

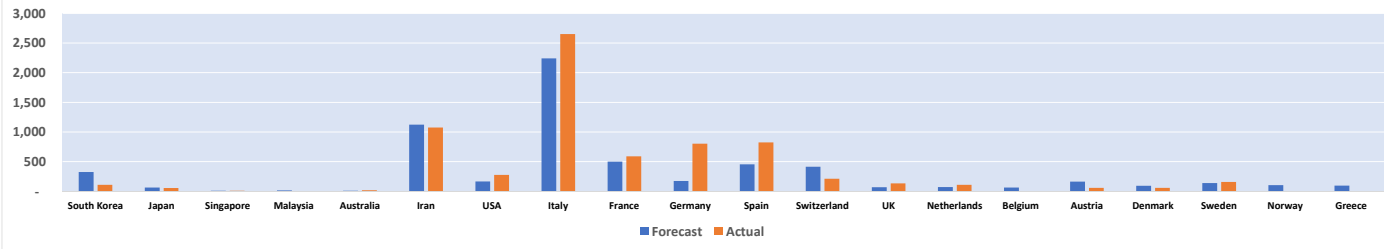
1. Daily update on case numbers

Our short run forecast model assumes that the reduction in transmission rates achieved in Western nations matches what has been achieved in Korea or Italy (the latter for European countries). Orange bars are actual figures for the day and blue bars are our forecast using prior data.

Key points

- 1 Transmission rate has plateaued in Italy, but expect this to fall strongly due to the lockdown
- 2 Case numbers in France, Spain, USA etc consistent with a substantial outbreak
- 3 Remain cautious about countries reporting no new cases (eg Greece) - conversely excellent progress in Korea

Forecast v actual: total cases



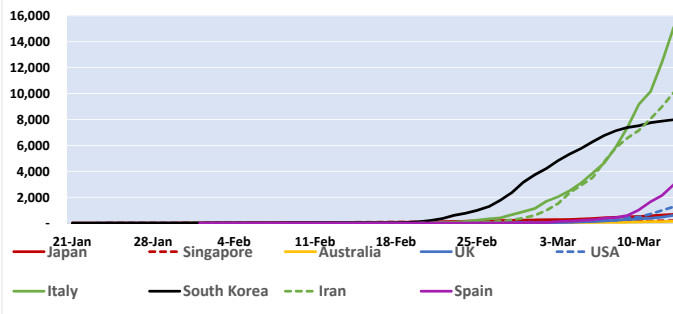
2. Global comparison of growth in case numbers

The figures below are historic data from WHO situation reports. The left hand chart uses a normal axis and the right hand chart shows identical figures on a log axis.

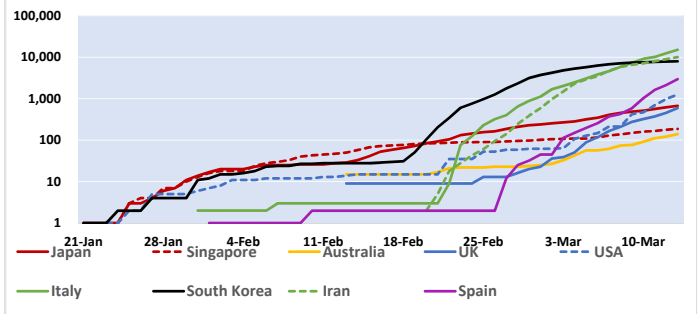
Key points

- 1 Italy and Iran now way ahead of Korea in case numbers (left chart)
- 2 Growth in Japan remains slow but still exponential (straight line on right chart)
- 3 Countries such as Spain following a similar/worse path than Italy. UK and USA remain concerning

Comparison of case numbers - selected countries



Comparison of case numbers - selected countries



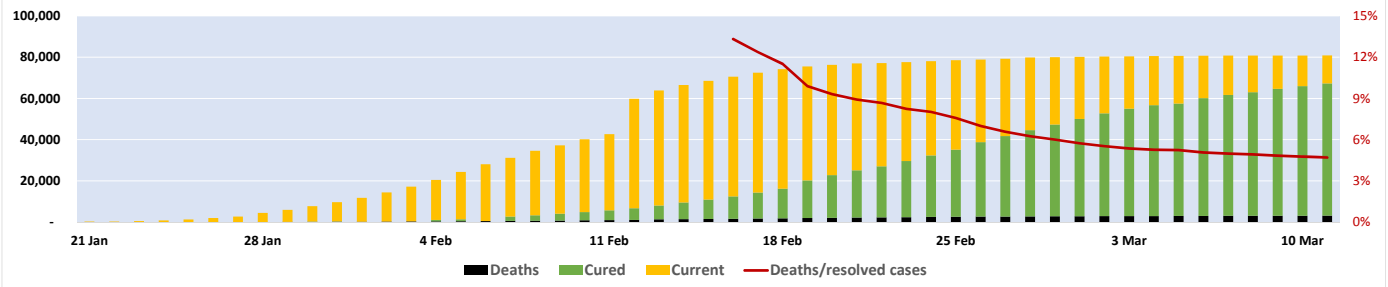
3. China

The figures below are historic figures from WHO (total cases and deaths) and China's CDC (for number of cured cases).

Key points

- 1 New case numbers remain very low - just 11 reported yesterday
- 2 83% of all cases now cured
- 3 Mortality rate on resolved cases now around 4.7% and likely to fall slightly further

Corona virus outcomes - China



4. Comparison of early stages of outbreaks

The bars below show absolute case numbers, starting from the first day that the country reported approximately 200 cases. This allows comparison of the early stages of the outbreak against China (black line), South Korea (black dotted line) and Japan (grey line).

Key points

- 1 Italy (green bar) tracked South Korea quite closely
- 2 France, Germany and Spain followed a similar path but may now be doing a little better
- 3 Growth in many other European countries remains concerning

Comparison of early growth in case numbers

