Editorial

by Gurumurthy Kalyanaram

Fifth Generation (5G) Networks, Emerging New Global Economic and Market Order, and Huawei

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As now widely recognized, fifth generation (5G) networks are critical to the infrastructure. 5G network represents a new generation network able to transmit data with a speed higher than 1 gigabit per second and with much lower latency.

5G Networks, and New Emerging Global Economic and Market Order

One of the important developments that is likely to dramatically alter our society, commerce and economy, and polity is the conceptualization, design and increasing rise of crypto-currencies and block chains in economy and commerce. With a clever application of cryptography, we will be able to secure the transfer of money and payment without needing a trusted third party. No central banks, no clearing houses.

Per most technology and policy experts[1], the role of traditional currency will diminish in the next decade or two and even disappear. Obviously, this will change the optics and substance of commerce and conduct. Experts are already discussing regulatory mechanisms for the new world order.

The crypto-currency and block-chain efficiencies and effectiveness will depend much on the speed of the networks, and the 5G networks will be crucial in this context. Accordingly, Huawei will have a big role to play in the design of new global economic and market ecology and order[2].

Huawei and 5G Networks

Huawei is now the world's biggest telecommunication equipment maker, with a 28 per cent market share and more 5G contracts around the world than any other company[3]. Its closest rivals are Ericsson and Nokia, the European companies. In US, Verizon is just beginning developing 5G networks.

To maintain its market leadership and to increase its autonomy in 5G market, Huawei has released a series of 5G based chipsets designed to compete with U.S. and Korean competitors. These chipsets cover most of the telecom field: Kirin 980 chipset for smartphones; Balong 5000 chipset for modems; Tiangong 5G base station; and Kunpeng 920 chipset for the Taishan cloud server.

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1 *Finance gurus Berner and Gensler: 3 forces remaking the industry https://mitsloan.mit.edu/ideas-made-to-matter/finance-gurus-berner-and-gensler-3-forces-remaking-industry via @MITSloan*
A Former Top Wall Street Regulator Turns to the Blockchain https://nyti.ms/2F7AvFF
Currency Futurist Neha Narula Debunks Cryptocurrency https://to.pbs.org/2WvJE7P via @amanpourcoPBS
Where in the world is bitcoin's mysterious creator, Satoshi Nakamoto? https://www.cbsnews.com/news/where-in-the-world-is-bitcoins-mysterious-creator-satoshi-nakamoto-60-minutes-2019-05-17/

2 *5G has very significant architectural differences.*

3 *Source: Dell'Oro, the market research company.*

Do Huawei's equipment pose a security threat?

5G has very significant architectural differences that complicate security regulation. There will need to be sensible restrictions on exactly where foreign technology is deployed and a diversity of providers so that there is no single point of failure or potential leverage.

Even Cisco, the most fierce competitor to Huawei in products including servers, affirms that the potential dominance by Huawei is overstated because 5G networks will be built on a mix of equipment from all over the world[4]. Per Reports, "assertions that any Chinese technology in any part of a 5G network represents an unacceptable risk are nonsense." "British intelligence has concluded that it is possible to mitigate the risk from using Huawei equipment in 5G network...The UK National Cyber Security Centre has determined that there are ways to limit the risks from using Huawei in future 5G ultra-fast networks..."[5]

The US complains that Huawei equipment has features that enable it to collect information for China's government. Accordingly, Huawei is a threat to national security. There are many perplexing elements to this.

For a moment, let us grant the complaint that Huawei's equipment may pose a security threat. But what is it? US is the most sophisticated society, and it should be able to identify the feature and protect the infrastructure from such threat. But no specific feature has yet been – at least publicly – discussed. The US can also restrict Huawei from highly sensitive core sectors. France, Germany and UK have done thorough due diligence and concluded that Huawei does not pose significant security risks.

The US Department of Commerce, upon direction of the President, has blacklisted Huawei. But the Department is not showing the urgency that would be associated with serious national risk. The Department has given a grace period of 90 days to Huawei. That appears to be a signal that the US government is hoping for a reasonable outcome in the US-China trade negotiations. If that were to be the case, there may be a solution to Huawei's conundrum too. President Trump has recently already acknowledged this[6].

We must recognize two important facts, and work based on those facts. One, Huawei has now grown to be a global technology and market leader. Two, Huawei now stands as a potential significant global contributor to increased economic growth and productivity through its enabling technologies.

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4 Cisco CEO says governments shouldn't worry that Huawei will dominate the race to build 5G wireless networks https://www.bloomberg.com/news/articles/2019-03-03/cisco-ceo-suggests-fears-of-huawei-5g-dominance-may-be-overblown via @technology

5 Blanket bans on Chinese tech companies like Huawei make no sense https://www.ft.com/content/76e846a4-2b9f-11e9-9222-7024d72222bc via @financialtimes UK says Huawei is manageable risk to 5G https://www.ft.com/content/619f9df4-32c2-11e9-bd3a-8b2a211d90d5 via @financialtimes

6 Trump: Huawei could be 'part of a trade deal' https://politi.co/2wjbPI0 via @politico

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