Rebuilding after software ate the world

by

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Well-known Silicon Valley entrepreneur and venture capital investor Marc Andreessen's 2011 note [1] claiming that "software is eating the world" will go down as one of the best investment calls of all time. It is therefore worth paying attention to his more recent piece during the peak of the Covid-19 crisis titled "It's time to build" [2].

In the decade since the Global Financial Crisis, global software stocks have significantly outpaced the overall market, returning 22.6% annualised versus 11.4%. The broader technology trend has also been encapsulated in terms such as the "fourth industrial revolution" or the "knowledge economy" and the impact that these trends have had at both an economic level and from a financial market perspective are profound, with any shift to "rebuilding" potentially having equally important implications.

The Covid-19 crisis has been an accelerant of several underlying structural trends (many of which relate to technology), but on the flipside, the crisis has highlighted the deficiency in the ability of western institutions to respond to such a crisis. We have seen a chronic lack of personal protective equipment for healthcare workers early on in the pandemic and issues with testing capacity months after the pandemic started. As Andreessen says, "making masks…(is) not hard. We could have these things but we chose not to—specifically we chose not to have the mechanisms, the factories, the systems to make these things. We chose not to build."

Plenty has been written about globalisation, with the collapse of the Soviet Union and China's accession to the World Trade Organisation in 2001 marking pivotal moments in its evolution. Companies have spent years optimising their supply chains by offshoring production while basing their intellectual capital and higher value add functions such as design, sales and marketing in developed markets. However, the pandemic has highlighted some of the vulnerabilities of this model, particularly given the increasingly fractured geopolitical backdrop.

Policy responses to the virus have been significant across the world, but the nature of the support has varied. The US and the UK have focused on maintaining incomes, which has led to sharp recoveries in retail sales. In contrast, China provided less support to households and instead engaged in a massive top-down effort to get its businesses back to work after the lockdown. Infrastructure and fixed asset investment were the primary beneficiaries of China's stimulus efforts and the export sector was boosted by healthcare related goods and the recovery in consumption in key export markets. Put simply, China has chosen to build and America has chosen not to.

Stepping back, income polarisation in developed markets has led to a political backlash. This has led to protectionist calls to "bring back jobs" in the case of the US, "Build, Build, Build" in the UK or the somewhat less rousing "Biden Plan To Rebuild US Supply Chains And Ensure the US Does Not Face Future Shortages of Critical Equipment". That more government involvement in the economy is required to help boost the economy and maintain control of supply chains now has bipartisan support in the US. Republican senator Marco Rubio went as far as saying "capitalism is the best economic model. It will always yield the most efficient

outcome. But there are times where the most efficient outcome is not the best outcome for America".

The balance between public and private investment and whether it should come in the form of a Green New Deal, or incentives to specific industries, is subject to intense political debate. Semiconductors have become a focal point of policy as they underpin all advanced technologies and have strategic importance. According to a recent Semiconductor Industry Association report, the federal government needs to deploy $20 billion to $50 billion to make the US a globally competitive location, as locating a plant in the US costs about 30% more over a decade than comparable sites in Taiwan, South Korea and Singapore, while China may be as much as 50% cheaper. This helps to explain why only 6% of the new global capacity in development will be located in the US versus 40% in China.

If any of this was easy it would have happened years ago. The most prominent example is the lack of US infrastructure investment; The American Society of Civil Engineers estimates it will take $4.6 trillion to get up to appropriate standards. Building is a far more preferable solution than trade wars and tariffs, but one of the challenges has been "how do we pay for it?" Fortunately we have an answer in Modern Monetary Theory, which, while subject of much debate, encourages a focus on resource utilisation and inflation rather than deficit levels.

Building may initially cause inflation to rise, but building any form of new capacity is ultimately likely to be disinflationary, while also boosting growth and helping to reflate the economy. To be sure, the technology trends remain very much intact and there are numerous political and regulatory hurdles to meaningful policy shifts towards "rebuilding". However, the last decade has been lackluster from a growth perspective and if major developed markets embrace "it's time to build", then this could reverse the fortunes for value versus growth within equities and could even be what ends the 39-year bond bull market.

Links: [1] https://a16z.com/2011/08/20/why-software-is-eating-the-world/
[2] https://a16z.com/2020/04/18/its-time-to-build/