Gender Wage Gap

The gender wage gap is a measure of pay disparity between men and women. The Organisation for Economic Co-operation and Development (OECD) collects data on this issue across its member countries. The gender wage gap is calculated by finding the difference between the median wages of men and women, and then dividing that difference by the median wages of men. According to OECD, on average, women earn 13% less than men in these countries.

Figure 1 suggests the three countries that have the lowest gender wage gap are Costa Rica (population ~ 5 million), Belgium (~11 million) and Denmark (~6 million). BBC profiles of these countries suggest it could be due to the small population size.

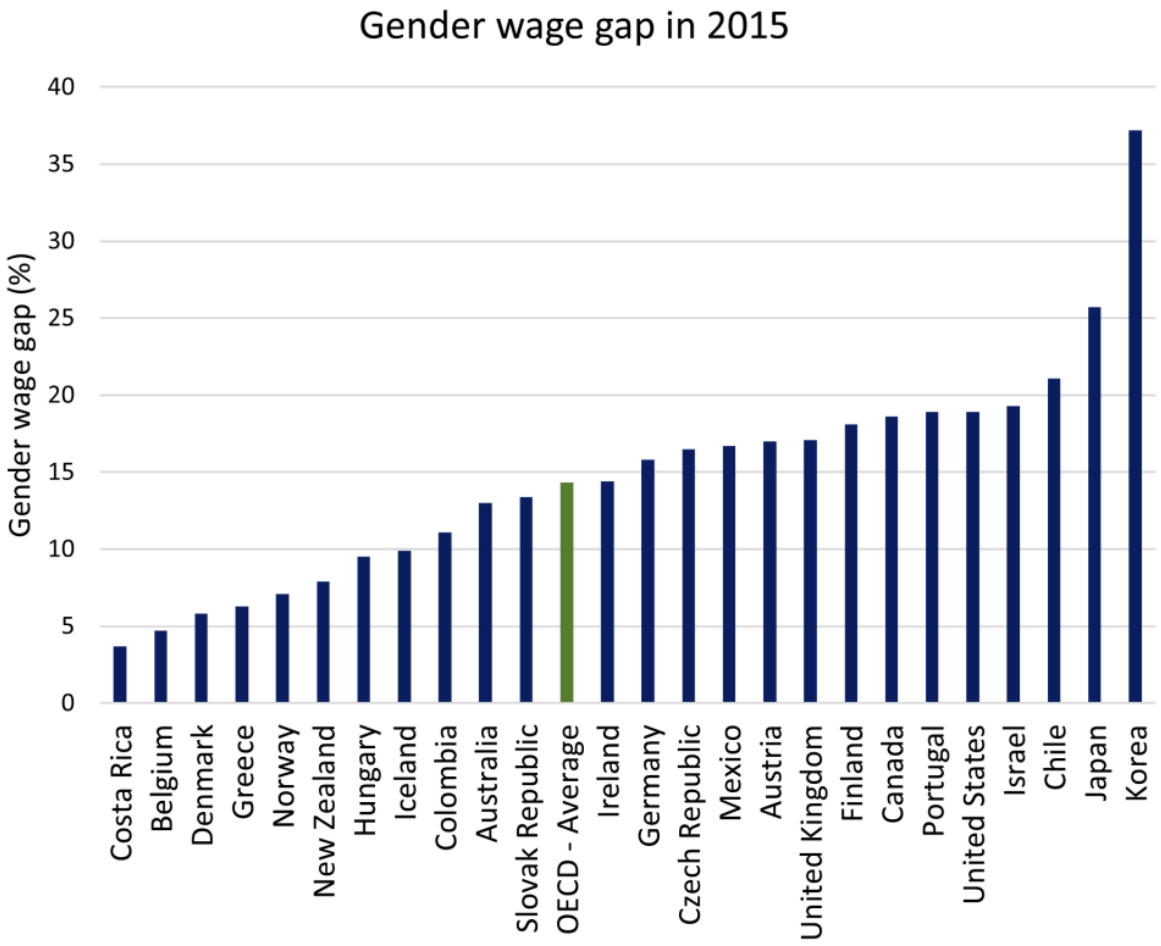

Figure 1: Gender wage gap in 2015.

In Costa Rica and Denmark, the relatively small gender wage gap can be attributed to its gender equality policies, whereas in Belgium the contributing factors are linked to educational and experiential opportunities provided to females.

In contrast, Korea, Japan and Chili had the largest gender wage gap in 2015 (Fig. 1).

ADDITIONAL RESEARCH:

I was struck to find out that Korea was one of the worst countries for women to work in, due to a very large wage gap evident from Figure 1. I researched and was able to find more up-to-date raw data from OECD which I re-plotted below to gain more insight.

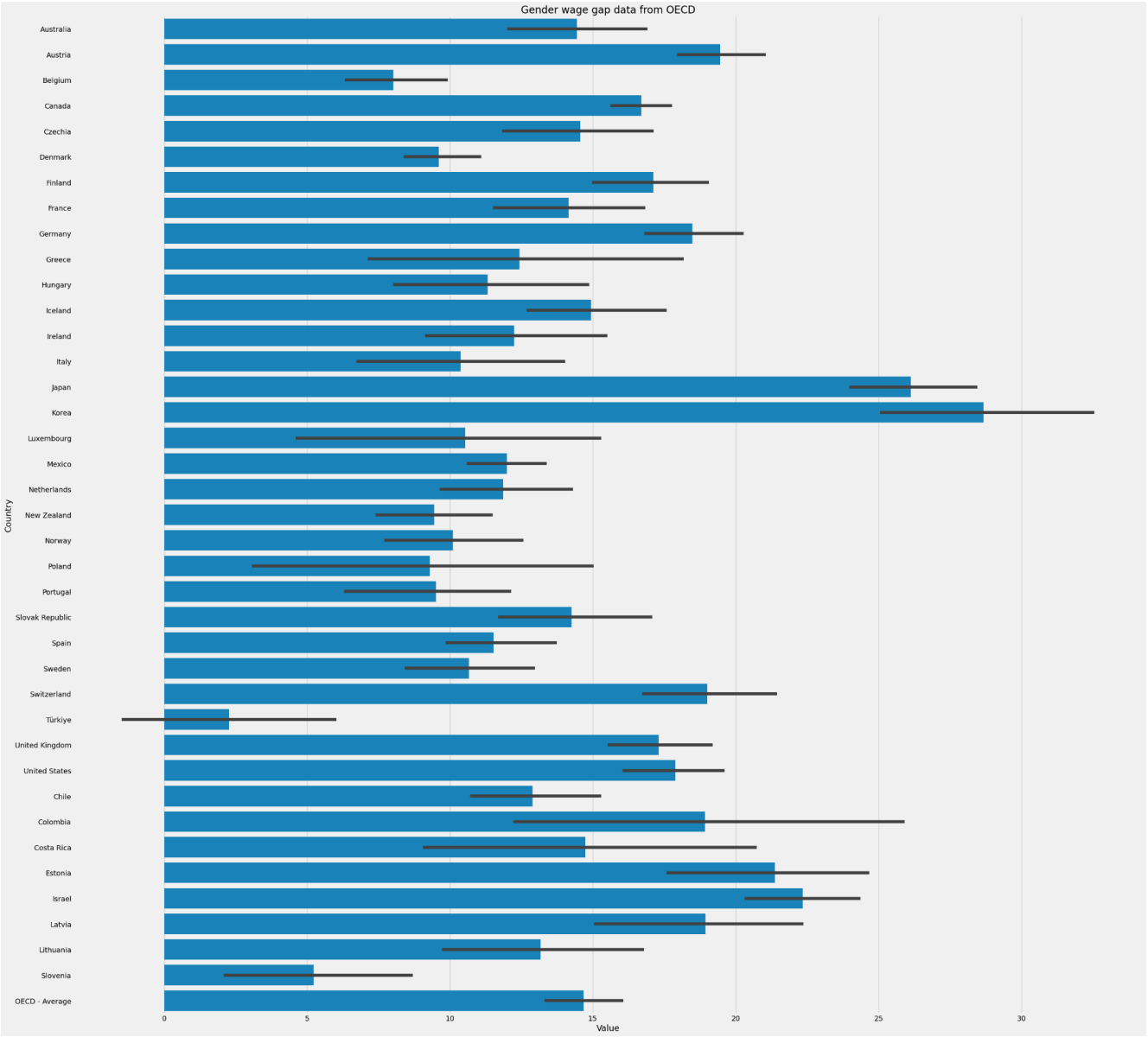

Figure 2: Gender wage gap from 2000 to 2022.

From Figure 2 I was able to see that Turkey, a large muslim country, has also been very successful at keeping the gender wage gap narrow. It is worse noting though that this is a broad measure and doesn't necessarily indicate differences in pay for equivalent work.

The gender wage gap can be influenced by a variety of factors, including differences in gender wage gap in OECD countries. By plotting the line graphs for the top worst countries (Fig. 3) I noticed that Columbia was able to recover from this most rapidly, whilst Costa Rico had a pick in 2016. Most interesting of all, Korea seems to have a large gap decreasing slowly. Looking at this country only (Fig. 4) gives some hope for a further narrowing of the gap as the trend is plateauing out.

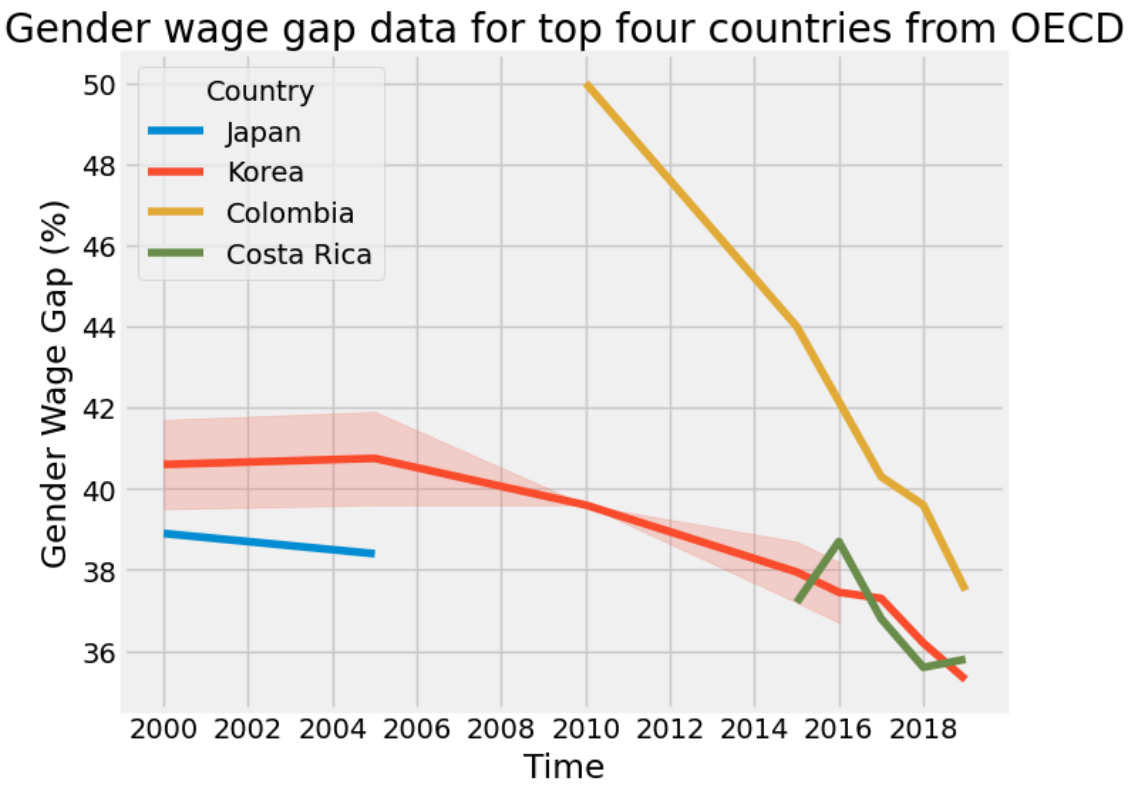

Figure 3: Gender wage gap data for top four countries from OECD.

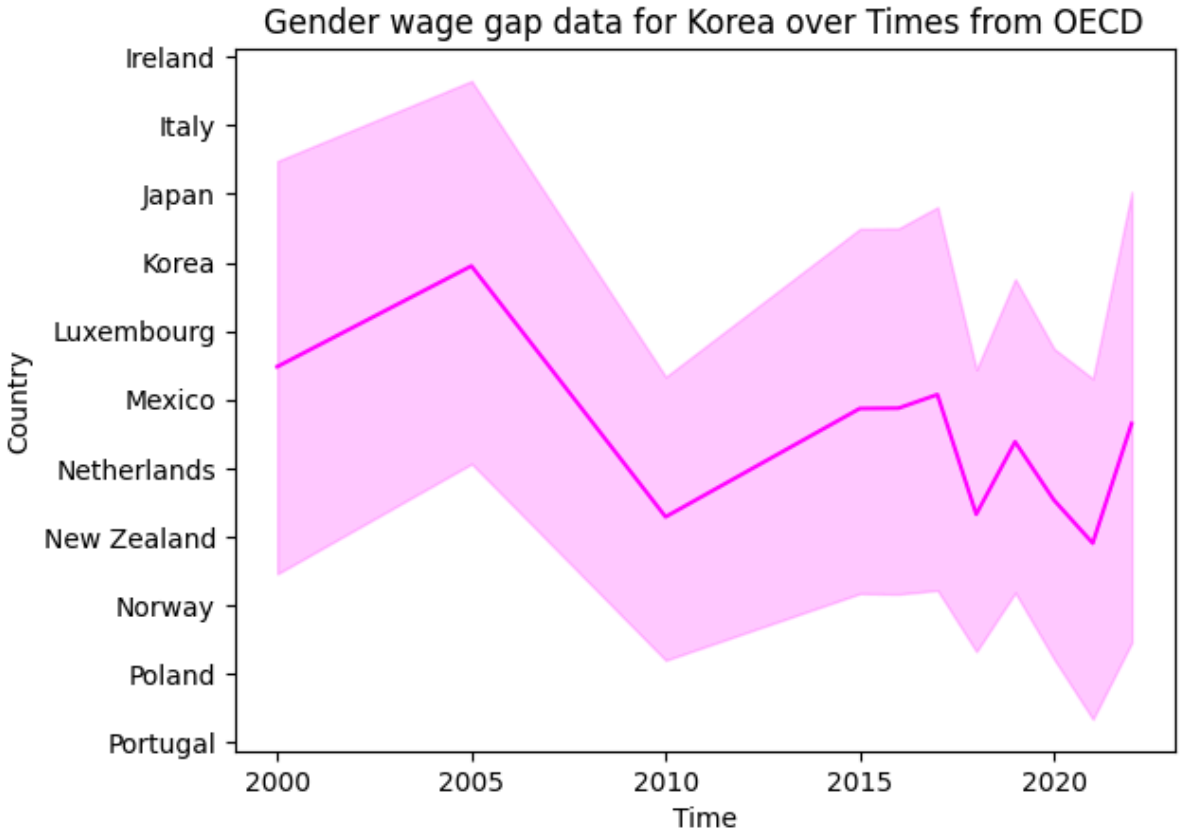

Figure 4: Gender wage gap data for Korea as a function of time.

Isopropyl Sales in the USA

Isopropyl alcohol is one of the main ingredients in hand sanitizers, which are in high demand among consumers because of their ability to kill germs. According to the graph during March 2020 there has been a sharp increase of isopropanol sales (Fig. 3). The sharp increase in isopropanol sales in March 2020 could be attributed to the global outbreak of the COVID-19 pandemic. As the pandemic spread, there was a surge in demand for these products, which could have led to a significant increase in isopropanol sales. As evident from the graph, export markets prices rose even more (Fig.3 orange line) which can again be explained by a global demand for disinfectants.

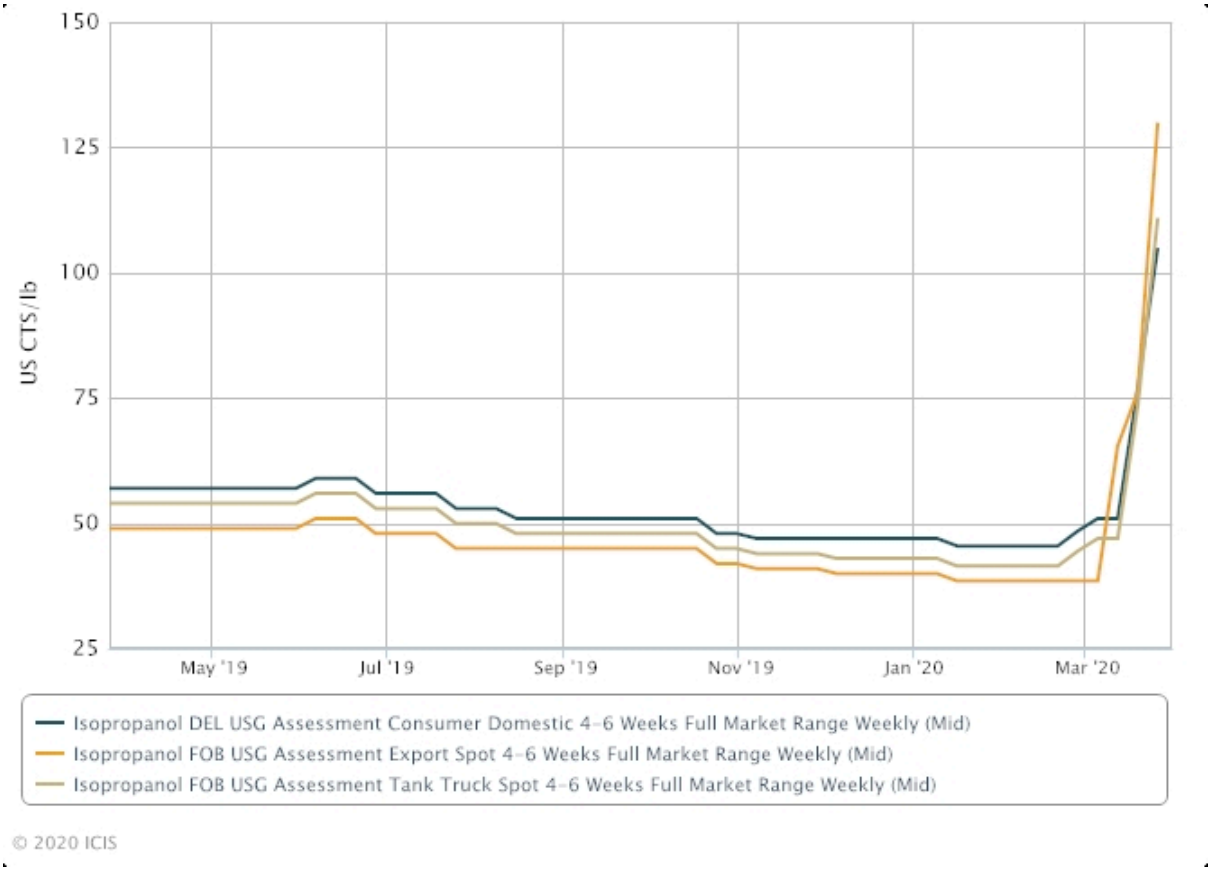

Figure 3: Isopropanol sales from May 2019 to March 2020.

CO2 Emissions and GDP

The scatter plot in Figure 4 suggests a clear positive correlation between CO2 emissions per person and GDP per capita. However, this relationship seems to vary greatly among different continents and countries, depending on factors such as the structure of the economy, energy sources, policies, and technological advancements. For instance, many developed countries have been able to decouple economic growth from CO2 emissions to some extent, thanks to advances in technology and shifts towards less carbon-intensive industries.

In contrast, developing countries often have higher growth in CO2 emissions as they industrialise and their GDP per capita increases. The size of the dot refers to the size of the population in the country. The larger the dot, the larger the population such as for the green dot referring to the Asian population. One can also see from the graph that these countries often start from a lower base of CO2 emissions per person (Fig. 4).

It's also worth noting that these are broad trends and there can be significant variations within each continent. For a more accurate understanding, it would be necessary to look at the data for individual countries.

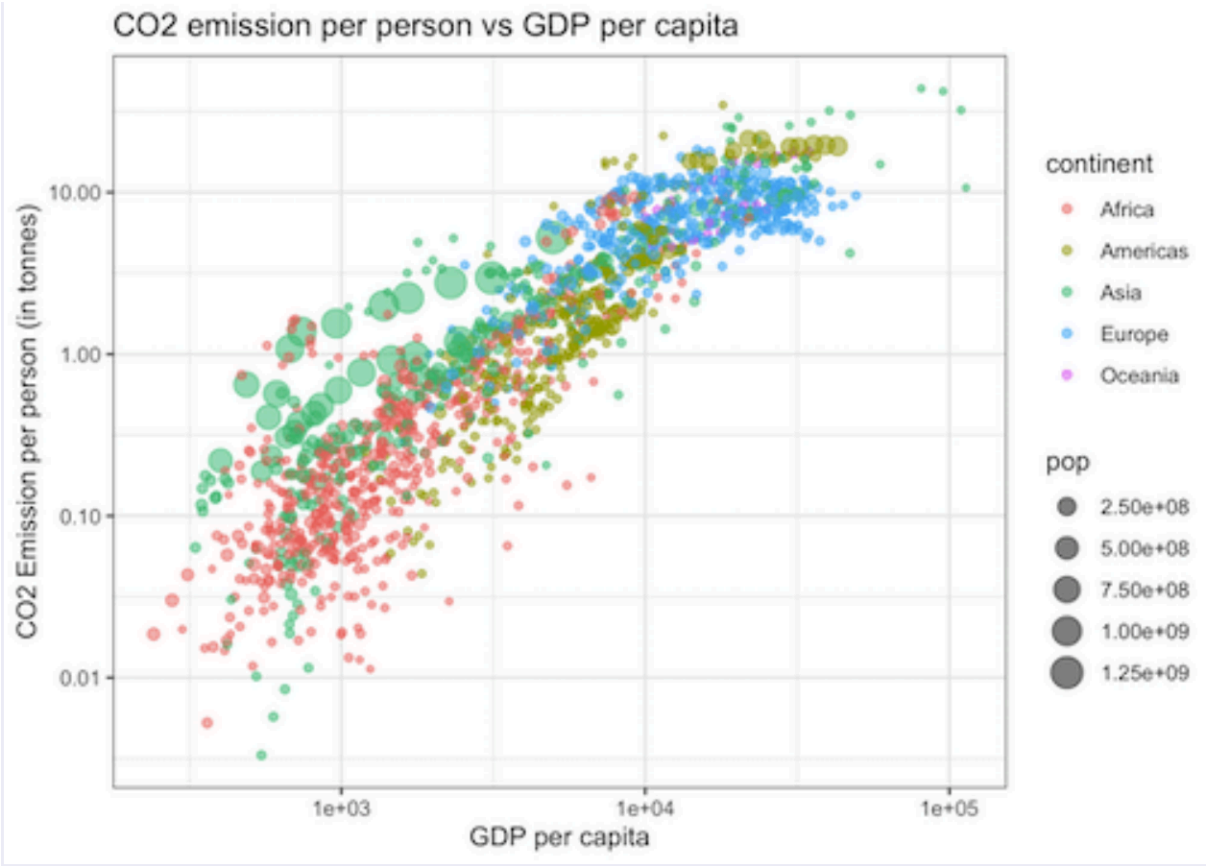

Figure 4: CO2 emissions per person vs GDP per capita.

Sources:
www.data.oecd.ord
www.icis.com
www.ourworldindata.org