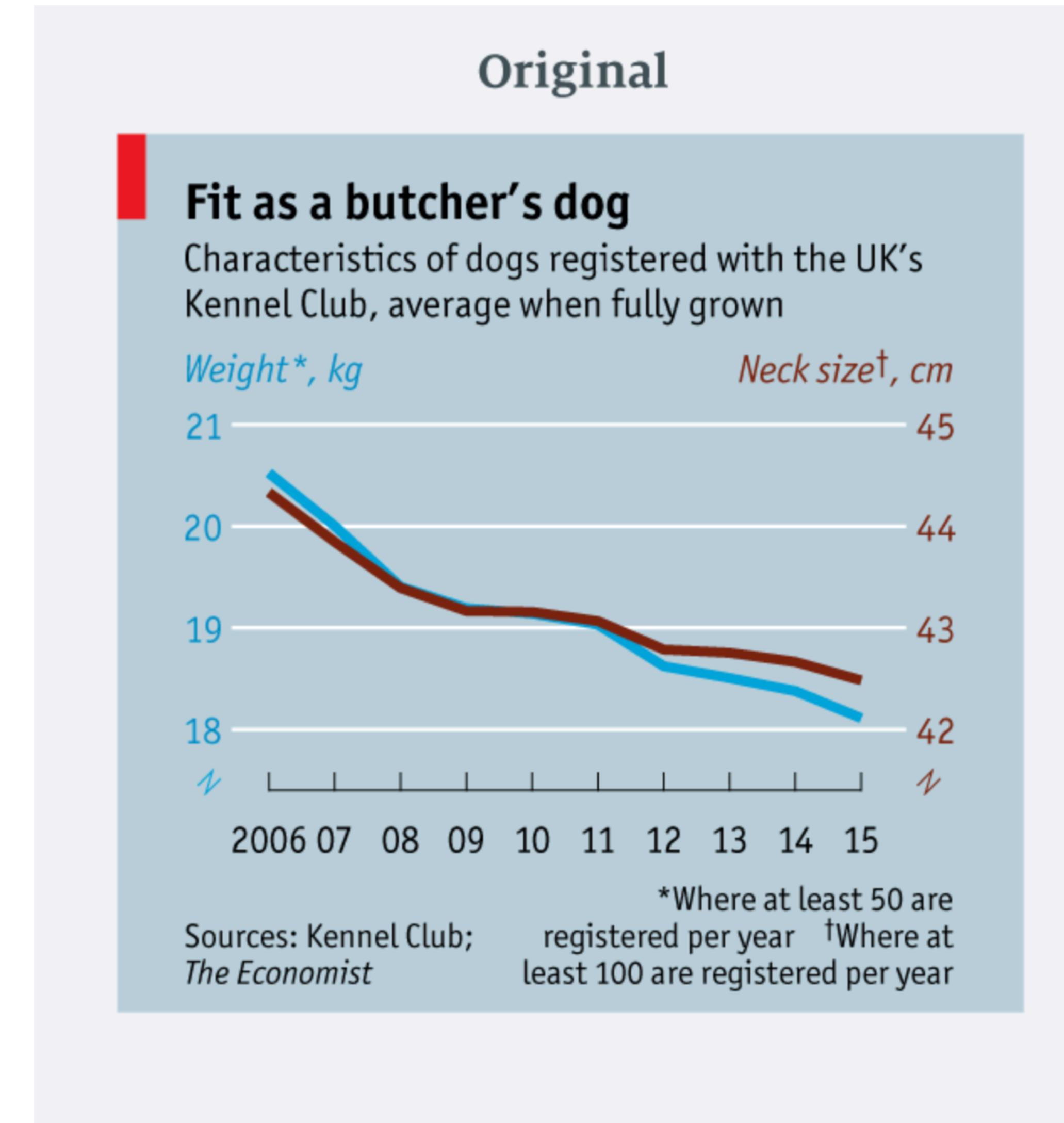


Source: Facebook

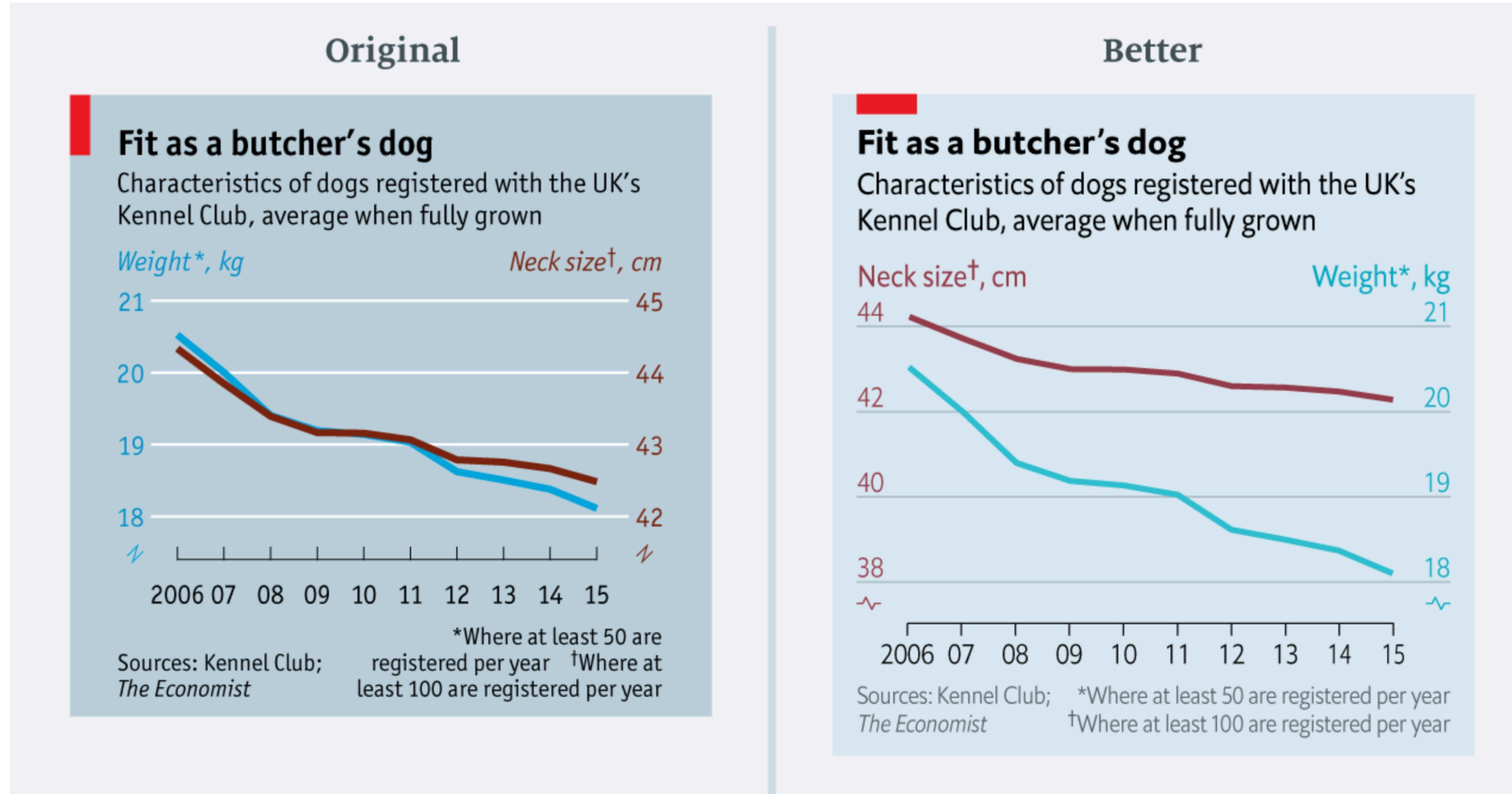
MISTAKE: Truncating the scale

- Original chart not only downplays the number of Mr. Corbyn's likes but also exaggerates those on other posts
- Redesigned version shows Mr. Corbyn's bar in its entirety
- Original colors meant to represent Labour Party color scheme; likely lost on readers
- Redesigned version uses generic, uniform color scheme

PURPOSE: Express potential correlation between dog weight and neck size.



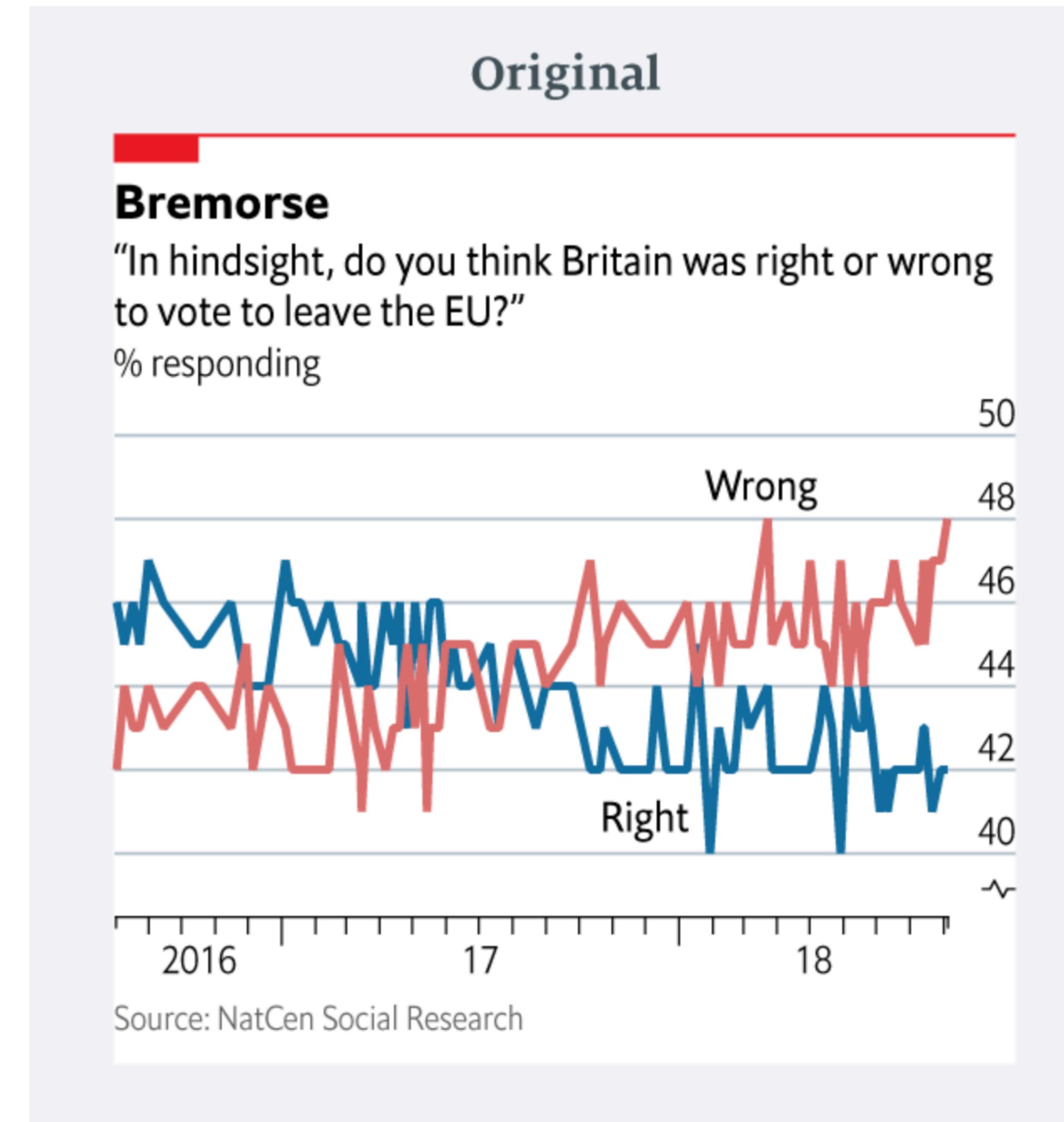
PURPOSE: Express potential correlation between dog weight and neck size.



MISTAKE: Forcing a relationship by cherry-picking scales

- In the original chart, both scales decrease by three units (from 21 to 18 on the left; from 45 to 42 on the right). In percentage terms, the left scale decreases by 14% while the right goes down by 7%.
- Redesigned version retains double scale but adjusts their ranges to reflect a comparable proportional change.

PURPOSE: Display attitudes to the outcome of the EU referendum.



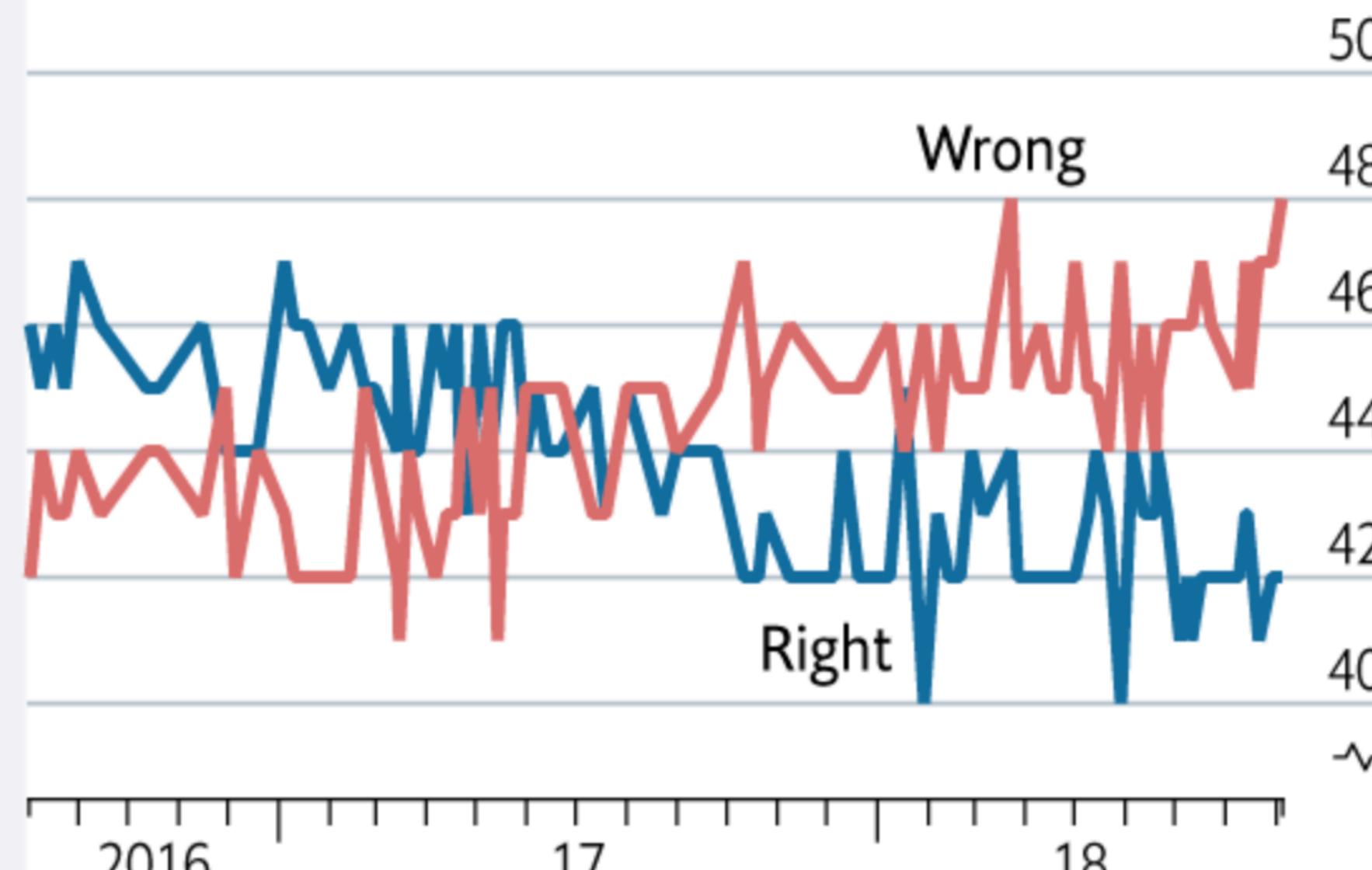
PURPOSE: Display attitudes to the outcome of the EU referendum.

Original

Bremorse

"In hindsight, do you think Britain was right or wrong to vote to leave the EU?"

% responding



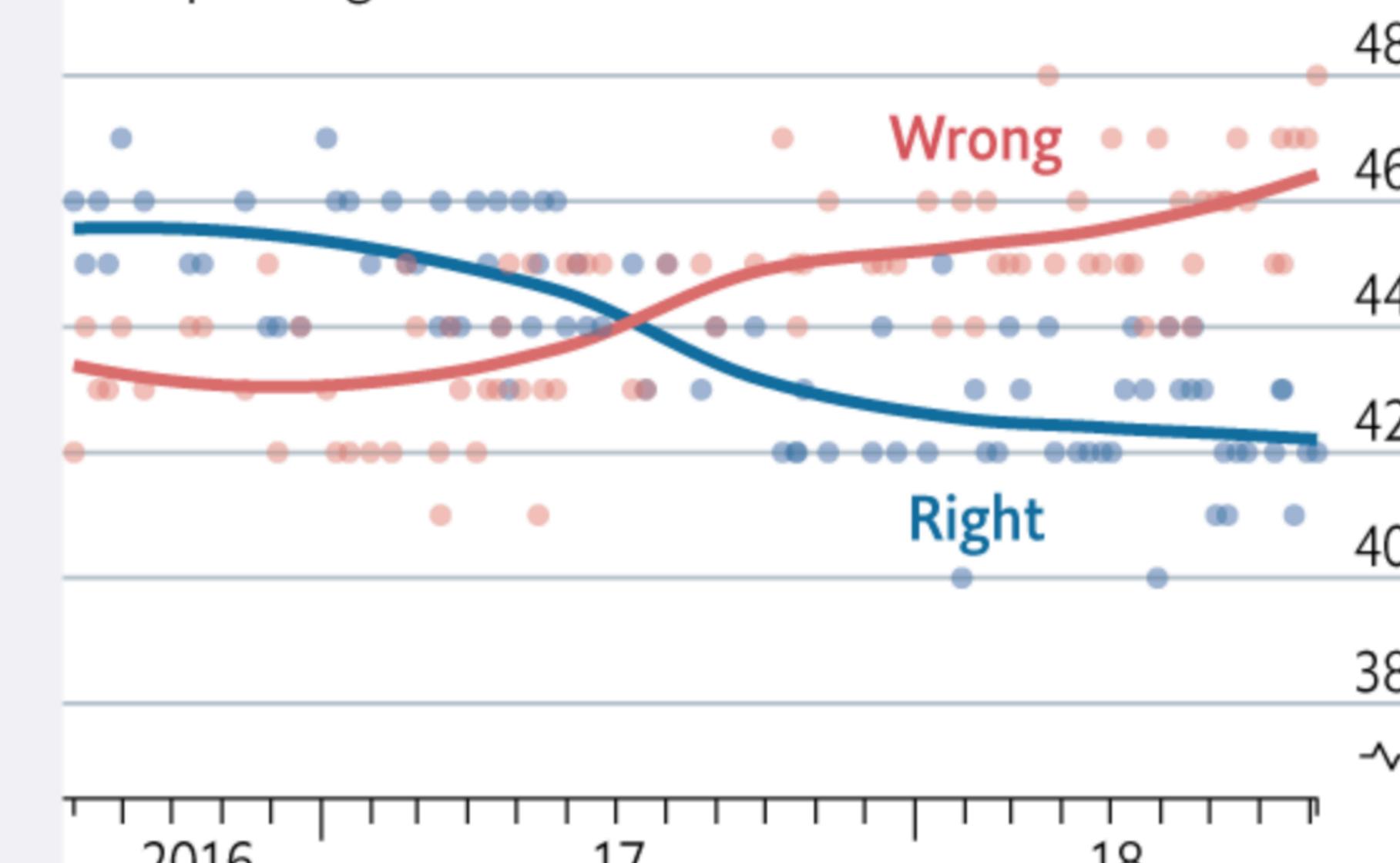
Source: NatCen Social Research

Better

Bremorse

"In hindsight, do you think Britain was right or wrong to vote to leave the EU?"

% responding



Source: NatCen Social Research

MISTAKE: Choosing the wrong visualisation method

- Original makes it appear as if respondents had an erratic view of the referendum result — increasing and decreasing by a couple of percentage points from one week to the next.
- Instead of plotting the individual polls with a smoothed curve to show the trend, the original connected the actual values of each individual poll.
- Original represents the data at a wider scale than necessary.
- Redesigned version plots the individual polls with a smoothed curve to show the trend.

PURPOSE: Show U.S. trade deficit in goods and the number of people employed in manufacturing.



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Original

Free markets and free workers

United States



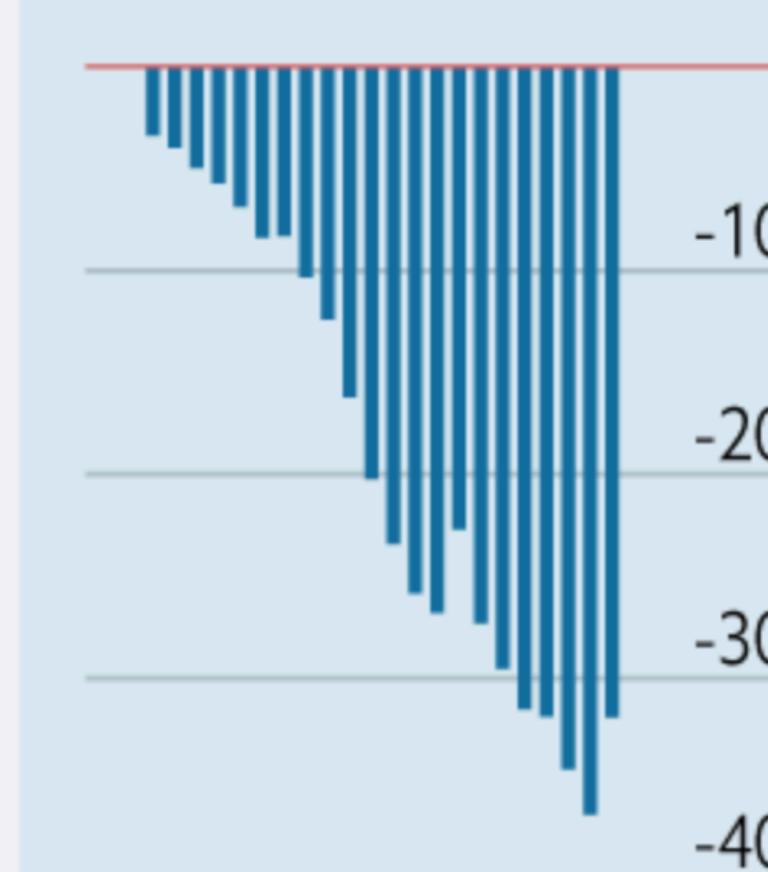
Sources: US Census Bureau; BLS

Better

Free markets and free workers

United States

Trade deficit with China in goods, \$bn



Manufacturing employment, m

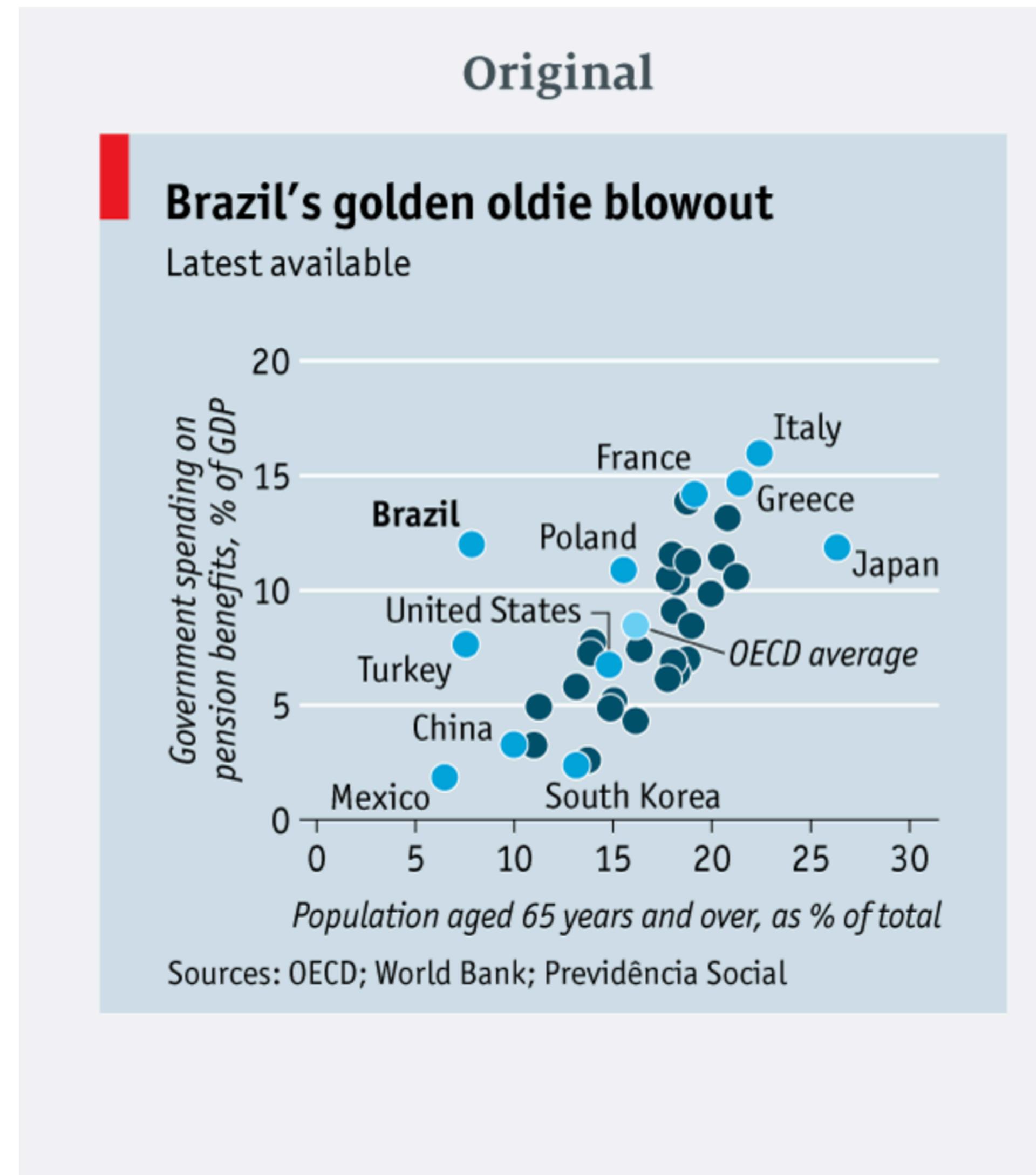


Sources: US Census Bureau; BLS

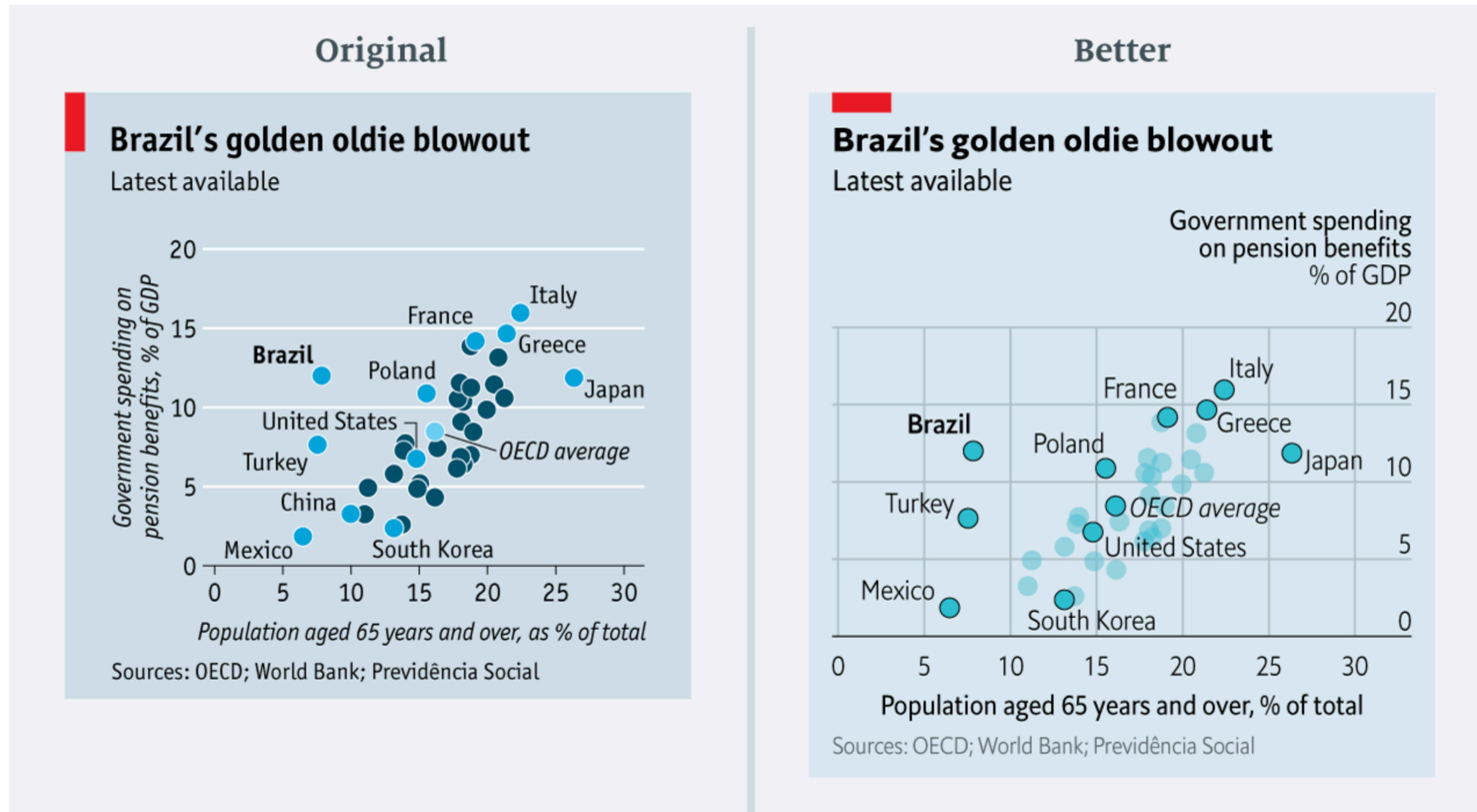
MISTAKE: Taking “mind-stretch” a little too far

- In the original, the values of one data series (trade deficit) are entirely negative, while the others (manufacturing employment) are all positive.
- The two data series don’t share a common baseline.
- Redesigned version shows there wasn’t any need to combine the two data series.
- The relationship between the trade deficit and manufacturing employment remains clear and only takes a minimal amount of extra space.

PURPOSE: Compare government spending on pension benefits with the share of people aged 65+ for a selection of countries, with a particular focus on Brazil.



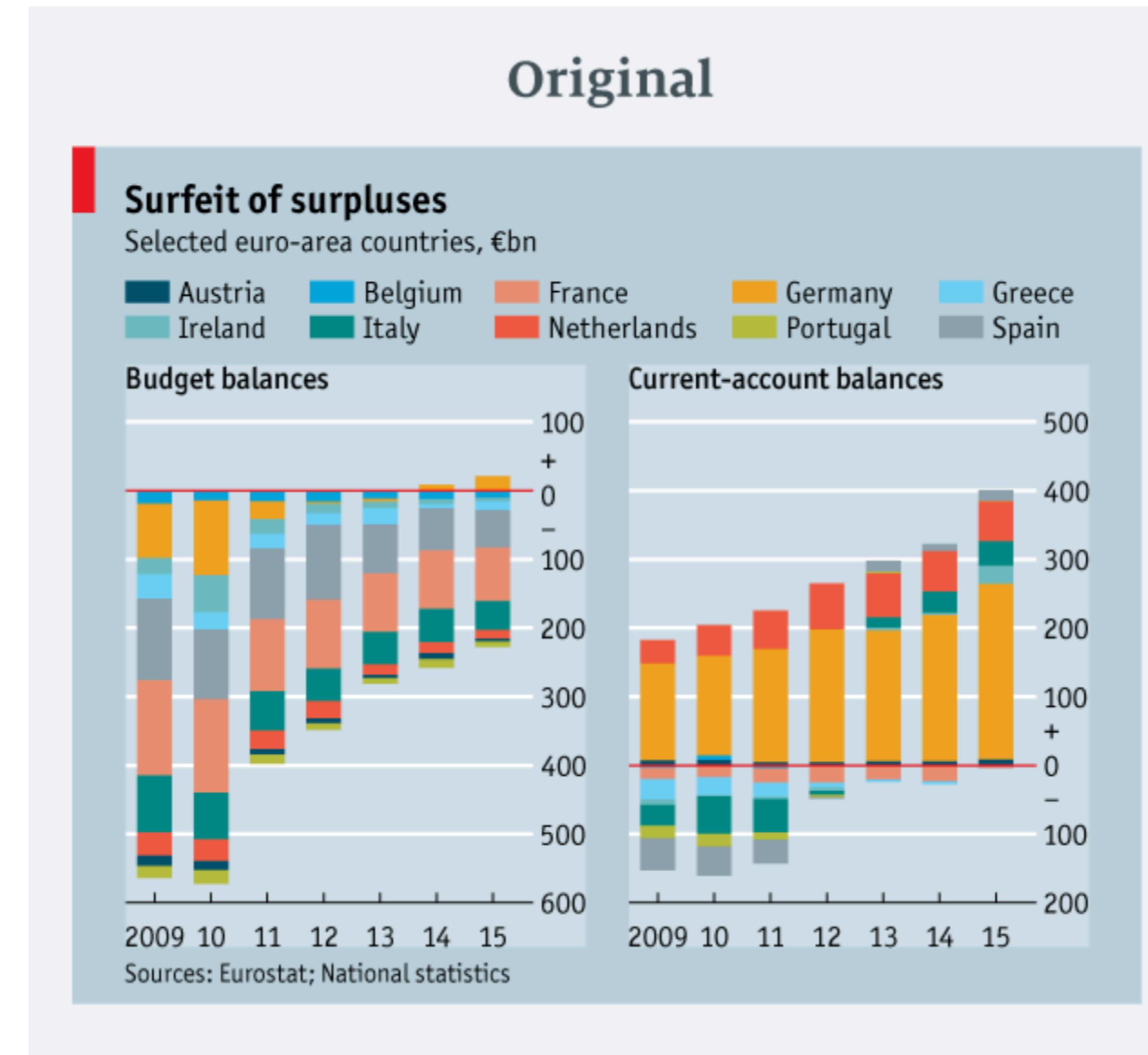
PURPOSE: Compare government spending on pension benefits with the share of people aged 65+ for a selection of countries, with a particular focus on Brazil.



MISTAKE: Confusing use of color

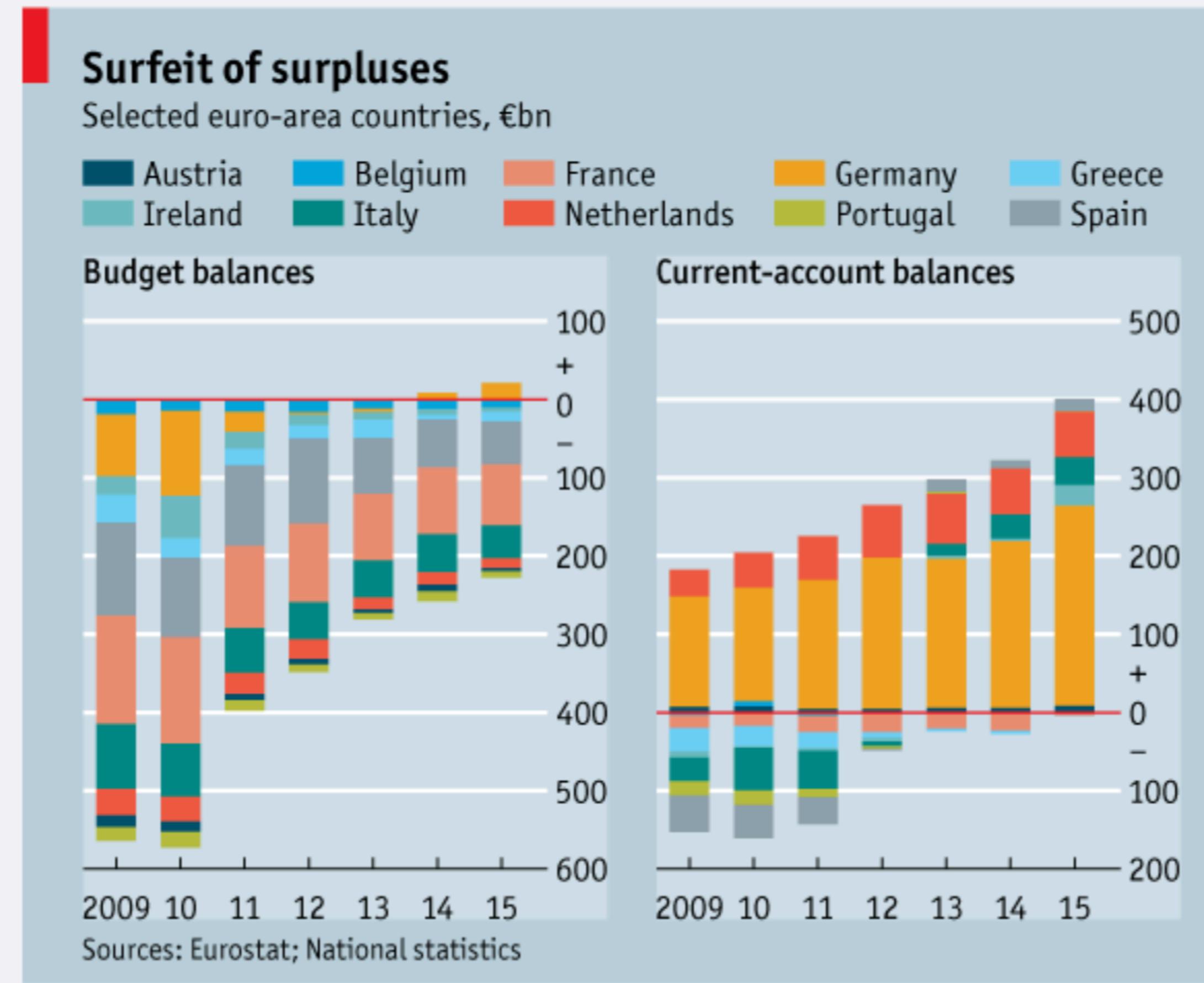
- In the original, all electric blue colors seem to belong to a different grouping to the dark blue ones, though they are simply highlights.
- In the redesigned version, the color of the circles remains the same for all countries, with changes in opacity to highlight points.

PURPOSE: Compare budget balances and current-account balances for ten euro-area countries.

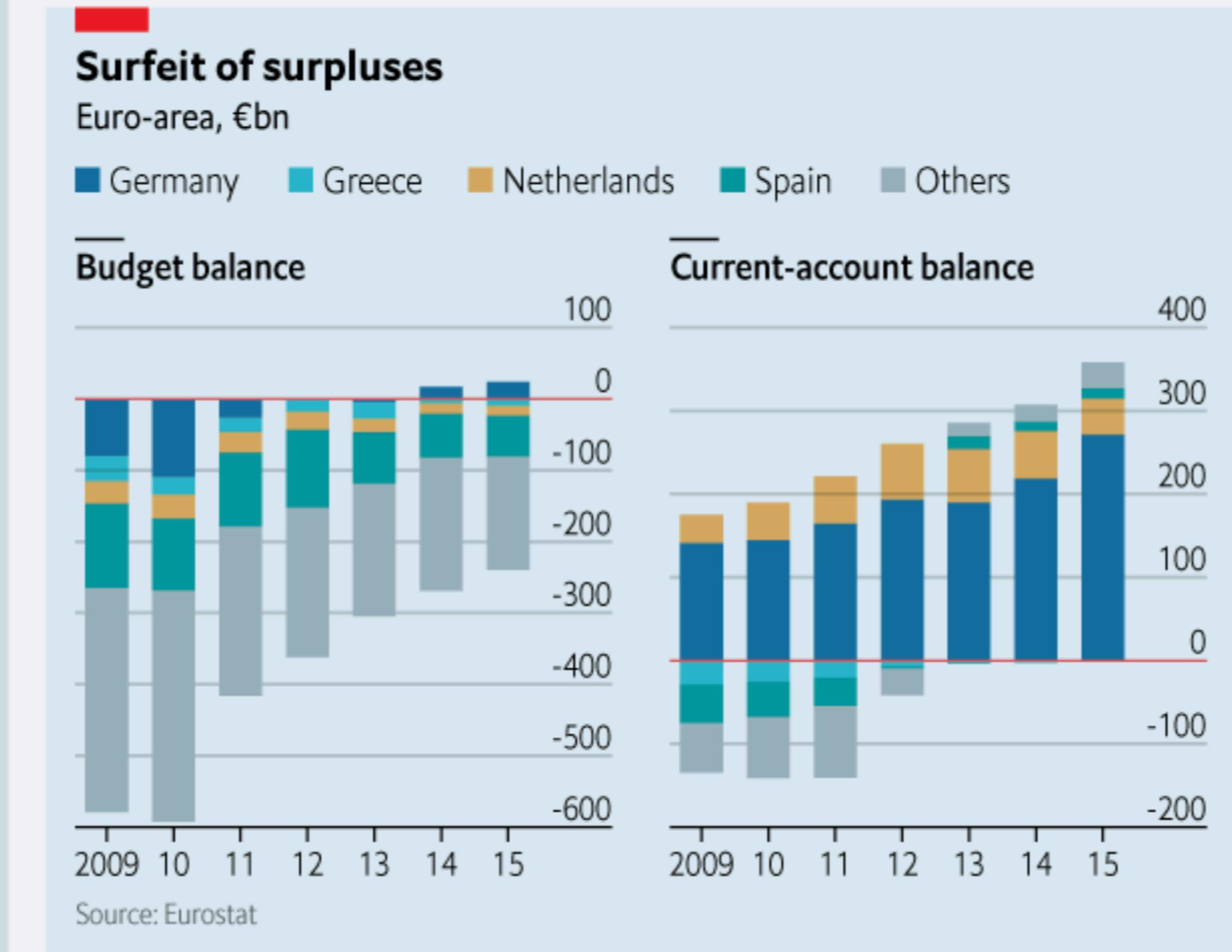


PURPOSE: Compare budget balances and current-account balances for ten euro-area countries.

Original



Better



MISTAKE: Including too much detail

- With so many colors in the original — some of which are quite difficult to distinguish or even see because the values are so small — the chart’s message is impossible to make out.
- In the redesigned version, the chart highlights only the countries mentioned in the accompanying article: Germany, Greece, the Netherlands, and Spain.
- An “Others” category resolves the problem of stacking only a selection of countries by bucketing the remaining euro-area total.

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Participation:
3 key action items for improvement

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