

Technology Policy Dilemmas in the New Administration

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Investors and managers have to deal with the economy as it is, and do business as best they can. New administrations make policy decisions with economic consequences, shaping costs and opportunities for firms. In that sense, it is possible to have a nonpartisan conversation about the technology policy dilemmas inherited by a new administration, and discuss how realistic policy changes shape the economic situation for firms.

That is what today's column provides—a nonpartisan survey of interesting technology policy issues to watch in the new administration. To be clear, there is professional opinion in this column—i.e., I made some judgment calls about what topics interest those in the technology business. To the best of my ability, however, I tried to stick to the economics and nothing else.

This survey will show how many key decisions are up in the air. That has one important economic implication for investors: It creates a classic situation where new information about policy will move financial markets far in advance of the actual actions of firms responding to new policy. Expect indicators to move up and down immediately after decisions become public.

THE ECONOMY

Start with the big picture. Nobody should look to the federal government to adopt policies that fundamentally alter the macroeconomic conditions experienced by U.S. technology businesses. That is because technology related products and services have performed better than almost any other industry during this pandemic.

Demand declined in restaurants, retailing, entertainment, and tourism, to name a few of the pandemic's economic effects. The general contraction can be seen in unemployment. After wildly bouncing around, today the national average for unemployment hovers around 7%, according to the Bureau of Labor Statistics, which is worse than the (just under) 4% before

the pandemic. Unemployment in Hawaii (14%) and Nevada (12%) illustrates how bad the situation has become in areas that depend on tourism and seasonal travel.

Despite the poor overall economy, electronic commerce experienced astonishing growth. After two decades of slow and steady growth, in 2019 electronic commerce reached 12% of total retail sales in the United States. This year it became 16%. That is the biggest one-year change ever recorded in consumer's choice of distribution channels.

DESPITE THE POOR OVERALL ECONOMY, ELECTRONIC COMMERCE EXPERIENCED ASTONISHING GROWTH. AFTER TWO DECADES OF SLOW AND STEADY GROWTH, IN 2019 ELECTRONIC COMMERCE REACHED 12% OF TOTAL RETAIL SALES IN THE UNITED STATES. THIS YEAR IT BECAME 16%.

Many online firms have taken advantage of the situation, especially Amazon, who has been adding 1400 new employees each day in the last few months. They are not alone. Any firm selling widely used tools in electronic commerce, such as Shopify, have hit records sales. Firms with appealing online content, such as Netflix and Disneyplus, have added new users. The latter now reaches 73 million subscribers, which is astounding for a completely new service that has not yet expanded globally. As another example of the accelerated change this year, for the first time ever the venerable *New York Times* generated more revenue from its digital side than its print side.

Less visibly, firms that support virtual processes have experienced growth—from application to infrastructure. Microsoft Teams, Slack, AWS, public and private cloud usage, data centers, carrier hotels, fiber lines, to name just a few, have experienced sharp growth in traffic and usage.

The composition of new digital startups changed quickly, blossoming among firms developing new tools

and services for remote work. Related, M&A has not diminished in hot areas. For example, Salesforce has offered just under \$28 billion for Slack, the aforementioned enterprise collaboration tool.

It boils down to this: Few in Washington perceive that most technology firms need a handout to survive the pandemic. In the near term the administration has two priorities: administer the relief package and distribute the vaccine. Will those priorities help the technology businesses? Maybe a little bit if it brings back the general economy sooner.

TRADE

An important policy issue for many technology firms concerns the tariffs imposed by the prior administration. The tariffs increased costs and hassles in many global supply chains.

The most challenging policy questions revolve around the tariffs for Chinese goods. The new administration has already stated it will not reduce or remove tariffs in this setting until it completes a larger review of the U.S./China relationship. That delay also leaves the restrictions on Huawei and Tiktok up in the air, and delays related policy reviews. Frankly, it is not easy to make predictions about how the administration deals with the policy options.

Less visibly, the prior administration responded to complaints about tariffs by making many exceptions, and by carving out special cases. It would not surprise anyone if *some* or *most* of these exceptions are reviewed by the new administration simply to remove inconsistencies and distortions.

Generalities about tariffs are elusive, however. Expect most tariffs to change on a case by case basis. For example, I have friends in the business for specialty electronic parts for legacy equipment around the globe, and they saw their prices rise with the imposition of tariffs on some of their key inputs. I expect those tariffs to decline eventually because they have little to do with Chinese/U.S. relations. However, I would not venture a guess on a timetable on when.

A different sort of trade policy dilemma is brewing in Europe over privacy policy. The European Union adopted the General Data Protection Regulation in 2018, and that imposed costs and hassles on the Facebook and Google and a few other online firms. Regulators are beginning to issue fines. Many countries are discussing similar policies. Should the administration intervene on behalf of U.S. businesses? That question will frame a large and continuing policy dilemma.

IMMIGRATION

Policies about immigration have consequences for the technology businesses, particularly the policies for high-skilled immigrants. While nobody expects sweeping reform, the administration has the ability to take unilateral action.

The least controversial policies are those that permit U.S. business to employ high-skill immigrants with master's degrees or PhDs from U.S. universities. Those training programs bring talented people to U.S. firms, and never officially were shut down, though they did slow down in many respects. As an important channel for "brain gain" they are likely to start again without much fanfare.

The more controversial part of high skill immigration involves the system for H1-B visas, which provides a framework for firms to directly bring in skilled workers from other countries. The H1-B system has been constrained for many years, and both left and right want to change the system, albeit in different ways. The prior administration proposed to make employers pay more, and proposed to change the list of eligible jobs. There were also proposals to replace the lottery selection process with one that favored the highest paying jobs. The outgoing administration also sued Facebook for allegedly abusing the system. The new administration will face difficult questions about which of these initiatives to keep and which to abandon.

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Importantly, these debates take place in the shadow of the routinization of online platforms to facilitate worldwide programmer markets. Every major software firm outsources some amount of work to programmers outside the United States. If firms cannot get what they need in U.S. labor markets, expect them to look to these channels even more.

COMMERCIAL POLICY

The administration can have impact through staff and personnel appointments to agencies that implement

commercial policy. Some of these agencies directly shapes high tech, such as the decisions at the Federal Communications Commission and the Federal Trade Commission. That remains so, but other areas will receive focus in the short run.

The biggest appointments will be at the antitrust division at the Department of Justice. The DOJ has already filed a federal suit against Google, and multiple Attorney Generals at many states have filed against Google and Facebook. Depositions should start not long after new agencies appoint new people to leadership positions. An open policy question will need resolution before then—i.e., whether the suit targets a narrow or wide set of practices, or a narrow or wide set of remedies. What is narrow? Get rid of the deal in which Google pays Apple to be the default search engine on the iPhone. What is wide? Break up Facebook into several firms, and regulate ad exchanges to get rid of self-dealing. Those decisions lie with new leadership.

The prior administration also opened antitrust investigations into practices at Amazon. There is no public information about them. Again, new personnel will decide what to continue and what to abandon.

Another big policy fight sits on the near horizon. The laws shaping the liability for hosting companies provides a framework for what steps an online firm take to shield themselves from liability. That shapes how firms tailor content to user preferences, moderate content or censor it for disinformation and indecency. These laws affect every online media company, so negotiations to change them will be high stakes and complicated. However, any change must involve both

Congress and the administration agreeing on legislation. There are legitimate reasons for national policies to help law enforcement, and there are also vexing issues. The outcome will depend crucially on who in the administration leads the negotiations.

MODERNA'S DATA-INTENSIVE APPROACH TO VACCINE-DEVELOPMENT HAS MADE A SPLASH. IF GOOD NEWS CONTINUES, I EXPECT DIGITAL MICROBIOLOGY TO TAKE CENTER STAGE IN TECHNOLOGY POLICY CONVERSATIONS.

Let us end with some hopeful observations. Moderna's data-intensive approach to vaccine-development has made a splash. If good news continues, I expect digital microbiology to take center stage in technology policy conversations. Even Congressional representatives with the most limited attention spans might perceive the national benefits of subsidizing this type of science. The area could become a hot area for investors.

In summary, investors have much to watch. In all these topics, little is known right now about when and what will change. It creates a situation in which new information will move financial markets.

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