

Lonnie Frisby: Welcome to our *Navigating Business Series*, where we'll be bringing you the latest insights and trends that HSBC experts are seeing across businesses and industries in Asia Pacific.

I'm Lonnie Frisby, head of communication for commercial banking in Asia Pacific. And for the first episode in our series. I'm joined by Frederic Neumann, co-head of Asian Economics with HSBC's Global Research. Over the next two episodes, we'll be discussing the medium and long term economic outlook across sectors with particular relation to Asia.

Today, we'll kick off talking to Fred about three sectors we're hearing about on a daily basis and which have experienced some of the biggest impacts from COVID-19 both positive and negative. Namely, technology, healthcare, and education.

Now, first to technology. COVID-19 has accelerated remote working, e-commerce, and a rapid focus on evaluating and de-risking the end to end value chain. What do you see are the potential long term impacts on the various areas of the technology industry such as software, IT services, and network equipment?

Frederic Neumann: So the COVID-19 crisis has really laid bare some of the shortcomings in the tech infrastructure that we have. Many people will have experienced conference calls that weren't quite as smooth as you would like. Some of the remote access has not always been that good. The internet backbone hasn't necessarily been as swift as one would like. And so what we actually see already is enormous investments in the infrastructure, and that has driven demand for a lot of hardware. For example, if you look at exports from Asia like semiconductors for example, they've actually held up quite well because of that demand component.

Now, that's certainly a bright spot if you will. But in other ways as well you could argue that COVID-19 the crisis its aftermath, is accelerating the digitization of our very lives and that will require more investment, it will mean people getting used more to online shopping, online banking, online working, and so it has many implications that really reach into all our lives. Even services are being really asked to rethink their business models. It won't be going back to usual world, it will be a far more digitized world that we move into.

Lonnie Frisby: Now there's been a lot of attention on how the pandemic has accelerated the digital economy. Do you think the growth in this area can help offset economic impact of the pandemic in some countries?

Frederic Neumann: In some countries possibly yes. We've seen for example, we've seen countries that are technologically better prepared and we can measure this, so there's bigger and wider internet access, there's more availability of high-speed mobile phone connections, et cetera, actually deal with the lockdowns, with the disruptions much better than countries that haven't invested in technology. And this is not just a question of advanced economies and emerging markets, this is really you find some developing economies being just as well prepared as some economies in the West who are actually lagging in terms of preparedness.

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And so you see actually sort of the technology the readiness of technology helping economies get through this particular crisis. And then beyond that. Obviously, you're going to see the increased adoption of technology in all walks of life, and you know some economies are better placed than others.

Now, there are some economies like Taiwan's economy. For example, benefiting from the hardware demand already, but you're going to see even economies like Korea, which is a highly connected economy where the internet is much more pervasive in everybody's life, being able to adapt much faster to a post-COVID-19 world.

Lonnie Frisby: Now moving to healthcare, Fred, if I could ask you to take a look into your crystal ball for a moment, how does the Asia healthcare market look following COVID-19? And what will be the likely key factors influencing its growth?

Frederic Neumann: So certainly, was a wake-up call, the crisis, the pandemic, in many markets where there's been a realization that some of the healthcare infrastructure is inadequate. When we speak about healthcare infrastructure, we mean both the physical infrastructure, which is the number of hospital beds or clinics and the availability of PPE. For example, personal protective equipment, but also the softer infrastructure, the healthcare insurance systems. The availability of calling centers in remote areas. For example, clinics. And so there'll likely be a very concerted public effort and complemented by the private sector to provide better health care provision across the board. And so this awareness, I think that we had shortcomings in that area, that'll be rectified. It's probably too much to ask for the public sector to carry the burden on its own. That means that the private sector will probably be asked to jump into the fray as well. We've seen in Asia already, in many countries, privately run hospitals privately run health organizations, actually do quite well, often catering to say a medical tourism segment, but you could see that role expand in addition to public sector healthcare provisions. And then it plays into all sorts of you know aspects. It's about the healthcare provisions, employers provide for the employees. It's the healthcare provisions, we provide for aging populations of which Asia has a lot so it's about education. So it really plays into a lot of aspects and there are opportunities in terms of hardware software wherever you look, in terms of providing better healthcare.

Lonnie Frisby: I'm also keen to get your outlook for the health tech industry. Can we expect to see new trends emerging that will shape the delivery of healthcare in a post-COVID world? And which countries or markets might be likely to experience strong growth in this area?

Frederic Neumann: So this is certainly a very nascent trend we already saw before this particular crisis that we see online consultations. For example where either you go to the primary caregiver or practitioner. You consult them online rather than necessarily visiting their office, or the consultation of experts. For example, done online. Even surgery done increasingly remotely. And that's perhaps a trend that'll really accelerate because of this. Because in part, because people might be more reluctant to actually physically go to a clinic for fear of getting an infection of whatever sort. And also because people are just becoming more comfortable with digitization of interactions.

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I think all of our listeners possibly, on a personal level have experienced that. I personally have started to kind of get accustomed to online webinars rather than necessarily seeing people face-to-face as that gains traction. I think the delivery of healthcare, particularly consultation will become increasingly online.

And in terms of markets that are leading in this. We see China actually already having quite a burgeoning industry in this. Korea is another one where you would see probably that taken off. And it's again it's the highly technologically prepared markets, where there's not just the infrastructure but also the popular acceptance of new ways of interacting. And the take-up there for new technologies is higher in some of the North-East Asian countries than in other parts of the world.

Lonnie Frisby: Well, speaking of healthcare, what are the implications of the virus on the pharmaceuticals industry?

Frederic Neumann: So there are several aspects of this. One is that you've seen, for example, the need to scale up production very quickly. So in the vaccine space, there are some 130 vaccines now under development. Once we get the right one, we have to scale up very quickly the production. You've actually seen that in the supply chains for pharmaceuticals, you've seen enormous demand to increase the production capacity for various drugs, including vaccines.

Another thing that has emerged is concerns among some countries that they're too reliant on international supply chains when it comes to pharmaceuticals. China is a major exporter of the active ingredient that is in most drugs actually. In the US, for example over 240 of some of the most critical drugs, the active ingredient is produced in China. So there is some concern among policymakers that in an environment where supply chains might get interrupted, where there's national emergency demand for certain drugs that the reliability of those supply chains is not assured. So what you might see therefore as a result is a move to create redundant production capacity in other countries, redundant in normal times but obviously not in times of crisis, till that can be activated more quickly and to pay perhaps even some companies to maintain spare production capacity so any future drugs can be scaled up very quickly.

So really see that's a good example of an industry where you see a disentangling of these very concentrated supply networks, partly for political reasons. And that's something that will have a lasting impact of how we think about global trade, that you need more distributed suppliers to bring some production back home. Just for reliability purposes. And so it's probably at the forefront, the pharmaceutical industry is at the forefront of this broader rethinking of supply chains and the vulnerability that exists in very far-flung or concentrated supply chains that we have.

Lonnie Frisby: And finally to the education sector. Now anyone who's been involved in education over the past few months has had a very difficult time. The financial impact of the pandemic has also been keenly felt by those higher education institutions right around the world. What's your assessment of the impact of the education sector? And how are higher education institutions responding?

Frederic Neumann: So it's probably been in the first instance quite disruptive to have in many countries a temporary suspension, or reduction in the provision of

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education for really a whole generation, if you will. And I think from a social responsibility perspective we shouldn't forget this because if you miss out on several months of schooling, that is a big challenge. And so I think one societal challenge will be to provide the opportunities for that generation who has missed out some follow-on education opportunities, scholarships to make up for that.

Beyond that, I think that the education sector is actually reasonably well adapted to a new world where there's much more online teaching. You've seen in places like Hong Kong. For example, almost seamless movement of even high school education to online provision of classes, whereas other countries the infrastructure just wasn't there and you couldn't possibly do that. I think the model that you see then, therefore in places like Hong Kong or Singapore or in other parts of Northeast Asia is something that will be adopted more widely and just becomes part for the course. In that even if we do return to schools, we might actually see that kids spend one day a week at home studying remotely rather than being at school every single day.

Now, for higher education that's equally true. It almost is also a level of democratization, if you will of the education provision because if you don't have to physically be at the top university and you can take that particular course remotely, it kind of broadens the access in many ways. So it is a positive development to which education is broadly well suited. I would say one last point, that higher education institutions in particular, are facing a lot of pressures in the near term, and that is that the COVID-19 crisis has interrupted international travel. And a lot of higher education institutions rely on the tuition that international students are paying. And so that is obviously a financial challenge that will be overcome, but it's not inconsequential for some countries, in particular they have relied on foreign students coming to the universities and supporting higher education.

Lonnie Frisby: With lockdown restrictions still in place, many Asian students are still unable to travel to access education overseas. And this is placing a huge dent on some overseas economies such as Australia. What trends are likely to emerge as a result?

Frederic Neumann: So that's right. I think there is a significant impact on higher education institutions in some parts of the world. You mentioned Australia, even the US which is a very large economy. Actually a very significant portion of students are from overseas and pay very often the full tuition. So there is a very significant shortfall for these institutions in terms of revenues at least during the current year.

And it might also carry over because given the uncertainty, many parents might be reluctant to send their kids halfway across the world for education for quite some time. So the way to adapt in some sense is to offer more courses online. There is an element of again of democratization of education. You no longer need to afford to move to the United States and live necessarily there paying much higher living costs than in your home country perhaps, in order to gain an education once everything has moved past potentially online. That's I think, a positive development.

One other interesting byproduct of this trend. Actually is that you see particular Chinese students now opting to stay in China to take their education there, or stay in Korea or stay in Hong Kong. And that actually means that to some extent these institutions have now received a bigger pool of very talented applicants and to some

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extent have actually perhaps gained a bit of a competitive edge, given there where they're located closer to where the demand actually is.

Lonnie Frisby: In the next episode, I'll be back with Fred to explore what's next for tourism, apparel, and manufacturing sectors. In the meantime, for more insights from HSBC or to listen to this series, visit us at business.hsbc.com. Thank you for listening.