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Thoughts from a Renaissance man On the COVID-19 coronavirus

The market might have priced in a 1H supply shock, but not 10-20% global infection rates.

So far there are zero (rounded down) cases per 100,000 people in most of the EU and US

Those of you in developed markets (DM) will have had conferences, flights or meetings cancelled by now. You are perhaps only two to three (well-washed) handshakes away from someone who thinks they have the virus, or even less if your father is as much as a hypochondriac as mine. This despite only 114 out of 100,000 having the virus in Hubei, 11 in South Korea, five in Italy, one to two in most Chinese provinces and zero in most of western Europe. You probably read [the Chinese data-set](#) showing 99% of those under 60 survive the virus, that men are twice as likely as women to die (my 70+ father has a point), and that over 80% with the virus have no or only mild symptoms. A vaccine is likely in 2021. The case fatality rate (CFR) is unknown but the Chinese data (ex-Hubei) we use imply it is 1.0% (5 March).

What we know, and don't know, about the virus spread and the economic impact

It seems the virus can be contained but it requires measures which Europe and the US might not be prepared to enact. China crashed its economy in February and new daily cases outside Hubei are now rising only in single digits. Japan, [Singapore](#) and Hong Kong have also done well. [Iran](#) and Italy though imply the virus cannot be contained and that is why the UK and others seem to prefer slowing the outbreak until April-June, when hospital beds tend to be more available to manage it. The best-case scenario is that global virus cases are contained at 100-200k and the economic shock is merely a February-April event – which justifies the [central bank easing](#) we have seen this week and suggests a strong economic recovery from May.

The global pandemic scenario in which infection rates rise to perhaps 20% of the population is supported by virus spread data in western Europe, a view clouded by data issues due to differing testing practices in the UK, Italy and Germany for example. We suspect US virus cases are [closer to 400-800 today](#) than the officially reported 159 and will be [above 1,000 next week](#).

[Economists have modelled such pandemics before](#) and 10-20% infection rates with a 1% fatality rate suggests GDP growth will be 1 ppt lower in the US and EU. The former does undermine President Donald Trump's re-election prospects in November. GDP will be perhaps 2-3 ppts lower in emerging markets (EM). We think [Russia](#) might grow at 1-2%, South Africa would be negative and Turkey's growth might be 2%. For EM and Frontier, we look at three points to consider, supply chains, [tourism](#) and commodity prices. In terms of a GDP hit, a country like Pakistan with a non-complex economy, low integration to the world economy, no tourism and a beneficiary of lower oil prices – should be less affected than Hungary, which is complex, integrated and receives lots of tourism revenues.

We do not know if the virus will fade in the summer (MERS did well in the heat), if it will return in the autumn or if COVID-19 mutates in September/October 2020 and become more deadly like Spanish flu did. That is the very worst-case scenario and rare – the vast majority of viruses, eg, Asian flu in 1957 or Hong Kong flu in 1968, do not. We do not know if we're right that [Africa might have the lowest fatality rates](#) due to the young population. We don't really know how to model supply chain shocks. We don't know if 10-20% global infection rates could be the trigger for the long-talked about 'helicopter money' to be given to every household.

Market reaction – rebound coming soon or another fall of 10-15% if we see 10-20% infection rates

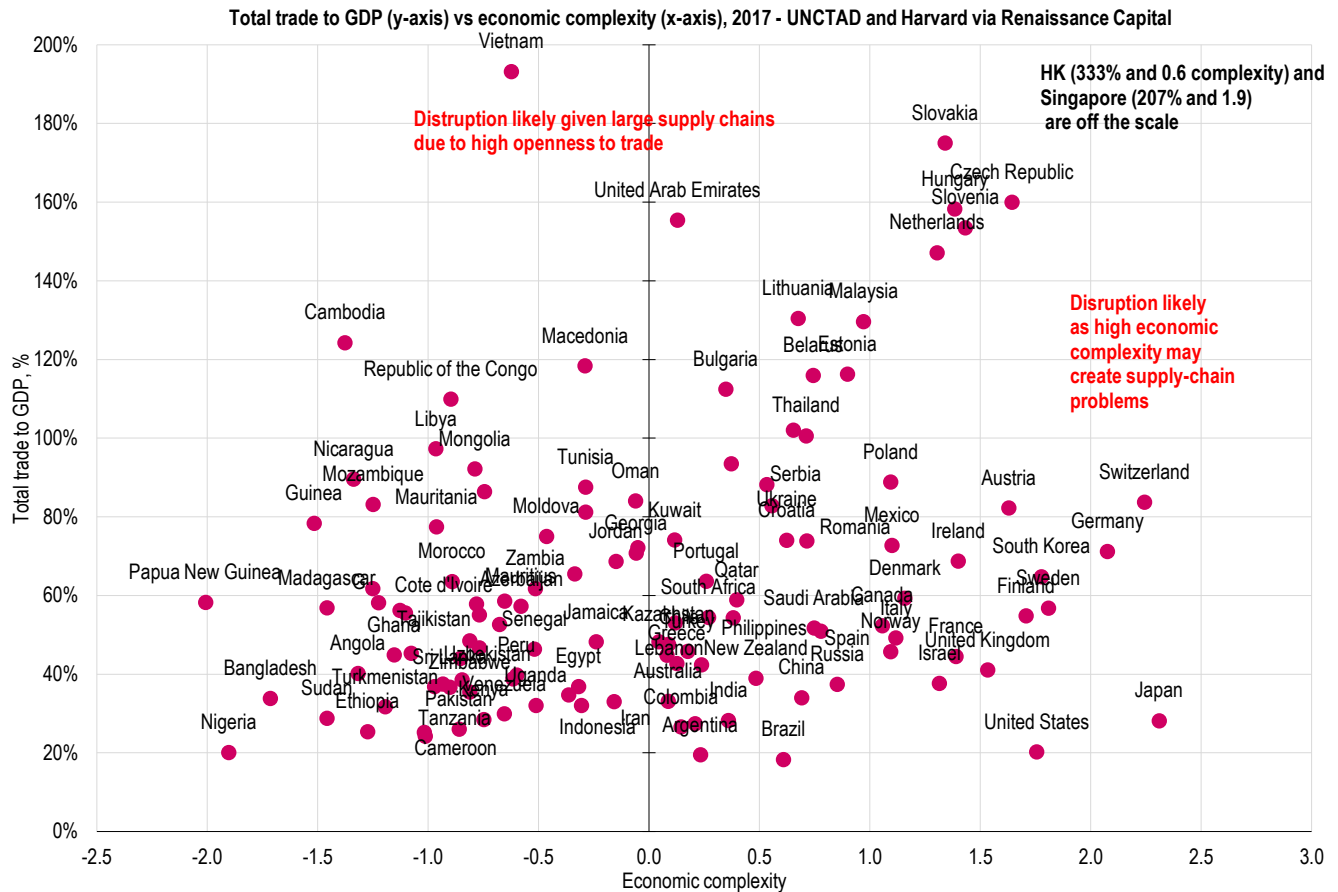
Market reaction has seen EM and DM equities hit by over 10% relative to 2020 peaks, and oil drop 24%, with overweights like Brazil and Russia plus Nigeria in frontier, hit most and China outperforming. We assume similar additional moves if the market prices in 10-20% global infection rates or a big rebound in 2Q, if the virus is contained in Europe and the US.



In terms of new charts for this report, perhaps the most important is our look at economic complexity vs openness of economies.

We suspect Vietnam, among the major frontier markets, central Europe and Malaysia in EM are most likely to be disrupted by a multi-month supply chain shock. We expect to hear more about this in the coming one to two months.

Figure 1: Supply chain shocks likely to hit complex economies and those highly integrated to the world economy



Source: UNCTAD, Harvard, Renaissance Capital

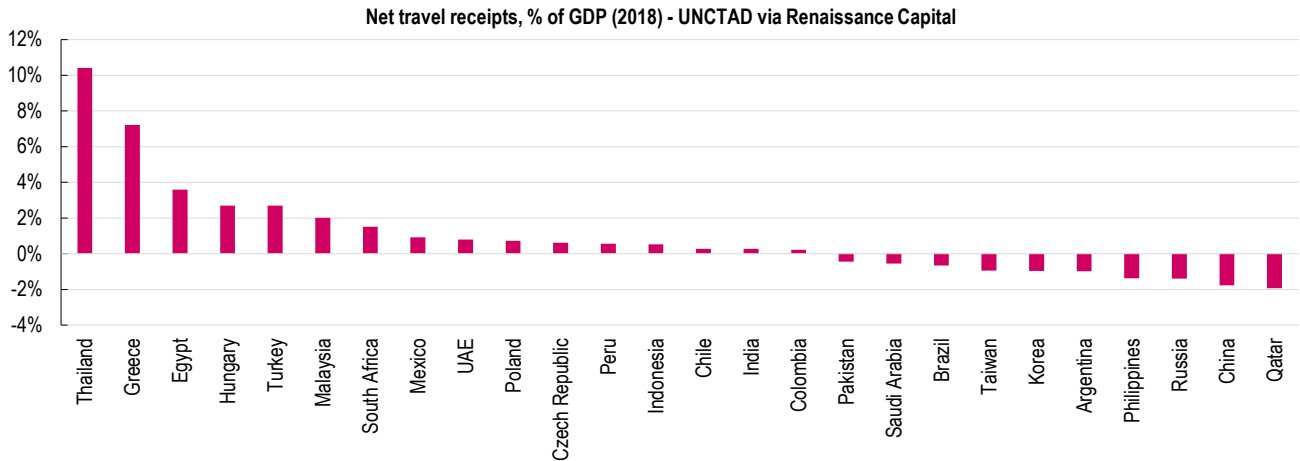
While this looks like good news for Nigeria in the bottom left, obviously its dependence on oil is negative news. FX reserves are likely to fall fast and with oil around \$50, we suspect FX reserves drop below \$30bn in 2H20.

Countries that might suffer least range from Ethiopia to Bangladesh or Pakistan – they are not complex, they import energy and they do not get large tourism revenues.

A second issue to consider is tourism, where we should now expect to see large falls of at least 50% YoY in tourist flows to Turkey, Egypt, Georgia and others where tourism does play a large role. It is notable (and not credible in our view) that Turkey still claims to have no cases and unlikely that Egypt has around three. Tourism will be hit because many will not want to mix with other tourists, even if the host nation had no virus cases. We expect a full recovery in tourism revenues within 12 months if the virus largely disappears by 3Q20, or another wave of concern about this if the virus comes back in September and October.



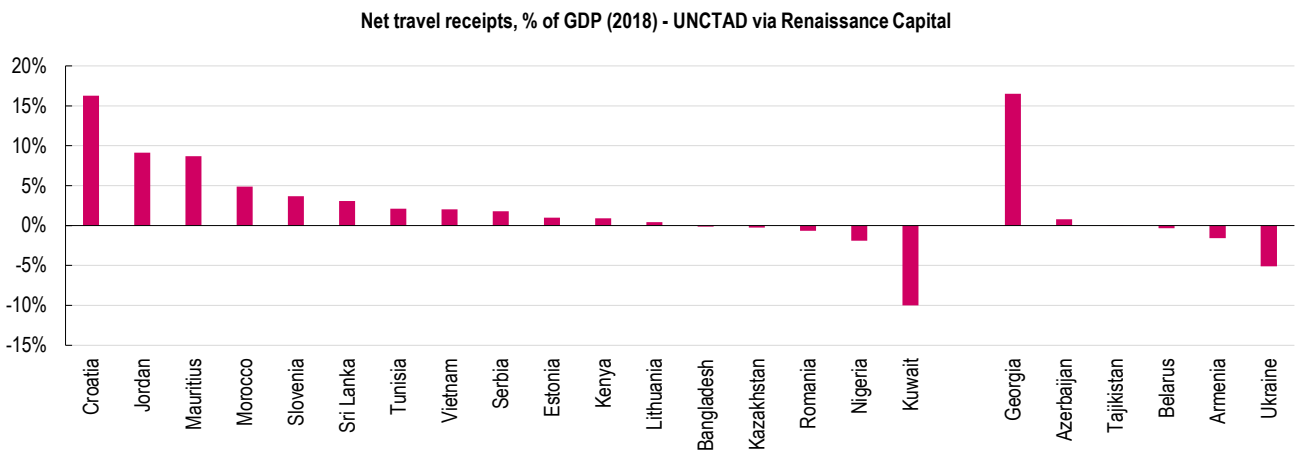
Figure 2: Net tourism receipts as % of GDP – Greece, Egypt, Hungary and Turkey most vulnerable in EEMEA



Source: UNCTAD

In Frontier and the CIS – Croatia, Jordan and Georgia are most vulnerable – with the biggest hit to come if the virus remains a global anxiety over the summer (it might not).

Figure 3: Net tourism revenues in frontier markets

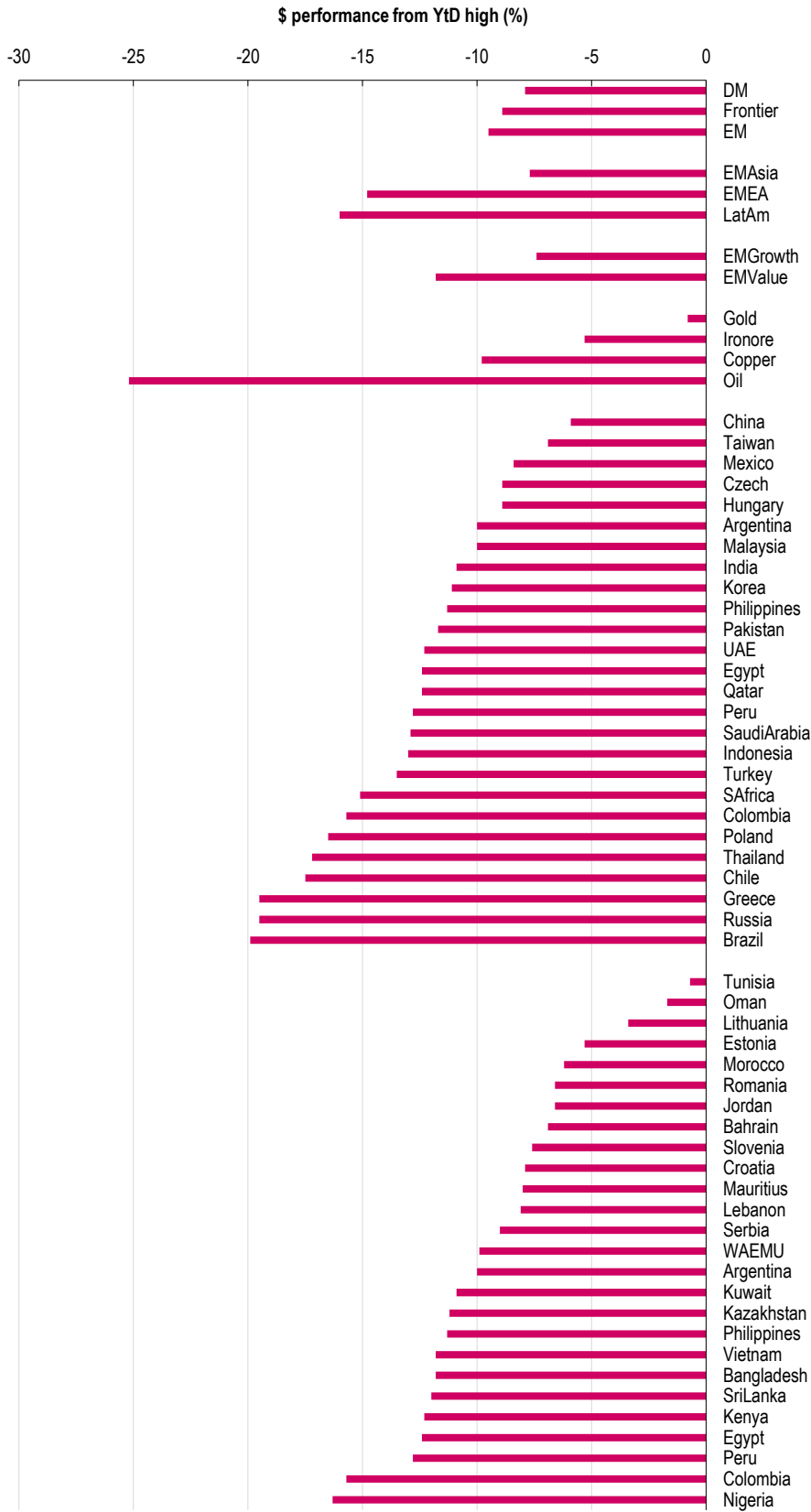


Source: UNCTAD

In terms of market performance, as of the market close on 4 March, we assume that if the market has to price in a global pandemic which hits 10-20% of the population with a case fatality rate of 1.0%, But our work on complexity above shows that different emerging markets may be sold. Investors have until now sold markets they were overweight in first – such as Russia and not central Europe where positioning has been light. This would change if Germany or the US gets millions of virus cases. We think central Europe or potentially Mexico would suffer more. Global markets would fall more and oil prices would drop more than gold.



Figure 4: Dan Salter, our equity strategist, provided this useful guide on market performance since the 2020 peak



Source: Bloomberg

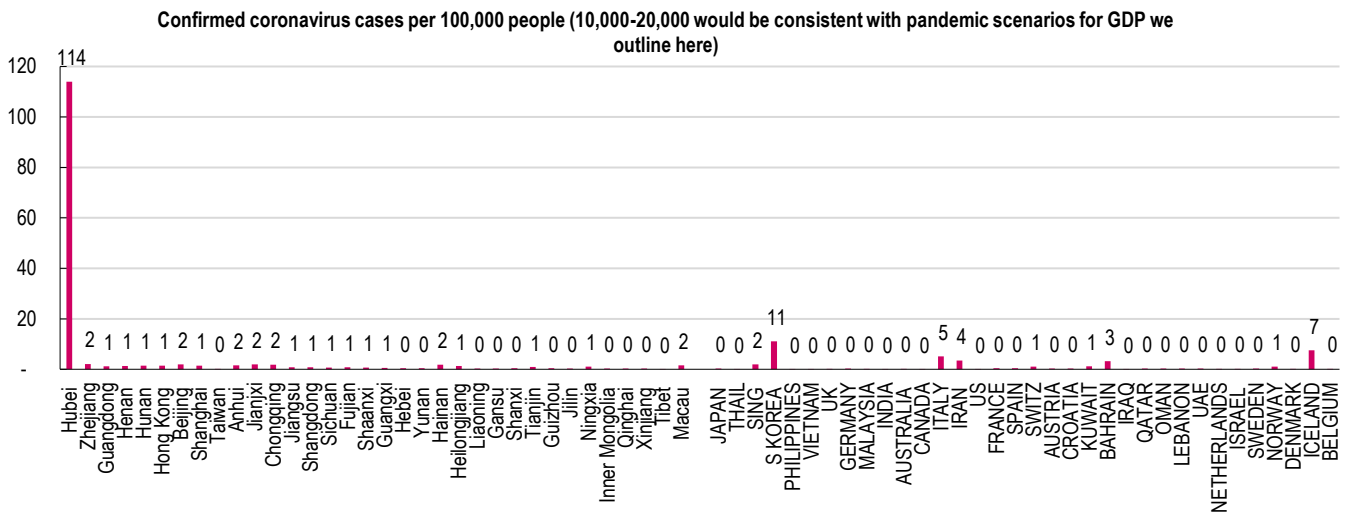


If, however, the virus spread shows it can be contained in Europe and the US, we (unsurprisingly) see the biggest scope for a rebound in equity markets such as Brazil, Russia, Greece and Nigeria.

In terms of the virus data itself, it is no surprise that the market is not pricing in 10-20% global infection rates when even Hubei province in China only reached 114 confirmed cases per 100,000 people.

Korea, Italy and Iran are key countries to watch, to see whether the virus can be slowed without ever reaching high levels.

Figure 5: Very few cases per 100,000 people even in all Chinese provinces (ex Hubei)



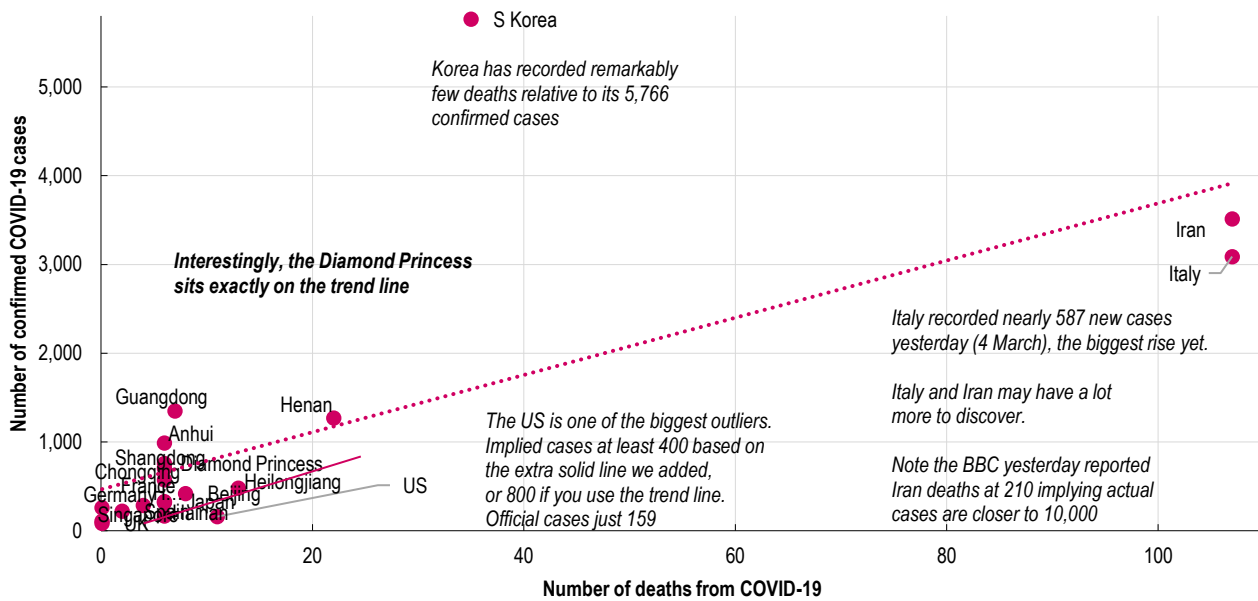
Source: Johns Hopkins, IMF, Renaissance Capital

What we have already seen is Hubei fail to contain the virus, and then Iran, and now Korea and Italy. Western Europe appears to be heading in the same direction today. It is notable that the UK government does not believe viruses like this can be contained, which implies mass infection in western Europe, then spreading back to China, Africa and elsewhere.



Figure 6: More data help us identify outliers in the figures

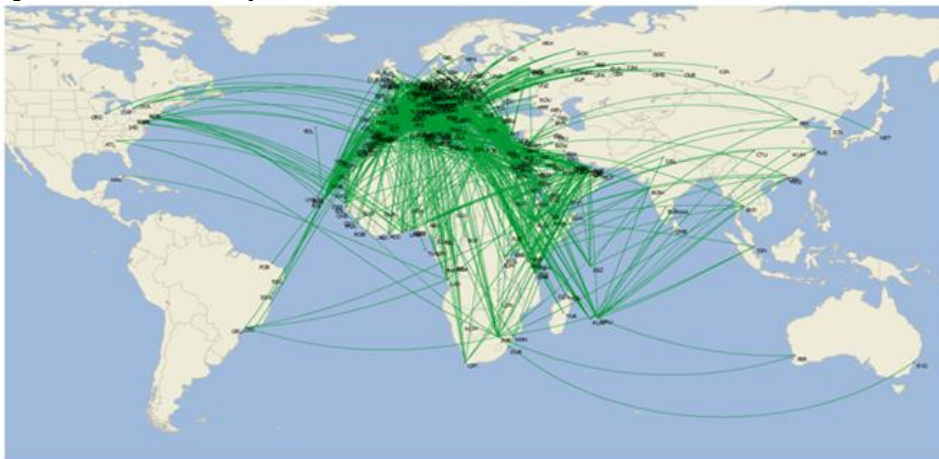
The number of confirmed coronavirus cases (lhs) as of 5 March vs COVID-19 deaths -
Johns Hopkins data via Renaissance Capital



Source: Johns Hopkins, BNO Desk (Iran data, 5 March), Renaissance Capital

Africa has been lucky so far to have few links to China or Iran – and thermal screening in place in Nigeria since early February may have delayed the virus arrival too – but Italy and Europe are now proving to be the contagion route.

Figure 7: Air travel connectivity from Africa to the world in 2018

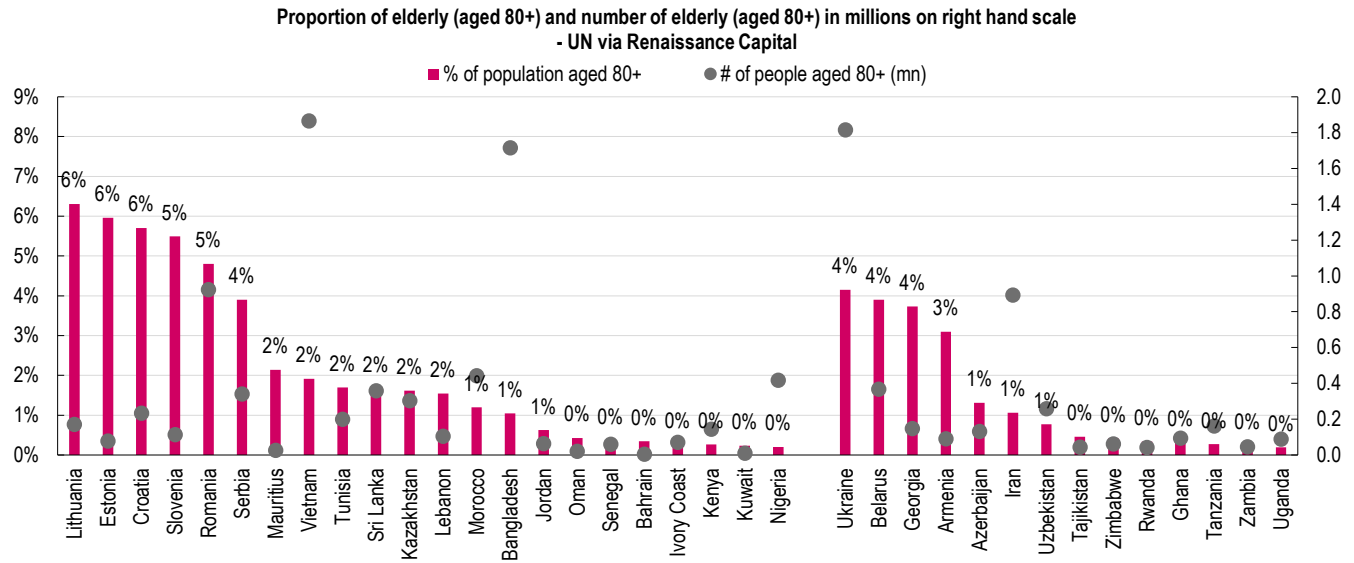


Source: IATA

We hope that Africa will get a benefit from its demographic profile. 31% of Nigerians are under 10 and Chinese data show that among the first 1,000 fatalities, not one was a child aged 0-9. The following data do not explain Iran, but we think that country is greatly understating case numbers.



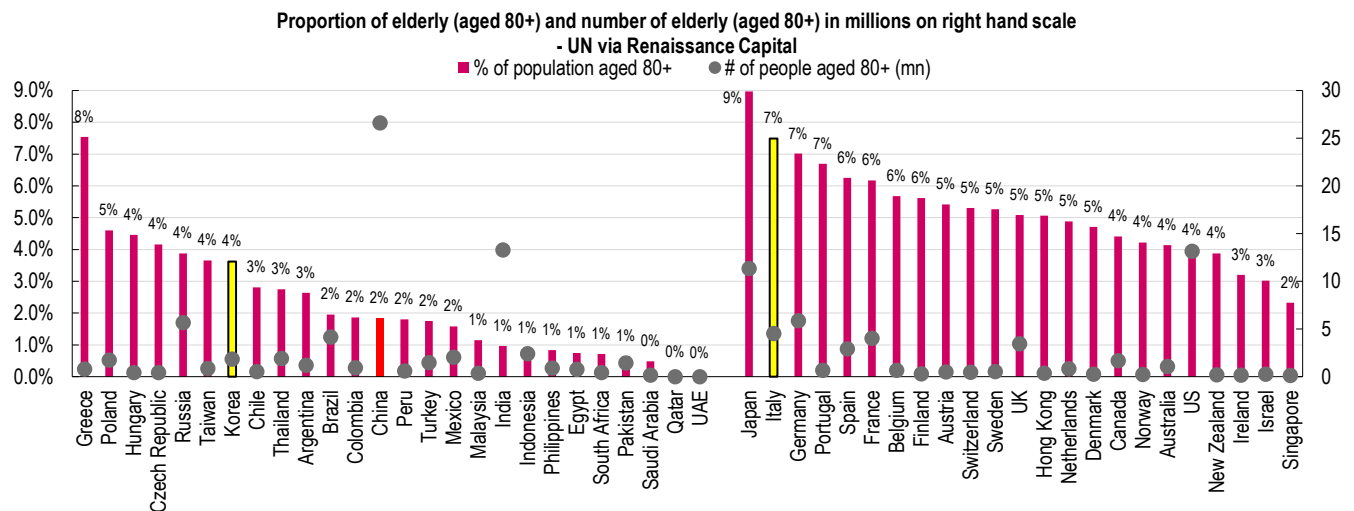
Figure 8: African countries have the lowest share of vulnerable people in the population



Source: UN

We expected that Italy would record more deaths than Korea because it has a much older population, and this is borne out in data from the morning of 5 March that show Italy has 107 deaths compared to 41 in Korea, even though virus numbers in Italy are 3,089 against 5,766 in Korea. That age profile helps explain why Japan has worked so hard to contain the virus.

Figure 9: The most vulnerable age group are aged 80+



Source: UN, Renaissance Capital

We are virus amateurs – despite writing about this for over a month_ and suggesting it was best to hide in safe assets – but we do understand some basic concepts such as the CFR. This is the mortality rate that is determined by dividing the percentage of people who die, by the combined numbers of those with the virus who recovered and who died. This is impossible to know until everyone has either died or recovered, and as recovery takes longer to prove than death, it tends to start very high and then fall. With COVID-19, we keep seeing new cases, which makes it impossible to accurately judge the CFR.



What became obvious in early February is that Hubei was very different from the rest of China. This might be because data were falsified in Hubei, or because the health system was overwhelmed, or because there are two strains of the virus, or because data were false in the rest of China, or for another reason. We began to look at data for Hubei, which today show a CFR of 6.7% and then separately for the rest of China plus the rest of the world, which show today that CFR is 2.9%. The former figure was much higher in the early days of the virus outbreak, eg, 42% on 7 February. The latter figure was 1.4% last week but has risen with new deaths in Italy, Iran and Korea. Iran's data figures were so poor that we had to exclude that and Hubei, which gives a global CFR ex Hubei and Iran of 2.3%.

But we think the best way to look at the CFR is Chinese (ex Hubei) data because the virus there has virtually been stopped. That tells us the CFR is about 1.0% and might be lower in well prepared developed markets with good healthcare systems and a similar age profile to China. For Africa it could be lower because of the age profile, or higher because of poor healthcare. But 1.0% is our base line for now.

Figure 10: Coronavirus data from Johns Hopkins via Renaissance Capital reported 5 March

	Hubei	Everywhere else	Global total	Ex Hubei/Iran	China (ex Hubei)
Deaths	2,902	384	3,286	292	112
Recovered	40,574	12,831	53,405	12,279	11176
Deaths and recovered	43,476	13,215	56,691	12,571	11288
Case fatality rate (as of 04/05 Mar)	6.7%	2.9%	5.8%	2.3%	1.0%
Confirmed cases: excluding dead or recovered	23,990	15,067	39,057		
As % of total	36%	53%	41%		
Confirmed cases TOTAL	67,466	28,282	95,748		

Source: Johns Hopkins, Renaissance Capital

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