

# **Promoting Competition, Growth, and Privacy Protection in the Technology Sector**

## *The Lessons of America's Supply Chain Crisis*

*Testimony before the:*

**Senate Finance Committee**

**Subcommittee on Fiscal Responsibility  
And Economic Growth**

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## **AMERICA'S MONOPOLY CRISIS – DEMOCRACY AND SECURITY AT RISK**

Five and a half years ago, Senator Warren awakened Americans to the extreme and fast growing threat posed by the concentration of power and control across almost all sectors of the U.S. economy. “Consolidation and concentration are on the rise in sector after sector,” Senator Warren said in the June 29, 2016, speech, when she became the first leading policymaker to recognize America’s monopoly crisis. “Concentration threatens our markets, threatens our economy, and threatens our democracy.”

Since then Americans have witnessed a long series of real advances in the fight against concentration and consolidation. These include:

- Learning how monopolization lies at the root of most of the great problems we face today – including low wages, high prices, broken health care, sharp declines in entrepreneurship, and political extremism.
- Getting leading journalists and policymakers in both parties to recognize the problem and to propose legislation to fix it.
- Getting law enforcers in Washington and in almost every state of the nation to bring powerful lawsuits against Google and Facebook, perhaps the most powerful and far reaching corporations in human history.
- Relearning how to use traditional antimonopoly tools such as common carrier law and other rules designed to ensure that monopolists treat every American the same.

Then in July President Joe Biden resoundingly restored antimonopoly law to its necessary and original role as one of the main tools we use to protect our democracy and individual

liberties. And in doing so, the President also bluntly renounced the “Chicago School” philosophy of Robert Bork and other “Neoliberal” radicals, with its focus solely on

restricting the use of antimonopoly law solely increasing efficiency theoretically to promote the “welfare” of the “consumer.” Further, President Biden then demanded that all agencies and departments of government – not merely those with traditional antitrust authorities – join the fight against today’s extreme and dangerous concentration of power and control in the hands of a few.

What we are witnessing is one of the most important intellectual and political awakenings in American history, on a par with the awakening that took place in the years just before and after the Declaration of Independence. Or rather, we are witnessing a reawakening to the true promise, purpose, and principles of our democratic republic.

In place of the dangerous determinism of the Neoliberal Chicago School philosophy, with its insistence on the necessity, scientific inevitability, and fundamental goodness of bigness and concentrated control, Americans are returning to our traditional common sense approach to regulating power and competition in ways that help us build a more democratic, just, sustainable, and innovative society. This in turn is empowering us to develop our own selves, families, and communities more fully and completely, which was one of the essential goals of the Founding.

Unfortunately, the task before us remains immense and daunting. The power and control that has been concentrated in the hands of Google, Facebook, Amazon, and other autocratic corporations over the last 40 years poses perhaps the most extreme threat to our democracy that we have faced since the Civil War. And the rise of the internet and other new technologies over this period means our task today is not merely to restore the approaches of the past, but to adapt them to new structures and ways of communicating and doing business.

The good news is that Senator Warren’s hearing today provides us with a vitally important chance to speed and broaden our efforts to reestablish the basic balances and controls that are essential if we are to preserve our democracy and fundamental liberties. The opportunity lies in the fact that today’s hearing is the first to focus on the role that monopolization has played in creating the complex supply chain and production crises that so threaten our economic and industrial security today.

This focus on the supply chain crisis is important in three key ways:

First, the extreme and growing nature of the threats posed to our production systems illustrate in an easy-to-understand way how monopolization directly threatens the security of our nation, our communities, and our families, not only by cutting jobs and creating higher prices but by creating the potential for a catastrophic breakdown of vital production systems and/or various forms of conflict with China and other nations.

Second, the fact that the supply chain crisis is the result of radical neoliberal changes to multiple regulatory regimes in the 1980s and 1990s – including antimonopoly, trade, corporate governance, and finance and banking – demonstrates clearly the need to strategically integrate multiple regulatory regimes into a single coherent whole.

Third, the fact that all of these threats we face today were predicted 15 or even 20 years ago demonstrates the costliness of delay and the urgency to take radical and comprehensive action immediately.

Properly studied and embraced, the lessons of our supply chain crises will also teach us how to speed and expand all of our antimonopoly efforts – including those aimed at the platform monopolists – to a point where we can assure ultimate victory. The lessons of our supply chain crises can also help to teach us how to integrate our efforts here in the United

States with those of our closest industrial and political allies, in ways that will further empower us to establish the foundations for a safe and sustainable international system able to support our democracies and prosperity through the long haul of the 21<sup>st</sup> century.

## **THE ORIGINS OF THE SUPPLY CHAIN CRISIS**

The first step to understanding today's supply chain crises, is to recognize that the structures of the production systems on which the United States relies today differ radically from the structures of the production systems that served our nation in the past.

For most of the decades after the Second World War, right until the last years of the 20<sup>th</sup> century, most production of products and components around the world was widely distributed in multiple locations around the world.

First, production was compartmentalized within the borders of the nation state. In the case of products such as automobiles, electronics, metals, and chemicals, for instance, every industrial nation largely produced what it consumed, and then competed with other industrial nations to sell finished goods to smaller nations, and to nations that were less industrialized.

Second, within most industrialized nations, manufacture of products such as automobiles, electronics, metals, and chemicals was separated into multiple vertically integrated corporations. In the United States, for instance, antimonopoly practice aimed to ensure that at least four corporations competed to make any particular product. Much the same was true of Japan and of Europe as a whole.

Production within corporations was then often further compartmentalized by the distribution of the capacity to manufacture of key components and end products among two or more different factories.

As a result, for most of the 20<sup>th</sup> century, when something went wrong in one factory or one industrial region somewhere in the world, the overall effects of the disruption were limited to one of many companies. Further, the widespread distribution of manufacturing capacity and skills meant that when one company experienced a major problem, it could turn to its competitors for help in keeping its own assembly lines moving and in repairing whatever damage it had suffered.

Then on September 21, 1999, an earthquake in Taiwan revealed that in at least one industry – semiconductors – the structure of production had been changed in revolutionary ways.

The 7.3 magnitude earthquake killed more than 2,500 people and disrupted life and business across Taiwan. But for the first time in human history, the efforts of an earthquake in one nation were felt almost immediately all around the entire world. The quake disrupted power at Taipei's international airport, which in turn prevented the Just-in-Time shipment of semiconductors from the industrial city of Hsinchu to factories around the world. As a result, within just a few days, computer assembly plants in California, Texas and elsewhere began to shut down. The quake, in other words, had triggered the world's first industrial crash.

Luckily the Taiwanese foundries where the semiconductors were produced had suffered only minor damage and both production and transportation of semiconductors were swiftly restored. But the quake demonstrated in blunt fashion that at least with the manufacture of one important type of semiconductor, production was no longer

compartmentalized in any real way. On the contrary, production was now concentrated in a single place in the world, largely under the control of a single corporation.

Looked at another way, all the industrial nations of the world, and all the industrial corporations, had allowed all of this one particularly “egg” to be put in a single basket.

In the years that followed, such extreme industrial concentration swiftly went from being the exception to the rule. Under the trading rules established in the mid 1990s by the Uruguay Round of the GATT, industrial nations began to offshore more and more capacity to other nations, in a process that at the time was called globalization. At the same time industrial corporations that had long insisted on producing in house the basic components that went into their finished products began to outsource production to other companies.<sup>1</sup>

Within a relatively short time, this combination of outsourcing and offshoring resulted in the concentration of production of many other vital goods in one or two places on the globe, much in the way the production of certain semiconductors had been concentrated in Hsinchu. Today we see such concentration in the production of many if not most of the components that go into computers and other electronics, but also in products ranging from pharmaceutical ingredients to Vitamin C to piston rings to pesticides to silicon ingots. In many instances we have also seen extreme concentration of the capacity to assemble the components into finished products.

Beginning 20 years ago, I and a few other students of the international production system began to warn about a suite of dangers posed by this revolutionary shift from a highly distributed and compartmentalized system of production to a system marked by extreme concentration of both capacity and of control. We warned that this concentration of capacity was making the production system as a whole ever more subject to catastrophic cascading failure, due to the loss of access to one industrial region or even just one factory.

We also warned that this new concentration of capacity had created the opportunity for nation states or even factions within nation states to exercise various forms of coercion over other nations and individual corporations that depended on the production that had been concentrated within their borders.

We also warned that this extreme concentration of capacity and monopolization of control would likely result in higher prices, lower quality, and lower levels of overall production of many individual goods and components, as the new monopolists became less focused on serving their customers and more focused on extracting outside profits. And we warned that that concentration and monopolization threatened to result in less innovation in key products and processes.

During these same years, however, many leading economists, journalists, and policymakers began to defend the new concentration of production as a more efficient way to manufacture products. Some also defended this new concentration of production as a way to ensure that nation states did not go to war with one another. And thus the warnings were ignored, for more than 20 years.

## **THE ORIGINS OF THE TRANSPORTATION AND DISTRIBUTION CRISIS**

Today in America we also face a second, distinct crisis, closely related to the first. This is the breakdown of the main transportation systems on depend on for the shipment of both finished products and components to factories and stores around the world. The origins of this crisis lie in the same neoliberal intellectual revolution that overthrew America's antimonopoly laws, back in the 1980s and 1990s.

For most of U.S. history, the federal, state, and local governments devoted great attention to ensuring the safety, efficiency, reliability, and affordability of transportation and

distribution services. The goal was to ensure that individuals always got what they needed when they needed it. And that companies would always be able to get the supplies they needed and be able to deliver finished goods.

One result was a set of highly sophisticated systems to regulate the private corporations that handled America's ocean shipping, railroads, and air service. A second result was direct oversight of the construction of highways, canals, inland waterways, ports, and airports, and of such supporting infrastructures as pipelines and fuel depots. It also included extensive and complex systems for regulation of food marketing, processing, and warehousing.

In the 1980s and 1990s, however, U.S. regulators at all levels retreated in often dramatic fashion from these long-time tasks. They did so under pressure from the same laissez faire arguments used to overthrow antimonopoly law; i.e. that it was more efficient just to let the "market" regulate investment in transportation and the behavior of transportation corporations.

The result, when combined with the revolutionary changes taking place during these same years in the international system of production, was a revolutionary reordering of every one of the transportation and distribution systems that tie Americans to one another and to the other nations of the world. This reordering played out largely as a concentration of power and control over America's transportation system in the hands of a few giant corporations and foreign nation states, and the concentration of physical risk through the construction of super large ships, super long rail trains, and super large ports and inland shipping facilities.

Beginning about 15 years ago, I and a few others began to warn about the radical concentration of capacity and ownership in steamships, railroads, warehousing, trucking,

food processing, and retail was undermining the stability of the systems we rely on for the transportation, processing, storage, and distribution of many of the goods and foods on which we depend. We said the concentration of capacity and control was making our food and fuel systems ever more subject to potentially catastrophic cascading failure.

Over these years, the United States and other nations also experienced a number of events that demonstrated that the “deregulation” of transportation and distribution services was indeed creating a variety of new threats to the security of the American people and the proper functioning of the American economy as a whole.

These events include massive and long lasting disruptions to rail service in the United States after the merger of the Union Pacific and Southern Pacific railroads in 1996 and after CSX and Norfolk Southern divvied up control of Conrail beginning in 1999. It also includes a series of disruptions caused by strikes and lockouts of stevedores at West Coast ports. And it includes the hyper consolidation of the steamship industry itself into three closely interlocking cartels, in ways that have made it far easier for these foreign-controlled corporations to exploit the American public and U.S. businesses.

Perhaps the single most dramatic warning took place in late 2012 when Hurricane Sandy flooded automobile and rail tunnels running between Manhattan and New Jersey and also disrupted fuel supplies to the region as a whole. For centuries, warehouses and other storage centers within the boundaries of the city had kept weeks of food within near reach of the people it was destined to feed. Within 24 hours of Sandy’s passage, however, it became clear that this was no longer true. The extreme consolidation of food service, food warehousing, and food transportation over the preceding decades – combined with the introduction of Just-In-Time practices in food warehousing – had stripped out most of this buffer. The result was that New Yorkers had become almost entirely dependent on an

uninterrupted flow of trucks from facilities located as much as 200 miles away, and now that flow had been interrupted.<sup>2</sup>

Luckily, in the days after Sandy, New Yorkers did not panic and major disruptions were averted. But in the decade since, no one at the city, state, or federal governments have taken a single step to address this danger.

On the contrary, over these same years, those few economists and policymakers who looked at these issues largely defended the new concentration of capacities, power, and control as a more efficient way to serve American people.

## **SYSTEMIC BREAKDOWNS AND CASCADING EFFECTS**

Since the beginning of the Covid-19 Pandemic nearly two years ago, both the production system and the transportation system have broken down, in ways that have created widespread disruptions to our economy and to our lives. Although distinct from one another, the breakdowns in the production and transportation systems have, time and again, also interacted in ways that greatly exacerbated the overall effects.

In the case of our production systems, the concentration of manufacturing capacity for key inputs and final products has repeatedly resulted in the breakdown of the ability to ensure that we have what we need, when we need it. We saw this in dramatic fashion in the early days of the Pandemic when there was a shocking lack of sufficient N-95 masks and other personal protection equipment to protect even the most vulnerable of front line workers. This despite the fact that Americans had often first developed these products and had long led the world in manufacturing them.

The lack of sufficient masks and other PPE resulted in a cascading series of problems. It resulted in unnecessary deaths, including among health care workers. It resulted in widespread panic and a general sense of dysfunction and confusion, as governments and institutions fought over what supplies existed. It led to the unnecessary disruption in the production of other vital goods. One dramatic example was the widespread shutdowns of processing within America's highly concentrated livestock industries – resulting in severe shortages of beef, chicken, and pork at different times and in different places around the country.

Perhaps single best illustration of the far-reaching nature of the threats posed by today's extreme concentration of industrial capacity is in semiconductors.

Over the course of the 22 years since the earthquake in Taiwan first revealed the extreme concentration of the capacity to produce certain types of semiconductors, the problem has become only worse. As was true in 1999, the world today remains just as vulnerable to disruption by earthquake or other disaster, as there has been no effort whatsoever to distribute capacity or ownership. Worse, monopolistic manufacturers like Taiwan Semiconductor Manufacturing Corporation (TSMC) have become increasingly tempted to exploit their chokepoint for profit.

The result, which has played out across the industrial world over the last 18 or so months, has been a slow but steady choking off of production in an ever widening range of industries.

In the United States, the failure by TSMC to invest sufficient funds to meet demand for its products has resulted in shortages of goods ranging from appliances to farm machinery to medical devices. The most far-reaching disruptions have take place within the automobile industry, where the shortages of semiconductors has forced automakers around the world

to radically cut production. In the second quarter of 2021, for instance, Ford reported that it has lost about 50 percent of planned production for the period.<sup>3</sup> In October, Toyota reported that third quarter production was down nearly 40 percent compared to a year earlier,<sup>4</sup> and Volkswagen reported that production had fallen 30 percent below projections.<sup>5</sup> In recent days, the problems appear to have spread into iPhone production.<sup>6</sup>

Such massive shortfalls in production, in turn, trigger a variety of other harms across the industrial system. These include fewer jobs and smaller paychecks at vehicle manufacturers; higher prices for new cars, used cars, and rental cars; less work for suppliers and dealers and their employees, and more pollution as individuals are unable to replace older cars.

Meanwhile, a largely separate set of events has triggered massive disruptions within the transportation and distribution systems on which we rely to keep our shelves stocked and our factories running. This includes the disruption to shipping through the Suez Canal earlier this year when the container ship Everclear got stuck. And it includes the backing up of container shipping across the Pacific when the Union Pacific railroad ran out of space to offload containers at its yards in Chicago.

Here too the result of extreme concentration of capacity and control was a dangerous series of secondary effects, including empty shelves in stores, factories that have been slowed or even shut down, higher prices, and fewer jobs.

## **COMPETITION POLICY AS INDUSTRIAL POLICY**

Many people contend that America's supply chain crisis is nothing more than a temporary effect of changes in consumption during the Pandemic, with people spending less on restaurants and more on the purchase of manufactured goods and building supplies. The

economist Paul Krugman, for instance, recently made the case that the supply chain crisis is the result of nothing more than a temporary surge in demand for particular goods, and that the problem will soon ease. Or as he put it, “Why the skew? It’s not a mystery: We’ve been afraid to indulge in many of our usual experiences and bought stuff to compensate.”<sup>7</sup>

There is certainly some truth to the idea that the Covid-19 Pandemic has resulted in large changes to what we buy and when. But to contend that America’s twin supply chain crises will simply work themselves out is embarrassingly naïve. In the case of both the production system and the transportation and distribution system, we see overwhelming evidence that the problems derive foremost from the concentration both of physical capacity and of control.

The monopolists who control these systems have stripped out all the slack, and then some. As a result, when something goes awry, the effects are swiftly amplified and transmitted across the economy as a whole.

Our first task in addressing America’s industrial crisis is, therefore, to recognize that we are dealing with two separate but interlinking problems. Our second task is to identify what is common to both the choke pointing of production and transportation, and what makes the two problems unique.

What is common is that both problems derive from the same radical changes in thinking about how to regulate the U.S. and international political economies, beginning in the early 1980s. The Neoliberals of the 1980s and the 1990s aimed foremost at concentrating control and profits in the hands of the few. And they pursued this same basic goal in both the production and transportation systems.

What separates the two problems from one another are the particular regulatory regimes that neoliberals altered to achieve their ends, and the particular regulatory regimes we must now alter if we are to solve the problems.

In the case of the production system, the revolutionary restructuring was the result of radical changes to four distinct regulatory regimes – antitrust, trade, corporate governance, and finance. It was the combination of these four that cleared the way for the extreme concentration of production in one or a few places that we see today.

A recent article in the *Washington Monthly* by Open Markets reporter Garphil Julien provides a good description of how these four changes combined in ways that resulted in the severe degradation of the U.S. semiconductor industry. Julien reports, for instance, how Intel executives extracted almost \$180 billion from the corporation – in the form of stock buybacks and dividends – between 2001 and 2020.<sup>8</sup>

In the case of the transportation and distribution systems that serve the United States, today's problems derive mainly from radical changes in how we regulate these essential networks, as the Neoliberal era changes aimed to achieve what, in essence, was a de facto privatization of industries that had been largely governed to serve the public interest. The problems that have resulted were then made worse by the radical relaxation of antitrust enforcement in retailing and food processing, which led to an ever more extreme concentration of reach, power, and control in corporations such as Walmart and Tysons.

A recent article in the *Washington Monthly* by Open Markets policy director Phillip Longman provides a good example of how this process played out in the U.S. railroad industry. As Longman details, railroad executives have cut services dramatically over the last decade.<sup>9</sup> And as Martin Oberman, chair of the Surface Transportation Board made clear recently, during this same period these railroads extracted more than \$190 billion in stock

buybacks and dividends from the railroads, much of which should have been reinvested in maintaining and improving service.<sup>10</sup>

Another good example of who the deregulation of the transportation and distribution systems was designed to serve is the recent surge in profits among members of steamship cartel. According to the maritime consultancy Drewry, container lines are on course to earn as much as \$100 billion in profits this year, which is 15 times their profits in 2019.<sup>11</sup> What looks like a crisis to the American people looks like a fantastic opportunity to those who engineered the problem.

Solving the monopoly crisis within the production system that serves the United States will therefore require integrating antitrust with trade, corporate governance, and financial policy. Solving the monopoly crisis within the transportation and distribution industries, meanwhile, will require radical changes to how the United States regulates the steamship, railroad, warehousing, and distribution industries, as well as far more aggressive antitrust enforcement in retailing and food processing to break dangerous concentrations of capacity and control.

Perhaps most important is to recognize that there are no easy fixes, that at least some of the disruptions we are experiencing today will continue for years. Indeed, it is vital to approach this challenge as a long-term project that will require the government to develop a coherent and sophisticated industrial strategy that aims to rebuild the capacity, resiliency, skills, and innovation systems within such industries as semiconductors and railroads, and that then carefully protects such investments from being appropriated by Wall Street raiders.

## ON THE PRECIPICE – AFTER A 20-YEAR FAILURE TO ACT

Today's twin supply chain crises were easily foreseeable 15 even 20 years ago. Time and again the U.S. government was warned. Time and again the U.S. government failed to take action. It is vital that we view the disruptions of the last two years as our last warning, and move immediately to take comprehensive and radical action to restructure both how we make the goods we need, and how we move them from factory to home.

Because as bad as the present set of problems is, we can imagine far worse crises. This includes the sudden and catastrophic seizing up of the system as a whole. And it includes attempts by foreign powers – China most likely – to exploit these dependencies and fragilities in ways that allow these nations to concentrate power over individual American businesses and over the American people as a whole.

This is an issue I have lived, in a very personal way, for 20 years.

In June 2002, I published a long essay in *Harper's* titled "Unmade in America: The True Cost of a Global Assembly Line." In that essay I detailed how the September 1999 earthquake in Taiwan demonstrated how the extreme and growing concentration of capacity within the international system had made our international assembly lines subject to catastrophic collapse and was fast giving the government in China dangerous levels of control over the production of goods vital to the security of the American people and the nation as a whole.

That article immediately caught the attention of the U.S. national security community, and was cited extensively in the first annual report of the U.S.-China Security Review Commission, released in July 2002. The Harper's article also changed perceptions in the business community, when Yale School of Management Dean Jeffrey Garten, writing in *BusinessWeek*, called on the Bush Administration to investigate the dangers I described.

In 2005 I expanded my reporting on the twin supply chain crises into a mainstream book for Doubleday, titled “End of the Line: The Rise and Coming Fall of the Global Corporation.” That book was widely debated, including in the *Financial Times* and the *Wall Street Journal*, and in a special section of the *Economist*. It also led to direct conversations with high level officials within the Treasury and Commerce departments, the CIA, the Department of Defense, the White House, the U.K. Ministry of Defence, Japan’s Ministry of Economy, Trade, and Industry, with multiple leading members of Congress, and with think tank scholars and academics around the world.

During this period, my own warnings were supplemented by those of other close students of the industrial system, including Intel’s then CEO Andy Grove, Xilinx Semiconductor CEO Willem Roelandts, and the epidemiologist Michael Osterholm.

Over the years, these initial warnings were repeatedly borne out by real world events. This includes disruptions caused by the shutdown of borders after September 11, the SARS epidemic, the explosion of a volcano in Iceland, the great financial crash of 2008, and most dramatically by the massive Tohoku earthquake in northern Japan in March 2011.

During these years I further developed my own analysis of the origins and nature of the problem, in my 2010 book “Cornered: The New Monopoly Capitalism and the Economics of Destruction,” and in a series of articles for mainstream publications and specialized journals. Recently my team at the Open Markets Institute co-hosted an event with the Organisation for Economic Cooperation and Development, to discuss the early lessons of the disruptions caused by the early stages of Covid in 2020.

Yet until the Biden Administration, every U.S. government of the last two decades has failed to develop a coherent plan to address these risks. As a result, five years after the Trump Administration first began to impose tariffs on Chinese and other imports and embargoed

shipments of key components to Huawei and other Chinese corporations, the concentration of capacity in a few places continues to worsen.

Despite all the headlines about America “decoupling” from China, the fact is that U.S. corporations continue to shift more key capacity into China than out of China. This is true of leading manufacturers such as Apple.<sup>12</sup> And it is true of the wider array of manufacturers generally, as Nick Lardy of the Peterson Institute made clear recently.<sup>13</sup>

## **THE OPPORTUNITY**

Last summer, I published an article in *Foreign Affairs* magazine, titled “Antimonopoly Power: The Global Fight Against Corporate Concentration.”<sup>14</sup>

In that piece I describe how to use competition policy principles to guide the construction of an entirely new system of production for the United States and our industrial and democratic allies. I described how we can construct international industrial and transportation systems that distribute all risk and all power in ways that ensure that no natural or political disaster can ever again break the supply of the goods and services we need to live safely and happily here in America, and cooperatively with the other nations of the world.

I am sure there are other ways to achieve these same goals.

I look forward to working with Senator Warren and the other members of this subcommittee to do so swiftly. And to do so in ways that reinforce our democracy, liberty, and community here in America.

Thank you for this opportunity. I look forward to working with you in the days to come.

## ADDITIONAL READING

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## NOTES

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