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## 1AC – Texas

### 1AC – Prices

#### Contention one: Prices

**The three largest asset management companies are the lead investor in 90% of firms in the stock market. Common ownership by institutional investors stifles incentives for firms in the same sector to compete.**

Torshizi ’21 [Mohammad; Assistant Professor in Faculty of Agricultural, Life and Environmental Science @ University of Alberta, PhD in Agricultural Economics @ University of Saskatchewan; and Jennifer Clapp;Professor and Canada Research Chair in Global Food Security and Sustainability @ University of Waterloo; “Price Effects of Common Ownership in the Seed Sector,” *The Antitrust Bulletin*, 66(1), p. 39-67; AS]

Common Ownership

The rise in common ownership of large corporations within the same sector is in large part a consequence of an enormous increase in institutional investment in equity shares in publicly traded firms. Much of this increased institutional investment is associated with the rise of equity-based index funds—both mutual funds and exchange traded funds—that are dominated by large asset management companies, such as BlackRock, Vanguard, State Street, Capital Group, and Fidelity.13 These firms have grown to be truly giant in size in recent years due to the high demand for the index fund investment products that they have on offer to investors, including both institutional and retail investors. Common ownership patterns intensified after the 2008 financial crisis when institutional investors started to diversify their investments after mortgage-backed securities lost their attractiveness.14 The amount of capital invested in index funds rose from US$2 trillion in 200815 to US$8.3 trillion by the end of 2015, which represented approximately one third of the US$24.6 trillion managed by asset management firms at that time.16 By late 2019, the amount invested in index funds climbed further to reach US$11.4 trillion.17

Index funds typically offer returns based on an index of a range of firms within a sector—often holding shares in all of the major firms in that market segment, including those that are normally competitors with one another. Retail and other institutional investors that own shares in these index funds do not own shares in the firms that comprise the index. Rather, the asset management companies that offer index fund products to other investors are the holders of the shares in those firms. As index investing ballooned over the past decade, large asset management firms have come to hold significant shares in most companies listed in the Standard and Poor’s 500 (S&P 500) stock market index. According to Fichtner et al.,18 the big three combined—BlackRock, Vanguard, and State Street—are the largest shareholder in 438 of the 500 most important companies in the United States. Together, these three large asset management companies can hold anywhere from 10% to 35% of the largest firms on the stock market. According to the Organization for Economic Cooperation and Development (OECD), by 2015 “the mean ownership of 1,662 listed U.S. corporations by the Big Three [BlackRock, Vanguard and State Street] was over 17.6 percent.”19

Although the institutional owners, even collectively, typically do not hold a majority share in the firms in which they invest, there is growing concern in the literature regarding the broader impact of these new patterns of common ownership. Some scholars have stressed the potential for common ownership to result in anticompetitive behavior on the part of the firms in which institutional investors collectively own significant shares.20 In particular, firms with common shareholders have an incentive to maximize not their own firms’ profits but instead to maximize the portfolio value of their largest shareholders, which includes firms that are normally their competitors. In other words, there is little incentive for managers of commonly held firms to compete with their rivals.21 As Schmalz22 provocatively asks: “ ... if firms have no incentives to compete, why would they?”

The prospect of weak incentives for competition among firms within sectors characterized by common ownership has led to questions about the potential impact of common ownership within the economy. In the broader economic literature, a lack of competition can result in effects such as higher prices, collusion among firms (to fix prices or to erect barriers to entry), weakened incentives for investment, and a tendency toward greater market concentration through mergers and acquisitions (M&As).23 Each of these concerns has also been raised with respect to the rise of common ownership.24 Further, some scholars have pointed to broader macroeconomic trends that might arise from anticompetitive practices among firms, such as growing inequality.25 Azar et al. and Ant´on et al.26 warn that common ownership patterns can encourage these types of outcomes, even if firms are not explicitly colluding with one another and even if they are not explicitly pushed to do so by their largest shareholders. In other words, these outcomes may result simply from the fact that firm managers are acting in the interests of their largest shareholders under their own direction. Additionally, Azar et al. and Ant´on et al.27 claim that the so-called passive mutual funds or “lazy investors” could create a suboptimal equilibrium outcome by doing nothing (i.e., not pushing the firm managers to follow competitive strategies).

Empirical studies investigating whether such outcomes are occurring in practice are still in their early days and have sparked much debate among scholars studying common ownership impacts. One of the first studies to examine this relationship focused on the airline industry in the United States.28 This work found an increase in effective levels of market concentration as a result of common ownership, resulting in airline prices that were 3%–7% higher than would have been the case in the absence of common ownership. In a study focused on common ownership in the banking sector,29 researchers also found elevated effective levels of market concentration that resulted in higher banking fees, signaling a weakening of incentives to compete.

More recent studies include an investigation of the impact of common ownership on barriers to entry in the pharmaceutical sector.30 This work found that a one standard deviation (SD) increase in common ownership resulted in decreased probability of entry into the market by generic drug firms by 9%–13%. Another study found that firms commonly owned by large institutional investors were more likely to experience a merger or acquisition event.31 And in yet another study, researchers found that voluntary disclosure among firms is greater when there are higher levels of common ownership, suggesting weakened competition, which lowers the cost of disclosure and improves coordination among firms.32 Further, Guit´errez and Philippon33 found that commonly owned and concentrated industries invest less, which could weaken innovation.

**Best and most recent studies confirm – horizontal shareholding increases prices and suppresses competition.**

**Elhauge ’20** [Einer; Professor of Law @ Harvard; “How Horizontal Shareholding Harms Our Economy - And Why Antitrust Law Can Fix It,” *Harvard Business Law Review*, 10(2), p. 207-286; AS]

INTRODUCTION

When the leading shareholders of horizontal competitors overlap, horizontal shareholding exists.' Based on economic theory and empirical studies of airline and banking markets, many scholars have argued that high levels of horizontal shareholding in concentrated product markets can have anticompetitive effects that should be redressed by antitrust law. 2 Others have been skeptical of these claims, based largely on critiques of the airline and banking studies, as well as on arguments that existing antitrust law cannot tackle horizontal shareholding.' I show that new proofs and empirical analysis strongly support the view that horizontal shareholding can have anticompetitive effects and that new legal analysis establishes that antitrust law can tackle those anticompetitive effects.

As I show in Part I, new proofs and empirical evidence, ranging far beyond the original airline and banking studies, have confirmed that high levels of horizontal shareholding in concentrated product markets can have anticompetitive effects, even when each individual horizontal shareholder has a minority stake. One new economic proof establishes that, if corporate managers maximize either their expected vote share or re-election odds, they will maximize a weighted average of their shareholders' profits from all their stockholdings and thus will lessen competition the more that those shareholdings are horizontal, even if each horizontal shareholder has a minority stake. Another new economic proof shows that with horizontal shareholding, corporations maximize their shareholders' interests by making executive compensation less sensitive to their own firm's performance because that reduces competition between firms in a way that increases shareholder profits. Neither new proof requires any communication or coordination between different shareholders, between different firms, or between shareholders and managers. Thus, any absence of such communication or coordination does not indicate the absence of anticompetitive effects.

These new economic proofs have been confirmed by two new crossindustry empirical studies, three new market-level studies, a massive crossmarket study of hundreds of consumer goods, a study of common owners by venture capitalists, and a study of entry into the S&P 500. One crossindustry study shows that increased horizontal shareholding does make executive compensation less sensitive to their own firm's performance, just as the economic proof predicts. The other new cross-industry study shows not only that the recent historically large gap between corporate investment and profits is mainly driven by horizontal shareholding levels in concentrated markets, but also that within any industry, the investment-profit gap is mainly driven by those firms with high horizontal shareholding levels. The three new market-level studies find that horizontal shareholding increases seed prices and both reduces and delays competitive entry into pharmaceutical markets. The cross-market study of hundreds of consumer goods not only found that higher levels of horizontal shareholding raised prices, but also found that the price effect was higher on products catering to lower-income households, thus exacerbating the negative effect on economic inequality. The venture capitalist study finds that horizontal ownership by venture capitalists makes startups less likely to compete with each other. The study of entry into the S&P 500 shows that when such entry increases horizontal shareholding, it increases the stock market price of both the entrant and its product market rivals, just as the anticompetitive theory of horizontal shareholding would predict.

I further provide new analysis rebutting various critiques of the earlier studies of airline and banking markets. Some of these critiques are valid, but addressing them actually increases the estimated adverse effects. For example, some critiques stress the valid concern that these studies use a measure of horizontal shareholding levels (MHHI or GHIH) that turns on ownership levels and market shares, which might themselves be endogenously affected by price. However, both theory and evidence indicate that endogeneity issues mean that the airline and banking studies, if anything, understate the anticompetitive effects. That conclusion is confirmed by the fact that if one eliminates endogeneity issues by using an exogenous change that affected horizontal shareholding levels, the airline and banking studies show greater adverse effects. (Further, all the other studies mentioned in the preceding paragraph found anticompetitive effects even though they used different measures of horizontal shareholding levels that were not subject to these endogeneity concerns.) Other critiques pointed out that the airline study incorrectly defined markets as routes rather than city pairs, lacked an interaction variable for fuel costs, and assumed shareholders did not lose any rights in bankruptcy, but when one corrects each of those issues, it increases the estimated adverse price effects.

Other critiques of the airline and banking studies rely on methodologies that are biased against finding adverse effects. Some critiques try to address the endogeneity concern by using a proxy for shareholding levels that is negatively correlated with actual horizontal shareholding levels. Other critiques use proxies for market shares whose inaccuracies are biased toward finding a negative price effect. They both find that higher horizontal share holding reduces prices, but that just reflects their use of negatively biased proxies. If one instead proxies market shares more neutrally by assuming each firm has a share equal to 1/N, where N is the number of firms in the market, the airline and banking studies continue to show adverse price effects, albeit lower effects given the attenuation bias that results from not using real market shares. One critique even assumes longer airline routes have lower costs, which conflicts with the physical reality that it takes more fuel to fly a longer distance.

Others critique the MHHI measure of horizontal shareholding because it assumes that shareholder influence turns on relative shareholdings, aggregates shareholdings at the fund family level, or fails to assume that the financial incentives of institutional investors equal only 1% of owned stock value. These critiques are mistaken on theoretical grounds, but more generally miss the point that whether MHHI levels affect prices is a hypothesis that the studies empirically tested and validated. To the extent that alternative measures fail to predict price effects as well as MHHI levels do, it suggests that those alternative measure are failing to include an important feature of horizontal shareholding that MHHI picks up. In any event, even if one uses a measure of horizontal shareholding that does not assume relative influence or aggregate shareholding, the studies continue to show adverse price effects.

Finally, several critiques find that the effects of horizontal shareholding are weaker in less concentrated markets or become weak, mixed, or statistically insignificant if one tries to measure the effect of horizontal shareholding across all markets, concentrated and unconcentrated. However, the same is true of horizontal mergers, since standard antitrust economics finds that they can create anticompetitive effects only in concentrated markets. No one would think that the proposition that horizontal mergers can cause anticompetitive effects would be disproven if those effects were weaker in less concentrated markets or if the effects of all horizontal mergers (including those in unconcentrated markets) were weak, mixed, or statistically insignificant. Horizontal shareholdings cannot create anticompetitive effects when even horizontal mergers could not, so it is not surprising that the same propositions apply to horizontal shareholding.

Nor are the findings of anticompetitive effects undercut by two recent cross-industry studies that purport to show that horizontal shareholding has no robust effect on profits or investments. Both of these studies define markets using industry definitions that are vastly larger than actual markets, creating a mismeasurement bias toward finding no effect because it means they are systematically understating levels of horizontal shareholding and market concentration. Both also make various other choices that bias their regressions toward finding no effect. Moreover, both focus on testing whether any increase in horizontal shareholding has anticompetitive effects, when the relevant anticompetitive theory is actually that large increases in horizontal shareholding in concentrated markets have anticompetitive effects. Remarkably, despite all these problems, both of these studies actually do confirm anticompetitive effects from horizontal shareholding in some of their regressions, but they dismiss those findings on erroneous grounds.

#### The mere existence of common ownership elevates corporate profit margins at the expense of output and growth. An antitrust remedy is critical.

Azar ’18 [José et al; School of Economics and Business @ University of Navarra; Martin Schmalz; Professor of Finance @ Oxford; and Isabel Tecu; PhD in Economics @ Brown University; “Anticompetitive Effects of Common Ownership,” *The Journal of Finance*, 73(4), p. 1513-1565; AS]

To see why doing nothing is sufficient for common ownership to lead to higher prices, assume that increasing market share requires managerial effort, which is privately costly. For instance, entering new markets and attracting new customers may require successful R&D, extensive market research, unpleasant price wars with incumbents, and effort at a personal cost. If “lazy investors” do not insist on the implementation of expansion strategies, managers can enjoy the “quiet life” that comes with choosing suboptimal quantities (Hicks (1935)).17 If a match between lazy principals and lazy agents becomes pervasive in an industry, then in a Cournot model context, industry output declines and margins increase (see Ant´on, Ederer, Gin´e, and Schmalz (2017)). Diversified shareholders have little incentive to intervene and change such an equilibrium. One should therefore not expect large diversified mutual fund families to actively push for more aggressive product market behavior between portfolio firms, given that doing so would not only be costly, but also go against incentives to maximize the value of the family’s total portfolio. Also, we are not aware of any evidence to that effect.

By contrast, it is well documented that campaigns by activist investors, which typically concentrate their capital in one target firm per industry, lead to increases in target market share at the expense of its rivals (e.g., Aslan and Kumar (2016)). When industry competitors are owned by concentrated activists that push their targets to compete aggressively, a more competitive outcome obtains.

The past three decades have witnessed a shift from the low-common-ownership equilibrium to the high-common-ownership equilibrium, with diversified institutions increasingly crowding out concentrated owners as firms’ most powerful shareholders. One should thus expect a decrease in the extent of competition, even when diversified owners do nothing to actively reduce the competitiveness of their portfolio firms’ product markets. This may be one reason why antitrust law explicitly recognizes that a “passive” change of incentives is sufficient to implement anticompetitive outcomes (Elhauge (2015)).

In sum, large diversified mutual fund families doing nothing, that is, not pushing portfolio firms to compete aggressively against each other, can implement the outcomes we document. Active engagement in corporate governance on behalf of common owners merely exacerbates the problem.

#### Margin expansion by large, concentrated firms accelerates inflation – that drives further price hikes, producing a vicious inflationary cycle.

Stoller ’21 [Matt; 12/29/21; Fellow @ Open Markets Institute, Director of Research @ American Economic Liberties Project, Former Senior Policy Advisor and Budget Analyst @ Senate Budget Committee; “Corporate Profits Drive 60% of Inflation Increases”; https://mattstoller.substack.com/p/corporate-profits-drive-60-of-inflation; AS]

Today I am writing about how big business is benefitting from and helping to drive inflation. This piece was prompted by Larry Summers, who attacked the idea that the pricing power of firms has anything to do with inflation. Inspired by Summers, I did some back of the envelope calculations to see how much inflation is being captured by corporations in the form of profits.

First, an ask for those of you who haven’t subscribed. This newsletter takes a fair amount of work, but what we’ve been able to do together in terms of pushing the anti-monopoly movement is amazing. So if you have been meaning to subscribe but just haven’t gotten around to it, now’s a good moment. You can sign up for a paid subscription here. And if you have signed up, let me know what you’d like me to cover more of in 2022 by responding to this email.

And now…

Larry Summers and the Profit-Price Spiral

The hottest topic in political economy right now is inflation, because inflation in the price of consumer goods and services, as well as financial assets, is determining who has access to resources. Cost increases are now running at 6.8% annually, and since wages are only growing at between 3-4%, that means real wages are going down for most Americans. Financial assets are rising even faster, and that’s also a problem. Housing prices are up by roughly 20% on an annualized basis, meaning that it’s harder to afford a house.

A few days by ago, prominent pundit Larry Summers did an interesting twitter thread on the problem. Summers has significant credibility on the matter, because last year he was suggesting that inflation would kick up, and sure enough, it did. Summers isn’t the only one who got this call right; in February of 2020, I wrote we’d see shortages, before the pandemic became evident, which is something the White House picked up, and there are plenty of people like former Fed Governor Tom Hoenig, who have warned of asset bubbles for a decade. But whereas I was early in warning of serious problems, and Hoenig made broader claims for a decade, Summers was specific and accurate. Summers has gotten a lot wrong in his career, but he nailed this prediction.

But there are dueling theses at work as to why inflation has risen. My belief at the start of the pandemic was concentrated market power and thin supply chains would induce shortages, and that indeed happened. One remedy for that, though not the only one, are antitrust rules that prohibit price-fixing, price discrimination, and monopolization, which often cause higher prices. (Other remedies include re-regulating shipping, which Congress is doing.) Summers, however, doesn’t see the problem in terms of market power. His view of inflation is that government spending is driving price hikes by giving Americans too much purchasing power. He is so hostile, in fact, that he has pronounced the idea of market power as a causal factor a form of ‘science denial.’

Summers’s whole thread is worth reading, but what’s most interesting is how his thesis seems to cut against what CEOs are telling investors (as well as what he himself said in July, when he said concentration could be inflationary). Wall Street is explicit that margin expansion is the big story of the pandemic. “What we really want to find are companies with pricing power,” said Giorgio Caputo, senior portfolio manager at J O Hambro Capital Management told Bloomberg. “In an inflationary environment, that’s the gift that keeps on giving because companies can pass along their pricing on the way up, and don’t necessarily need to get it back on the way down.”

Margin expansion is one factor that has pushed the stock market to an all-time high, with large firms doing much better than small ones. Bloomberg has noted that behind this are corporate profit margins, which are at a 70-year record. All of which leads to an interesting question. How much of inflation is a result of market power, and how much is due to some other set of causes such as government spending or thin supply chains? Let’s do some rough numbers.

Just before the pandemic, in 2019, American non-financial corporations made about a trillion dollars a year in profit, give or take. This amount had remained constant since 2012. Today, these same firms are making about $1.73 trillion a year. That means that for every American man, woman and child in the U.S., corporate America used to make about $3,081, and today corporate America makes about $5,207. That’s an increase of $2,126 per person.

Still, in order to know just how significant that amount is relative to inflation, we have to figure out how much inflation is costing the average American. A rough way to get that would be to take the total amount America produces annually, which is the Gross Domestic Product, and multiply that by the inflation rate. That’s $23 trillion of GDP times the 6.8% inflation rate, which comes out to $1.577 trillion, or $4,752 per American.

Taking all of this together, it means that increased profits from corporate America comprise 44.7% of the inflationary increase in costs. That means corporate profits alone are absorbing a 3% inflation rate on all goods and services in America (44.7% of 6.8% annual inflation), with all other factors causing the remaining 3.8%, for a total inflation rate of 6.8%. In other words, had corporate America kept the same average annual level of profits in 2021 as it did from 2012-2019 and passed on today’s excess to consumers, the inflation rate would be 3.8%, not 6.8%. And that’s a big difference, indeed it is the difference between Americans getting a raise, and seeing real wages decline. (It also could explain why inflation is lower in Europe - corporate profits there were very good in 2021, but not as good as in the U.S. And in Japan both inflation and corporate profits were low.)

It gets worse, because this calculation assumes that all 6.8% of the inflationary increase in prices is new. But of course, inflation isn’t zero in normal years, the Fed has an inflation target of 2%. In 2019, inflation hit 1.8%. So if you take the pre-existing inflation rate in 2019 of 1.8% and back that out of the numbers, then it turns out that 60% of the increase in inflation is going to corporate profits.

3% to corporate profits + 1.8% preexisting inflation + 2% from government spending/supply shocks = 6.8% total inflation rate

Now, there are plenty of methodological objections to this exercise. First of all, after-tax profits can come from margin expansion via price hikes, but they can also come from lower taxes, reduced funding costs or efficiencies in production. Let’s go through these different possibilities. It’s not a tax story, because corporations are paying a bit more in taxes than they were in 2019. It’s not a financing story, as corporations do have lower funding costs since the Federal Reserve’s interventions last year, but the total amount of corporate debt has gone up. Finally, productivity is bouncing all over the place, increasingly by a gigantic 11.2% during the immediately onset of the pandemic as layoffs began, and dropping by a massive 5.2% last third quarter as supply chain and labor turmoil hit. So it’s probably not productivity. Moreover, even if these factors were dominant, it shouldn’t matter, as there’s no reason firms couldn’t pass along lower financing costs or higher productivity to consumers. Plus, the story from Wall Street is consistent. It’s price hikes fattening margins.

Beyond these methodological questions, there’s also a reasonable argument that profit increases are not a function of market power. Summers, like most economists, would say that higher profits are a result of higher demand. Higher profits are necessary to entice new firms into a market and raise production. On a rainy day, for instance, being able to charge more for umbrellas means that there will be more umbrella sellers, which is what you want when it’s raining. It’s why economists tend to dislike rules against profiteering, even in emergencies. Price gouging, they believe, transmits important information. In this case, higher profits would help businesses plan to invest more in factories, and induce market entry in case incumbents don’t do that investment.

Still, it’s interesting to note which firms are raising prices, and why. We don’t have that much information on a macro-level, because there’s no systemic investigation using proprietary pricing data from private firms. Anecdotally, it’s obvious that certain industries like beef are seeing a mix of market power and cost pressures. Peter Goodman, for instance, just wrote a fantastic article in the New York Times on how meatpackers - a four firm oligopoly - are prospering by raising prices to consumers (and being sued for colluding to do so), while the cattle ranchers who sell to them - a decentralized group - are not. There is very little entry of independent packers into this industry, despite high margins. How common is this dynamic across industries, where controlling distribution enables a firm to raise prices, using inflation as a story to tell their customers?

One interesting set of data comes from Digital.com, a survey research firm that went out and asked retail businesses about inflation. 56% of retailers told Digital.com that “inflation has given them the ability to raise prices beyond what’s required to offset higher costs.” And these price hikes are concentrated among big retailers, with 63% of large firms using inflation to more than offset costs vs 52% of small and medium size businesses. And of “those who have increased prices, 28% of large enterprises increased prices 50% or more, compared to 6% of small and medium size enterprises.” So size, and presumably market power, matters. And one person’s profits are another person’s costs, because firms buy and sell to each other. So when firms raise prices to increase profits, then this increases costs for those who buy from those firms, and accelerates the expectation of more inflation elsewhere. Profits, in other words, are also driving inflation.

It’s not just retail. Inflation is a story that larger firms are using to raise their prices and change pricing behavior. For example:

The global auto industry is an oligopoly, with 14 firms controlling nearly all of the major brands. And that opens the opportunity for exploiting pricing power. “We will consciously undersupply demand level[s],” said Harald Wilhelm, Daimler’s chief financial. Daimler is even noting that forcing customers to wait for their luxury cars “makes the customer experience even greater and better.”

The story can get more pernicious. Here’s economist Hal Singer, explaining how inflation can be a convenient cover for price-fixing, which of course raises prices.

So basically, Summers is partly right on the cause of inflation, but overstates his case when it comes to antitrust. It’s true that some inflation was inevitable with the Covid demand shock and lots of government-supported purchasing power, but not this much. We have a supply chain mess and lots of government spending, both of which pushes up costs naturally. Monopolized markets allow firms, especially big ones, to raise prices faster than costs. And then that in turn pushes up costs and expectations, leading to more price hikes.

#### Overvaluations will cause the asset bubble to burst – high prices reflect overconfidence, not underlying value.

Codogno ’21 [Lorenzo; Visiting Professor in Practice @ London School of Economics and Political Science, Founder and Chief Economist @ Lorenzo Codogno Macro Advisors Ltd; “What About the Risk of a Bursting Asset Bubble?” *The* *International Economy*, p. 43-54; AS]

Let’s face it. Stock market valuations were already overstretched before the pandemic. We may argue about the specific metric, be it forward-looking P/E ratios or else. However, market ratios were well above historical averages, even considering that the net present value of future cash flows was boosted by historically low discount factors and abundant global liquidity. Moreover, with little pay-out or dividends expected over the next few years, growth stocks got an even more significant boost. Arguably, this was the case for the U.S. stock market, and far less so for the European one, which is less exposed to tech stocks.

With the pandemic crisis requiring an unprecedented fiscal policy response, central banks had no choice but to do much of the same. Policy action pushed central banks even further into uncharted territory, such as additional liquidity, additional financial asset buying, even lower and flatter yield curves. It was a deliberate strategy. Supporting asset valuations was an inevitable and desirable side effect of the more important goal of preventing a meltdown in the economy. The policy response set the stage for a genuinely additional lease on life for the stock market, especially in the United States. The situation appears even more extreme in corporate bonds. The ongoing search for yield has pushed corporate bond yields, and in general risk premiums, to multi-year lows, and are thus susceptible to a major correction. Moreover, non-bank financial institutions have continued to increase duration, liquidity, and credit risk, making positions even more sensitive to a yield shock.

The possible bursting of the financial bubble may bring even more dangerous and nasty macroeconomic consequences. The good news is that the financial system is much better capitalized and prepared for a shock than at any other time in the past. However, we cannot say that there are no imbalances or unusual situations in specific financial market segments. Some institutions or sectors may have already been debilitated, coming from yet another shock. Their fragilities and weak fundamentals may have already been exposed. The impact on U.S. markets and spillovers into the rest of the world from a potential U.S. monetary policy tightening shock could be substantial.

The current spike in inflation may well be a sideshow or a transitory situation related to supply bottlenecks, temporary disruptions in production and trade, or adjustments in the production pipeline. Even signs of localized spikes in wage pressure may well be a transitory phenomenon. Over time, it will likely be addressed by supply catching up with policy-supported booming demand. Projecting well-behaved inflation back to central bank targets and continuing fiscal support through medium-term investment plans would still leave potential problems. Engineering a Goldilocks scenario, where the economy is fine-tuned towards a not-too-hot and not-too-cool position, may prove tricky. Fiscal and monetary support may well be extended for longer, further inflating the bubble. But at some point, the time of reckoning will come. Thus it would be better to start signalling sooner rather than later, test the water, and prepare market participants for a turning point. This move must be balanced with the need to preserve accommodating conditions for a prolonged time and avoid withdrawing policy support too early. Not an easy task at all.

The only way out for such a cornering of available policy options would be a surprising boost in productivity triggered by the structural changes accelerated by the pandemic crisis. Not impossible, but it would probably be too much of a dream book, at least judging from what we tentatively know so far.

#### Inflation destabilizes exchange rates and triggers Asian debt dumping – causes global financial meltdown and destroys dollar heg. The US is trapped in Volcker’s Catch-22.

Pesek ’21 [William; 12/14/21; Senior Contributor @ Forbes, Author of “Japanization: What the World Can Learn from Japan’s Lost Decades”; “Inflation Surge Puts $3.5 Trillion Of Asia’s Money In Peril”; https://www.forbes.com/sites/williampesek/2021/12/14/inflation-surge-puts-35-trillion-of-asias-money-in-peril/?sh=6607b0433cc8]

Investors in U.S. Treasuries are racking up some of the biggest losses since Paul Volcker’s day four decades ago. Yet they now have a bigger worry: how Asia responds.

The cornerstone holders of Washington’s debt are in Asia, especially Japan and China. The top 10 holders in this region are sitting on around $3.5 trillion of Uncle Sam’s IOUs just as inflation surges the most in 40 years.

That was back when then-Federal Reserve Chairman Volcker was hiking rates so aggressively that he got death threats. The resulting late 1970s-early 1980s bond rout isn’t one that most of today’s Wall Street traders remember.

In some cases, the same is true of 1994, when Volcker’s successor Alan Greenspan engineered his own tightening shock. The Greenspan Fed doubled short-term rates in just 12 months, slamming global debt markets. The turmoil helped push Mexico into crisis, Orange County, California into bankruptcy and bond dealer Kidder Peabody into extinction.

Asia recalls the dollar’s resulting rally all too well. Surging U.S. exchange rates made dollar pegs impossible to maintain, paving the way for Asia’s 1997 crisis.

The last thing today’s Fed chief Jerome Powell wants as part of his legacy is precipitating another Asia reckoning. But then, Asia could return the favor by selling huge blocks of Treasury securities to front-run a bigger yield surge. It’s not like the inflation surge is likely to moderate in short order.

It’s a Catch 22, of course. If traders got wind that the Bank of Japan or People’s Bank of China were reducing the $1.1 trillion or more each holds, markets might collapse. This gives somewhat smaller U.S. debt holders a chance at a first-mover selling opportunity.

In theory, Hong Kong could perhaps draw down its $230 billion of U.S. exposure without panicking markets. The same with India and its $218 billion and South Korea with its $130 billion. At some point, though, bond dealers in New York and London will catch on and U.S. yields will skyrocket.

This risk dramatizes the tough position in which Tokyo, Beijing and Taipei, Washington’s top-three Asian bankers, are in. Pundits often assume holding a mountain of dollars gives Asian central banks huge geopolitical leverage over U.S. policy. When President Joe Biden’s predecessor launched a trade war with China, a $1.3 trillion arsenal of Treasuries seemed Beijing’s trump card.

Well, yes and no. Is Beijing able to call the shots or is President Xi Jinping’s economy trapped? Dumping tens of billions of dollars of U.S. debt, or more, would boomerang on China as surging global yields savage export demand.

Not surprisingly, foreign holdings of U.S. debt have become the stuff of Hollywood thrillers. The plot of 2014’s “Jack Ryan: Shadow Recruit,” based on the Tom Clancy hero, had Russia trying to crash the dollar in a bid to destabilize the globe.

It’s not as far-fetched as it seems. U.S. Treasuries are, for better or worse, the linchpin asset of world trade and finance. Efforts from Beijing to Moscow to Riyadh to crypto exchanges everywhere to de-throne the dollar amounted to little.

Nor did the chaos of the Covid-19 era imperil dollar hegemony. It’s worth noting, too, that the rise in U.S. yields has been surprisingly mild considering the 6.8% surge in consumer prices in November year-on-year. Also, neither gold nor cryptocurrencies are acting as obvious inflation hedges.

Still, the specter of Powell’s team hiking rates in the months ahead has markets on edge. So do fears the Fed might fall behind the inflation curve, given that monetary policy changes can operate with a months-long lag.

Already, inflation-adjusted returns are the worst since Volcker’s day in the early 80s. Back then, Volcker’s team was fighting a so-called wage-price spiral. Powell may confront something similar. The wages and conditions that workers were willing to accept pre-pandemic in 2019 are what many are accepting in 2021.

One vital constituency the Fed needs to serve is Washington’s Asian bankers. The U.S. can’t take its reserve-currency status for granted. Few developments would undermine credibility faster than U.S. debt losing the trust of central bankers everywhere.

It’s not Russia’s military the world fears in 2021. It’s Moscow’s credit rating. Take Xi, who added his name to the pantheon of top Chinese leaders. Fine, but the default drama at China Evergrande Group means the foundations of that power are shaky. Reserve currency status is indeed an “exorbitant privilege,” as one-time French finance minister Valery Giscard d’Estaing famously said. With it, though, comes immense responsibility. Now that inflation is perking up, the Fed needs to ensure it’s getting ahead of things. Or at least explain in detail why Asia shouldn’t call its U.S. loans.

#### Global financial crisis collapses multilateral governance and causes Arctic and space wars – extinction.

WEF ’21 [World Economic Forum; In Partnership with Marsh McLennan, SK Group, and Zurich Insurance Group, “Middle Power Morass: Navigating Global Divides” in *The Global Risks Report 2021*, p. 52-58]

Forced to choose sides, governments may face economic or diplomatic consequences, as proxy disputes play out in control over economic or geographic resources. The deepening of geopolitical fault lines and the lack of viable middle power alternatives make it harder for countries to cultivate connective tissue with a diverse set of partner countries based on mutual values and maximizing efficiencies. Instead, networks will become thick in some directions and non-existent in others. The COVID-19 crisis has amplified this dynamic, as digital interactions represent a “huge loss in efficiency for diplomacy” compared with face-to-face discussions.23 With some alliances weakening, diplomatic relationships will become more unstable at points where superpower tectonic plates meet or withdraw.

At the same time, without superpower referees or middle power enforcement, global norms may no longer govern state behaviour. Some governments will thus see the solidification of rival blocs as an opportunity to engage in regional posturing, which will have destabilizing effects.24 Across societies, domestic discord and economic crises will increase the risk of autocracy, with corresponding censorship, surveillance, restriction of movement and abrogation of rights.25

Economic crises will also amplify the challenges for middle powers as they navigate geopolitical competition. ASEAN countries, for example, had offered a potential new manufacturing base as the United States and China decouple, but the pandemic has left these countries strapped for cash to invest in the necessary infrastructure and productive capacity.26 Economic fallout is pushing many countries to debt distress (see Chapter 1, Global Risks 2021). While G20 countries are supporting debt restructure for poorer nations,27 larger economies too may be at risk of default in the longer term;28 this would leave them further stranded—and unable to exercise leadership—on the global stage.

Multilateral meltdown

Middle power weaknesses will be reinforced in weakened institutions, which may translate to more uncertainty and lagging progress on shared global challenges such as climate change, health, poverty reduction and technology governance. In the absence of strong regulating institutions, the Arctic and space represent new realms for potential conflict as the superpowers and middle powers alike compete to extract resources and secure strategic advantage.29 If the global superpowers continue to accumulate economic, military and technological power in a zero-sum playing field, some middle powers could increasingly fall behind. Without cooperation nor access to important innovations, middle powers will struggle to define solutions to the world’s problems. In the long term, GRPS respondents forecasted “weapons of mass destruction” and “state collapse” as the two top critical threats: in the absence of strong institutions or clear rules, clashes— such as those in Nagorno-Karabakh or the Galwan Valley—may more frequently flare into full-fledged interstate conflicts,30 which is particularly worrisome where unresolved tensions among nuclear powers are concerned. These conflicts may lead to state collapse, with weakened middle powers less willing or less able to step in to find a peaceful solution.

#### It's uniquely likely.

Liu ’18 [Qian, China-based economist, PhD in economics from Uppsala University, Sweden, and was previously a visiting scholar at UC Berkeley, “From economic crisis to World War III,” https://www.project-syndicate.org/commentary/economic-crisis-military-conflict-or-structural-reform-by-qian-liu-2018-11?barrier=accesspaylog]

The next economic crisis is closer than you think. But what you should really worry about is what comes after: in the current social, political, and technological landscape, a prolonged economic crisis, combined with rising income inequality, could well escalate into a major global military conflict.

The 2008-09 global financial crisis almost bankrupted governments and caused systemic collapse. Policymakers managed to pull the global economy back from the brink, using massive monetary stimulus, including quantitative easing and near-zero (or even negative) interest rates.

But monetary stimulus is like an adrenaline shot to jump-start an arrested heart; it can revive the patient, but it does nothing to cure the disease. Treating a sick economy requires structural reforms, which can cover everything from financial and labour markets to tax systems, fertility patterns, and education policies.

Policymakers have utterly failed to pursue such reforms, despite promising to do so. Instead, they have remained preoccupied with politics. From Italy to Germany, forming and sustaining governments now seems to take more time than actual governing.

Greece, for example, has relied on money from international creditors to keep its head (barely) above water, rather than genuinely reforming its pension system or improving its business environment.

The lack of structural reform has meant that the unprecedented excess liquidity that central banks injected into their economies was not allocated to its most efficient uses. Instead, it raised global asset prices to levels even higher than those prevailing before 2008.

In the United States, housing prices are now 8% higher than they were at the peak of the property bubble in 2006, according to the property website Zillow. The price-to-earnings (CAPE) ratio, which measures whether stock-market prices are within a reasonable range, is now higher than it was both in 2008 and at the start of the Great Depression in 1929.

As monetary tightening reveals the vulnerabilities in the real economy, the collapse of asset-price bubbles will trigger another economic crisis – one that could be even more severe than the last, because we have built up a tolerance to our strongest macroeconomic medications. A decade of regular adrenaline shots, in the form of ultra-low interest rates and unconventional monetary policies, has severely depleted their power to stabilise and stimulate the economy.

If history is any guide, the consequences of this mistake could extend far beyond the economy. According to Harvard’s Benjamin Friedman, prolonged periods of economic distress have been characterised also by public antipathy toward minority groups or foreign countries – attitudes that can help to fuel unrest, terrorism, or even war.

For example, during the Great Depression, US President Herbert Hoover signed the 1930 Smoot-Hawley Tariff Act, intended to protect American workers and farmers from foreign competition. In the subsequent five years, global trade shrank by two-thirds. Within a decade, World War II had begun.

To be sure, WWII, like World War I, was caused by a multitude of factors; there is no standard path to war. But there is reason to believe that high levels of inequality can play a significant role in stoking conflict.

According to research by the economist Thomas Piketty, a spike in income inequality is often followed by a great crisis. Income inequality then declines for a while, before rising again, until a new peak – and a new disaster. Though causality has yet to be proven, given the limited number of data points, this correlation should not be taken lightly, especially with wealth and income inequality at historically high levels.

This is all the more worrying in view of the numerous other factors stoking social unrest and diplomatic tension, including technological disruption, a record-breaking migration crisis, anxiety over globalisation, political polarisation, and rising nationalism. All are symptoms of failed policies that could turn out to be trigger points for a future crisis.

Voters have good reason to be frustrated, but the emotionally appealing populists to whom they are increasingly giving their support are offering ill-advised solutions that will only make matters worse. For example, despite the world’s unprecedented interconnectedness, multilateralism is increasingly being eschewed, as countries – most notably, Donald J. Trump’s US – pursue unilateral, isolationist policies. Meanwhile, proxy wars are raging in Syria and Yemen.

Against this background, we must take seriously the possibility that the next economic crisis could lead to a large-scale military confrontation. By the logic of the political scientist Samuel Huntington, considering such a scenario could help us avoid it because it would force us to take action. In this case, the key will be for policymakers to pursue the structural reforms that they have long promised while replacing finger-pointing and antagonism with a sensible and respectful global dialogue.

The alternative may well be global conflagration.

#### Asian financial crisis escalates every hotspot – extinction.

Cliff ’20 [Roger; Research Professor of Indo-Pacific Affairs @ Strategic Studies Institute, PhD in IR @ Princeton; “A New U.S. Strategy for the Indo-Pacific," *The National Bureau of Asian Research*, NBR Special Report #86; AS]

Prospects for Interstate War

As noted in chapter 2, the Indo-Pacific has been relatively free from interstate conflict over the past quarter century. There has only been one significant interstate war in the region in the last 25 years—the (ongoing) India-Pakistan conflict—and only two other interstate conflicts have resulted in more than 25 battle-related deaths in a single year.1 There are, however, numerous other active disputes between countries in the region that could potentially lead to armed conflict. Table 1 lists the unresolved interstate disputes in the Indo-Pacific region that have resulted in at least one incident since 2000 in which one or more countries threatened, displayed, or used force against one or more other countries, as recorded by the Correlates of War Project.2

As can be seen, many of these disputes are over border demarcation, small islands, maritime boundaries, and other relatively minor issues. Only the India-Pakistan, Korean Peninsula, and Taiwan disputes are over territories large and populous enough to appear to have the potential to lead to a major war. Even apparently minor disputes, however, can escalate into significant conflicts, however: as noted in chapter 3, for example, the 1962 Sino-Indian Border Conflict over a remote area occupied by fewer than ten thousand people resulted in more than nine thousand soldiers being killed or wounded.3

Social science research has identified a large number of potential contributors to the likelihood of interstate conflict. At the global level, empirical evidence suggests that the prevalence of interstate conflict is most affected by the following factors:

• Degree to which the international system is dominated by a single hegemonic power

• Capabilities of international organizations

• Prevalence of consolidated democracies

• Rates of economic growth

• Degree of economic interdependence in the world

• Strength of international norms4

At the regional level, there appears to be an additional “war contagion” factor. Wars appear to be more likely to occur in regions that are currently experiencing wars, even if there is no direct connection between the conflicts.5 With regard to specific pairs of countries, circumstances under which wars appear to be more likely to occur include when the relative power of the two countries is at parity or shifting toward parity, or when one member of the pair, but not the other, has an external alliance. On the other hand, wars between two countries appear to be less likely when both have advanced economies or are mature democracies.6

A number of characteristics have also been identified as associated with a greater likelihood of a specific country becoming involved in war. These include the following:

• The country was created or the ruling regime came to power through violence.

• The country is in the process of democratization.

• The country is highly militarized, as evidenced by a high ratio either of military personnel to total population or of defense expenditures to GDP.

• The country is a major power.

• The country is a major power that is experiencing a power transition.

• The country borders a country that is at war.

• The country has a large number of borders.

• The country has a large number of alliances.7

Applying these findings to the possibility of conflict in the Indo-Pacific in coming years, a 2017 study by the RAND Corporation found that estimates of the capabilities of international organizations, the prevalence of consolidated democracies, the degree of economic interdependence in the world, and, to a lesser extent, the strength of international norms all suggest that interstate conflict will be less frequent in the future.8

This is not to say that interstate conflict will not occur, however, and a number of the disputes in the Indo-Pacific appear to have the potential to result in armed conflict. As stated above, political science literature has found that war between a given pair of countries is more likely when the relative power of the two countries is at parity or shifting toward parity as well as when only one member of the pair has an external alliance tie. Of the militarized international disputes listed in Table 1 in which there is not currently a war (i.e., all listed disputes other than the India-Pakistan dispute), twelve of seventeen involve either pairs of countries whose relative power is at parity or pairs of countries in which only one member has an external alliance tie.9

In addition, several of the individual countries involved in the disputes listed in Table 1 have characteristics that are associated with an increased likelihood of becoming involved in war. In particular, both North Korea and South Korea can be said to have been formed through violence (since the territories they occupy are the result of World War II and the Korean War) and both are relatively highly militarized, with more than 2% of GDP devoted to defense spending and more than 1% of their populations being active-duty members of their militaries.10 India and Pakistan are also nations that can be said to have been formed through violence (in the partition of British India), both have relatively large numbers of borders, and both spend more than 2% of GDP on defense. In addition, India, with the world’s fourth-largest defense budget in 2018, is clearly a major power.11 China’s government came to power through violence (the Communist Party of China’s victory in the civil war in 1949), China has more land borders than any other country in the world, and it is a major power. China, moreover, is probably currently experiencing a power transition.12 Finally, Russia is also a major power, has a large number of borders, and is relatively highly militarized, spending nearly 4% of GDP on defense in 2018. Russia also has a relatively large number of alliances (with former Soviet republics) and may be undergoing a power transition.13

Thirteen of the eighteen militarized disputes listed in Table 1 involve at least one of these six countries. Ten of the militarized international disputes listed in Table 1, moreover, involve either two of the countries listed above or one of these countries and another country that has an external alliance tie. These disputes are:

• Kashmir (conflict ongoing)

• Korean Peninsula

• Kuril Islands/Northern Territories

• Taiwan

• Scarborough Reef

• Spratly Islands

• Senkaku/Diaoyu Islands and the Chunxiao gas field

• China-India border

• China–North Korea border

• China-Bhutan border

Based on the identified indicators of the likelihood of interstate war, therefore, the above ten disputes appear to be the most likely to result in armed conflict (see Figure 1 for a map).

Potential for the Peaceful Resolution of International Disputes

The peaceful resolution of any of the militarized international disputes described in the previous section would remove them as potential sources of conflict and could eliminate the need for the countries affected (including the United States) to develop, support, or deploy military forces for potential contingencies involving these disputes. Peaceful resolution could also be a prelude to, or an element of, political reconciliation between the disputing parties that allows them to forge closer economic ties or engage in joint economic development, leading to increased prosperity for all parties. Thus, the peaceful resolution of militarized disputes in the Indo-Pacific could have a significant impact on regional and U.S. interests.

In the case of the Korean Peninsula dispute, for example, peaceful resolution could involve a formal peace agreement providing for the mutual recognition between North and South Korea and the removal of both sides’ forces from the area of the Demilitarized Zone. Convincing the world that the threat of inter-Korean war had truly been eliminated would probably also require the dismantling of North Korea’s ballistic missiles and nuclear, biological, and chemical weapons and production facilities as well as a significant reduction in the size of North Korea’s armed forces. Such steps would assure North and South Korea as well as other countries in the region that neither side had the intention or capability to engage in large-scale conflict with the other. Although Pyongyang and Seoul have made progress in improving relations recently, the two sides are still far from achieving a permanent resolution of the inter-Korean dispute.14 Nonetheless, such a resolution is not inconceivable in the coming decade.

Peaceful resolution of the Korean Peninsula dispute could also entail an agreement about the future relationship between the two Koreas. Such an arrangement could consist of an agreement that they will remain separate states for the indefinite future, an agreement on a process for unification, or something intermediate between those two possibilities.15 The specific nature of the agreement would have major geopolitical implications for Northeast Asia. Key variables are whether a single unified state or two separate states would emerge from the agreement and what the relationship of the resultant state or states would be with China and the United States. For example, if North Korea were absorbed into the Republic of Korea (ROK), would the ROK maintain its mutual defense treaty with the United States? Although Korean unification currently appears improbable, the possibility of such a scenario transpiring in the coming decade cannot be ruled out.

Peaceful resolution of Taiwan’s status would have major geopolitical significance as well. Like an agreement about the future relationship between the two Koreas, peaceful resolution of Taiwan’s status could take the form of an agreement for Taiwan to politically unify with mainland China, an agreement for Taiwan to formally become an independent nation, or an intermediate solution, such as an agreement to deliberately leave Taiwan’s status unresolved for a period of time.16 Although it is conceivable that the current government in China could allow a resolution that is acceptable to the people of Taiwan, prospects for a peaceful resolution would be much greater if China were to become a democracy, a development that would have geopolitical significance well beyond the Taiwan dispute.17 As discussed later in this chapter, although such a development currently appears highly unlikely, the possibility of it occurring at some point in the next decade cannot be ruled out.

Peaceful resolution of the India-Pakistan dispute over Kashmir would also have a significant geopolitical impact, removing the primary source of friction between the two countries (although domestic separatist movements would likely continue so long as India controlled large portions of Kashmir). This would allow the two countries to redirect some of the strategic attention and resources that are currently focused on each other. In the case of India, these purposes could include domestic economic development or the improvement of the capabilities of the armed forces for contingencies in areas other than the India-Pakistan border regions (e.g., for contingencies involving China). Although prospects for resolving the Kashmir dispute do not currently appear to be promising, it is possible that this could change over the coming decade.18 In this case, the specific terms of the resolution would have relatively little impact on the strategic landscape in the region. The important thing would be that the issue had been resolved, eliminating a persistent source of conflict between India and Pakistan.19

Peaceful resolution of the disputes in the East and South China Seas would be significant for the United States, given that U.S. treaty allies are involved in all three cases. Resolution of any of these disputes would therefore eliminate the possibility of the United States becoming involved in a conflict involving that dispute. The specifics of how these disputes are resolved, however, could also have significant geostrategic implications. For example, a resolution of the dispute over the Senkaku/Diaoyu Islands that ceded control to China and allowed it to build military installations on them would have a different impact on Japanese and U.S. interests from an agreement that recognized the islands as Japanese territory. In practice, however, any solution to the dispute acceptable to both China and Japan would likely require a commitment that neither side would station personnel or build military facilities on the islands.20

A code of conduct is currently being negotiated by most of the parties to the disputes in the South China Sea (excluding Taiwan). It is thus possible that these territorial disputes (over the Spratly and Paracel Islands and Scarborough Reef) could be eliminated as a potential cause of armed conflict in the coming decade. Although any agreement reached in the near term seems likely to allow the claimants to maintain their presence on any features that they currently occupy, how other issues that could affect U.S. interests would be decided is unclear. For example, China has reportedly proposed that parties to the dispute not be allowed to conduct joint military exercises with outside countries, which would prevent the United States from holding exercises with countries such as the Philippines (a treaty ally), Vietnam, and Malaysia.21

Resolution of the border dispute between China and India appears unlikely over the next decade, though this scenario also cannot be completely ruled out. The two countries set up a joint task force to resolve the issue in 1988, but it has made little progress. If the dispute were resolved, however, it would remove a potential cause of armed conflict between China and India. The most likely option for the dispute to be resolved would be for both sides to drop their claims to territory held by the other side. Even if the dispute were resolved in a way that favored one side or the other, the difference would probably be of little strategic significance.22

In 1956, Japan and the Soviet Union agreed that the Soviet Union would return two of the four disputed Kuril Islands to Japan after the two countries signed a formal peace treaty. The current Shinzo Abe administration has been pressing Russia to agree to such a treaty so that the islands can be returned. Although Russia has shown little interest in a treaty, it is certainly conceivable that such an agreement could be reached in the coming decade, which would eliminate this dispute as a potential flashpoint for conflict.23

None of the other militarized international disputes in the Indo-Pacific listed in Table 1 appear likely to be a trigger for a major conflict, and thus their peaceful resolution is unlikely to have significant implications for U.S. interests.

Internal Conflict

Internal conflicts affect the security and well-being of people living in the involved areas (as well as the government security forces deployed to fight the insurgents). They also consume resources and attention from the national government that could be put to more positive uses and, by discouraging commerce and investment, act as a drag on a country’s economic development, particularly in the specific locations where the conflict is taking place. In addition, they can result in the displacement of noncombatants, who may flee to other areas of the country or even to neighboring countries, thereby disrupting the economies and social order in those areas (see the section on refugee crises, below).

As noted in chapter 2, the scale of internal conflict in the Indo-Pacific has fallen since 2009. Nonetheless, there are roughly twenty separate ongoing internal conflicts in the region. A total of six countries in the region experienced internal conflicts that caused at least one fatality in 2018: India (seven separate conflicts), Myanmar (six conflicts), the Philippines (four conflicts), Bangladesh (one conflict), Thailand (one conflict), and Indonesia (one conflict). It is possible that some of these conflicts could worsen, that internal conflicts in the region that have previously ended could reignite, and that new internal conflicts could emerge.24

Prospects for Internal Conflict

Political science research has identified a number of potential contributors to the likelihood or intensity of internal conflict in a country. These include the following:

• The existence of great-power rivalry in the international system

• The capabilities of international organizations

• The capacity of governmental institutions

• Whether the country is a consolidated democracy

• Slowdowns in the rate of economic growth

• Resource stress caused by population pressure

• The existence of a youth bulge in the population age structure25

Of these potential contributors to the likelihood of internal conflict, great-power rivalry in the international system and the capabilities of international organizations are factors that apply globally. Great-power rivalry was a significant contributor to internal conflicts during the Cold War. Since then, the number of internal conflicts in the world has fallen, but it is possible that the rivalry between the United States and China could increase the number of internal conflicts in coming years. Conversely, the capabilities of international organizations have grown over time, and this trend appears likely to continue in the future. Thus, it is possible that the increasing capabilities of international organizations will help limit the number of internal conflicts.26

The other five risk factors for internal conflict listed above are all specific to a given country. Examining these factors for each of the countries in the Indo-Pacific region suggests that Bangladesh, Bhutan, Cambodia, Nepal, and Sri Lanka are at the greatest risk of experiencing internal conflict. All five have relatively ineffective governmental institutions, none is a consolidated democracy, all are projected to experience a drop of 20% or more in their annual economic growth rates between 2020 and 2030, all are experiencing significant resource stress, and all will have youth bulges between 2020 and 2030.27 Consistent with these factors, all of these countries except Bhutan have had an internal conflict that resulted in 25 or more battle deaths in a year at some point in the last quarter century, although only Bangladesh still had an internal conflict that caused fatalities in 2018.28

Political science research also suggests that ethnic or sectarian polarization, while apparently not affecting the likelihood of internal conflict occurring, can increase the intensity of internal conflicts when they occur.29 The governments of Bangladesh, Bhutan, Cambodia, and Sri Lanka all discriminate against certain ethnic groups, suggesting that if any internal conflicts involving those ethnic groups emerge in these countries, they have the potential to be particularly intense.30

In addition to the above five countries, several other countries in the region exhibit at least four of the five country-specific risk factors for internal conflict listed above. These include Myanmar, India, Laos, Papua New Guinea, and Vietnam.31 Of them, Myanmar and India were experiencing internal conflicts in 2018. None of the other three have had significant internal conflicts since 1996, but all appear to have an elevated risk of doing so in the future.32

Four additional countries in the region exhibit three of the five country-specific risk factors for internal conflict listed above: the Philippines, the Solomon Islands, Thailand, and Timor-Leste.33 Of these, the Philippines and Thailand were experiencing internal conflict in 2018, while the Solomon Islands suffered from ethnic conflict from 1999 to 2003, suggesting that countries with even three of the five country-specific indicators are at significant risk of suffering from internal conflict.34 Table 2 and Figure 2 show the countries identified above as being at relatively high risk for the emergence of new or renewed conflict. It is, of course, possible that internal conflict will occur in countries other than those listed in Table 2. In the past 25 years, for example, significant internal conflict has also occurred in China and Indonesia, neither of which currently exhibits more than two of the above five indicators for internal conflict.35

Most of the internal conflicts currently ongoing in the Indo-Pacific involve ethnic minorities seeking greater autonomy or independence. Although such internal conflicts may threaten the territorial integrity of the countries in which they are occurring, the areas affected generally represent a relatively small proportion of the country’s total territory and population. Thus, these separatist conflicts do not appear to be likely to result in the overthrow of the national government.

A few of the ongoing internal conflicts, however, are ideologically based and thus have the potential to spread geographically and even ultimately result in the overthrow of the national government. The Philippines, India, and Myanmar, for example, all have Communist insurgencies. None of these insurgencies currently appears to be a serious threat to overthrow the national government, however, and it seems unlikely that a new Communist insurgency that would be such a threat will emerge in the Indo-Pacific in coming years.

A more significant ideological basis for internal conflict in the coming decade could be Islamic fundamentalism. Bangladesh, in particular, has had numerous violent Islamist organizations. In 2013, more than eight hundred people were killed or seriously injured in Bangladesh as a result of attacks by Islamist groups. Although most of this violence was directed against civilians, in 2016 individuals and groups claiming affiliation with the Islamic State began directly attacking government targets. The government of Bangladesh currently appears to be succeeding in containing the Islamic State, but other militant Islamist organizations continue to operate in the country.36 The other four Muslim-majority countries in the Indo-Pacific—Indonesia, Malaysia, Brunei, and Maldives—have been relatively free of Islamist violence in recent years, and none of them exhibits more than two of the above five indicators for internal conflict, although conservative Islamic forces have been strengthening in Indonesia, Malaysia, and Maldives.37

It is also possible that an Islamist separatist movement or insurgency, even if it is not a threat to overthrow the government of a country in the region, could create an enclave from which terrorist attacks on the United States or its allies are launched. The government of the Philippines, for example, is fighting an insurgent group that has declared its allegiance to the Islamic State.

Potential for the Resolution of Internal Conflict

Just as the emergence of new internal conflicts in the region could affect U.S. interests, so too could the resolution of existing internal conflicts. Two of the countries in the region that are currently experiencing internal conflicts are U.S. treaty allies (Thailand and the Philippines), and the United States has a broad interest in peace and stability in the region more generally.

As noted in the previous discussion, twenty internal conflicts that had resulted in 25 or more deaths in at least one year since 1993 were still ongoing in 2018 (the most recent year for which complete data is available). Of these, nineteen were insurgencies (that is, conflicts between the government of a country and an armed opposition organization). The other conflict was between an insurgent organization and a breakaway faction of that organization. A study of 89 insurgencies in the 20th and 21st centuries by RAND found that the median conflict lasted ten years and that roughly three-quarters of the insurgencies examined ended after sixteen or fewer years.38 This suggests that at least some of the four insurgencies in the region that have started since 2009 and were still underway in 2018 will probably have ended by 2030.39 The RAND study also found, however, that insurgencies that lasted more than sixteen years were likely to continue for an extended period of time, with most still underway a decade later. This suggests that most of the sixteen insurgencies in the region that have been ongoing for more than sixteen years will still be underway in 2030.40 Table 3 lists all the insurgencies in the region that were active in 2018 and the year in which the conflict began.

Regime Change

Regime change refers to a change in a country’s system of government, such as the replacement of a hereditary monarchy by a democracy or the replacement of a democracy by a military dictatorship.41 Depending on the country involved, regime change can have a significant impact on the interests of the United States. The replacement of the hereditary Shah of Iran by an Islamic theocracy in 1979 and the replacement of the Communist governments by democracies in Eastern Europe in 1989 are prominent examples.

Research has identified a number of factors associated with regime change, particularly change from autocracy to democracy or vice versa. One finding is that prosperous democracies rarely, if ever, revert to autocracy.42 In the Indo-Pacific region, Japan, South Korea, Taiwan, Australia, and New Zealand, with per capita incomes in purchasing power parity (PPP) of at least $40,000 in 2018, clearly fall into this category. Malaysia is also a relatively prosperous democracy, with a per capita income in PPP of more than $30,000 in 2018.43 None of the other thirteen democracies in the region with populations of at least 500,000 would be described as prosperous. Among them, the highest per capita income in PPP in 2018 was Sri Lanka’s, which at $13,400 is less than Thailand’s per capita income was at the time of Thailand’s 2006 and 2014 coups.44 Thus, based on their low levels of economic development, these countries appear to be at some risk for becoming autocracies.45

Another way of estimating the prospects for regime change in the region’s democracies is the Center for Systemic Peace’s State Fragility Index. This index reflects the organization’s assessment of a government’s “capacity to manage conflict, make and implement public policy, and deliver essential services,” as well as its “systemic resilience in maintaining system coherence, cohesion, and quality of life, responding effectively to challenges and crises, and sustaining progressive development.”46 According to this index, Japan, South Korea, Malaysia, Australia, Taiwan, and New Zealand are the least fragile democracies in the Indo-Pacific.47 These are the same six countries that would be regarded as being least prone to regime change based on the finding that prosperous democracies rarely, if ever, revert to autocracy. The remaining democracies in the region, however, are all assessed to have higher degrees of fragility. Indeed, the Center for Systemic Peace assesses all of them except for Fiji as being at least as fragile as Thailand was at the time of its 2014 coup.48 Figure 3 shows the apparent risk of regime change in the democracies of the Indo-Pacific based on their levels of prosperity and fragility.

If regime change were to occur in one of the democracies of the Indo-Pacific, a variety of forms of autocracy could replace democracy. These include governments led by individual strongmen, military juntas, and single-party rule. In addition, as noted in the previous section, conservative Islamic forces appear to be strengthening in Indonesia. Thus, it is conceivable that if regime change were to occur, an Islamist autocracy could assume power.49 Finally, regime change could also come in the form of state failure, whereby a central government loses its ability to exert control over most of a country’s territory and no other regime takes its place.

Research has identified a number of indicators relevant to the prospects for democratization in the eight autocracies in the region that have populations of at least 500,000. One finding is that, with the apparent exception of countries that derive the majority of their income from fossil fuel extraction, countries with higher per capita incomes are more likely to democratize than countries with lower per capita incomes.50 Conversely, everything else being equal, autocracies that have more equal income distribution tend be longer-lived than those that do not. A third finding is that the greater the proportion of an autocratic country’s neighbors that are democratic, the greater the likelihood is that the autocracy will transition to democracy. Related to this is a finding that membership in regional international organizations in which most other members are democracies also increases the likelihood of democratization. A fifth relevant finding is that autocracies that are run by professionalized militaries tend to be shorter-lived than other kinds of autocracies, and that when the military steps down from power, their successors are nearly always chosen through competitive elections. Autocracies that are ruled by hegemonic parties or hereditary monarchies, on the other hand, tend to be longer-lived than other types of autocracies. Political science research has also found, however, that if a hegemonic party is unable to maintain its monopoly on power, its members prefer that one-party rule be replaced by a democratic government. Autocracies in which power has been personalized under an individual, by contrast, are more likely to be replaced by a new dictatorship than by a democracy.51

By these measures, Thailand, Singapore, and China appear to be the strongest candidates to experience a democratic transition over the next decade. Per capita income in Thailand is projected to reach about $25,000 in 2016 PPP dollars by 2030, which will make Thailand an upper-middleincome country.52 It is also a member of the Asia-Pacific Economic Cooperation (APEC), most of whose members are democracies.53 These indicators suggest that Thailand is relatively likely to return to some form of democracy in coming years.54

By some measures, Singapore is an even stronger candidate for democratization. It had a per capita income of over $100,000 in PPP in 2018, one of the highest in the world.55 Singapore’s two immediate neighbors, Malaysia and Indonesia, are both democracies, and Singapore is also a member of APEC.56 Singapore is, however, ruled by a hegemonic party, and its government is assessed to have a low degree of fragility.57

Like Thailand, China is expected to be an upper-middle-income country by 2030, with per capita incomes projected to reach $26,000. It is also a member of APEC.58 Unlike Thailand, moreover, China has a high degree of income inequality, with its Gini coefficient being the highest in the Indo-Pacific.59 On the other hand, China is ruled by a hegemonic party, and its government is assessed to be only moderately fragile.60 Thus, democratization or another form of regime change appears to be relatively unlikely for China in coming years.61

Democratization prospects for Bangladesh, Vietnam, Laos, Cambodia, and North Korea appear to be dimmer than for Thailand, Singapore, and China. All are poor countries with per capita incomes probably less than $8,000 in PPP in 2018.62 Except in the case of Bangladesh, almost all of their neighbors are autocracies, and only Bangladesh and Vietnam appear to be members of a regional international organization whose members are mostly democracies.63 In addition, both Laos and Vietnam are ruled by hegemonic parties, which tend to be longer-lived than other types of autocratic regimes.64 The regime in Laos, however, is assessed to be relatively fragile, and thus may be more likely to fall in the future than Vietnam’s.65 As noted above, moreover, when hegemonic parties are no longer able to retain their hold on power, they are often replaced by democracies. Thus, if Laos does experience regime change, it will likely become a democracy.66 In both Bangladesh and Cambodia, power is personalized under an individual, and both regimes are assessed as being relatively fragile, suggesting that they may be more likely than the other autocracies in the region to experience regime change over the next decade.67 Regimes in which power has been personalized under an individual are most likely to be replaced by another dictatorship rather than by a democracy. Nonetheless, Bangladesh’s prospects for becoming a democracy are probably somewhat better than Cambodia’s because both of its immediate neighbors (India and Myanmar) are democracies and because it is a member of regional international organizations whose members are mostly democracies.

North Korea could be regarded as ruled by a hegemonic party, but in some ways it more closely resembles a hereditary monarchy. Although nominally led by the Workers’ Party of Korea, in practice North Korea has been ruled by founding leader Kim Il-sung and his descendants for its entire history. Both hegemonic party regimes and hereditary monarchies tend to be longer-lived than other types of autocratic regimes, however.68 North Korea is also not a member of any significant regional international organizations whose members are mostly democracies, and the fragility of the Kim regime is assessed as being only moderate, comparable to that of China, Mongolia, or Vietnam.69 Thus, there is little evidence to suggest that regime change, much less democratization, is imminent in North Korea. As noted in chapter 3, however, if speculation about North Korean leader Kim Jong-un being in poor health is accurate, it is possible that he could die at some point in the next decade. If that were to happen, it is possible that it could trigger a succession crisis that ultimately results in regime change. Figure 4 illustrates the democratization prospects of the region’s autocracies.

Financial Crises

A financial crisis is a disturbance to financial markets that disrupts their capacity to allocate capital.70 Such crises are significant because they often trigger recessions, and those recessions tend to be more severe and last longer than normal business cycle recessions.71

Financial crises may be grouped into four broad categories, although individual crises may involve more than one category: currency crises, balance-of-payments crises, debt crises, and banking crises. A currency crisis results from a speculative attack on a country’s currency that causes a devaluation of the currency or else forces the authorities to defend the exchange rate by expending large amounts of foreign exchange reserves, by sharply raising interest rates, or by imposing capital controls. A balance-of-payments crisis is the result of a sudden fall in international capital inflows to, or a sudden increase in capital outflow from, a country.72

Debt crises can be foreign debt crises or domestic public debt crises. A foreign debt crisis is when a country, or private entities within the country, stop paying back its foreign debt. A domestic public debt crisis is when a country stops honoring its domestic fiscal obligations (e.g., government bonds) by defaulting on them, by deliberate inflation that debases the value of the debt, or by other means. A banking crisis is when bank failures or bank runs cause banks to stop allowing savers to withdraw their money or cause the government to intervene on a large scale to prevent this.73

A financial crisis in the Indo-Pacific would be a significant event not only because it might affect the U.S. economy, but also because it could cause a severe recession that destabilized governments in the region, leading to revolutions or repression.74 In addition, as noted earlier in this chapter, countries that undergo a significant slowdown in economic growth are more likely to experience internal conflict.75

Financial crises are frequent occurrences. One study identified at least 452 instances worldwide between 1970 and 2011 in which a country experienced a financial crisis, implying that an average of eleven such crises occurred per year.76 Within the past quarter century, two financial crises have had a major effect on the Indo-Pacific region in particular: the 1997 Asian financial crisis and the 2007–8 global financial crisis. Unfortunately, financial crises are difficult to predict more than a year or so in advance.77 Thus, while it is highly possible that another major financial crisis could strike the Indo-Pacific at some point over the next decade, it is impossible at this time to predict when it will occur or what countries will be affected.78

If a financial crisis does occur, the developing economies of the Indo-Pacific are likely to be more severely affected than the advanced economies, as this is the typical pattern (although advanced economies were more severely affected during the 2007–8 global financial crisis). Over the duration of a crisis, lost economic output typically amounts to about 30% of an average year’s output, and seven years after the crisis annual output levels are typically about 10% lower than they would have been if pre-crisis trends had continued. Thus, a financial crisis could significantly disrupt the economic growth trajectory and potentially precipitate regime change in rising powers such as China, India, or Indonesia, as well as other vulnerable countries such as Myanmar, Bangladesh, the Philippines, or Nepal.79

Natural Disasters

The Indo-Pacific region is highly prone to natural disasters, including weather-related disasters such as typhoons, cyclones, and floods; geophysical disasters such as earthquakes, tsunamis, and volcanic eruptions; and biological disasters such as severe acute respiratory syndrome (SARS), avian influenza, and, most recently, coronavirus disease (Covid-19).80 Each year on average more than 170 million people in the region are affected to some degree by a natural disaster and more than 30,000 are killed. Natural disasters on average also cause more than $30 billion in economic damage each year.81

In addition to their immediate human and economic impact, moreover, natural disasters can have long-term economic, social, cultural, and environmental effects. Businesses, particularly small businesses that lack disaster insurance or other forms of financial resiliency, may be forced to shut down permanently, and frequent natural disasters can trap poor households in poverty. People who were affected by natural disasters in childhood, infancy, or even in utero have worse health and less educational attainment and wealth when they become adults than those who were not affected. These effects can propagate across generations, with children born to women who were exposed in childhood or in utero to natural disasters having lower birth weight and educational attainment than those born to mothers who were not exposed.82

In addition, although the direct impact of natural disasters tends to be localized, the indirect effects can propagate more widely. The combination of an earthquake in Japan and flooding in Thailand in 2011, for example, caused severe shortages at firms in the United States and Europe that relied on components from the affected areas. The shortages caused these firms to slow or even stop production of products requiring those components, which in turn resulted in a loss of orders by those firms to other suppliers located elsewhere in the world.83

Another way in which the effects of disasters can propagate to distant locations is through migration. In 2017, 11.4 million people were displaced internally because of natural disasters in East and South Asia. The World Bank has estimated that by 2050 60 million people in South Asia alone will be internally displaced as a result of climate change. People displaced by disasters often migrate to urban areas, where they are vulnerable to flooding, heat stress, and epidemics. Migrants can worsen congestion or increase competition for jobs and basic amenities in these urban areas, resulting in a deterioration of social order as well.84

Natural disasters can also have political effects. Studies have found that more frequent and more severe disasters increase the likelihood of antigovernment demonstrations and internal conflict such as riots, insurgencies, and coups. Democracies and weak authoritarian regimes are particularly vulnerable to such effects. Conversely, natural disasters can sometimes precipitate the resolution of conflicts. A 2005 peace accord between the Indonesian government and separatists in Aceh Province was reached after 30 years of conflict as a direct result of the destruction caused by a tsunami in December 2004.85

Table 4 shows the average annual frequency and impact of natural disasters in the Indo-Pacific countries that are most prone to such events. Table 5 shows the nineteen disasters in the region between 1994 and 2019 that caused more than two thousand fatalities, including six that caused more than ten thousand fatalities. Based on the historical frequency and severity of natural disasters and the regime types of the countries affected, Thailand, India, Indonesia, and the Philippines appear to be most vulnerable to internal conflict precipitated by natural disasters. Indeed, it may not be a coincidence that there are insurgencies ongoing in each of these countries.86

It is not possible at this time to assess the long-term effects of the Covid-19 pandemic in the Indo-Pacific. As of April 2020, most reported cases and deaths were in Europe and North America, even when compared to China, the country of origin. Given the lack of widespread testing capabilities and underdeveloped medical systems in many Indo-Pacific countries, however, it seems likely that Covid-19 had spread more widely in the region than was initially recognized, and that many more cases and fatalities would be recorded in coming months. The long-term human, economic, social, and political effects of this pandemic are impossible to estimate at this point.87

According to the Asian Development Bank, the population and the economic, social, cultural, and environmental assets that are located within areas of the Indo-Pacific that are most likely to experience natural disasters are increasing rapidly. This is partly a result of population growth and economic development, but it is also the result of socioeconomic trends that are concentrating people and assets in high-risk locations, such as coastal megacities.88 In addition, as noted in chapter 2, global warming is expected to cause an increase in the frequency of periods of unusually hot weather and in the frequency and intensity of floods in South and Southeast Asia.89 As a result, natural disasters may be even more frequent in the Indo-Pacific in the coming decade than they have been in years past, and the economic damage caused by these disasters is projected to increase markedly. The number of fatalities caused by natural disasters may gradually decrease over time, however, as economic development will increase the capacity of countries in the region to respond to disasters.90

In addition to the direct and indirect effects of natural disasters, as a global leader the United States is often expected to lead the international response. Each year the Office of U.S. Foreign Disaster Assistance responds to an average of 65 disasters in more than 50 countries throughout the world, and the U.S. government spends more than $7 billion each year on overseas disaster assistance. The U.S. military is often called on to transport personnel and supplies, provide medical assistance, and help with search-and-rescue efforts.91

Refugee Crises

Traumatic events can cause large numbers of people to flee their homes. This can be a result of interstate wars, internal conflicts, and natural disasters, but also of communal violence, persecution, and other circumstances. When such people leave their country of residence and flee to another country, they are referred to as refugees. If they remain within the borders of their countries of residence, they are referred to as internally displaced people. In either case, the displacement of large numbers of people can become a humanitarian emergency that requires assistance from the international community.92

Large-scale movements of refugees and internally displaced people can have a significant impact on the countries and localities that they flee to. Refugees compete with local citizens for basic resources such as land, water, housing, food, and educational and medical services and put stress on the local energy, transportation, and sanitation infrastructure. International emergency aid can ease some of these pressures, but can also cause price rises for land, housing, building materials, food, and other commodities, making life more difficult for local citizens. International aid agencies that hire skilled local staff such as doctors and nurses to serve the refugees can cause these skills to become less available to the local population. Large population displacements can also cause environmental problems such as erosion, decreased soil fertility, landslides, groundwater contamination, and widespread denudation as refugees forage for wood for hut construction, cooking, and heating.93

If refugees or internally displaced people are from the same ethnic group as the population of the area into which they have fled, they may be treated with tolerance and sympathy. If not, however, then friction may arise. Refugees may be seen as worsening crime and social order, or as receiving treatment and amenities that are not available to the local population. These perceptions can cause local hostility toward or conflict with the refugees.94

Refugee flows can have significant political effects. They can alter the ethnic composition of the host country, destabilizing its political balance, and refugees may exert undue influence over relations between their host country and their country of origin. They may also be seen by the government of their country of origin or their host country (or both) as supporting terrorists or ethnic separatists. Such militants may indeed hide amongst refugees, using their settlements as extraterritorial sanctuaries. This, in turn, can prompt the country from which they have fled to threaten the host country or even to launch attacks into its territory. Three of the militarized international disputes listed in Table 1 are of this variety.95

Population displacements in the Indo-Pacific affect U.S. interests. Aside from the possibility of provoking or exacerbating interstate or intrastate conflict, they can place a heavy burden on the economies, societies, and governments of U.S. allies and partners in the region. In addition, a large proportion of Indo-Pacific refugees ultimately end up being resettled in the United States. Between 1993 and 2018, for example, roughly 1.6 million people in the region became refugees. Over the same time period, nearly 500,000 refugees from the region were admitted to the United States.96

As shown in Table 6, in the past quarter century there have been numerous occasions when 10,000 or more people in the Indo-Pacific have been displaced by conflict, persecution, or other events, including several that have resulted in the displacement of more than 100,000 people. The frequency of these displacements has not diminished over the past quarter century. Thus, it seems likely that large-scale population displacements will continue to occur once every year or so on average in the Indo-Pacific in the coming decade.

All of the events shown in Table 6 are the result of either separatist conflicts or persecution of ethnic minorities. This suggests that major population displacements are likely to occur in the future in countries in which there is a separatist conflict or in which ethnic minorities are persecuted. India, Indonesia, the Philippines, Thailand, and Myanmar are all already experiencing separatist conflicts. Of these countries, Thailand and Myanmar actively discriminate against certain ethnic groups, according to the International Conflict Research group at ETH Zurich. In addition, Bangladesh, Bhutan, Cambodia, Laos, and Sri Lanka are all at high or elevated risk for internal conflict and actively discriminate against certain ethnic groups as well. Thus, future large-scale population displacements appear to be most likely to occur in these countries. Figure 5 shows the Indo-Pacific countries with the greatest risk for refugee crises in the future.97

Strategic Implications

Over the next decade, a range of major events could occur that would have a significant impact on U.S. interests. These could include large-scale interstate conflict on the Korean Peninsula or over Taiwan as well as smaller-scale interstate conflicts over disputed territories such as the Senkaku Islands, the Spratly Islands, or Scarborough Reef. Conversely, some of these disputes might be peacefully resolved, which would also affect the policies and actions that the United States needs to take to promote and defend its interests.

A number of countries in the region could experience new or renewed internal conflicts. None of the countries that appear to be most likely to experience new internal conflicts is a U.S. treaty ally, but two U.S. allies—the Philippines and Thailand—are already experiencing internal conflicts and could be affected by such conflicts in neighboring countries. None of the internal conflicts currently ongoing appears to be a serious threat to overthrow the national government of a country in the region, however. Some of the internal conflicts currently ongoing in Indo-Pacific countries could even be resolved in coming years, which would allow the governments of those countries to focus more attention and resources on issues beyond their borders.

There is also the possibility of regime change in some of the region’s countries. The United States’ most important allies in the region—Japan, South Korea, and Australia—are in little danger of becoming autocracies, but other important partners, such as India, Indonesia, and the Philippines, are at greater risk. Conversely, there is a chance that some of the region’s autocracies could become democracies. Prospects for this appear to be best in Thailand, but Singapore and even China are possibilities as well.

Other major events in the region are also likely, though it is difficult to predict which countries will be affected. Aside from the recession caused by the current Covid-19 pandemic, another major financial crisis affecting the region like the 1997 Asian financial crisis or the 2007–8 global financial crisis is possible in the coming decade. Estimating which specific countries’ economies will be most affected by the Covid-19 crisis is impossible at this time, but as a rule developing economies are more likely to be severely affected. This could disrupt the growth trajectories of, or even precipitate regime change in, countries such as China, India, or Indonesia.

#### Dollar hegemony solves global nuclear war.

Zoffer ’20 [Joshua; 2/3/20; Investor @ Cove Hill Partners, Fellow @ New America, JD Candidate @ Yale University Law School, BA @ Harvard University; “To End Forever War, Keep the Dollar Globally Dominant”; https://newrepublic.com/article/156417/end-forever-war-keep-dollar-globally-dominant]

In early 2016, Obama Treasury Secretary Jack Lew cautioned that the dollar’s dominance as a global currency rested, in part, on the U.S. government’s reluctance to fully weaponize it. If foreign markets and governments “feel that we will deploy sanctions without sufficient justification or for inappropriate reasons,” he warned, “we should not be surprised if they look for ways to avoid doing business in the United States or in U.S. dollars.” Lew’s case stemmed from the more fundamental view that the dollar’s international role is “a source of tremendous strength for our economy, a benefit for U.S. companies and a driver of U.S. global leadership”—in other words, a role worth keeping. This view is emblematic of American financial governance since the Second World War. U.S. economic analysts, especially at the Treasury, have jealously guarded the dollar’s role and the many benefits it offers: the ability to run large deficits at low cost and disproportionate influence over the structure of the global economy, among others.

Yet in their recent article in The New Republic, David Adler and Daniel Bessner argue the U.S. should abandon these advantages. In their view, the dollar’s role has encouraged American militarism and should be relinquished to curb such behavior. Dollar hegemony is not without cost, but to renounce it would be a profound mistake. Adler and Bessner’s view neglects the sizable economic benefits the dollar’s role confers on the U.S., as well as its possible use as an antidote to military adventurism. It ignores the enormous good that can be done with deficit spending, much of which has gone to the American military but could instead fund progressive programs. And it elides the inability of the U.S. and its global trading partners to shift away from dollar dominance without creating worldwide financial distress. Adler and Bessner are right that the U.S. has misused its privilege, but Washington should not abandon it; rather, American leaders should seek to transform it.

Generations of American policymakers have been right to protect the dollar’s key currency role for economic reasons. Most notably, dollar hegemony affords the U.S. the ability to run large and prolonged budget and balance-of-payments deficits. The dollar represents 62 percent of allocated foreign exchange reserves, is used to invoice and settle roughly half of world trade, and accounts for 42 percent of global payments. Because governments, banks, and businesses worldwide need lots of dollars, the world market always stands ready to absorb new U.S.-dollar-denominated debt without charging higher interest rates.

Adler and Bessner correctly point out that the rest of the world considers the dollar’s role as the world’s reserve currency to be an “exorbitant privilege,” a term coined in the 1960s by then French Finance Minister Valéry Giscard D’Estaing. The ability to spend beyond its means has enabled the U.S. to fund its impressive military might, whether one views that power as the fountainhead of Pax Americana or the source of illegitimate military adventurism.

But these economic benefits go beyond just deficits. The demand for dollars also pushes up the dollar’s value against other currencies, enhancing American purchasing power and offering consumers access to imports on the cheap. The dollar’s role also means American firms rarely need to do business in foreign currencies, reducing transaction costs and exchange-rate risks.

More broadly, America’s central economic role gives it outsize influence at crucial moments. At the height of the financial crisis that began in 2008, the Federal Reserve was able to inject vital liquidity into the global financial system by selectively offering dollar swap lines to trusted foreign central banks. Dollar hegemony enabled the U.S. to act swiftly, effectively, and on its own terms.

In addition, the dollar’s role offers a potent alternative to kinetic military action as a means of pursuing foreign policy objectives. The dollar’s broad use means access to dollar liquidity—which in turn requires access to the U.S. financial system—is essential for foreign governments and businesses. For foreign banks, especially, being cut off from dollar access is essentially a death sentence. That makes sanctions that do so a powerful tool in the international arena.

In 2005, for example, the U.S. used the dollar to strike a devastating blow against North Korea without firing a single shot or even formally enacting sanctions. Using authority provided by Section 311 of the Patriot Act, the Department of the Treasury crippled Banco Delta Asia, a bank accused of facilitating illegal activity by the North Korean government, by merely threatening to cut off its access to the American financial system. Deposit outflows began within days; within weeks the bank was placed under government administration to avoid a full collapse. Pyongyang was hit hard, as other banks ceased their business with it to avoid meeting the same fate.

Similarly, though the Trump administration has worked hard to undo it, the Joint Comprehensive Plan of Action with Iran to limit the development of nuclear weapons was made possible, in part, by painful dollar sanctions that brought Iran to the table. Far from being a proximate cause of military conflict, the dollar’s central global role has often been used to contain adversaries without military intervention.

#### Inflation independently drives populism.

O’Sullivan ’21 [Mike; 1/17/21; M.Phil and D.Phil in International Finance @ Oxford; “Is Inflation A Boon For Populists?”; <https://www.forbes.com/sites/mikeosullivan/2021/07/17/is-inflation-a-boon-for-populists/?sh=7708fc5e3de7>; AS]

Populism at a high

The most troubling aspect in their research is to show that populism is at its highest point historically – 25% of the countries in their sample (16 of 60) have or recently (in 2018) had populist governments, as compared to only 14% in the 1930’s. Typically, populism is associated with weaker growth or economic volatility – an occurrence that makes sense if we think of the weakness of the Turkish lira, unrest in South Africa and in general, the consistently poor handling of the coronavirus crisis by populist leaders. The German researchers also show that most populist leaders suffer an ‘irregular’ political exit, and will no doubt be adding the events of January 6th in Washington to their database.

The ‘populism peak’ is important in many respects, not least for the way in which populists feed off and exacerbate the issues of the day – the ambivalence of some Tory politicians over racist acts against English football players is one example.

My hunch is that inflation is about to become the latest populist focus. Recent data show that in the US and increasingly in Europe, inflation is awakening after a long slumber. Indeed, many professional economists and investors have never experienced high inflation. In the USA, some inflation measures and price components are the highest that they have been since the 1980’s. The consensus and official view on rising inflation is that it is ‘transitory’ – driven by a burst of coronavirus recovery spending. The risk, across many fronts is that it proves more enduring and thus can cause financial, economic and political pain.

Inflation is transitory?

This is where inflation becomes interesting to populists – anything that causes economic pain and social discomfort is populist ammunition. Indeed, there is plenty of evidence to show that inflation is often the offshoot of populist economic policies as the economic history of Latin America shows.

Inflation, if it is here to stay, will become a political issue in at least three ways. The first is housing where the OECD’s housing affordability gauge has gone vertical (i.e. housing is extremely unaffordable), easily surpassing the levels of 2008 (recall the housing crisis). In some countries like Ireland there is a persistent and acute housing crisis, the debate around which is becoming populist – though it should be said that there has been a broad failure to manage this issue from a policy point of view.

Rising prices cause pain

The second way in which inflation becomes an issue is where rising real living costs are not matched by wage rises (we may see this in about six months’ time as economic activity and policy normalizes) and ‘the price of things’ becomes a topic of political debate and increasingly, agitation. In the past, and particularly in emerging economies where households spend a large amount of disposable income on food, price rises can lead to unrest (i.e. the Arab Spring).

#### Populism is an independent existential risk AND magnifies all others.

Leigh ’21 [Andrew; Australian Member of Parliament, Former Professor of Economics @ Australian National University; *What's the Worst That Could Happen?: Existential Risk and Extreme Politics*]

How likely is it that humanity could end? Experts working on catastrophic risk have estimated the chances of disaster for a wide range of the hazards that our species faces. Adding up the threats, philosopher Toby Ord estimates the odds that humanity could become extinct over the next century at one in six, with an out-of-control superintelligence, bioterrorism, and totalitarianism among the largest risks. He argues that most of the risks have arisen because technology has advanced more rapidly than safeguards to keep it in check. To encapsulate the situation facing humanity, Ord titled his book The Precipice.

A one in six chance of going the way of dodos and dinosaurs effectively means we are playing a game of Russian roulette with humanity’s future. Six chambers. One bullet. Even the most foolhardy soldier usually finds an excuse not to play Russian roulette. And that’s when just their own life is at stake. In considering extinction risk, we’re contemplating not one fatality but the death of billions or possibly trillions of people—not to mention countless animals.

It can seem impossible to imagine our species becoming extinct due to a catastrophe such as nuclear war, asteroids, or a pandemic. But in reality, the danger surpasses plenty of perils we already worry about. One way to put catastrophic risk into perspective is to compare it with more familiar risks. If extinction risk poses a one in six risk to our species over the next century, then it means that it is far more hazardous than many everyday risks. Specifically, it suggests that the typical US resident is fifteen times more likely to die from a catastrophic risk—such as nuclear war or bioterrorism—than in car crash.2

Extinction risk outstrips other dangers too. Ask people about their greatest fears, and you’ll get answers like “street violence,” “snakes,” “heights,” and “terrorism."4 But in reality, these are much less hazardous than catastrophic risks. People in the United States are 31 times more likely to die from a catastrophic risk than from homicide. Catastrophic risk is 3,519 times likelier to kill than falls from a height, and 6,194 times more likely to kill than venomous plants and animals. If you have ever worried about any of these threats, you should be more fearful about cata- strophic risk. Extinction risks aren’t just more dangerous than any of them; they are more hazardous than all of them put together. Catastrophic risk poses a greater danger to the life of the typical US resident than car accidents, murder, drowning, high falls, electrocution, and rattlesnakes put together.

A one in six risk is just the danger in a single century. Suppose that the risk of extinction remains at one in six for each century. That means there’s a five in six chance humanity makes it to the end of the twenty-first century, but less than an even chance we survive to the end of the twenty-fourth century. The odds that we survive all the way to the year 3000 are just one in six. In other words, if we continue playing Russian roulette once a century, it’s probable that we blow our brains out before the millennium is halfway through, and there’s only a small chance that we make it to the end of the millennium.

Part of the reason humans undervalue the future is that it’s hard to get our heads around the idea that our genetic code could live on for millions of years. At present, the best estimates are that our species, Homo sapiens, evolved around three hundred thousand years ago.1 That means we have existed for about ten thousand generations. But we have another one billion years before the increasing heat of our sun brings most plant life to an end.1 That’s plenty of time to figure out how to become an interstellar species and move to a more suitable solar system. Humans could live to enjoy another thirty million generations on earth.

Thinking about the mind-boggling scale of these numbers, I’m reminded of the Total Perspective Vortex machine, created by Douglas Adams in The Restaurant at the End of the Universe. Anyone brave enough to enter sees a scale model of the entire universe, with an arrow indicating their current position. As a result, their brain explodes. As Adams reflects, the machine proves that “if life is going to exist in a universe of this size, then the one thing it cannot afford to have is a sense of proportion.”

Still, let’s try. Imagine your ancestors a hundred generations ago. They are your great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-great-great-great-great-great-great-great-great- great-great-great-grandparents. These people lived around 1000 BCE, at the start of the Iron Age. They might have been part of Homeric Greece, ancient Egypt, Vedic age India, the preclassic Maya, or Zhou Dynasty China.

Contemplate for a moment about what the hundred genera- tions between our Iron Age ancestors and today have achieved. They built the Taj Mahal and Sistine Chapel, the Angkor Wat and Empire State Building. Thanks to them, we can relish the poetry of Maya Angelou, novels of Leo Tolstoy, and music of Ludwig van Beethoven. An abundance of inventions has delivered us deli- cious food, homes that are comfortable year-round, and technol- ogy that provides online access to a bottomless well of entertain- ment. If time machines existed, we might pop in to visit our great100 grandparents, but few would volunteer to stay in the Iron Age.

Yet humanity is really just getting started. If things go well, it’s ten thousand generations down, thirty million to go. Imagine what those future generations could do, and how much time they have to enjoy. Here’s one way to think about what it means to have thirty million generations ahead. Suppose humanity’s potential time on the planet was shrunk down to a single eighty- year life span. In that event, we would now be a newborn baby— just nine days old. Homo sapiens is a mere 0.03 percent through all we could experience on earth.

We won’t meet most of those who follow us on the planet, but we should cherish future generations all the same. If you value humanity’s past achievements—the Aztec and Roman civiliza- tions, art of the Renaissance, and breakthroughs of the Industrial Revolution—then the generations to come are just as worthy. This is what political philosopher Edmund Burke meant when he described society as “a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born.’- To appreciate the past is akin to admiring the achievements of distant places. Like geography, his- tory helps us better understand the way of the world.

Politicians like me like to speak fondly about looking after "our children and our grandchildren.” But it usually stops after a generation or two. Policy pays little heed to the many generations that will follow. For my own part, it took a coronavirus-induced shutdown to have the time to spend reflecting deeply about the long term. This book had been rattling around in my head for years, but it was only when all my meetings, events, and travel were canceled that I had the time to write it. Pandemics are one of the threats to humanity that I’ll discuss in this book, but in this instance, it provided a chance to reflect on the long term. It’s tempting to ignore the distant future. It’s easier to love the grandchildren whom we hug than the great-great-great-grand- children whom we’ll never get to smile on. But that doesn’t make those far-flung generations any less important. Via my wife, our children can trace their lineage to Benjamin Franklin, but I’m more excited about the potential achievements of the generations yet to be born.

For companies and governments, a major impediment to long- term thinking is the idea of discounting the future. When investing money, this is a reasonable approach. A dollar in a decade’s time is less valuable than a dollar today for the simple reason that a dollar today could be invested and earn a real return. Share markets have good and bad years, but based on returns from the past 120 years, someone who put $1,000 into the US stock market for an average year could expect it to be worth $1,065 after twelve months (accounting for dividends and inflation).2 Approximating these returns, when governments contemplate making investments, they often apply a discount rate of around 5 percent, while companies use rates that are higher still.2

When it comes to growing your greenbacks, this makes perfect sense. If Kanesha offered you $ 1,000 today, and Jane offered you $ 1,000 in a year’s time, most of us would think that Kanesha was making the more generous offer. Kanesha’s cash can be put to productive use and would be worth more than Jane’s when the year is out.

But what if we’re talking about Kanesha and Jane themselves? Suppose Kanesha is alive today, and Jane is yet to be born. When discounting is applied to lives, it suggests that Kanesha’s life to- day is worth twice as much as Jane’s life in fifteen years’ time. It implies that Kanesha today is worth 132 times as much as Jane in a century’s time. So if we’re spending money to keep them safe, a 5 percent discount rate indicates that we should spend more than a hundred times as much to protect Kanesha today than to pro- tect Jane in a century’s time.

The further we stretch the time period, the more ridiculous the results become. Discounting at a rate of 5 percent implies that Christopher Columbus is worth more than all eight billion people on the planet today.— Naturally, it also implies that your life is worth more than eight billion lives in five hundred years’ time. Even if you value the hug of a loved one over the unseen successes of next century’s generations, is it fair to ruthlessly dis- miss the distant future? Discounting is the enemy of the long term.

As philosopher Will MacAskill points out, there is something morally repugnant about concluding that the happiness of those who will be alive in the 2100s is inconsequential simply because they live in the future. MacAskill coined the term “presentism” to refer to prejudice against people who are yet unborn.” Just like racism, sexism, or other forms of bigotry, he argues that mis- treating those who live a long way in the future is unfair. To dis- criminate in favor of Kanesha against unborn Jane is a form of presentism. If you traveled back in time to the 1500s and met someone who claimed that they were worth more than everyone alive in the 2000s, you’d rightly regard them as an egomaniac. Isn’t it equally narcissistic to ignore the happiness of people in the 2500s?

Some have contended that we should favor the living over the unborn for the same reason that philanthropy favors the down- trodden over the wealthy. If incomes rise over time, the argument goes, then asking today’s citizens to help those in the future is like taking from the poor to give to the rich.— But this reasoning ignores the fact that we are talking about the survival of future generations. Theoretical riches won’t do them any good if they are practically dead—or if planetary apocalypse snuffs out their chance to be born. Similarly, it misses the possibility that future pandemics, wars, or climate disasters could make coming genera- tions significantly poorer.—

Insights from behavioral science help explain why humans aren’t good at understanding extinction risk.— Our thinking about dangers is skewed by an “availability bias”: a tendency to focus on familiar risks. Like the traders who failed to forecast the collapse of the securitized housing debt market, we are lousy at judging the probability of rare but catastrophic events. Most important, our instincts fail us as the magnitudes grow larger. In research titled "The More Who Die, the Less We Care,” psychologists Paul Slovic and Daniel Vastfjall argue that we become numb to suffering as the body count grows.— Humans’ compassionate instincts are aroused by stories, not statistics. Indeed, one study found that people were more likely to donate to help a single victim than they were to assist eight victims. This may help explain why the international community has been so slow to respond to genocide, including recent incidents in Rwanda, Darfur, and Myanmar. As artificial intelligence researcher Eliezer Yudkowsky notes, human neurotransmitters are unable to feel sorrow that is thousands of times stronger than a single funeral.— The problem is starker still when it comes to extinction risk. Our emotional brains cannot multiply by billions.

Add to this a media cycle that has become a media cyclone, in which stories explode in a matter of minutes, and “outrage porn” seems to drive the news choices of many outlets. In the 2016 US election, researchers found that for every piece of professional news shared on Twitter, there was one piece of “junk news.’’— Conflict fueled by social media keeps us in a primal state of rage and retaliation. And this isn’t the only force that makes politics myopic. Campaign contributions tend to come from donors who have an immediate interest in a “today” issue rather than from people aiming to solve long-term problems. This kind of “instant noodle” politics prioritizes quick results and sidelines fundamental challenges.

In this environment, a special style of politics has thrived: populism. The term “populist" gets thrown around a lot—typically as an insult—so it’s worth taking a moment to define it precisely.— Populists see politics as a conflict between crooked elites and the pure mass of people. Many candidates trying to defeat an incumbent will criticize “insiders,” but populists make a stronger attack on elites, claiming that they are dishonest or corrupt. Populists then claim that they—and only they—represent the “real people.” Populists combine a fierce critique of elites and personal appeal to the “silent majority.”

The political strategy of populists involves critiquing intellectuals, institutions, and internationalism. The political style of populists tends to be fierce. They do not strive for unity and calm consensus. Populists share with revolutionaries a desire for sudden and dramatic change. They have little respect for experts and the systems of government. Populists’ priorities tend to be immediate issues such as crime, migration, jobs, and taxes. Consequently, the electoral success of populists has served to sideline work on long-term dangers such as climate change and nuclear war.

Donald Trump may have lost his presidential reelection bid, but he has transformed the Republican Party, which has jettisoned its longstanding commitment to free trade, immigration, and global alliances. Many moderate Republicans, who might have served comfortably under Ronald Reagan or George H. W. Bush, have quit the party or been defeated by Trump-supporting populists. The Republican Party, which holds nearly half the seats in Congress and controls a majority of state legislatures, has embraced populism to a degree that was unimaginable when it was led by George W. Bush, John McCain, or Mitt Romney. After four years under President Trump, the Republican Party is now more cynical and isolationist, focused on immediate grievances rather than long-term challenges.

Yet while the strength of populism threatened to sideline issues of catastrophic risk, coronavirus did the opposite. The worst pandemic in a century led to the most severe economic crisis since the Great Depression. Churches and concert halls fell silent. International travel collapsed. The Summer Olympics were postponed. Stocks plunged, and for a brief moment, the price of a barrel of oil went negative. Globally, millions lost their jobs, and millions more faced famine.

COVID-19 never threatened to extinguish humanity, but it highlighted our vulnerability to infectious diseases. More than at any time in living memory, people focused on the dangers of pandemics. The popularity of Geraldine Brooks’s Year of Wonders, Stephen King’s The Stand, Emily St. John Mandel’s Station Eleven, and Albert Camus’s The Plague vividly illustrates the way in which fear of pandemics has become more acute.

We know that disasters can remake society. The black death helped usher in the Renaissance.— The Great Depression made a generation of investors more risk averse.— World War II spawned the United Nations and formed the modern welfare state. In autocracies, droughts and floods can topple dictators.—

Coronavirus is reshaping the world in numerous ways.— Handwashing is in. Cheek kissing is out. The rise of big cities is slowing as people consider the downsides of density. Firms that automated their production systems to deal with physical dis- tancing requirements and stay-at-home orders are discovering that they can get by permanently with fewer staff. More tele- working and less business travel is leading to a drop in demand for receptionists, bus drivers, office cleaners, and security guards. When it comes to our use of technology, coronavirus suddenly accelerated the world to 2030. When it comes to globalization, the pandemic took us back to 2010.

But it’s still an open question as to how COVID-19 will affect humanity’s ability to think about the long term. Most of the examples I’ve listed are instances in which crises affected societies organically: the shock came, and it changed our behavior. But accentuating the long term requires taking risk more seriously and placing greater emphasis on saving our species. Linebackers are swift to respond when an offensive player suddenly takes a step to the right. But it takes longer to recognize that a team’s offensive plays are skewed to the right and modify the defensive formation accordingly.

Like a football team that adapts its tactics, this book argues that we should lengthen our thinking. At minimal cost, society can massively reduce the odds of catastrophe. By ensuring that the big threats get the attention and resources they need, we can safeguard the future of our species. As insurance policies go, this one is a bargain.

In the chapters that follow, I’ll outline the biggest risks facing humanity. I’ll begin in chapter 2 with pandemics, such as the possibility that the next virus might combine the infectiousness of COVID-19 with the deadliness of Ebola. What can we do to shut down exotic animal markets, speed up vaccine develop- ment, and create surge capacity in hospitals? I’ll then delve into bioterrorism, and the danger of extremists developing their own versions of smallpox or the bubonic plague. How difficult is it for them to create these devilish diseases, and what can we do to prevent it?

In chapter 3, I’ll then explore climate change—perhaps the in- tergenerational issue that has received the most public attention in recent years. While much of the modeling looks at how global warming could be bad, my focus is on the chances that it’s catastrophic. This isn’t about climate change shortening the ski season; it’s about the possibility of temperatures rising by 18°F (10°C), rendering large sections of the planet uninhabitable. What does the risk of cataclysmic climate change mean for energy policy?

Next, I’ll turn to nukes. As a child in the 1980s, I vividly re- member watching The Day After. My classmates and I agreed that a nuclear war was inevitable. When the Cold War ended, the world seemed safer, but in the three decades since, the threat from new nuclear powers has made the problem less predictable. As I discuss in chapter 4, what we used to call an arms race now looks more like a bar fight, with hazards coming from unexpected directions, including terrorist groups. Yet just as there are practical ways to avoid pub brawls (don’t drink past midnight, avoid the stairs, look out for the glass), so too are there sensible strategies that can reduce the odds of nuclear catastrophe (adopt a “no first use" policy, reduce the stockpiles, control loose nukes).

A superintelligence has been dubbed the “last invention” we’ll ever make. An artificial intelligence machine whose abilities exceed our own could turbocharge productivity and living stan- dards. But it could also spell disaster. If we program our artificial intelligence to maximize human happiness, it could fulfill our wishes literally by immobilizing everyone and attaching electrodes to the pleasure centers of our brains. As chapter 5 notes, what makes artificial intelligence different from every other risky technology is its runaway potential. Once a superintelligence can improve itself, it is unstoppable. So we need to build the guardrails before the highway.

What are the odds? In chapter 6,1 complete the discussion of catastrophic danger by examining less risky risks, including asteroids and supervolcanoes. I also consider the prospect of “unknown unknowns.” For example, prior to the first atomic bomb test, some scientists thought there was a chance it could set the atmosphere on fire, destroying the planet. When the Large Hadron Collider was being built, critics warned that the particle collisions inside it could create micro black holes. Although neither situation eventuated, they raise the question of what other doomsday scenarios could be lurking around the corner. How should the prospect of these unexpected risks change our approach to cutting-edge science? Drawing together these dangers with the major hazards, I report the likely probability of each, benchmarking existential risks such as nuclear war and pandemics against individual risks such as being struck by lightning or dying on the battlefield.

Ultimately, tackling existential risks is a political problem. Private citizens can achieve many things, but preventing nuclear war, averting bioterrorism, and curbing greenhouse emissions are fundamentally problems of government. Governments control the military, levy taxes, and provide public goods. So the values of those who run the country will determine how much of a priority the nation places on averting catastrophe.

That’s why the rise of populists is crucial to humanity’s long- term survival. In chapter 7,1 discuss the factors that have led to the electoral success of populists during recent decades, and why populists tend to be uninterested in dealing with long-term threats. Populists’ focus on the short term means that—like a driver distracted by a back seat squabble—we’re in danger of missing the threats that could kill us. I’ll explore why populists around the world struggled to respond to COVID-19, and what this says about the dangers that populism poses to our species. Most critics of populism have concentrated on the present day. They’re missing the bigger picture. Populists are primarily endangering the unborn.

Bad politics doesn’t just exacerbate other dangers; it represents a risk factor in itself through the possibility of a totalitarian turn —in which democracy is replaced by an enduring autocracy. The road to democracy is not a one-way street. Over the centuries, dozens of countries have backslid from democracy into autocracy —abandoning the institutions of fair elections, protection for minorities, and free expression. Such an outcome could be deadly for dissenters and miserable for the multitudes. Chapter 8 explores why democracy dies and identifies the signs that institutions are being undermined. Chapter 9 suggests how we might strengthen democracies to allow citizens to have a greater say, and lower the chances of the few taking over from the many. Chapter 10 concludes the book.

When COVID-19 hit, many rushed out to buy life insurance.— In our personal lives, we know that spending a small amount on insurance can guard against financial ruin. Societies can take a similar approach: implementing modest measures today to safe- guard the immense future of our species. For each of the existential risks we face, there are sensible approaches that could curtail the dangers. For all the risks we face, a better politics will lead to a safer world.

Because of its focus on the urgent over the important, populist politics should perhaps bear the label, “Warning: populism can harm your children." But what is the alternative? In the conclusion, I argue that the answer lies in the ancient philosophy of stoicism. A stoic approach to politics isn’t about favoring one side of the ideological fence over another. Instead, it’s about the temperament of good political leadership. Stoicism emphasizes that character matters and holds that virtue is the only good. Decisions are based on empirical evidence, not emotion. Anger has no place in effective leadership. Strength comes from civility, courage, and endurance. Stoics make a sharp distinction between the things they can change and those they cannot.

#### Normal case-by-case adjudication generates uncertainty that hinders investor compliance. The plan’s centralized rule establishes clear guidelines for enforcement.

Posner ’17 [Eric et al; Kirkland & Ellis Distinguished Service Professor @ University of Chicago Law School; Fiona Scott Morton; Theodore Nierenberg Professor of Economics @ Yale School of Management; and E. Glen Weyl; Senior Researcher @ Microsoft Research, Visiting Senior Research Scholar @ Yale University Department of Economics and Law School; “A Proposal to Limit the Anticompetitive Power of Institutional Investors,” *Antitrust Law Journal*, 81(3), p. 669-728; AS]

C. IMPLICATIONS FOR LITIGATION

The most natural solution to these harms is to simply enforce Section 7 of the Clayton Act, accounting for effects through MHHJ and coordinated effects enabled by common ownership. 7 9 Ultimately, we agree with this conclusion, but we are concerned that, absent clear guidelines for when such cases would or would not be brought, such litigation could lead to a combination of chaos and stasis. In this subsection, we use simulations to illustrate some of the difficulties plaintiffs, institutional investors, and courts would face without further guidance.

An initial problem is that it is not even clear what standard a court would use to determine liability. Without guidance from regulators, a court may not even use an MHHI threshold; even if it did, it would not necessarily choose the threshold that other courts used. Normal case-by-case adjudication would most likely result in a range of different rules, standards, and approaches. 0 But to fix ideas imagine, for example, that courts found liable any institutional investor whose holdings increased MHHI by 200 points relative to the counterfactual of the investor not being in the industry at all; other natural counterfactuals can be used to reach similar conclusions to what follows. We now illustrate some of the cases that could succeed under such a standard:

1. Suppose that there is an industry with four symmetric firms (so that without common ownership the industry has MHHI of 2500) and that each has a large concentrated shareholder with 15% of the stock. Each also has a CEO who holds 0.1% of equity. There is also a single moderate-sized fully diversified shareholder with 2% holdings in each firm and no one else owns a non-trivial fraction of the stock. In such a setting MHHIA becomes 130 because the 15% concentrated holdings undermine the influence of the 2% diversified holder. It seems unlikely a suit against the 2% holder could succeed.

However, now suppose that one of the 15% concentrated holders faces financial distress and is forced to liquidate its holdings. The MHHIA then jumps to almost 2000. If the 2% diversified holder were forced to sells its holding, the MHHIA would fall to 0. Thus, after the concentrated holder exits, a possible antitrust case could be made against the 2% holder. One can see here that an institution that was initially not liable would in this case become liable purely based on the behavior (exit from the industry) of another institution. This would make it very hard for institutions to plan their activities to conform to the law.

2. Consider the same symmetric four-firm industry and suppose again that there are (roughly as at present and as we discuss further in the next Part) managers of each firm with 1% concentrated holdings and five diversified institutions holding respectively 6%, 5%, 4%, 3%, and 2% of the industry. (By "diversified institution," we mean a firm with a stake in every firm in the industry.) The MHHIA is huge in this case: 7420, almost fully monopolizing the industry. The question now is which institution could/should have liability? The unilateral divestiture of holdings by any of the institutions barely budges MHHI: even if the 6% institution exits, MHHI falls by less than 100 points. Exit of the 2% institution reduces MHHI by only 4 points. Institutions might play a game of "chicken," waiting for the others to sell their holdings so that the last institution is no longer causing a significant increase in MHHI and can maintain its investments. In this case, which we think is common in current US data, MHHIA is a "collective responsibility" of the holding pattern. It would be very difficult for institutions to protect themselves in this case also; an aggressive court might hold all liable. But what are the limits of this collective responsibility? How small would an institution have to be to avoid it? These questions would make investment planning challenging.

3. A third issue concerns market definition. Suppose that a product market such as premium groceries is a tight oligopoly of four publicly traded firms. On the other hand, suppose the market for groceries broadly is diffuse and has many privately held companies, so that even if all publicly traded grocers were to merge, this would not cause significant competitive concern in the market for groceries. Would an institution that held all premium grocers be liable under the Clayton Act? On the one hand, it could not have any effect on the market for groceries more broadly as it faces so many privately held competitors. On the other hand, a private suit might succeed against it based on the narrower market definition, but it would be very hard for the institution to predict whether this is the case or not.

Of course, issues like this arise all the time in standard merger review, but a standard merger is a single, large decision made by a pair of corporations. Institutional investors constantly acquire and sell equities and so must worry continuously about falling out of compliance with the Clayton Act. An institution trying to comply with the Clayton Act would have to sort out these issues in hundreds or thousands of industries, even if it held only a small and fully diversified holding. Without some centralized process of determining market definitions of concern, institutions would find it extremely challenging to comply with the law.

4. Finally, consider an industry composed of four equally sized firms where the only non-trivial holding is by a single fully diversified institution holding only 0.2% of the shares in that industry and by the managers who hold 1% concentrated in each firm. In this case the HHI is already 2500 and the MHHIA would be 300. The entire MHHIA would be eliminated by the diversified institution exiting the industry.

Such an institution would clearly be liable. However, it seems hard to imagine such an institution having a significant impact on competition in the industry. Managers are likely to have enough control to disregard most of the investor's power in corporate governance and ensure profit maximization. By the same token, this power is so small that it is unlikely to enable the institution to participate in corporate governance. If it refrained from doing so, it is hard to imagine it being desirable to force it to exit. Yet it would be liable under the definition above.

Of course, the MHHI standard we use in the four examples above is only one of many standards that a decentralized process led by courts and plaintiffs could eventually settle on. We do not mean to predict that it would be the final standard that would emerge; courts might recognize the problems we identify and avoid them. However, other standards that might emerge could be equally problematic; and worst of all would be if no standard emerged of any sort, with different courts making different, case-by-case judgments. If that happened, there would be little an institutional investor could do to stay on the right side of the law.

Moreover, if courts identify these problems, they might become apprehensive about throwing an enormous industry into confusion and carve out broad exemptions that would allow all or nearly all the status quo harms to continue. Consider the following examples:

1. Suppose courts were to decide that a firm could be liable only if the unilateral MHHI reduction-given current holdings-caused by the firm entirely exiting the industry exceeded 200 points. In this case, as highlighted above, very few institutions would be liable at present. Given that the MHHIA is already thousands of points in many industries," this would allow the persistence of enormous harms of a quarter percent of GDP based on our calculations in Part II.E below.

2. Suppose that courts decided that any existing holdings are too hard to unscramble and only find against additional marginal acquisitions that sufficiently increased MHHI. This would clearly allow for the persistence of status quo harms. Furthermore, it is hard to imagine how such a standard could prevent the situation from worsening. Suppose that Vanguard gradually receives an inward flow of funds over many years causing it to grow, with all holdings perfectly diversified. With such gradual monopolization of many industries over a long period of time, at what point could a suit against Vanguard succeed? In any given year MHHI might not increase by more than a few points.

3. Suppose that the courts decided that either extremely narrow or extremely broad market definitions were appropriate. In either of these cases, very few if any harms would create liability.

We do not highlight these problems to promote despair; we do believe there exist standards consistent with reasonable interpretations of existing antitrust laws that would be workable and effective. However, it seems unlikely that without clear thought and guidance that a decentralized process of litigation will happen upon such guidelines in the medium term.8 2 In the next subsection, we aim, through simulation examples, to construct a simple interpretation.

#### FTC rulemaking provides predictable enforcement that reins in institutional investors.

Posner ’17 [Eric et al; Kirkland & Ellis Distinguished Service Professor @ University of Chicago Law School; Fiona Scott Morton; Theodore Nierenberg Professor of Economics @ Yale School of Management; and E. Glen Weyl; Senior Researcher @ Microsoft Research, Visiting Senior Research Scholar @ Yale University Department of Economics and Law School; “A Proposal to Limit the Anticompetitive Power of Institutional Investors,” *Antitrust Law Journal*, 81(3), p. 669-728; AS]

No institutional investor or individual holding shares of more than a single effective firm in an oligopoly may ultimately own more than 1% of the market share unless the entity holding shares is a free-standing index fund that commits to being purely passive.

We now define the terms above.

\* An institutional investor is said to hold or be invested in the set of firms representing the aggregate holdings of the entire investment company reporting to or under the corporate control of the same firm. Different "institutions" run by the same management company are treated as part of the same set of holdings and whenever we refer to an "institution," a "fund," or an "institutional investor," we mean the broad fund holding company (e.g., Vanguard, BlackRock, Fidelity, etc.), not the specific fund offered by these companies (e.g., Vanguard S&P 500 Admiral Shares).

\* An institutional investor is invested in more than a single effective firm if it is invested in more than one firm, and the total market share of all firms it holds any stake in is greater than HHI10,000 in the oligopoly. The effective firm definition allows an institutional investor to hold multiple competing sufficiently small fringe firms instead of a large firm.

\* Prior to the start of each calendar year, the DOJ and FTC would make a list of industries constituting oligopolies and company market shares based on the standards discussed in Part J.C above. There would be some mechanism to solicit comments from any interested parties. The DOJ and FTC would then finalize the list with at least a month before the beginning of the new year to allow the institutional investors time to rearrange their holdings to comply with the policy.

\* The market share ultimately owned by an institution or individual i is the sum over all firms j of the product of the share that institution has in that firm /3, and the market share of firm sj: pysj.

\* An index fund that is purely passive commits to engage in no communication with top managers or directors, 98 to vote its shares in proportion to existing votes so that it has no influence in any corporate governance decision, and to own and trade stocks only in accordance with clear and non-discretionary public rules, such as matching an index as closely as possible.

While we have generally assumed that our policy should take the form of an enforcement policy issued by the DOJ and the FTC analogous to the Guidelines, there are other possible approaches. It is possible that the FTC could issue formal rules under Section 5 of the FTC Act. 99 In addition, the policy could be enacted as legislation. There are different advantages to each of the approaches. The DOJ and FTC could adopt an enforcement guideline at their discretion, while a regulation would require notice-and-comment rulemaking and be subject to judicial review under the Administrative Procedure Act, and legislation would require an act of Congress. Thus, it would be easiest to put in place an enforcement guideline, relatively difficult to issue a regulation, and (we suspect) nearly impossible to enact legislation, at least in the near term. However, the major disadvantage of an enforcement guideline is that it might not block the complex and uncertain private litigation that we are concerned about. That outcome would depend on the courts, which might-or might not-interpret the statute considering the enforcement guidelines.100 If varied court rulings caused difficulty for the business operations of institutional investors, they might prefer a formal rule to this policy. A regulation would result in greater judicial deference, and legislation the greatest.

Should the enforcement policy be absolute or create a rebuttable presumption? Lawyers are more comfortable with the latter approach. As we acknowledge, our policy might create some false positives; it may well be appropriate to give defendants an opportunity to rebut. Suppose, for example, a defendant can show that it is highly decentralized, with independent boards of directors and firewalls making any amount of coordination within the firm highly implausible. It may therefore be better conceptualized as many small independent funds that fall below the 1 percent threshold than as a single huge fund. The "no talking rule," discussed below, illustrates another possible defense.

### 1AC – Plan

#### The United States federal government should not permit investors holding shares of more than a single effective firm in an oligopoly to own more than a small market share where the shareholding entity does not commit to being purely passive.

### 1AC – Investment

#### Contention two: Investment

#### Horizontal shareholding drives the investment-profit gap. Cross-industry empirical studies price in alt causes and confirm it’s the primary factor.

**Elhauge ’20** [Einer; Professor of Law @ Harvard; “How Horizontal Shareholding Harms Our Economy - And Why Antitrust Law Can Fix It,” *Harvard Business Law Review*, 10(2), p. 207-286; AS]

C. New Empirical Evidence on the Investment-Profit Gap

New empirical studies also indicate that horizontal shareholding can help explain the rapid increases over recent decades both in the gap between corporate profits and investment and in economic inequality. This new literature shows that we had a sharp rise in horizontal shareholding from 1999 to 2014, with the probability of two competing firms in the S&P 1500 having a large horizontal shareholder increasing from 16% to 90% over that period.35 This sharp rise in horizontal shareholding coincides with the fact that the recent large divergence between corporate profits and investment began in 2000.36 It also coincides with the period during which we have had the highest growth in corporate profits and greatest decline in labor's share of national income since World War II.11

Standing alone, such parallel timing could be a coincidence and reflect economic factors other than horizontal shareholding that changed during the same time period. However, a new cross-industry empirical study has directly found that the gap between corporate investment and profitability is mainly driven by the level of horizontal shareholder ownership in concentrated markets.38 Further, the new study found that, within any industry, the investment-profit gap is mainly driven by those firms with high horizontal shareholding levels.39 While parts of the study used MHHI measures of horizontal shareholding, others avoided any concerns that MHHI might reflect endogenous effects on market share by instead using the firm's level of quasi-indexer ownership as a proxy for horizontal shareholding levels. 40 This new empirical evidence now affirmatively establishes a link between anticompetitive horizontal shareholding and the economy-wide lack of corporate investment that has contributed to low economic growth in recent decades.

This new empirical evidence also indicates that the main cause of the investment-profit gap cannot be general macroeconomic, technological, or policy trends, such as recessions, increased automation, decreased productivity, a slowdown in technological innovation, or changes in government spending, taxes, or labor law. If such general trends were the main cause, they should result in a similar profit-investment gap across the economy, rather than a gap that is mainly driven by concentrated markets with high horizontal shareholdings. Even less can such general trends explain why, within any industry, the investment-profit gap is mainly driven by firms with high horizontal shareholding levels. If automation, technological factors, or government policies were the main driver of low investment, that should apply equally to all firms in an industry, not mainly to those firms with high levels of horizontal shareholding.

Although this new cross-industry study does not directly examine economic inequality, a connection to economic inequality is logically suggested by its proof of an empirical connection between horizontal shareholding in concentrated markets and a gap between high corporate profits and low corporate investment. The reason is that those high corporate profits go to shareholders who are disproportionately wealthy and reflect high prices that are disproportionately borne by the non-wealthy, and the lack of corporate investment depresses employment and wages in a way that further disproportionately harms the non-wealthy. 4

#### Common ownership undermines welfare gains by incentivizing buybacks at the expense of investment.

Gutierrez ’18 [German; PhD Candidate Finance @ NYU Stern School of Business; and Thomas Philippon; Max L. Heine Professor of Finance @ Stern School of Business NYU; “Ownership, Concentration, and Investment” AEA Papers and Proceedings 2018, 108: 432–437 p. 432-436]

We argue that changes in firm governance have contributed to the weakness of corporate investment in recent years. Our initial motivation comes from four trends affecting the US corporate sector during the 2000s:

(i) Concentration and profits have increased in most industries (Furman 2015; Grullon, Larkin, and Michaely 2016; Barkai 2017).

(ii) Business investment has been weak relative to profitability, funding costs, and market values (Gutiérrez and Philippon 2017b).

(iii) Payout rates of US-incorporated public firms, including buybacks, have increased markedly, as shown in Figure 1, panel A.

(iv) The fraction of the equity market owned by institutional investors, quasi-indexers in particular, has increased, as shown in Figure 1, panel B.1

Two main explanations have been proposed for the joint evolution of concentration and invest- ment: intangible capital (Alexander and Eberly 2016; Crouzet and Eberly 2018) and increased market power (Gutiérrez and Philippon 2017a). These two explanations do not account for the entire investment gap, and we study the role of corporate governance.

Firms must continuously choose what fraction of earnings to retain, invest, and pay out. Shareholders and managers often disagree about these choices. A large literature in corporate finance argues that managers have a tendency to prefer larger firms. One can also argue that equity markets put excessive emphasis on quarterly earnings. Almeida, Fos, and Kronlund (2016) show that the probability of share repurchases is sharply higher for firms that would have just missed the earnings per share forecast in the absence of a repurchase. Terry (2017) shows that firms just meeting Wall Street forecasts have lower research and development growth. Managers can also be shortsighted, however, and Kaplan (2017) argues against the idea that markets have a short-term bias. The nature of the potential bias, if any, is therefore an empirical question.

The joint evolution of investment, payouts, and market value can help us understand these governance issues. Suppose that managers’ incentives become more aligned with shareholders’ preferences. Market values unambiguously increase. Payouts to shareholders increase at some horizon. And, if managers prefer larger firms, and if the change in governance is correctly identified, investment decreases. A shift in governance can therefore account for the gap between Tobin’s Q and investment documented in Gutiérrez and Philippon (2017b). Consistent with this idea, Figure 2 shows that buybacks increased faster for firms with high quasi-indexer ownership.2 In the remainder of the paper we test more formally this hypothesis.

I. Ownership and Investment

We first want to test whether high institutional ownership, particularly quasi-indexer owner- ship, leads to higher payouts and lower investment. The assumption is that quasi-indexers affect governance and therefore investment. The literature has argued that quasi-indexers affect governance through voice (Appel, Gormley, and Keim 2016a), cooperation with activists (Appel, Gormley, and Keim 2016b) and, to a lesser extent, rebalancing (Wurgler 2011). The identification issue is that ownership, payouts, and investment are jointly endogenous.

One possible identification strategy relies on the recomposition of Russell indices. These indices are re-constituted annually and result in differential weights for firms around the 1,000/2,000 cutoff. In 2005, for example, the ten smallest firms in the Russell 1,000 had a combined index weight of 0.004 percent, and the next ten largest firms were in the Russell 2,000 with a combined index weight of 2.3 percent (Crane, Michenaud, and Weston 2016). The differential weights lead to sharp exogenous variation in institutional ownership. Crane, Michenaud, and Weston (2016) use a regression discontinuity (RD) design to show that an increase in institutional ownership causes an increase in payouts.3 They find that the elasticity of log-payouts to percentage point changes in ownership is 4.57 (Crane, Michenaud, and Weston 2016, Table 3). When we run a simple OLS regression of log-payouts on lagged ownership we obtain a coefficient of 3.05. We are thus confident that we are not over estimating the impact of owner- ship. More importantly, we find that investment decreases with rising payouts.

The index-recomposition identification is appealing but too local given our goal to explain broad trends in payouts and investment. To be able to consider a large panel of firms, we use pre-2000 quasi-indexer ownership as an instrument for post-2000 buybacks and investment, controlling for initial firm characteristics. This approach is supported by two facts. Firstly, firm ownership is highly persistent within quasi-indexer institu- tions: a regression of ownership at t on ownership five years prior yields a coefficient above 0.8, even after controlling for firm characteristics such as market capitalization. Secondly, activism—one oftheprimarymechanismsthroughwhichqua- si-indexer ownership affects buybacks—increases only after 2004. For this governance impact, pre- 2000 ownership is therefore a valid instrument in the sense of Bartik (1991).

Columns 1 and 2 of Table 1 present our base results. We include industry and year fixed effects and a wide range of pre-2000 firm-level controls (e.g., size, market capitalization, etc.). We instrument buybacks with pre-2000 quasi-indexer ownership, and then use the portion of buybacks that is explained by ownership to predict investment. We also instrument firm Q with its industry average to mitigate measurement error (unreported). We find that higher pre-2000 quasi-indexer owner- ship appears to cause higher buybacks and lower investment.4 In unreported tests, we interact pre- 2000 quasi-indexer ownership with the aggregate buyback-to-assets ratio and include firm as well as year fixed effects. We find that firms with higher quasi-indexer ownership are more sensi- tive to aggregate buyback trends.

II. Interaction between Competition and Ownership

The welfare consequences of stronger governance depend crucially on the degree of competition in the goods market. In noncompetitive industries, an increase in firm value can come from an increase in markups, and shareholders are likely to favor inefficiently low levels of investment. Under perfect competition, by contrast, shareholder value and social welfare are more likely to be aligned. Moreover, an important paper by Giroud and Mueller (2011) shows that governance is primarily an issue for firms in noncompetitive industries. Managers of firms in highly competitive industries are under constant pressure to innovate. We therefore focus on the interaction between governance, concentration, and investment. We measure concentration in the product market and in the asset management industry. We define the modified Herfindahl as MHHI = HHI+CO, where HHI denotes the import-adjusted Herfindahl constructed in Gutiérrez and Philippon (2017a) and CO accounts for anti-competitive effects of common ownership following Schmalz (2018).5

#### There’s a 20% gap in optimal investment across the US economy.

Philippon ’19 [Thomas; Max L. Heine Professor of Finance @ Stern School of Business NYU; *The Great Reversal*, p. 64-72]

In our simple example, with a net investment of 2 and starting from a capital stock of 100, the firm will have a capital stock of 102 next year. The growth rate of capital is 2 percent. This growth rate is important. When the capital stock grows, workers become more productive, and both labor demand and wages increase. In the long run, GDP and the capital stock tend to grow at the same rate**.**

In recent years firms have been plowing back into investment only a bit more than 10 cents for each dollar of profit. As a result, the growth of productive capital has been slow. Using the fixed asset tables from the Bureau of Economic Analysis (table 4.2 on the BEA website), we see that the growth rate of the capital stock of corporate businesses was 3.7 percent on average between 1962 and 2001, but only 1.9 percent on average be- tween 2002 and 2012. You can see the trend decline in Figure 4.2.

How can we interpret this fact? Is this necessarily bad news? Perhaps firms are simply responding to market signals telling them the economy does not need more capital right now. Can we tell? Yes, we can, but first we need some theoretical background.

Why Do Firms Invest?

The goal of investment is to create (or replace) a long-lived valuable asset. This is in fact the exact definition of investment used in economic statistics.\* Firms invest when they think that they need more long-lived assets. This can happen for two reasons: because firms perceive growing demand for their products, and because they want to innovate.

When demand grows, firms usually start by increasing overtime: employees work longer hours, and the utilization rate of equipment in- creases. When the growth in demand is sustained, firms need to hire more capital and more labor.

Firms invest to expand their production capacity and satisfy a growing demand. Firms also invest to improve the range and quality of their products. In both cases, investment allows firms to increase their profits in the future. But what about the cost today? How can we compare uncertain future profits with current, known expenditures? This is where finance comes in.

Investment trades off future profits against current expenditures. The cost of financing the investment therefore plays a crucial role. Investment, by its very nature, is an intertemporal decision. You must decide how much to spend today in the hope of reaping uncertain benefits in the future. To assess the value of investment, you need to discount uncer- tain future payoffs. The financial markets allow you to do just that.

Consider the following example. You can invest in a project by buying an asset for $100 today. You think it will generate $12 in annual profits and depreciate by $6 each year. After the first year, for example, you pay $6 to replace the depreciated part, and you have a net income of $6. You do the same thing in the second year. The asset generates $6 year after year. The yield of this investment is 6 percent per year. Should you in- vest in this project? This depends on your funding cost. Imagine that you borrowed the $100 to buy the asset. If the interest rate on your loan is less than 6 percent, then it is a positive investment. Imagine that the in- terest rate on your loan is 5 percent. You repay $5 per year, and your net income after interest is $1 per year. At the rate of 5 percent, we say that the net present value (NPV) of this investment is positive. A perpetual income of $6 discounted at 5 percent is worth $6 / 0.05 = $120. The NPV is $120 − $100 = $20. The NPV is subject to the funding cost. If the funding cost was 7 percent instead of 5 percent, the NPV would be negative. A perpetual income of $6 discounted at 7 percent is worth $85.7. The NPV would be −$14.28, and you would not invest.

Making an investment decision therefore requires a complicated dis- counting of uncertain future cash flows and a comparison with the cur- rent cost of buying new capital. How can these decisions be made for the whole economy, with thousands of businesses, hundreds of billions of dollars of cash flows and investment costs? How can predictions be made not only one year ahead, but two, five, ten, or twenty?

It sounds like a daunting task, and it is. But if you think about it the right way and make some assumptions, you can see that accountants, to- gether with stocks and bonds traders, have done it for us. This was the brilliant insight of Nobel Prize winner James Tobin. The measure that “looks at it the right way” is called Tobin’s q and is explained in Box 4.1.

Tobin’s insight is that the market value of the firm encodes all we want to know about the firm, at least as far as classical investment decisions are concerned. If accountants do their job properly, then we can measure the replacement cost of the firm’s fixed assets. If investors do their job properly, then we can measure the market value that the firm creates from these fixed assets. The difference between the market value and the replacement cost is the NPV of the firm. Tobin’s q is the ratio of the market value to the replacement cost. If q is more than one, the firm should scale up because each additional $1 of capital expenditure is worth q dollars. Tobin’s q contains a lot of information. In particular, Tobin’s q captures expectations about uncertain profits in the future as well as funding costs. The funding cost is directly reflected in the market value. If there is a crisis and investors freak out, you immediately see that funding costs rise, market values tank, and so does investment. If investors are optimistic, you see the opposite.

The Growing Investment Gap

Let us put our theory to work. Figure 4.3 shows q and the investment rate. Tobin’s q has been rescaled to fit on the same graph. You can see that, as predicted by the fundamental law of investment, the two series are highly correlated: they move up and down together. But you can also see that after 2000, the investment rate seems to be lower than what one would predict based on q. In fact, if we cumulate the residual difference between the investment rate and q, we find that, by 2015, the capital stock is about 10 percent lower than it should be.\*

This fact is interesting for us because this is exactly what the decreasing competition hypothesis would predict. The reason is intuitive. When q is above 1 in an industry, it means that there are rents left on the table. If the industry is competitive, these rents should be competed away: either incumbents would expand (as in our example), or new firms would enter. Over time, the capital stock would increase, and q would decrease toward 1. On the other hand, if the industry is not competitive, then investment would not increase as much, and q would remain above 1. If you believe that domestic competition has declined in the US economy, then you would expect a growing gap between q and investment, exactly as in Figure 4.3. Figure 4.3 supports the hypothesis that the US has experienced decreasing domestic competition.

We see a growing residual between Tobin’s q and net investment in the aggregate, but we can go a lot further. As we have discussed in previous chapters, concentration has increased more in some industries than in others. If the decreasing competition hypothesis is correct, then we would expect the investment-q residual to come from concentrating industries.

Figure 4.4 shows that this is exactly what we observe. We split industries into two groups based on the evolution of their HHIs. One group includes the ten industries where HHIs have increased the most; the other group the ten industries where HHIs have increased the least (as it turns out, HHIs are roughly constant in that group). We then es-timate a fundamental law of investment for both groups of industries, and we compute the residuals. Figure 4.4 plots the cumulative resid-uals. You can see that the gap is essentially zero for nonconcentrating industries and more than 20 percent for the concentrating ones. On average, this is consistent with a 10 percent aggregate cumulative gap as ar- gued earlier. The key point is that the aggregate gap comes entirely from concentrating industries.

Figure 4.4 is inconsistent with the basic version of the Rise of Super- star Firms hypothesis. The historical evidence suggests that successful firms and industries maintain high levels of investment. If concentration was a sign of efficiency, then, we would expect to see more investment in concentrating industries. Figure 4.4 shows that we observe exactly the opposite across industries.

In my work with Germán Gutiérrez, we also uncover a negative relation between concentration and investment across firms. We find that industry leaders’ shares of investment and capital have decreased while their profit margins have increased. This is the opposite of what a hypothesis of superstar firms would predict. Under such a hypothesis, as leaders become more efficient, they should draw in more resources. Efficient firms typically expand by hiring more capital and more labor. In recent years, however, they have done the opposite. This is exactly what a decreasing competition hypothesis would predict. It is incon- sistent with a hypothesis of superstar firms unless their investment and productivity are both badly mismeasured. Let us consider this possibility.

#### The stock market isn’t the economy – high stock valuation reflects the incomes of the richest, NOT overall output.

Zuckerman ’19 [Sam; 7/26/19; and Martin Lettau; Professor of Finance @ Cal Berkeley; “How the stock market is fueling the wealth gap: Q&A with Prof. Martin Lettau”; https://newsroom.haas.berkeley.edu/how-the-stock-market-is-fueling-the-wealth-gap-qa-with-prof-martin-lettau/]

New research by finance Prof. Martin Lettau has found that economic growth accounted for less than a quarter of the stock market’s rise over the past 30 years—compared with 92% of the increase in the prior three decades.

The biggest driver of the recent bull market? A dramatic shift in wealth from workers to investors, accounting for 54% of the market’s increase since 1989.

That’s the conclusion of Lettau’s new paper, “How the Wealth Was Won,” co-written with Daniel Greenwald of MIT and Sydney Ludvigson of New York University. They show that most of the stock market gains of the past three decades have come from shareholders getting a bigger and bigger piece of the economic pie.

Lettau’s research points to a potentially critical driver of the growing wealth inequality plaguing the U.S.: At a time of slowing economic growth, those at the top of the wealth distribution are reaping most of the rewards, while the share of income received by the rest of households has declined.

The research explores hot-button issues that are not the standard fare for financial economists. We spoke with Lettau, an expert in investments and financial markets who holds the Kruttschnitt Family Chair in Financial Institutions, about how the stock market has seized the lion’s share of 30 years of economic growth, and whether this trend is sustainable.

You write about a widening chasm between the stock market and the broader economy. What specifically are you referring to?

U.S. stock values have grown faster than the economy over the past 29 years. After adjusting for inflation, the stock market value of corporations outside the financial sector has risen an average of 8.4 percent a year since 1989. At the same time, the value of the economic output of corporations has climbed just 2.5 percent annually. By contrast, from 1959 to 1988, economic output was expanding faster than stock values.

What did you find was behind this trend?

We considered the entire economic pie that was produced and the different actors in the economy. We found that, over the long run, the movement in stock values stemmed largely from shifts in wealth from labor to capital. Put plainly, the long-standing bull market of past 30 years comes largely from the capital sector getting more of the economic pie than the labor sector.

How big a factor has this shift been in pushing stock prices higher, compared with other factors?

We looked at the factors that standard financial theory considers to be drivers of stock prices, including fluctuations in short-term interest rates, changes in investor tolerance of risk, and economic growth. We did a statistical analysis to measure how much each of these factors contribute to stock market valuations. We found falling interest rates and greater investor appetite for risk have each contributed 11%. Economic growth explains just 23% of the stock price increase. Meanwhile, we estimate that the reallocation of the rewards of production to shareholders and away from labor has accounted for a full 54% of the gains in stock market value since 1989. That’s a sharp turnaround from 1952 to 1988, when other factors accounted for just 8% of the rise in stock prices, while economic growth accounted for 92% of the increase.

#### Competition spurs productivity growth – it generates a virtuous cycle of innovation and investment that locks in gains.

Manyika ’21 [James; Chair and Director @ McKinsey Global Institute; and Michael Spence; Philip H. Knight Professor and Dean Emeritus @ Stanford University's Graduate School of Business; “A Better Boom: How to Capture the Pandemic's Productivity Potential,” *Foreign Affairs* 100(4), p. 107-117; AS]

But the boom did not last. Between 2005 and 2019, annual productivity growth in the United States fell by more than half, to 1.0 percent. In the aftermath of the 2008 global financial crisis, from 2010 to 2019, it was even lower, at 0.6 percent. Unlike the United States, z European countries had not experienced rapid productivity gains in the 1995-2005 period, but they did experience the postcrisis decline. r Between 2010 and 2019, annual productivity growth fell below one percent in France, Germany, and the United Kingdom.

The Solow paradox was back. After a decade of rapid productivity gains, the information technology revolution had reached a point of diminishing returns. But the next wave of technology-the digitization of processes, big data and analytics, cloud computing, the Internet of Things-was not yet ready to fill the gap. Despite early breakthroughs in image recognition and natural language processing, few firms had begun to make use of artificial intelligence technologies, and digitization was proceeding slowly. We estimated, based on a sector-by sector assessment, that in 2015, the United States had reached only 18 percent of its digital potential and Europe had reached only 12 percent. Moreover, a gap had opened up between the firms that were digital leaders and those that were digital laggards-a gap that other researchers found was correlated with a gap in labor productivity.

This gap in technology adoption was widening at a time of weak consumer demand for goods and services, in large part due to the aftereffects of the financial crisis. Firms scaled back their investments, and fewer new businesses were created. Making matters worse, the share of income that flowed to top earners and the owners of capital increased, while the share that went to labor decreased, further weakening demand.

Across the United States and Europe, the vast majority of sectors experienced declines in productivity growth. Only four percent of all sectors recorded productivity jumps in 2014, compared with an average of 18 percent of sectors that achieved substantial increases in productivity in the previous two decades. Growth in gross value added-a measure of a firm's or a sector's contribution to GDP-declined from 3.4 percent annually between 1995 and 2005 to 1.8 percent between 2005 and 2019. Growth in hours worked remained roughly unchanged, at 0.7 percent, throughout both periods.

These two very different periods of economic activity in the United States reveal much about the underpinnings of productivity growth. It stems first and foremost from the widespread adoption of technological innovations, especially general-purpose technologies such as electricity and the Internet. But it also stems from the managerial innovation and reorganization of functions and tasks that occur when firms adopt new technologies. Both of these processes must spur leaps in productivity growth in many sectors, or at least in a few large ones, so that productivity jumps in the economy as a whole. Finally, adoption and reorganization within and across sectors must be driven by competition, which incentivizes firms to innovate and helps spur technological diffusion.

Not all productivity growth is created equal, however. Productivity growth can be achieved through gains in the volume or value of outputs for a given number of hours worked, or it can come about as a result of a reduction in hours worked for a given output. Often both happen at the same time. But it is when the former exceeds the latter that a virtuous cycle is created in which innovation and investment generate growth in employment and wages, which in turn generates demand for increased (or more valuable) output. This is what happened during the period from 1995 to 2005. When the latter source of productivity growth exceeds the former, however, a vicious cycle results in which firms reduce labor costs faster than they grow the volume or value of their outputs, which in turn puts pressure on employment and incomes.

POST-PANDEMIC POTENTIAL

The pandemic has primed advanced economies for another period of rapid productivity growth. It is too early to say for sure whether such growth will be the product of a virtuous or a vicious cycle, but signs point to the former. Despite uncertainty, stress, and plummeting economic activity in the early days of the covID-19 crisis, many firms boldly deployed and used new general-purpose technology-especially digital technology-in ways that have driven virtuous productivity gains in the past. In October 2020, we surveyed 900 C-suite executives in various sectors and countries and found that many had digitized their business activities 20 to 25 times as fast as they had previously thought possible. Often, this meant shifting their businesses to online channels, since roughly 60 percent of the firms we surveyed experienced a significant increase in customer demand for online goods and services as a result of the pandemic.

Before the pandemic, e-commerce was forecast to account for less than a quarter of all U.S. retail sales by 2024. But during the first two months of the covID-19 crisis, e-commerce's share of retail sales more than doubled, from 16 percent to 33 percent. And that growth did not just reflect brick-and-mortar firms setting up shop online for the first time. Firms that were already highly digitized before the pandemic significantly expanded their online capabilities to meet the surge in demand. They also reorganized their operations, including their logistics, to complement what they were doing digitally-for example, by expanding their direct-to-home delivery capabilities.

Businesses also strove to become more efficient and agile. In Europe and North America, nearly half of the respondents to our survey said that they had reduced their operating expenditure as a share of revenue between December 2019 and December 2020. Two-thirds of senior executives said they had increased investment in automation and artificial intelligence, whether to help warehouse and logistics operations cope with higher e-commerce volumes or to enable manufacturing plants to meet surging demand. Many companies used technology to reduce the physical density of their workplaces or to enable contactless service-for instance, by expanding self-checkout in grocery stores and pharmacies and employing online ordering apps for restaurants and hotels. Other businesses, such as meatpacking and poultry plants, accelerated the deployment of robotics to reduce their need for labor. If there was one lesson from the pandemic, it was that digital capability and resilience go hand in hand.

But even as the arrival of vaccines has made it possible to imagine a return to relative normalcy in parts of the developed world, continued digitization and the adoption of other technological innovations promise to deliver still more productivity gains. The largest of these gains-roughly an additional two percentage points per year-could come in the health-care, construction, information technology, retail, pharmaceutical, and banking sectors. In health care, for instance, accelerating the use of telemedicine beyond the pandemic could drive incremental productivity growth for years. According to one recent U.S. poll, 76 percent of patients expressed interest in using telemedicine in the future, and industry experts project that the services for 20 percent of health-care spending could be delivered virtually-up from 11 percent before the pandemic. Other sectors, including automotive, travel, and logistics, show less-but still substantial-potential for productivity growth as a result of more flexible task scheduling, leaner operations, and smarter procurement.

Overall, these innovations and organizational changes could accelerate productivity growth by around one percentage point per year between now and 2024 in the United States and the six large European economies that we analyzed (France, Germany, Italy, Spain Sweden, and the United Kingdom). This gain would result in a productivity growth rate twice as high as the rate after the 2008 global financial crisis, and in the United States, it would expand per capita GDP by roughly $3,500 by 2024. That would be a stunning outcome, but it will hinge on continued technology adoption by firms and the maintenance of robust demand.

Even more productivity gains could be on the horizon thanks to other advancements. The accelerating revolution in biology, for instance, could transform sectors from health care and agriculture to consumer goods, energy, and materials. Biological innovation has already enabled the rapid development of new vaccines for covID-19. Equally impressive revolutions in energy could make possible the widespread adoption of solar and wind power, especially in light of recent progress toward better (and cheaper) batteries. Artificial intelligence is also advancing rapidly, but is still a long way from being deployed widely across companies and sectors. When and if that happens, the productivity gains could be enormous.

#### Slow growth causes extinction.

Oppenheimer ’21 [Michael; Clinical Professor in Center for Global Affairs @ New York University, Senior Consulting Fellow @ Scenario Planning at the International Institute for Strategic Studies, Former Executive Vice President @ The Futures Group, Member @ Council on Foreign Relations, Member in the Foreign Policy Roundtable @ Carnegie Council on Ethics and International Affairs, Member @ The American Council on Germany; “The Turbulent Future of International Relations,” in *The Future of Global Affairs: Managing Discontinuity, Disruption and Destruction*, p. 23-43]

Four structural forces will shape the future of International Relations: globalization (but without liberal rules, institutions, and leadership)1; multipolarity (the end of American hegemony and wider distribution of power among states and non-states2); the strengthening of distinctive, national and subnational identities, as persistent cultural differences are accentuated by the disruptive effects of Western style globalization (what Samuel Huntington called the “non-westernization of IR”3); and secular economic stagnation, a product of longer term global decline in birth rates combined with aging populations.4 These structural forces do not determine everything. Environmental events, global health challenges, internal political developments, policy mistakes, technology breakthroughs or failures, will intersect with structure to define our future. But these four structural forces will impact the way states behave, in the capacity of great powers to manage their differences, and to act collectively to settle, rather than exploit, the inevitable shocks of the next decade.

Some of these structural forces could be managed to promote prosperity and avoid war. Multipolarity (inherently more prone to conflict than other configurations of power, given coordination problems)5 plus globalization can work in a world of prosperity, convergent values, and effective conflict management. The Congress of Vienna system achieved relative peace in Europe over a hundred-year period through informal cooperation among multiple states sharing a fear of populist revolution. It ended decisively in 1914. Contemporary neoliberal institutionalists, such as John Ikenberry, accept multipolarity as our likely future, but are confident that globalization with liberal characteristics can be sustained without American hegemony, arguing that liberal values and practices have been fully accepted by states, global institutions, and private actors as imperative for growth and political legitimacy.6 Divergent values plus multipolarity can work, though at significantly lower levels of economic growth-in an autarchic world of isolated units, a world envisioned by the advocates of decoupling, including the current American president.7 Divergent values plus globalization can be managed by hegemonic power, exemplified by the decade of the 1990s, when the Washington Consensus, imposed by American leverage exerted through the IMF and other U.S. dominated institutions, overrode national differences, but with real costs to those states undergoing “structural adjustment programs,”8 and ultimately at the cost of global growth, as states—especially in Asia—increased their savings to self insure against future financial crises.9

But all four forces operating simultaneously will produce a future of increasing internal polarization and cross border conflict, diminished economic growth and poverty alleviation, weakened global institutions and norms of behavior, and reduced collective capacity to confront emerging challenges of global warming, accelerating technology change, nuclear weapons innovation and proliferation. As in any effective scenario, this future is clearly visible to any keen observer. We have only to abolish wishful thinking and believe our own eyes.10

Secular Stagnation

This unbrave new world has been emerging for some time, as US power has declined relative to other states, especially China, global liberalism has failed to deliver on its promises, and totalitarian capitalism has proven effective in leveraging globalization for economic growth and political legitimacy while exploiting technology and the state’s coercive powers to maintain internal political control. But this new era was jumpstarted by the world financial crisis of 2007, which revealed the bankruptcy of unregulated market capitalism, weakened faith in US leadership, exacerbated economic deprivation and inequality around the world, ignited growing populism, and undermined international liberal institutions. The skewed distribution of wealth experienced in most developed countries, politically tolerated in periods of growth, became intolerable as growth rates declined. A combination of aging populations, accelerating technology, and global populism/nationalism promises to make this growth decline very difficult to reverse. What Larry Summers and other international political economists have come to call “secular stagnation” increases the likelihood that illiberal globalization, multipolarity, and rising nationalism will define our future. Summers11 has argued that the world is entering a long period of diminishing economic growth. He suggests that secular stagnation “may be the defining macroeconomic challenge of our times.” Julius Probst, in his recent assessment of Summers’ ideas, explains:

…rich countries are ageing as birth rates decline and people live longer. This has pushed down real interest rates because investors think these trends will mean they will make lower returns from investing in future, making them more willing to accept a lower return on government debt as a result.

Other factors that make investors similarly pessimistic include rising global inequality and the slowdown in productivity growth…

This decline in real interest rates matters because economists believe that to overcome an economic downturn, a central bank must drive down the real interest rate to a certain level to encourage more spending and investment… Because real interest rates are so low, Summers and his supporters believe that the rate required to reach full employment is so far into negative territory that it is effectively impossible.

…in the long run, more immigration might be a vital part of curing secular stagnation. Summers also heavily prescribes increased government spending, arguing that it might actually be more prudent than cutting back – especially if the money is spent on infrastructure, education and research and development.

Of course, governments in Europe and the US are instead trying to shut their doors to migrants. And austerity policies have taken their toll on infrastructure and public research. This looks set to ensure that the next recession will be particularly nasty when it comes… Unless governments change course radically, we could be in for a sobering period ahead.12

The rise of nationalism/populism is both cause and effect of this economic outlook. Lower growth will make every aspect of the liberal order more difficult to resuscitate post-Trump. Domestic politics will become more polarized and dysfunctional, as competition for diminishing resources intensifies. International collaboration, ad hoc or through institutions, will become politically toxic. Protectionism, in its multiple forms, will make economic recovery from “secular stagnation” a heavy lift, and the liberal hegemonic leadership and strong institutions that limited the damage of previous downturns, will be unavailable. A clear demonstration of this negative feedback loop is the economic damage being inflicted on the world by Trump’s trade war with China, which— despite the so-called phase one agreement—has predictably escalated from negotiating tactic to imbedded reality, with no end in sight. In a world already suffering from inadequate investment, the uncertainties generated by this confrontation will further curb the investments essential for future growth. Another demonstration of the intersection of structural forces is how populist-motivated controls on immigration (always a weakness in the hyper-globalization narrative) deprives developed countries of Summers’ recommended policy response to secular stagnation, which in a more open world would be a win-win for rich and poor countries alike, increasing wage rates and remittance revenues for the developing countries, replenishing the labor supply for rich countries experiencing low birth rates.

Illiberal Globalization

Economic weakness and rising nationalism (along with multipolarity) will not end globalization, but will profoundly alter its character and greatly reduce its economic and political benefits. Liberal global institutions, under American hegemony, have served multiple purposes, enabling states to improve the quality of international relations and more fully satisfy the needs of their citizens, and provide companies with the legal and institutional stability necessary to manage the inherent risks of global investment. But under present and future conditions these institutions will become the battlegrounds—and the victims—of geopolitical competition. The Trump Administration’s frontal attack on multilateralism is but the final nail in the coffin of the Bretton Woods system in trade and finance, which has been in slow but accelerating decline since the end of the Cold War. Future American leadership may embrace renewed collaboration in global trade and finance, macroeconomic management, environmental sustainability and the like, but repairing the damage requires the heroic assumption that America’s own identity has not been fundamentally altered by the Trump era (four years or eight matters here), and by the internal and global forces that enabled his rise. The fact will remain that a sizeable portion of the American electorate, and a monolithically proTrump Republican Party, is committed to an illiberal future. And even if the effects are transitory, the causes of weakening global collaboration are structural, not subject to the efforts of some hypothetical future US liberal leadership. It is clear that the US has lost respect among its rivals, and trust among its allies. While its economic and military capacity is still greatly superior to all others, its political dysfunction has diminished its ability to convert this wealth into effective power.13 It will furthermore operate in a future system of diffusing material power, diverging economic and political governance approaches, and rising nationalism. Trump has promoted these forces, but did not invent them, and future US Administrations will struggle to cope with them.

What will illiberal globalization look like? Consider recent events. The instruments of globalization have been weaponized by strong states in pursuit of their geopolitical objectives. This has turned the liberal argument on behalf of globalization on its head. Instead of interdependence as an unstoppable force pushing states toward collaboration and convergence around market-friendly domestic policies, states are exploiting interdependence to inflict harm on their adversaries, and even on their allies. The increasing interaction across national boundaries that globalization entails, now produces not harmonization and cooperation, but friction and escalating trade and investment disputes.14 The Trump Administration is in the lead here, but it is not alone. Trade and investment friction with China is the most obvious and damaging example, precipitated by China’s long failure to conform to the World Trade Organization (WTO) principles, now escalated by President Trump into a trade and currency war disturbingly reminiscent of the 1930s that Bretton Woods was designed to prevent. Financial sanctions against Iran, in violation of US obligations in the Joint Comprehensive Plan Of Action (JCPOA), is another example of the rule of law succumbing to geopolitical competition. Though more mercantilist in intent than geopolitical, US tariffs on steel and aluminum, and their threatened use in automotives, aimed at the EU, Canada, and Japan,15 are equally destructive of the liberal system and of future economic growth, imposed as they are by the author of that system, and will spread to others. And indeed, Japan has used export controls in its escalating conflict with South Korea16 (as did China in imposing controls on rare earth,17 and as the US has done as part of its trade war with China). Inward foreign direct investment restrictions are spreading. The vitality of the WTO is being sapped by its inability to complete the Doha Round, by the proliferation of bilateral and regional agreements, and now by the Trump Administration’s hold on appointments to WTO judicial panels. It should not surprise anyone if, during a second term, Trump formally withdrew the US from the WTO. At a minimum it will become a “dead letter regime.”18

As such measures gain traction, it will become clear to states—and to companies—that a global trading system more responsive to raw power than to law entails escalating risk and diminishing benefits. This will be the end of economic globalization, and its many benefits, as we know it. It represents nothing less than the subordination of economic globalization, a system which many thought obeyed its own logic, to an international politics of zero-sum power competition among multiple actors with divergent interests and values. The costs will be significant: Bloomberg Economics estimates that the cost in lost US GDP in 2019- dollar terms from the trade war with China has reached $134 billion to date and will rise to a total of $316 billion by the end of 2020.19

Economically, the just-in-time, maximally efficient world of global supply chains, driving down costs, incentivizing innovation, spreading investment, integrating new countries and populations into the global system, is being Balkanized. Bilateral and regional deals are proliferating, while global, nondiscriminatory trade agreements are at an end. Economies of scale will shrink, incentivizing less investment, increasing costs and prices, compromising growth, marginalizing countries whose growth and poverty reduction depended on participation in global supply chains. A world already suffering from excess savings (in the corporate sector, among mostly Asian countries) will respond to heightened risk and uncertainty with further retrenchment. The problem is perfectly captured by Tim Boyle, CEO of Columbia Sportswear, whose supply chain runs through China, reacting to yet another ratcheting up of US tariffs on Chinese imports, most recently on consumer goods:

We move stuff around to take advantage of inexpensive labor. That’s why we’re in Bangladesh. That’s why we’re looking at Africa. We’re putting investment capital to work, to get a return for our shareholders. So, when we make a wager on investment, this is not Vegas. We have to have a reasonable expectation we can get a return. That’s predicated on the rule of law: where can we expect the laws to be enforced, and for the foreseeable future, the rules will be in place? That’s what America used to be.20

The international political effects will be equally damaging. The four structural forces act on each other to produce the more dangerous, less prosperous world projected here. Illiberal globalization represents geopolitical conflict by (at first) physically non-kinetic means. It arises from intensifying competition among powerful states with divergent interests and identities, but in its effects drives down growth and fuels increased nationalism/populism, which further contributes to conflict. Twenty-first-century protectionism represents bottom-up forces arising from economic disruption. But it is also a top-down phenomenon, representing a strategic effort by political leadership to reduce the constraints of interdependence on freedom of geopolitical action, in effect a precursor and enabler of war. This is the disturbing hypothesis of Daniel Drezner, argued in an important May 2019 piece in Reason, titled “Will Today’s Global Trade Wars Lead to World War Three,”21 which examines the preWorld War I period of heightened trade conflict, its contribution to the disaster that followed, and its parallels to the present:

Before the First World War started, powers great and small took a variety of steps to thwart the globalization of the 19th century. Each of these steps made it easier for the key combatants to conceive of a general war.

We are beginning to see a similar approach to the globalization of the 21st century. One by one, the economic constraints on military aggression are eroding. And too many have forgotten—or never knew—how this played out a century ago.

…In many ways, 19th century globalization was a victim of its own success. Reduced tariffs and transport costs flooded Europe with inexpensive grains from Russia and the United States. The incomes of landowners in these countries suffered a serious hit, and the Long Depression that ran from 1873 until 1896 generated pressure on European governments to protect against cheap imports.

…The primary lesson to draw from the years before 1914 is not that economic interdependence was a weak constraint on military conflict. It is that, even in a globalized economy, governments can take protectionist actions to reduce their interdependence in anticipation of future wars.

In retrospect, the 30 years of tariff hikes, trade wars, and currency conflicts that preceded 1914 were harbingers of the devastation to come. European governments did not necessarily want to ignite a war among the great powers. By reducing their interdependence, however, they made that option conceivable.

…the backlash to globalization that preceded the Great War seems to be reprised in the current moment. Indeed, there are ways in which the current moment is scarier than the pre-1914 era. Back then, the world’s hegemon, the United Kingdom, acted as a brake on economic closure. In 2019, the United States is the protectionist with its foot on the accelerator. The constraints of Sino-American interdependence—what economist Larry Summers once called “the financial balance of terror”—no longer look so binding. And there are far too many hot spots—the Korean peninsula, the South China Sea, Taiwan—where the kindling seems awfully dry.

Multipolarity

We can define multipolarity as a wide distribution of power among multiple independent states. Exact equivalence of material power is not implied. What is required is the possession by several states of the capacity to coerce others to act in ways they would otherwise not, through kinetic or other means (economic sanctions, political manipulation, denial of access to essential resources, etc.). Such a distribution of power presents inherently graver challenges to peace and stability than do unipolar or bipolar power configurations,22 though of course none are safe or permanent. In brief, the greater the number of consequential actors, the greater the challenge of coordinating actions to avoid, manage, or de-escalate conflicts. Multipolarity also entails a greater potential for sudden changes in the balance of power, as one state may defect to another coalition or opt out, and as a result, the greater the degree of uncertainty experienced by all states, and the greater the plausibility of downside assumptions about the intentions and capabilities of one’s adversaries. This psychology, always present in international politics but particularly powerful in multipolarity, heightens the potential for escalation of minor conflicts, and of states launching preventive or preemptive wars. In multipolarity, states are always on edge, entertaining worst-case scenarios about actual and potential enemies, and acting on these fears—expanding their armies, introducing new weapon systems, altering doctrine to relax constraints on the use of force—in ways that reinforce the worst fears of others.

The risks inherent in multipolarity are heightened by the attendant weakening of global institutions. Even in a state-centric system, such institutions can facilitate communication and transparency, helping states to manage conflicts by reducing the potential for misperception and escalation toward war. But, as Waheguru Pal Singh Sidhu argues in his chapter on the United Nations, the influence of multilateral institutions as agent and actor is clearly in decline, a result of bottom-up populist/nationalist pressures experienced in many countries, as well as the coordination problems that increase in a system of multiple great powers. As conflict resolution institutions atrophy, great powers will find themselves in “security dilemmas”23 in which verification of a rival’s intentions is unavailable, and worst-case assumptions fill the gap created by uncertainty. And the supply of conflicts will expand as a result of growing nationalism and populism, which are premised on hostility, paranoia, and isolation, with governments seeking political legitimacy through external conflict, producing a siege mentality that deliberately cuts off communication with other states.

Finally, the transition from unipolarity (roughly 1989–2007) to multipolarity is unregulated and hazardous, as the existing superpower fears and resists challenges to its primacy from a rising power or powers, while the rising power entertains new ambitions as entitlements now within its reach. Such a “power transition” and its dangers were identified by Thucydides in explaining the Peloponnesian Wars,24 by Organski (the “rear-end collision”)25 during the Cold War, and recently repopularized and brought up to date by Graham Allison in predicting conflict between the US and China.26

A useful, and consequential illustration of the inherent challenge of conflict management during a power transition toward multipolarity, is the weakening of the arms control regime negotiated by the US and the Soviet Union during the Cold War. Despite the existential, global conflict between two nuclear armed superpowers embracing diametrically opposed world views and operating in economic isolation from each other, the two managed to avoid worst-case outcomes. They accomplished this in part by institutionalizing verifiable limits on testing and deployment of both strategic and intermediate-range nuclear missiles. Yet as diplomatically and technically challenging as these achievements were, the introduction of a third great power, China, into this twocountry calculus has proven to be a deal breaker. Unconstrained by these bilateral agreements, China has been free to build up its capability, and has taken full advantage in ramping up production and deployment of intermediate-range ground-launched cruise missiles, thus challenging the US ability to credibly guarantee the security of its allies in Asia, and greatly increasing the costs of maintaining its Asian regional hegemony. As a result, the Intermediate Nuclear Force treaty is effectively dead, and the New Start Treaty, covering strategic missiles, is due to expire next year, with no indication of any US–Russian consensus to extend it. The US has with logic indicated its interest in making these agreements trilateral; but China, with its growing power and ambition, has also logically rejected these overtures. Thus, all three great powers are entering a period of nuclear weapons competition unconstrained by the major Cold War arms control regimes. In a period of rapid advances in technology and worsening great power relations, the nuclear competition will be a defining characteristic of the next decade and beyond. This dynamic will also complicate nuclear nonproliferation efforts, as both the demand for nuclear weapons (a consequence of rising regional and global insecurity), and supply of nuclear materials and technology (a result of the weakening of the nonproliferation regime and deteriorating great power relations) will increase.

Will deterrence prevent war in a world of several nuclear weapons states, (the current nuclear powers plus South Korea, Iran, Saudi Arabia, Japan, Turkey), as it helped to do during the bipolar Cold War? Some neorealist observers view nuclear weapons proliferation as stabilizing, extending the balance of terror, and the imperative of restraint, to new nuclear weapons states with much to fight over (Saudi Arabia and Iran, for example).27 Others,28 examining issues of command and control of nuclear weapons deployment and use by newly acquiring states, asymmetries in doctrines, force structures, and capabilities between rivals, the perils of variable rates in transition to weapons deployment, problems of communication between states with deep mutual grievances, the heightened risk of transfer of such weapons to non-state actors, have grave doubts about the safety of a multipolar, nuclear-armed world.29 We can at least conclude that prudence dictates heightened efforts to slow the pace of proliferation, while realism requires that we face a proliferated future with eyes wide open.

The current distribution of power is not perfectly multipolar. The US still commands the world’s largest economy, and its military power is unrivaled by any state or combination of states. Its population is still growing, despite a recent decline in birth rates. It enjoys extraordinary geographic advantages over its rivals, who are distant and live in far worse neighborhoods. Its economy is less dependent on foreign markets or resources. Its political system has proven—up to now—to be resilient and adaptable. Its global alliance system greatly extends its capacity to defend itself and shape the world to its liking and is still intact, despite growing doubts about America’s reliability as a security guarantor. Based on these mostly material and historical criteria, continued American primacy would seem to be a good bet, if it chooses to use its power in this way.30

So why multipolarity? The clearest and most frequently cited evidence for a widening distribution of global power away from American unipolarity is the narrowing gap in GDP between the US and China. The IMF’s World Economic Outlook forecasts a $0.9 trillion increase in US GDP for 2019–2020, and a $1.3 trillion increase for China in the same period.31 Many who support the American primacy case argue that GDP is an imperfect measure of power, that Chinese GDP data is inflated, that its growth rates are in decline while Chinese debt is rapidly increasing, and that China does poorly on other factors that contribute to power—its low per capita GDP, its political succession challenges, its environmental crisis, its absence of any external alliance system. Yet GDP is a good place to start, as the single most useful measure and long-term predictor of power. It is from the overall economy that states extract and apply material power to leverage desired behavior from other states. It is true that robust future Chinese growth is not guaranteed, nor is its capacity to convert its wealth to power, which is a function of how well its political system works over time. But this is equally the case for the US, and considering recent political developments is not a given for either country.

As an alternative to measuring inputs—economic size, political legitimacy, technological innovation, population growth—in assessing relative power and the nature of global power distribution, we should consider outputs: what are states doing with their power? The input measures are useful, possibly predictive, but are usually deployed in the course of making a foreign policy argument, sometimes on behalf of a reassertion of American primacy, sometimes on behalf of retrenchment. As such, their objectivity (despite their generous deployment of “data”) is open to question. What is undeniable, to any clear-eyed observer, is a real decline in American influence in the world, and a rise in the influence of other powers, which predates the Trump administration but has accelerated into America’s free fall over the last four years. This has produced a de facto multipolarity, whether explainable in the various measures of power—actual and latent—or not. This decline results in part from policy mistakes: a reckless squandering of material power and legitimacy in Iraq, an overabundance of caution in Syria, and now pure impulsivity. But more fundamentally, it is a product of relative decline in American capacity—political and economic—to which American leadership is adjusting haphazardly, but in the direction of retrenchment/restraint. It is highly revealing that the last two American presidents, polar opposites in intellect, temperament and values, agreed on one fundamental point: the US is overextended, and needs to retrench. The fact that neither Obama nor Trump (up to this point in his presidency) believed they had the power at their disposal to do anything else, tells us far more about the future of American power and policy—and about the emerging shape of international relations—than the power measures and comparisons made by foreign policy advocates.

Observation of recent trends in US versus Russian relative influence prompts another question: do we understand the emerging characteristics of power? Rigorously measuring and comparing the wrong parameters will get us nowhere at best and mislead us into misguided policies at worst. How often have we heard, with puzzlement, that Putin punches far above his weight? Could it be that we misunderstand what constitutes “weight” in the contemporary and emerging world? Putin may be on a high wire, and bound to come crashing down; but the fact is that Russian influence, leveraging sophisticated communications/social media/influence operations, a strong military, an agile (Putin-dominated) decision process, and taking advantage of the egregious mistakes by the West, has been advancing for over a decade, shows no sign of slowing down, and has created additional opportunities for itself in the Middle East, Europe, Asia, Latin America, the Arctic. It has done this with an economy roughly the size of Italy’s. There are few signs of a domestic political challenge to Putin. His external opponents are in disarray, and Russia’s main adversary is politically disabled from confronting the problem. He has established Russia as the Middle East power broker. He has reached into the internal politics of his Western adversaries and influenced their leadership choices. He has invaded and absorbed the territory of neighboring states. His actions have produced deep divisions within NATO. Again, simple observation suggests multipolarity in fact, and a full explanation for this power shift awaiting future historians able to look with more objectivity at twenty-first-century elements of power.

When that history is written, surely it will emphasize the extraordinary polarization in American politics. Was multipolarity a case of others finding leverage in new sources of power, or the US underutilizing its own? The material measures suggest sufficient capacity for sustained American primacy, but with this latent capacity unavailable (as perceived, I believe correctly, by political leadership) by virtue of weakening institutions: two major parties in separate universes; a winnertake-all political mentality; deep polarization between the parties’ popular bases of support; divided government, with the Presidency and the Congress often in separate and antagonistic hands; diminishing trust in the permanent government, and in the knowledge it brings to important decisions, and deepening distrust between the intelligence community and policymakers; and, in Trump’s case, a chaotic policy process that lacks any strategic reference points, mis-communicates the Administration’s intentions, and has proven incapable of sustained, coherent diplomacy on behalf of any explicit and consistent set of policy goals.

Rising Nationalism/Populism/Authoritarianism

The evidence for these trends is clear. Freedom House, the go-to authority on the state of global democracy, just published its annual assessment for 2020, and recorded the fourteenth consecutive year of global democratic decline and advancing authoritarianism. This dramatic deterioration includes both a weakening in democratic practice within states still deemed on balance democratic, and a shift from weak democracies to authoritarianism in others. Commitment to democratic norms and practices—freedom of speech and of the press, independent judiciaries, protection of minority rights—is in decline. The decline is evident across the global system and encompasses all major powers, from India and China, to Europe, to the US. Right-wing populist parties have assumed power, or constitute a politically significant minority, in a lengthening list of democratic states, including both new (Hungary, Poland) and established (India, the US, the UK) democracies. Nationalism, frequently dismissed by liberal globalization advocates as a weak force when confronted by market democracies’ presumed inherent superiority, has experienced a resurgence in Russia, China, the Middle East, and at home. Given the breadth and depth of right-wing populism, the raw power that promotes it—mainly Russian and American—and the disarray of its liberal opponents, this factor will weigh heavily on the future.

The major factors contributing to right-wing populism and its global spread is the subject of much discussion.32 The most straightforward explanation is rising inequality and diminished intergenerational mobility, particularly in developed countries whose labor-intensive manufacturing has been hit hardest by the globalization of capital combined with the immobility of labor. Jobs, wages, economic security, a reasonable hope that one’s offspring has a shot at a better life than one’s own, the erosion of social capital within economically marginalized communities, government failure to provide a decent safety net and job retraining for those battered by globalization: all have contributed to a sense of desperation and raw anger in the hollowed-out communities of formerly prosperous industrial areas. The declining life expectancy numbers33 tell a story of immiseration: drug addition, suicide, poor health care, and gun violence. The political expression of such conditions of life should not be surprising. Simple, extremist “solutions” become irresistible. Sectarian, racial, regional divides are strengthened, and exclusive identities are sharpened. Political entrepreneurs offering to blow up the system blamed for such conditions become credible. Those who are perceived as having benefited from the corrupt system—long-standing institutions of government, foreign countries and populations, immigrants, minorities getting a “free ride,” elites—become targets of recrimination and violence. The simple solutions of course, don’t work, deepening the underlying crisis, but in the process politics is poisoned. If this sounds like the US, it should, but it also describes major European countries (the UK, France, Italy, Germany, Poland, Hungary, the Czech Republic), and could be an indication of things to come for non-Western democracies like India.

We have emphasized throughout this chapter the interaction of four structural forces in shaping the future, and this interaction is evident here as well. Is it merely coincidence that the period of democratic decline documented by Freedom House, coincides precisely with the global financial and economic crisis? Lower growth, increasing joblessness, wage stagnation, superimposed on longer-term widening of inequality and declining mobility, constitute a forbidding stress test for democratic systems, and many continue to fail. And if we are correct about secular stagnation, the stress will continue, and authoritarianism’s fourteen-year run will not be over for some time. The antidemocratic trend will gain additional impetus from the illiberal direction of globalization, with its growth suppressing protectionism, weaponization of global economic exchange, and weakening global economic institutions. Multipolarity also contributes, in several ways. The former hegemon and author of globalization’s liberal structure has lost its appetite, and arguably its capacity, for leadership, and indeed has become part of the problem, succumbing to and promoting the global right-wing populist surge. It is suffering an unprecedented decline in life expectancy, and recently a decline in the birth rate, signaling a degree of rot commonly associated with a collapsing Soviet Union. While American politics may once again cohere around its liberal values and interests, the time when American leadership had the self-confidence to shape the global system in its liberal image is gone. It may build coalitions of the like-minded to launch liberal projects, but there will be too much power outside these coalitions to permit liberal globalization of the sort imagined at the end of the Cold War. In multipolarity, the values around which global politics revolve will reflect the diversity of major powers, their interests, and the norms they embrace. Convergence of norms, practices, policies is out of the question. Global collective action, even in the face of global crises, will be a long shot. To expect anything else is fantasy

Unbrave New World and Future Challenges

At the outset of this chapter we described these structural forces as interacting to produce more conflict and diminished prosperity. We also predicted a world with shrinking collective capacity to address new challenges as they arise. What specifically will such a world look like? We address below three principal challenges to global problem solving over the next decade.

Interstate Conflict

In the world experienced by most readers of this volume, conflict is observed within weak states, sometimes promoted by regional competitors, by terrorist groups, or by great powers, acting through surrogates or by indirect means. Sometimes, as in Syria, this conflict spills over to contiguous states and contributes to regional instability, and challenges other regions to respond effectively, a challenge that Europe has not met. Much of this will continue, but the global significance of such local conflicts will be greatly magnified by increasing great power conflict, which will feed—rather than manage or resolve—local instabilities and will in turn be exacerbated by them. Great powers will jockey for advantage, support their local partners, escalate preemptively. Conflicts initially confined to failing states or unstable regions will be redefined by great powers as global in scope and significance.

This tendency of states to view local conflicts in the context of a zero-sum, global struggle for power is familiar to students of the Cold War, but now with the additional challenges to collective action, expanded uncertainty and worst-case thinking associated with the power transition to multipolarity. We can easily observe increased conflict in US–China relations, as we will in US–Russia relations as future US administrations try to make up for ground lost during the Trump presidency, especially in the Middle East. We can observe it among powerful states with mutual historical grievances, now with a weakening presence of the hegemonic security guarantor and having to consider the renationalization of their defense: Japan-South Korea, Germany-France. We can observe it among historical rivals operating in rapidly changing security landscapes: India-China. We can observe it within the Middle East, as internal rivalries are appropriated by regional powers in a contest for regional dominance. We can observe it clearly in Syria, where the regime’s violent suppression of Arab Spring resistance led to all-out civil war, attracted outside support to proxy forces by aspiring regional hegemons Saudi Arabia and Iran, enabled the rise of ISIS, and eventually to great power intervention, principally by Russia. In a world of effective great power collaboration or American primacy, the Syrian civil war might have been settled through power sharing or partition, or if not, contained within Syria. The collapse of Yugoslavia, occurring during a period of US “unipolarity” and managed effectively, demonstrates the possibilities. Instead, with the US retrenching, Middle East rivals unconstrained by great powers, and great power competition rising, the Syria civil war was fed by outside powers, then metastasized into the region, and—in the form of refugee flows—into Europe, fundamentally altering European politics. Libya may be at the early stages of this scenario.

This is not the end of the Syria story. Russia has established itself as a major player in Syria and the Middle East’s power broker, the indispensable country with leverage throughout the region. China is poised to reap the financial and power benefits of Syrian reconstruction. The US has just demonstrated, in its act of war against the Iranian regime, its willingness, without consultation, to put its allies’ security in further jeopardy, accentuating the risks of security ties with Washington and generating added opportunities for Russia and China. The purpose here is not to critique US policy, but to point out the dramatically shifting power balance in a critical region, toward multipolarity. The dangers of such a shift will become apparent as some future US president attempts to reassert US influence in the region and finds a crowded playing field.

Can a multipolar distribution of power among several states whose interests, values, and political practices are divergent, all experiencing bottom-up nationalist pressures, all seeking advantages in the oversupply of regional instability, be made to work? I think not. Will this more dangerous world descend into direct military confrontation between great powers, and could such confrontation lead to use of nuclear weapons? Here the question becomes, what will this more dangerous world actually look like; what instruments of coercion will be available to states as technology change accelerates; how will states employ these instruments; how will deterrence work (if at all) among several states with large but unequal levels of destructive capacity, weak command, and control, disparate— or opaque—strategies and simmering rivalries; can conflict management work in a world of weak institutions? The collapse of the Cold War era nuclear arms control regime, the threat to the Non-Proliferation Treaty represented by the demise of the JCPOA, and multiple indications of an accelerating nuclear arms race among the three principle powers, augurs badly. Given the structural forces at play, and without predicting the worst, we are indeed entering perilous times.

Global Poverty and Inequality

Despite the challenges of volatility and disruptive change inherent in globalization, the world under American liberal leadership has managed a dramatic reduction of extreme poverty. According to World Bank estimates, in 2015, 10 percent of the world’s population lived on less than $1.90 a day, down from nearly 36 percent in 1990.34 In fact, as of September 2018, half the world is now middle class or wealthier.35 The uneven success of the UN Millennium Development Goals (MDGs) exemplifies this achievement, and demonstrates what is possible when open markets are managed through strong global institutions, effective leadership and interstate collaboration. What this liberal hegemonic system did not achieve, however, was a fair distribution of the gains from globalization within states, and among those states that for various reasons were not full participants in this system.

This record of partial achievement leaves us with a full agenda for the next fifteen years, but without the hegemonic leadership, strong institutions, ascendant liberalism or robust global growth that enabled previous gains. There are powerful reasons to question the sustainability of these poverty reduction gains, leading to doubts about the realization of the Sustainable Development Goals, which have replaced the MDGs as global development targets.36 (See Jens Rudbeck’s chapter and Sidhu’s UN chapter for SDGs). Skeptics have pointed to slowing global growth, specifically in China, whose demand for imported commodities was a major factor in developing country growth and job creation; growing protectionism in developed country markets, fueled by bottom-up forces of nationalism, and from top-down by a weakened global trading regime and increased geopolitical rivalry; the effects of accelerating climate change on agriculture, migration and communal conflict in poor countries; and the growth burst among poor countries from the rapid transition to more efficient use of resources, a transition that is now slowing down.37

Perhaps the greatest concern in this scenario is a general deterioration in the developing country foreign investment climate. Foreign direct investment (FDI) has been a major contributor to growth, job creation, and poverty alleviation among poor countries. It has incentivized growthfriendly policies, reduced corruption, introduced technology and effective management practices, and linked poor countries to foreign markets through global supply chains.38 It has stimulated growth of indigenous manufacturing and service companies to supply new foreign investments.

It has been the major cause of economic convergence between rich and poor countries. From 2000 to 2009, developing economies’ growth rates were more than four percentage points higher than those of rich countries, pushing their share of global output from just over a third to nearly half.39 However, FDI flows into poor countries are imperiled by the structural forces discussed here. Political instability arising from slower growth and environmental stress will increase investors’ perception of higher risk, reinforcing their developed country bias. Protectionism among developed countries will threaten the global market access upon which manufacturing investment in developing countries is premised, causing firms to pare back their global supply chains. As companies retrench from direct investment in poor countries, the appeal to those countries of Chinese debt financed infrastructure projects, under the Belt-Road Initiative with little or no conditionality, but at the risk of “debt traps,” will increase.

Global Warming

The question posed at the beginning of this section is whether the international system, evolving toward multipolarity and rising nationalism, will find the collective political capital to confront challenges as they arise. Global warming is the mother of all challenges, and the weakness in the system’s capacity to respond is clear. With the two major political/economic powers and greenhouse gas emitters locked in deepening geopolitical conflict (and with one of them locked in climate change denial, possibly through 2024), the chances of significantly slowing global warming or even ameliorating its effects are very slim. We are reduced to the default option, nation-specific adaptation to climate change, which will impose rising human, political and economic costs on all, and will widen the gap between rich countries with adaptive capacity (of varying degrees), and the poor, who will suffer deteriorating economic, political, and social conditions. (For a contrary, optimistic view see Michael Shank’s chapter, which credits new actors—like cities—as playing a more constructive role in climate mitigation.) This would bring to a close liberal globalization’s greatest achievement; the raising of 1.1 billion people out of extreme poverty since 1990,40 with all its associated gains in quality of life (in the WHO Africa region, for example, life expectancy rose by 10.3 years between 2000 and 2016, driven mainly by improvements in child survival and expanded access to antiretrovirals for treatment of HIV).41

Several forces are at work here. The problem itself is graver—in magnitude and in rate of worsening—than predicted by climate scientists. The UN Intergovernmental Panel on Climate Change (IPCC), the major source of information on global warming, has consistently underpredicted the rate of climate deterioration. This holds true even for its “worst-case scenarios,” meaning that what was meant as a wake-up call has in fact reinforced complacency.42 (see Michael Shank’s chapter for further discussion of climate change). The IPCC, in its 2019 report, has tried to undo the damage by emphasizing the acceleration in the rate of warming and its effects, the only partially understood dynamic of climate change, and—given wide uncertainty—the possibility of unpleasant surprises yet to come. This strengthens the scientific case for urgency—to both severely limit greenhouse gas emissions, and to increase investment in ameliorating the effects.

Unfortunately, the crisis comes at a moment when the climate for collective action is ice cold. Geopolitical competition incentivizes states to out produce each other, regardless of the environmental effects. Multipolarity complicates collective action. Economic stagnation mandates job creation, making regulation politically toxic. Bottom-up nationalism/populism causes states to pursue “relative gains,” meaning that if the nation is seen as gaining in a no-holds-barred economic competition with others, the negative environmental effects can be tolerated. A post-Trump presidency would help, with the US rejoining the Paris Agreement, and lending its weight to tighter regulation, increased R and D, and stronger economic incentives to reduce carbon emissions. Keep in mind, however, that President Obama was fully behind such efforts, but in a deeply polarized America was unable to implement measures needed to fulfill the Paris obligations through legislation, and his executive orders to do this were swiftly overturned by Trump.

Conclusion

It may be tempting to hope that post-Trump, the US can regain its global leadership and exert its considerable power in a liberal direction, but with enough self-awareness of its relative decline to share responsibility with others. This was, I believe, the broad direction of the Obama strategy, evidenced by the JCPOA and the Trans-Pacific Partnership: liberal, collective solutions to global problems, as US dominance receded.

This would constitute an optimistic scenario, and it confronts two major problems: can US internal politics support it (can, for example, the country legislate controls on carbon, essential for the global credibility and durability of such commitments); and is the world ready to reengage with American leadership, given the damage to its reputation and the structural forces discussed in this chapter?

My educated guess is no, on both counts. The rot within is extensive, the concrete evidence clear in the economic inequality/immobility numbers, the life expectancy numbers, the deep political polarization, between the two major parties, between regions, between cities and rural areas. We are in fact a long way from fitness for global leadership, and the recognition of this by others will accelerate the decline of American influence. The rest of the world is well on its way toward adjusting to post-American hegemony, some by renationalizing their defense, or by cutting deals with adversaries, by building new alliances or by seizing new opportunities for influence in the vacuum left by American retrenchment. The evidence for this will accumulate. Observe the current and emerging Middle East, where all these post-hegemonic strategies are visible.

**Common ownership produces innovation that accrues shareholder profits, not broad societal benefits.**

Schmalz ’21 [Martin; Professor of Finance @ Oxford; “Recent Studies on Common Ownership, Firm Behavior, and Market Outcomes,” *The Antitrust Bulletin*, 66(1), p. 12-38; AS]

Evidence that common ownership is a driver of mergers, and, by that token, of increasing market concentration also keeps mounting. Antón, Azar, Giné, and Lin show common ownership increases the profitability of horizontal mergers for diversified shareholders not only due to their ownership stakes in the target but also due to their stakes in nonmerging rival firms.52 Cumulative abnormal returns for acquirer shareholders are not negative when taking into account the effects of nonmerging rivals in their portfolio. These results may explain why value-destroying mergers get approved and how a high-common ownership environment is correlated with higher M&A frequency, as documented by Brooks et al.53 and covered in the previous review.54 Irani, Yang, and Zhang show that common ownership between the acquirer and potential competing acquirers reduces the likelihood that the target receives a competing bid by 45%, suggesting that common ownership reduces competition in the market for corporate takeovers.55

Complementing a large set of papers on the effect of common ownership on innovation covered in my previous review, Gao, Shan, Gao, and Chan find positive effects of common ownership on innovation among Chinese firms.56 As a reminder, positive effects of common ownership on innovation don’t imply a positive effect on welfare: procompetitive effects of cost-reducing innovation have to be weighed against the simultaneous anticompetitive effects of common ownership in product market competition.

#### Not all innovation is created equal – changing the direction of innovation is key to breakthroughs.

Meagher ’21 [Michelle; Senior Policy Fellow @ University College London Centre for Law, Economics, and Society; “Adaptive Antitrust” ABA Spring Meeting 2021 Course Materials]

The context also urges us to be circumspect and intentional when it comes to comes to innovation. Within antitrust, innovation is efficiency on steroids. According to Tad Lipsky, there is a common understanding “shared across the entire spectrum of expert economic opinion” that “the predominant determinant of overall increases in our economic well-being is innovation”. 4 That is quite a statement. When it comes to climate change, green tech innovations could certainly help us live in a zero-carbon world, but we already have the technologies we need to decarbonise. It is the structure of the economy, and politics, that must catch up. When it comes to inequality, the theory is that innovations increase productivity, raising earnings and increasing the size of the economic pie. That will only solve inequality if the gains are distributed (and redistributed) fairly, not just through the tax and benefits systems, but also at the point of production. Otherwise rising capital productivity can be accompanied by unemployment or, as we also see today, underemployment and the degradation of employment terms.

Opioids were an innovation. Fracking is an innovation. Naked Credit Default Swaps were innovations. 5 Not all innovations are good. The direction of innovation matters, and while this may be influenced along paths that are profitable, paths of innovation should not be captured, unprofitable but world-saving innovations should not be side-lined, and democratic institutions should have a say in what is acceptable. At this moment, we cannot afford anything else.

#### Optimal innovation solves existential risks.

Ó hÉigeartaigh ’17 [Seán; Executive Director @ Cambridge’s Centre for the Study of Existential Risk, PhD in Genomics @ Trinity College Dublin; “Technological Wild Cards: Existential Risk and a Changing Humanity” in *The Next Step: Exponential Life*; https://www.bbvaopenmind.com/en/articles/technological-wild-cards-existential-risk-and-a-changing-humanity/; AS]

EXISTENTIAL RISK AND A CHANGING HUMANITY

Humanity has already changed a lot over its lifetime as a species. While our biology is not drastically different than it was 70,000 years ago, the capabilities enabled by our scientific, technological, and sociocultural achievements have changed what it is to be human. Whether through the processes of agriculture, the invention of the steam engine, or the practices of storing and passing on knowledge and ideas, and working together effectively as large groups, we have dramatically augmented our biological abilities. We can lift heavier things than our biology allows, store and access more information than our brains can hold, and collectively solve problems that we could not individually.

The species will change even more over coming decades and centuries, as we develop the ability to modify our biology, extend our abilities through various forms of human-machine interaction, and continue the process of sociocultural innovation. The long-term future holds tremendous promise: continued progress may allow humanity to spread throughout a galaxy that to the best of our knowledge appears devoid of intelligent life. However, what we will be in the future may bear little resemblance to what we are now, both physically and in terms of capability. Our descendants may be augmented far beyond what we currently recognize as human.

This is reflected in the careful wording of Nick Bostrom’s definition of existential risk, the standard definition used in the field. An existential risk “is one that threatens the premature extinction of earth-originating intelligent life, or the permanent and drastic destruction of its potential for desirable future development.”3 Scholars in the field are less concerned about the form humanity may take in the long-term future, and more concerned that we avoid circumstances that might prevent our descendants—whatever form they may take—from having the opportunity to flourish. One way in which this could happen is if a cataclysmic event were to wipe out our species (and perhaps, with it, the capacity for our planet to bear intelligent life in future). But another way would be if a cataclysm fell short of human extinction, but changed our circumstances such that further progress became impossible. For example, runaway climate change might not eliminate all of us, but might leave so few of us, scattered at the poles, and so limited in terms of accessible resources, that further scientific, technological, and cultural progress might become impossible. Instead of spreading to the stars, we might remain locked in a perennial battle for survival in a much less bountiful world.

The Risks We Have Always Faced

For the first 200,000 years of humanity’s history, the risks that have threatened our species as a whole have remained relatively constant. Indonesia’s crater lake Toba is the result of a catastrophic volcanic super-eruption that occurred 75,000 years ago, blasting an estimated 2800 cubic kilometers of material into the atmosphere. An erupted mass just 1/100th of this from the Tambora eruption (the largest in recent history) was enough to cause the 1816 “year without a summer,” where interference with crop yields caused mass food shortages across the northern hemisphere. Some lines of evidence suggest that the Toba event may have wiped out a large majority of the human population at the time, although this is debated. At the Chixculub Crater in Mexico, geologists uncovered the scars of the meteor that most likely wiped out seventy-five percent of species on earth at that time, including the dinosaurs, sixty-six million years ago. This may have opened the door, in terms of available niches, for the emergence of mammalian species and ultimately humanity.

Reaching further into the earth’s history uncovers other, even more cataclysmic events for previous species. The Permian-Triassic extinction event wiped out 90–96% of species at the time. Possible causes include meteor impacts, rapid climate change possibly due to increased methane release, large-scale volcanic activity, or a combination of these. Even further back, the cyanobacteria that introduced oxygen to our atmosphere, and paved the way for oxygen-breathing life, did so at a cost: they brought about the extinction of nearly all life at the time, to whom oxygen was poisonous, and triggered a “snowball earth” ice age.

The threats posed by meteor or asteroid impacts and supervolcanoes have not gone away. In principle an asteroid could hit us at any point with little warning. A number of geological hotspots could trigger a volcanic eruption; most famously, the Yellowstone Hotspot is believed to be “due” for another massive explosive eruption.

However, on the timescale of human civilization, these risks are very unlikely in the coming century, or indeed any given century. 660,000 centuries have passed since the event that wiped out the dinosaurs; the chances that the next such event will happen in our lifetimes is likely to be of the order of one in a million. And “due around now” for Yellowstone means that geologists expect such an event at some point in the next 20,000–40,000 years. Furthermore, these threats are static; there is little evidence that their probabilities, characteristics, or modes of impact are changing significantly on a human civilizational timescale.

New Challenges

New challenges have emerged alongside our civilizational progress. As we organized ourselves into larger groups and cities, it became easier for disease to spread among us. During the Middle Ages the Black Death outbreaks wiped out 30–60% of Europe’s population. And our travel across the globe allowed us to bring diseases with us to places they would never have otherwise reached; following European colonization of the Americas, disease outbreaks wiped out up to 95% native populations.

The Industrial Revolution allowed huge changes in our capabilities as a species. It allowed rapid progress in scientific knowledge, engineering, and manufacturing capability. It allowed us to draw heavily from cheap, powerful, and rapidly available energy sources—fossil fuels. It helped us to support a much greater global population. The global population more than doubled between 1700 and 1850, and population in England—birthplace of the Industrial Revolution—increased from 5 to 15 million in the same period, and doubled again to 30 million by 1900.4 In effect, these new technological capabilities allowed us to extract more resources, create much greater changes to our environment, and support more of us than had ever previously been possible. This is a path we have been accelerating along ever since then, with greater globalization, further scientific and technological development, a rising global population, and, in developed nations at least, a rising quality of life and resource use footprint.

On July 16, 1945, the day of the Trinity atomic bomb test, another milestone was reached. Humans had developed a weapon that could plausibly change the global environment in such an extreme way as to threaten the continued existence of the human species.

Yellowstone National Park (Wyoming, USA) is home to one of the planet’s hot spots, where a massive volcanic explosion could someday occur.

Power, Coordination, and Complexity

Humanity now has a far greater power to shape its environment, locally and globally, than any species that has existed to our knowledge; more so even than the cyanobacteria that turned this into a planet of oxygen-breathing life. We have repurposed huge swathes of the world’s land to our purposes—as fields to produce food for us, cities to house billions of us, roads to ease our transport, mines to provide our material resources, and landfill to house our waste. We have developed structures and tools such as air conditioning and heating that allow us to populate nearly every habitat on earth, the supply networks needed to maintain us across these locations, scientific breakthroughs such as antibiotics, and practices such as sanitation and pest control to defend ourselves from the pathogens and pests of our environments. We also modify ourselves to be better adapted to our environments, for example through the use of vaccines.

This increased power over ourselves and our environment, combined with methods to network and coordinate our activities over large numbers and wide areas, has created great resilience against many threats we face. In most of the developed world we can guarantee adequate food and water access for the large majority of the population, given normal fluctuations in yield; our food sources are varied in type and geographical location, and many countries maintain food stockpiles. Similarly, electricity grids provide a stable source of energy for developed populations, given normal fluctuations in supply. We have adequate hygiene systems and access to medical services, given normal fluctuations in disease burden, and so forth. Furthermore, we have sufficient societal stability and resources that we can support many brilliant people to work on solutions to emerging problems, or to advance our sciences and technologies to give us ever-greater tools to shape our environments, increase our quality of life, and solve our future problems.

It goes without saying that these privileges exist to a far lesser degree in developing nations, and that many of these privileges depend on often exploitative relationships with developing nations, but this is outside the scope of this chapter. Here the focus is on the resilience or vulnerability of the human-as-species, which is tied more closely to the resilience of the best-off than the vulnerability of the poorest, except to the extent that catastrophes affecting the world’s most vulnerable populations would certainly impact the resilience of less vulnerable populations.

Many of the tools, networks, and processes that make us more resilient and efficient in “normal” circumstances, however, may make us more vulnerable in the face of extreme circumstances. While a moderate disruption (for example, a reduced local crop yield) can be absorbed by a network, and compensated for, a catastrophic disruption may overwhelm the entire system, and cascade into linked systems in unpredictable ways. Systems critical for human flourishing, such as food, energy, and water, are inextricably interlinked (the “food-water-energy nexus”) and a disruption in one is near-guaranteed to impact the stability of the others. Further, these affect and are affected by many other human- and human-affected processes: our physical, communications, and electronic infrastructure, political stability (wars tend to both precede and follow famines), financial systems, and extreme weather (increasingly a human-affected phenomenon). These interactions are very dynamic and difficult to predict. Should the water supply from the Himalayas dry up one year, we have very little idea of the full extent of the regional and global impact, although we could reasonably speculate about droughts, major crop failures, and mass starvation, financial crises, a massive immigration crisis, regional warfare that could go nuclear and escalate internationally, and so forth. Although unlikely, it is not outside the bounds of imagination that through a series of unfortunate events, a catastrophe might escalate to one that would threaten the collapse of global civilization.

Two factors stand out.

Firstly, the processes underpinning our planet’s health are interlinked in all sorts of complex ways, and our activities are serving to increase the level of complexity, interlinkage, and unpredictability—particularly in the case of extreme events.

Secondly, the fact is that, despite our various coordinated processes, we as a species are very limited in our ability to act as a globally coordinated entity, capable of taking the most rational actions in the interests of the whole—or in the best interests of our continued survival and flourishing.

This second factor manifests itself in global inequality, which benefits developed nations in some ways, but also introduces major global vulnerabilities; the droughts, famines, floods, and mass displacement of populations likely to result from the impacts of climate change in the developing world are sure to negatively affect even the richest nations. It manifests itself in an inability to act optimally in the face of many of our biggest challenges. More effective coordination on action, communication, and resource distribution would make us more resilient in the face of pandemic outbreaks, as illustrated so vividly by the Ebola outbreak of 2014; a relatively mild outbreak of what should be an easily controllable disease served to highlight how inadequate pandemic preparedness and response was.5, 6 We were lucky that the disease was not one with greater pandemic potential, such as one capable of airborne transmission and with long incubation times.

Our limited ability to coordinate in our long-term interest manifests itself in a difficulty in limiting our global resource use, limiting the impact of our collective activities on our global habitat, and of investing our resources optimally for our long-term survival and well-being. And it limits our ability to guarantee that advances in science and technology be applied to furthering our well-being and resilience, as opposed to being destabilizing or even used for catastrophically hostile purposes, such as in the case of nuclear weapons.

Collective action problems are as old as humanity,7 and we have made significant progress in designing effective institutions, particularly in the aftermath of World War I and II. However, the stakes related to these problems become far greater as our power to influence our environment grows—through sheer force of numbers and distribution across the planet, and through more powerful scientific and technological tools with which to achieve our myriad aims or to frustrate those of our fellows. We are entering an era in which our greatest risks are overwhelmingly likely to be caused by our own activities, and our own lack of capacity to collectively steer and limit our power.

OUR FOOTPRINT ON THE EARTH

Population and Resource Use

The United Nations estimated the earth’s population at 7.4 billion as of March 2016, up from 6.1 billion in 2000, 2.5 billion in 1950, and 1.6 billion in 1900. Long-term growth is difficult to predict (being affected by many uncertain variables such as social norms, disease, and the occurrence of catastrophes) and thus varies widely between studies. However, UN projections currently point to a steady increase through the twenty-first century, albeit at a slower growth rate, reaching just shy of 11 billion in 2100.8 Most estimates indicate global population will eventually peak and then fall, although the point at which this will happen is very uncertain. Current estimates of resource use footprints indicate that the global population is using fifty percent more resources per year than the planet can replenish. This is likely to continue rising sharply; more quickly than the overall population. If the average person used as many resources as the average American, some estimates indicate the global population would be using resources at four times the rate that they can be replenished. The vast majority of the population does not use food, energy, and water, nor release CO2 at the rate of the average American. However, the rapid rise of a large middle class in China is beginning to result in much greater resource use and CO2 output in this region, and the same phenomenon is projected to occur a little later on in India.

Catastrophic Climate Change

Without a significant change of course on CO2 emissions, the world is on course for significant human-driven global warming; according to the latest IPCC report, an increase of 2.5 to 7.8 °C can be expected under “business as usual” assumptions. The lower end of this scale will have significant negative repercussions for developing nations in particular but is unlikely to constitute a global catastrophe; however, the upper end of the scale would certainly have global catastrophic consequences. The wide range in part reflects significant uncertainty over how robust the climate system will be to the “forcing” effect of our activities. In particular, scientists focused on catastrophic climate change worry about a myriad of possible feedback loops. For example, a reduction of snow cover, which reflects the sun’s heat, could increase the rate of warming resulting in greater loss of snow cover. The loss of arctic permafrost might result in the release of large amounts of methane in the atmosphere, which would accelerate the greenhouse effect further. The extent to which oceans can continue to act as both “heat sinks” and “carbon sinks” as we push the concentration of CO2 in the atmosphere upward is unknown. Scientists theorize the existence of “tipping points,” which, once reached, might trigger an irreversible shift—for example, the collapse of the West Antarctic ice sheets or the melt of Greenland’s huge glaciers, or the collapse of the capacity for oceans to absorb heat and sequester CO2. In effect, beyond a certain point, a “rollercoaster” process may be triggered, where 3 degrees of temperature rise rapidly and irreversibly may lead to 4 degrees, and then 5.

Laudable progress has been made on achieving global coordination around the goal of reducing global carbon emissions, most notably in the aftermath of the December 2015 United Nations Climate Change Conference. 174 countries signed an agreement to reach zero net anthropogenic greenhouse gas emissions by the second half of the twenty-first century, and to “pursue efforts to limit” the temperature increase to 1.5 °C. But many experts hold that these goals are unrealistic, and that the commitments and actions being taken fall far short of what will be needed. According to the International Energy Agency’s Executive Director Fatih Birol: “We think we are lagging behind strongly in key technologies, and in the absence of a strong government push, those technologies will never be deployed into energy markets, and the chances of reaching the two-degree goal are very slim.”9

Soil Erosion

Soil erosion is a natural process. However human activity has increased the global rate dramatically, with deforestation, drought, and climate change accelerating the rate of loss of fertile soil. There are reasons to expect this trend to accelerate; some of the most powerful drivers of soil erosion are extreme weather events, and these events are expected to increase dramatically in frequency and severity as a result of climate change.

Biodiversity Loss

The world is entering an era of dramatic species extinction driven by human activity.10 Since 1900, vertebrate species have been disappearing at more than 100 times the rate seen in non-extinction periods. In addition to the intrinsic value of the diversity of forms of life on earth (the only life-inhabited planet currently known to exist in the universe), catastrophic risk scholars worry about the consequences for human societies. Ecosystem resilience is a tremendously complex phenomenon, and it seems plausible that tipping points exist in them. For example, the collapse of one or more keystone species underpinning the stability of an ecosystem could result in a broader ecosystem collapse with potentially devastating consequences for human system stability (for example, should key pollinator species disappear, the consequences for agriculture could be profound). Current human flourishing relies heavily on these ecosystem services, but we are threatening them at an unprecedented rate, and we have a poor ability to predict the consequences of our activity.

Everything Affects Everything Else

Once again, the sheer complexity and interconnectedness of these risks represents a key challenge. None of these processes happen in isolation, and developments in one affect the others. Climate change affects ecosystems by forcing species migration (for those that can), a change in plant and animal patterns of growth and behavior, and by driving species extinction. Reductions in available soil force us to drive more deeply into nonagricultural wilderness to provide the arable land we need to feed our populations. And the ecosystems we threaten play important roles in maintaining a stable climate and environment. Recognizing that we cannot get all the answers we need on these issues by studying them in isolation, threats posed by the interplay of these phenomena are a key area of study for catastrophic risk scholars.

All these developments result in a world with greater uncertainty, the emergence of huge and unpredictable new vulnerabilities, and more extreme and unprecedented events. These events will play out in a crowded world that contains more powerful technologies, and more powerful weapons, than have ever existed before.

HUMANITY AND TECHNOLOGY IN THE TWENTY-FIRST CENTURY

Our progress in science and technology, and related civilizational advances, have allowed us to house far more people on this planet, and have provided the power for those people to influence their environment more than any previous species. This progress is not of itself a bad thing, nor is the size of our global population.

There are good reasons to think that with careful planning, this planet should be able to house seven billion or more people stably and comfortably.11 With sustainable agricultural practices and innovative use of irrigation methods, it should be possible for many relatively uninhabited and agriculturally unproductive parts of the world to support more people and food production. An endless population growth on a finite planet is not possible without a collapse; however, growth until the point of collapse is by no means inevitable. Stabilization of population size is strongly correlated with several factors we are making steady global progress on: including education (especially of women), and rights and a greater level of control for women over their own lives. While there are conflicting studies,12 many experts hold that decreasing child mortality, while leading to population increase in the near-term, leads to a drop in population growth in the longer term. In other words, as we move toward a better world, we will bring about a more stable world, provided intermediate stages in this process do not trigger a collapse or lasting global harm.13, 14

Current advances in science and technology, while not sufficient in themselves, will play a key role in making a more resilient and sustainable future possible. Rapid progress is happening in carbon-zero energy sources such as solar photovoltaics and other renewables.15 Energy storage remains a problem, but progress is occurring on battery efficiency. Advances in irrigation techniques and desalination technologies may allow us to provide water to areas where this has not previously been possible, allowing both food production and other processes that depend on reliable access to clean water. Advances in materials technology will have wide-ranging benefits, from lighter, more energy-efficient vehicles, to more efficient buildings and energy grids, to more powerful scientific tools and novel technological innovations. Advances in our understanding of the genetics of plants are leading to crops with greater yields, greater resilience to temperature shifts, droughts and other extreme weather, and greater resistance to pests—resulting in a reduction of the need for polluting pesticides. We are likely to see many further innovations in food production; for example, exciting advances in lab-grown meat may result in the production of meat with a fraction of the environmental footprint of livestock farming.

Many of the processes that have resulted in our current unsustainable trajectories can be traced back to the Industrial Revolution, and our widespread adoption of fossil fuels. However, the Industrial Revolution and fossil fuels must also be recognized as having unlocked a level of prosperity, and a rate and scale of scientific and technological progress that would simply not have been possible without them. While a continued reliance on fossil fuels would be catastrophic for our environment, it is unclear whether many of the “clean technology” breakthroughs that will allow us to break our dependence on fossil fuels would have been possible without the scientific breakthroughs that were enabled directly, or indirectly, by this rich, abundant, and easily available fuel source. The goal is clear: having benefitted so tremendously from this “dirty” stage of technology, we now need to take advantage of the opportunity it gives us to move onto cleaner and more powerful next-generation energy and manufacturing technologies. The challenge will be to do so before thresholds of irreversible global consequence have been passed.

With 537 square meters of solar panels and six blocks of lithium-ion batteries, PlanetSolar is the world’s largest solar ship, as well as its fastest. It is also the first to have sailed round the world using exclusively solar power.

The broader challenge is that humanity as a species needs to transition to a stage of technological development and global cooperation where as a species we are “living within our means”: producing and using energy, water, food, and other resources at a sustainable rate, and by methods that will not impose long-term negative consequences on our global habitat—for at least as long as we are bound to it. There are no physical reasons to think that we might not be capable of developing an extensive space-faring civilization at a future point. And if we last that long, it is likely we will develop extensive abilities to terraform extraterrestrial environments to be hospitable to us—or indeed, transform ourselves to be suitable to currently inhospitable environments. However, at present, in Martin Rees’s words, there is no place in our Solar System nearly as hospitable as the most hostile environment on earth, and so we are bound to this fragile blue planet.

Part of this broader challenge is gaining a better understanding of the complex consequences of our actions, and more so, of the limits of our current understanding. Even if we cannot know everything, recognizing when our uncertainty may lead us into dangerous territory can help us figure out an appropriately cautious set of “safe operating parameters” (to borrow a phrase from Steffen et al.’s “Planetary Boundaries”16) for our activities. The second part of the challenge, perhaps harder still, is developing the level of global coordination and cooperation needed to stay within these safe operating parameters.

Technological Wild Cards

While much of the Centre for the Study of Existential Risk’s research focuses on these challenges—climate change, ecological risks, resource use, and population, and the interaction between these—the other half of our work is on another class of factors: transformative emerging and future technologies. We might consider these “wild cards”; technological developments significant enough to change the course of human civilization significantly in and of themselves. Nuclear weapons are such a wild card; their development changed the nature of geopolitics instantly and irreversibly. They also changed the nature of global risk: now many of the stressors we worry about might escalate quite quickly through human activity to a worst-case scenario involving a large-scale exchange of nuclear missiles. The scenario of most concern from an existential risk standpoint is one that might trigger a nuclear winter: a level of destruction sufficient to send huge amounts of particulate matter into the atmosphere and cause a lengthy period of global darkness and cold. If such a period persisted for long enough, this would collapse global food production and could drive the human species to near- or full-extinction. There is disagreement among experts about the scale of nuclear exchange needed to trigger a nuclear winter, but it appears eminently plausible that the world’s remaining arsenals, if launched, might be sufficient.

Nuclear weapons could be considered a wild card in a different sense: the underlying science is one that enabled the development of nuclear power, a viable carbon-zero alternative to fossil fuels. This dual-use characteristic—that the underlying science and technology could be applied to both destructive purposes, and peaceful ones—is common to many of the emerging technologies that we are most interested in.

A few key sciences and technologies of focus for scholars in this field include, among others:

Topics within bioscience and bioengineering such as the manipulation and modification of certain viruses and bacteria, and the creation of organisms with novel characteristics and capabilities (genetic engineering and synthetic biology).

Geoengineering: a suite of proposed large-scale technological interventions that would aim to “engineer” our climate in an effort to slow or even reverse the most severe impacts of climate change.

Advances in artificial intelligence—in particular, those that relate to progress toward artificial general intelligence—AI systems capable of matching or surpassing human intellectual abilities across a broad range of domains and challenges.

Progress on these sciences are driven in great part by a recognition of their potential for improving our quality of life, or the role they could play in aiding us to combat existing or emerging global challenges. However, in and of themselves they may also pose large risks.

Virus Research

Despite advances in hygiene, vaccines, and other health technology, natural pandemic outbreaks remain among the most potent global threats we face; for example, the 1918 Spanish influenza outbreak killed more people than World War I. This threat is of particular concern in our increasingly crowded, interconnected world. Advances in virology research are likely to play a central role in better defenses against, and responses to, viruses with pandemic potential.

A particularly controversial area of research is “gain-of-function” virology research, which aims to modify existing viruses to give them different host transmissibility and other characteristics. Researchers engaged in such research may help identify strains with high pandemic potential, and develop vaccines and antiviral treatment. However, research with infectious agents runs the risk of accidental release from research facilities. There have been suspected releases of infectious agents from laboratory facilities. The 1977–78 Russian influenza outbreak is strongly suspected to have originated due to a laboratory release event,17 and in the UK, the 2007 foot-and-mouth outbreak may have originated in the Pirbright animal disease research facility.18 Research on live infectious agents is typically done in facilities with the highest biosafety containment procedures, but some experts maintain that the potential for release, while low, remains, and may outweigh the benefits in some cases.

Some worry that advances in some of the same underlying sciences may make the development of novel, targeted biological weapons more feasible. In 2001 a research group in Australia inadvertently engineered a variant of mousepox with high lethality to vaccinated mice.19 An accidental or deliberate release of a similarly modified virus infecting humans, or a species we depend heavily on, could have catastrophic consequences.

Similarly, synthetic biology may lead to a wide range of tremendous scientific benefits. The field aims to design and construct new biological parts, devices, and systems, and to comprehensively redesign living organisms to perform functions useful to us. This may result in synthetic bacterial and plant “microfactories,” designed to produce new medicines, materials, and fuels, to break down waste, to act as sensors, and much more. In principle, such biofactories could be designed with much greater precision than current genetic modification and biolytic approaches. They should also allow products to be produced cheaply and cleanly. Such advances would be transformative on many challenges we currently face, such as global health care, energy, and fabrication.

Moreover, as the tools and facilities needed to engage in the science of synthetic biology become cheaper, a growing “citizen science” community is emerging around synthetic biology. Community “DIY Bio” facilities allow people to engage in novel experiments and art projects; some hobbyists even engage in synthetic biology projects in their own homes. Many of the leaders in the field are committed to synthetic biology being as open and accessible as possible worldwide, with scientific tools and expertise available freely. Competitions such as iGEM (International Genetically Engineered Machine) encourage undergraduate student teams to build and test biological systems in living cells, often with a focus on applying the science to important real-world challenges, and also to archive their results and products so as to make them available to future teams to build on.

Such citizen science represents a wonderful way of making cutting-edge science accessible and exciting to generations of innovators. However, the increasing ease of access to increasingly powerful tools is a cause of concern to the risk community. Even if the vast majority engaging in synthetic biology are both responsible and well intentioned, the possibility of bad actors or unintended consequences (such as the release of an organism with unintended ecological consequences) exists. Further, we may expect that the range and severity of negative consequences will increase, as well as the difficulty in tracking those who have access to the necessary tools and expertise. At present, biosafety and biosecurity is deeply embedded within the major synthetic biology initiatives. In the United States, the FBI works closely with synthetic biology centers, and leaders in the field espouse the need for good practices at every level. However, this area will progress rapidly, and a balance will need to be struck between allowing access to powerful tools to a wide number of people who can do good with them, while restricting the potential for accidents or deliberate misuse. It remains to be seen how easy it will be to achieve this.

Geoengineering represents a host of challenges. Stratospheric aerosol geoengineering represents a particularly powerful proposal: here, a steady stream of reflective aerosols would be released into the upper atmosphere in order to reduce the amount of the sun’s light reaching the earth’s surface globally. This effectively mimics the global cooling phenomenon that occurs after a large volcanic eruption, when particulate matter is blasted into the atmosphere. However, current work is focused on theoretical modelling, with very minimal practical field tests carried out to date. Questions remain about how practically feasible it would be to achieve this on a global scale, and what impact it would have on rainfall patterns and crop growth.

It should be highlighted that this is not a solution to climate change. While global temperature might be stabilized or lowered, unless this was accompanied by reduction of CO2 emissions, then a host of damages such as ocean acidification would still occur. Furthermore, if CO2 emissions were allowed to continue to rise during this period, then a major risk termed “termination shock” could manifest. In this case, if any circumstance resulted in an abrupt cessation of stratospheric aerosol geoengineering, then the increased CO2 concentration in the atmosphere would result in a rapid jump in global temperature, which would have far more severe impacts on ecosystems and human societies than the already disastrous effects of a gradual rise.

Critics fear that such research might be misunderstood as a way of avoiding the far more costly process of eliminating carbon emissions; and some are concerned that intervening in such a profound way in our planet’s functioning is deeply irresponsible. It also raises knotty questions about global governance: should any one country have the right to engage in geoengineering, and, if not, how could a globally coordinated decision be reached, particularly if different nations have different exposures to the impacts of climate change, and different levels of concern about geoengineering, given we are all under the same sky?

Proponents highlight that we may already be committed to severe global impacts from climate change at this stage, and that such techniques may allow us the necessary breathing room needed to transition to zero-carbon technology while temporarily mitigating the worst of the harms. Furthermore, unless research is carried out to assess the feasibility and likely impacts of this approach, we will not be well placed to make an informed decision at a future date, when the impacts of climate change may necessitate extreme measures. Eli Kintisch, a writer at Science, has famously called geoengineering “a bad idea whose time has come.”20

Artificial intelligence, explored in detail in Stuart Russell’s chapter, may represent the wildest card of all. Everything we have achieved in terms of our civilizational progress, and shaping the world around us to our purposes, has been a product of our intelligence. However, some of the intellectual challenges we face in the twenty-first century are ones that human intelligence alone is not best suited to: for example, sifting through and identifying patterns in huge amounts of data, and integrating information from vast and interlinked systems. From analyzing disparate sources of climate data, to millions of human genomes, to running thousands of simulations, artificial intelligence will aid our ability to make use of the huge amount of knowledge we can gather and generate, and will help us make sense of our increasingly complex, interconnected world. Already, AI is being used to optimize energy use across Google’s servers, replicate intricate physics experiments, and discover new mathematical proofs. Many specific tasks traditionally requiring human intelligence, from language translation to driving on busy roads, are now becoming automatable; allowing greater efficiency and productivity, and freeing up human intelligence for the tasks that AI still cannot do. However, many of the same advances have more worrying applications; for example, allowing collection and deep analysis of data on us as individuals, and paving the road for the development of cheap, powerful, and easily scalable autonomous weapons for the battlefield.

These advances are already having a dramatic impact on our world. However, the vast majority of these systems can be described as “narrow” AI. They can perform functions at human level or above in narrow, well-specified domains, but lack the general cognitive abilities that humans, dogs, or even rats have: general problem-solving ability in a “real-world” setting, an ability to learn from experience and apply knowledge to new situations, and so forth.

There is renewed enthusiasm for the challenge of achieving “general” AI, or AGI, which would be able to perform at human level or above across the range of environments and cognitive challenges that humans can. However, it is currently unknown how far we are from such a scientific breakthrough, or how difficult the fundamental challenges to achieving this will be, and expert opinion varies widely. Our only proof of principle is the human brain, and it will take decades of progress before we can meaningfully understand the brain to a degree that would allow us to replicate its key functions. However, if and when such a breakthrough is achieved, there is reason to think that progress from human-level general intelligence to superintelligent AGI might be achieved quite rapidly.

Improvements in the hardware and software components of AI, and related sciences and technologies, might be made rapidly with the aid of advanced general AI. It is even conceivable that AI systems might directly engage in high-level AI research, in effect accelerating the process by allowing cycles of self-improvement. A growing number of experts in AI are concerned that such a process might quickly result in extremely powerful systems beyond human control; Stuart Russell has drawn a comparison with nuclear chain reaction.

Superintelligent AI has the potential to unlock unprecedented progress on science, technology, and global challenges; to paraphrase the founders of Google DeepMind, if intelligence can be “solved,” it can then be used to help solve everything else. However, the risk from this hypothetical technology, whether through deliberate use or unintended runaway consequences, could be greater than that of any technology in human history. If it is plausible that this technology might be achieved in this century, then a great deal of research and planning—both on the technical design of such systems, and the governance structures around their development—will be needed in the decades beforehand in order to achieve a desirable transition.

Predicting the Future

The field also engages in exploratory and foresight-based work on more forward-looking topics; these include future advances in neuroscience and nanotechnology, future physics experiments, and proposed manufacturing technologies that may be developed in coming decades, such as molecular manufacturing. While we are limited in what we can say in detail about future scientific breakthroughs, it is often possible to establish some useful groundwork. For example, we can identify developments that should, in principle, be possible based on our current understanding of the relevant science. And we can dismiss ideas that are pure “science fiction,” or sufficiently unfeasible to be safely ignored for now, or that represent a level of progress that makes them unlikely to be achieved for many generations.

By focusing further on those that could plausibly be developed within the next half century, we can give considerations to their underlying characteristics and possible impacts on the world, and of the broad principles we might bear in mind for their safe development and application. While it would have been a fool’s errand to try to predict the full impacts of the Internet prior to 1960, or of the development of nuclear weapons prior to 1945, it would certainly be possible to develop some thinking around the possible implications of very sophisticated global communications and information-sharing networks, or of a weapon of tremendous destructive potential.

Lastly, if we have some ideas about the directions from which transformative developments might come, we can engage in foresight and road-mapping research. This can help identify otherwise insignificant breakthroughs and developments that may indicate meaningful progress toward a more transformative technology being reached, or a threshold beyond which global dynamics are likely to shift significantly (such as photovoltaics and energy storage becoming cheaper and more easily accessible than fossil fuels).

Confronting the Limits of Our Knowledge

A common theme across these emerging technologies and emerging risks is that a tremendous level of scientific uncertainty and expert disagreement typically exists. This is particularly the case for future scientific progress and capabilities, the ways in which advances in one domain may influence progress in others, and the likely global impacts and risks of projected advances. Active topics of research at CSER include how to obtain useful information from a range of experts with differing views, and how to make meaningful scientific progress on challenges where we have discontinuous data, or few case studies to draw on, or even when we must characterize an entirely unprecedented event. This might be a hypothesized ecological tipping point, which when passed would result in an irreversible march toward the collapse of an entire critical ecosystem. Or it might be a transformative scientific breakthrough such as the development of artificial general intelligence, where we only have current trends in AI capability, hardware, and expert views on the key unsolved problems in the field to draw insight from. It is unrealistic to expect that we can always, or even for the most part, be right. We need to have humility, to expect false positives, and to be able to identify priority research targets from among many weak signals.

Recognizing that there are limits to the level of detail and certainty that can be achieved, this work is often combined with work on general principles of scientific and technological governance. For example, work under the heading of “responsible innovation” focuses on the challenge of developing collective stewardship of progress in science and technology in the present, with a view to achieving good future outcomes.21 This combines scientific foresight with processes to involve the key stakeholders at the appropriate stages of a technology’s development. At different stages these stakeholders will include: scientists involved in fundamental research and applied research; industry leaders; researchers working on the risks, benefits, and other impacts of a technology; funders; policymakers; regulators; NGOs and focus groups; and laypeople who will use or be affected by the development of a technology. In the case of technologies with a potential role in global catastrophic risk, the entire global population holds a stake. Therefore decisions with long-term consequences must not rest solely with a small group of people, represent only the values of a small subset of people, or fail to account for the likely impacts on the global population.

There have been a number of very encouraging specific examples of such foresight and collaboration, where scientific domain specialists, interdisciplinary experts, funders, and others have worked together to try to guide an emerging technology’s development, establish ethical norms and safety practices, and explore its potential uses and misuses in a scientifically rigorous way. In bioengineering, the famous 1975 Asilomar conference on recombinant DNA established important precedents, and more recently summits have been held on advances such as human gene editing. In artificial intelligence, a number of important conferences have been held recently, with enthusiastic participation from academic and industry research leaders in AI alongside interdisciplinary experts and policymakers. A number of the world’s leading AI research teams have established ethical advisory panels to inform and guide their scientific practices, and a cross-industry “partnership on AI to benefit people and society” involving five companies leading fundamental research has recently been announced.22

More broadly, it is crucial that we learn from the lessons of past technologies and, where possible, develop principles and methodologies that we can take forward. This may give us an advantage in preparing for developments that are currently beyond our horizon and that methodologies too deeply tied to specific technologies and risks may not allow. One of the key concerns associated with risks from emerging and future technologies is the rate at which progress occurs and at which the associated threats may arise. While every science will throw up specific challenges and require domain-specific techniques and expertise, any tools or methodologies that help us to intervene reliably earlier are to be welcomed. There may be a limited window of opportunity for averting such risks. Indeed, this window may occur in the early stages of developing a technology, well before the fully mature technology is out in the world, where it is difficult to control. Once Pandora’s box is open, it is very difficult to close.

WORKING ON THE (DOOMSDAY) CLOCK

Technological progress now offers us a vision of a remarkable future. The advances that have brought us onto an unsustainable pathway have also raised the quality of life dramatically for many, and have unlocked scientific directions that can lead us to a safer, cleaner, more sustainable world. With the right developments and applications of technology, in concert with advances in social, democratic, and distributional processes globally, progress can be made on all of the challenges discussed here. Advances in renewable energy and related technologies, and more efficient energy use—advances that are likely to be accelerated by progress in technologies such as artificial intelligence—can bring us to a point of zero-carbon emissions. New manufacturing capabilities provided by synthetic biology may provide cleaner ways of producing products and degrading waste. A greater scientific understanding of our natural world and the ecosystem services on which we rely will aid us in plotting a trajectory whereby critical environmental systems are maintained while allowing human flourishing. Even advances in education and women’s rights globally, which will play a role in achieving a stable global population, can be aided specifically by the information, coordination, and education tools that technology provides, and more generally by growing prosperity in the relevant parts of the world.

There are catastrophic and existential risks that we will simply not be able to overcome without advances in science and technology. These include possible pandemic outbreaks, whether natural or engineered. The early identification of incoming asteroids, and approaches to shift their path, is a topic of active research at NASA and elsewhere. While currently there are no known techniques to prevent or mitigate a supervolcanic eruption, this may not be the case with the tools at our disposal a century from now. And in the longer run, a civilization that has spread permanently beyond the earth, enabled by advances in spaceflight, manufacturing, robotics, and terraforming, is one that is much more likely to endure. However, the breathtaking power of the tools we are developing is not to be taken lightly. We have been very lucky to muddle through the advent of nuclear weapons without a global catastrophe. And within this century, it is realistic to expect that we will be able to rewrite much of biology to our purposes, intervene deliberately and in a large-scale way in the workings of our global climate, and even develop agents with intelligence that is fundamentally alien to ours, and may vastly surpass our own in some or even most domains—a development that would have uniquely unpredictable consequences.

It is reassuring to note that there are relatively few individual events that could cause an existential catastrophe—one resulting in extinction or a permanent civilizational collapse. Setting aside the very rare events (such as supervolcanoes and asteroids), the most plausible candidates include nuclear winter, extreme global warming or cooling scenarios, the accidental or deliberate release of an organism that radically altered the planet’s functioning, or the release of an engineered pathogen. They also include more speculative future advances: new types of weaponry, runaway artificial intelligence, or maybe physics experiments beyond what we can currently envisage. Many global risks are, in isolation, survivable—at least for some of us—and it is likely that human civilization could recover from them in the long run: less severe global warming, various environmental disasters and ecosystem collapses, widespread starvation, most pandemic outbreaks, conventional warfare (even global).

However, this latter class of risks, and factors that might drive them (such as population, resource use, and climate change) should not be ignored in the broader study of existential risk. Nor does it make sense to consider these challenges in isolation: in our interconnected world they all affect each other. The threat of global nuclear war has not gone away, and many scholars believe that it may be rising again (at the time of writing, North Korea has just undergone its most ambitious nuclear test to date). If climate pressures, drought, famine, and other resource pressures serve to escalate geopolitical tensions, or if the potential use of a new technology, such as geoengineering, could lead to a nuclear standoff, then the result is an existential threat.

For all these reasons and more, a growing community of scholars across the world believe that the twenty-first century will see greater change and greater challenges than any century in humanity’s past history. It will be a century of unprecedented global pressures, and a century in which extreme and unpredictable events are likely to happen more frequently than ever before in the past. It will also be a century in which the power of technologies unlike any we have had in our past history will hang over us like multiple Damocles’ swords. But it will also be a century in which the technologies we develop, and the institutional structures we develop, may aid us in solving many of the problems we currently face—if we guide their development, and their uses and applications, carefully.

# 2AC

## Prices

### 2AC – AT: Biz Con

#### Thumpers and empirically denied – Biden XO, CHIRA reform, gas price.

Feiner 1/18 – Lauren Feiner, tech policy reporter at CNBC, “FTC, DOJ seek to rewrite merger guidelines, signaling a tougher look at large deals,” 1/18/22, https://www.cnbc.com/2022/01/18/ftc-doj-seek-to-rewrite-merger-guidelines.html

Now, with both Kanter and Khan in place, the agencies are embarking on a potential overhaul of existing guidelines for businesses seeking to close deals. It comes amid a surge in mergers that has overwhelmed the under-resourced agencies and led the FTC to take unusual steps, like warning some businesses that it will continue to look into their deals after the period of time the parties are required to wait to close.

Kanter made clear that the two agencies are aligned in their approach.

“Way too much has been made of the purported divergence between the DOJ and the FTC on the treatment of vertical mergers,” Kanter said. “The Antitrust Division shares the FTC’s substantive concerns regarding the vertical merger guidelines. Those guidelines overstate the potential efficiencies of vertical mergers and fail to identify important but relevant theories of harm.”

While ultimately any deals the agencies choose to challenge will be up to a court to decide whether to block or allow to close, increased deal scrutiny has the potential to ward off some deals that businesses simply feel are more trouble than they’re worth. Some deals come with hefty breakup fees should they not close, for example, which some businesses may be more hesitant to take on should the risks to closing on time pile up. Still, some antitrust experts believe businesses are likely to continue to push ahead with deals they feel are truly strategic.

#### “Shocks” are inevitable and have no impact.

Bagrie ’18 [Cameron; 8/9/18; Managing Director @ Bagrie Economics; “Business Confidence Is a Hopeless Indicator. But That Doesn’t Mean the Economy Isn’t in Trouble”; https://thespinoff.co.nz/business/09-08-2018/business-confidence-is-bullshit-but-that-doesnt-mean-the-economy-isnt-in-trouble]

The good news is that business confidence is hopeless as an economic indicator. The correlation with economic growth is poor and I largely ignore business confidence readings. Changes in direction can provide some insightful information – whether things are picking up or slowing down, but not the levels.

Businesses tend to be more upbeat regarding general confidence about the economy under a blue flag as opposed to a red one. Business confidence averaged minus 18 between 2000 and 2007. The economy (measured by real gross domestic product) grew on average by more than 3.5% per year. Yep, confidence was negative, but growth was positive. So, we ignore business confidence as an economic indicator. This is nothing new. It’s surprising headline business confidence figures receive so much attention.

Commentators make the constant mistake of saying the ANZ survey is a business confidence survey. The same applies to the NZIER’s QSBO. They are surveys of business views across an array of key indicators including prospects for growth, hiring, whether firms are planning to invest and experiences with inflation / costs. These indicators matter. Business confidence is one question.

The so-called “soft” or “perception” indicators are the hard data of tomorrow. They are estimates and view based but you can’t ignore them. They are well correlated with growth.

In a perfect world we’d have timely “hard” official data and statistics. We don’t. Official data comes with a lag. So, we need to rely on sentiment-based indicators if we want timely readings on the economy and a guide as to the year ahead.

The likes of the ANZ survey are showing a sombre mood when it comes to indicators that matter. The ANZ survey asks key questions about activity, employment, investment and profitability. When these indicators head to zero, which they have done now, growth can do the same. Those indicators were weak in 2000 during the so-called winter of discontent – and growth slowed to 0.9% year on year.

Growth did rebound. But back then the economy was early in the economic expansion. The economy is late in the business cycle this time around. The economy has tended to go through a ten-year cycle, so businesses are naturally looking more nervously over their shoulders at present. The economy is going through substantial economic change too and businesses are wary. There is little argument over the need to change the economy. However, there are serious questions about the actual economic plan and what the new economy looks like. That is a key issue that needs addressed.

Some of the weakness in survey measures could be put down to the way survey questions are phrased. Firms are asked their view and given three options; will conditions improve, stay the same, or worsen. For a lot of firms’ things are damned good. It’s telling that finding skilled staff is the biggest problem firms are facing. Businesses are facing capacity constraints. So, zero readings may reflect a levelling out at a high base.

## Investment

## AT: T-Per Se

### 2AC – AT: T-Prohibition = Per Se

#### The floor – “by at least expanding” automatically meets.

Andrew ’18 [Andrew; January 25; instructor; Crown Academy of English, “Preposition BY – Meaning and use,” <https://www.crownacademyenglish.com/preposition-by-meaning-use/>]

by + ING form of verb

This describes how to do something. It describes the method for achieving a particular result.

#### C/I – prohibitions include bans of “unreasonable” conduct – that’s most consistent with the literature.

Thomas **PIRAINO** Vice President-Law, Parker-Hannifin Corporation & JD Cornell ’**91** Reconciling the Per Se and Rule of Reason Approaches to Antitrust Analysis, 64 S. CAL. L. REV. 685 p. 691-693

689-693

II. THE RULE OF REASON

The Supreme Court recognized early in this century that, under a literal approach to Section 1 of the Sherman Act, any contract could be deemed to be "in restraint of trade."15

[INSERT FOOTNOTE 15]

Section 1 of the Sherman Act prohibits "every contract, combination... or conspiracy, in restraint of trade or commerce." 15 U.S.C. § 1 (1973). As Justice Brandeis recognized, "Every agreement concerning trade... restrains." Chicago Bd. ofTrade v. United States, 246 U.S. 231, 238 (1918).

[END FOOTNOTE 15]

In order to allow businesses to reasonably regulate their affairs, the Court developed an interpretation of Section 1 deriving from the common law: Only unreasonable restraints of trade should be illegal.1 6 From the earliest days of antitrust history, the courts have thus felt compelled to consider the competitive circumstances and justifications of business conduct. Over the years this factual inquiry came to be called the "rule of reason" and became recognized as "the prevailing standard of analysis" in Section 1 cases.17

Section 1 conduct includes many different types of competitive activities with few common characteristics. Nevertheless, the courts never attempted to tailor specific rule of reason approaches to particular competitive practices. Instead, they assumed that a similar approach should apply in all cases. In attempting to define the rule of reason, the courts could do no better than list all factors that might conceivably reveal the competitive purpose or effect of a Section 1 agreement. The classic formulation of the rule of reason, set forth by Justice Brandeis in 1918, includes such factors as the circumstances peculiar to the defendant's business, the conditions before and after the restraint, the nature and purpose of the restraint, and the competitive effects of the restraint.I Later Supreme Court cases failed to refine this open-ended formula. In ContinentalT V v. GTE Sylvania,19 for example, the Court cited Justice Brandeis's formulation without any indication of the relevance or weight to be afforded any particular factor.2"

The Court's rule of reason formula requires a weighing of all the circumstances of each case to determine whether a restraint is legal. This checklist approach puts so many factors at issue that none is disposi- tive. 1 The only certainty under the rule of reason is that courts will be required to engage in a complicated and prolonged investigation into market impact before deciding on the legality of a particular restraint. The approach provides little guidance to businesses trying to plan their conduct or to courts searching for helpful precedent. Both plaintiffs and defendants will be more inclined to prolong litigation because of the rule of reason's uncertain outcome.22 Indeed, the confusion generated by the approach is currently "one of the more vexing problems of antitrust 23 law."

Many commentators and a few lower federal courts have suggested various ways of refining the rule of reason. The most popular method involves the use of a threshold market analysis to "filter" out permissible conduct. If the plaintiff fails to prove that the defendant has market power, the restraint is deemed legal and the analysis is at an end.24 A market filter approach is not, however, a fair or effective solution to the problems with the traditional rule of reason. By adding another stage to the litigation process, the market fiter is likely to complicate antitrust litigation.25 The determination ofmarket power is the most difficult fac- tor in rule of reason analysis. Market power involves such complex issues as the relevant product and geographic markets and the relative market shares of the defendant and its competitors. Proving such issues requires extensive documentary evidence and endless testimony from economists and other experts.26 A threshold market power analysis puts a plaintiff at a significant disadvantage in antitrust litigation. The expense of proving market power and the uncertainty of prevailing at the threshold stage are likely to deter plaintiffs from filing legitimate claims.

III. THE PER SE RULE

Courts developed the per se rule in response to the inefficiency of the rule of reason in antitrust litigation. They saw little reason to engage in a prolonged investigation of obviously anticompetitive conduct. Practices clearly having a "pernicious effect on competition" 27 and lacking "any redeeming virtue' 2 could be conclusively presumed to be illegal without any inquiry into competitive purpose or market effect.29 The courts found such a per se approach attractive because it greatly enhanced the effectiveness of antitrust enforcement. In contrast to a vague rule of reason, clear per se standards reduced the time and expense of antitrust cases, provided clear guidance to businesses, and effectively deterred anticompetitive conduct.30 The courts recognized that such an absolute standard had a certain disadvantage: In a few cases courts would invalidate conduct that a more detailed inquiry might have shown to be legitimate. They concluded, however, that the litigation efficiencies provided by the per se rule justified its occasional overbreadth.31

It is easy to understand, then, how the per se rule came to be viewed as an entirely separate approach to antitrust analysis. Where the rule of reason was ambiguous, the per se rule was clear; where the rule of reason complicated the litigation process, the per se rule simplified it; and where the rule of reason shielded beneficial business practices, the per se rule punished anticompetitive restraints.

Per se rules, however, are no more than an abbreviated version of the rule of reason. Every per se rule has its origin in the substantive competitive purpose and effect of the prohibited conduct**.** Indeed, because of the harshness of the rule, courts were careful not to adopt a per se approach until they had gained enough experience to be confident that a particular restriction would have an anticompetitive impact in nearly all cases.32 The Supreme Court first used a per se approach early in this century in price-fixing cases, where the anticompetitive potential of the arrangements was so obvious that the Court could easily dispense with inquiries into market conditions or the defendants' justifications.33 No new per se classifications were established until the late 1950's, when the Interventionist Model began to influence the Supreme Court. By the late 1960's the Court had applied the per se rule to tying arrangements,34 horizontal territorial or customer allocations,35 and group boycotts.36 The Interventionist "fever reached its peak"' 37 in 1967 with UnitedStates v. Arnold, Schwinn & Co., 8 which extended the per se rule to nonprice vertical restrictions imposed by a supplier on its distributors.

## AT: T-Subsets

### 2AC – AT: T-Antitrust Law [Subsets]

#### C/I – “core antitrust laws” are the Sherman, Clayton, and FTC acts – they did not define the rez term of art

FTC ‘ND [Federal Trade Commission; “The Antitrust Laws”; https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/antitrust-laws; AS]

The Antitrust Laws

Congress passed the first antitrust law, the Sherman Act, in 1890 as a "comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade." In 1914, Congress passed two additional antitrust laws: the Federal Trade Commission Act, which created the FTC, and the Clayton Act. With some revisions, these are the three core federal antitrust laws still in effect today.

The antitrust laws proscribe unlawful mergers and business practices in general terms, leaving courts to decide which ones are illegal based on the facts of each case. Courts have applied the antitrust laws to changing markets, from a time of horse and buggies to the present digital age. Yet for over 100 years, the antitrust laws have had the same basic objective: to protect the process of competition for the benefit of consumers, making sure there are strong incentives for businesses to operate efficiently, keep prices down, and keep quality up.

#### Scope of FTC Section 5 is determined by the FTC.

Joshua Wright 15. FTC Commissioner. “Section 5 Revisited: Time for the FTC to Define the Scope of Its Unfair Methods of Competition Authority”. Symposium on Section 5 of the Federal Trade Commission Act. Feb 26 2015. https://www.ftc.gov/system/files/documents/public\_statements/626811/150226bh\_section\_5\_symposium.pdf

The vague and ambiguous nature of Section 5 is well known. Proposed definitions for what constitutes an “unfair method of competition” have varied substantially over time and belief that the modern FTC has now somehow moved beyond this inherent product of its institutional design are no more than wishful thinking. Indeed, for at least the past twenty years, commissioners from both parties have acknowledged that a principled standard for the application of Section 5 would be a welcome improvement. The lack of institutional commitment to a stable definition of what constitutes an “unfair method of competition” leads to two sources of problematic variation in the agency’s interpretation of Section 5. One is that the agency’s interpretation of the statute in different cases need not be consistent even when the individual Commissioners remain constant. Another is that as the members of the Commission change over time, so does the agency’s Section 5 enforcement policy, leading to wide variations in how the Commission prosecutes “unfair methods of competition” over time. In short, the scope of the Commission’s Section 5 authority today is as broad or as narrow as a majority of commissioners believes it is.

## AT: T-Exemptions

### 2AC – AT: T-Exemptions

#### W/M – plan reduces the scope of the “solely for investment” antitrust exemption.

Lambert ’20 [Thomas; Wall Family Chair in Corporate Law and Governance @ University of Missouri Law School; “Mere Common Ownership and the Antitrust Laws,” *Boston College Law Review*, 61(8), p. 2913-2964; AS]

A potential difficulty for this view is the first sentence of Section 7's third paragraph, which states that "[t]his section shall not apply to persons purchasing stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition." 60 By its terms, this solely-for-investment provision would seem to exempt investors engaged in mere common ownership-including institutional investors-from Section 7's prohibitions. The scholars contending that Section 7 reaches mere common ownership, however, have advanced two interpretations that would prevent the solely-for-investment provision from insulating institutional investors whose horizontal shareholding threatens a "substantial lessening of competition."

#### Intent to define – this is a table of contents nicety with zero legal meaning. Arbitrary interps incent T over substance.

Christopher Sagers and Anthony Trufanov 21. Sagers is JD and MPP, Michigan. James A. Thomas Distinguished Professor of Law at Cleveland State University. Truf is Truf. “Antitrust Question.” ADT NU Debate. Dec 6 2021. https://nudebateadt.blogspot.com/2021/12/antitrust-question.html

A. What I Really Think

To me, the problem is that this idea of the "scope" of antitrust has no established legal meaning and very little practical significance. It isn't really used in actual practice and it would rarely have any legal significance in an actual antitrust case. It was a convenient shorthand that I came up with for organizing the materials in that book, and it also had one theoretical value to me, but that's pretty much it. Most antitrust lawyers I've worked with understand it what I meant by it, but it doesn't have any precise meaning or doctrinal significance. I don't think the term was even really used before that book. I almost literally made it up.

So, it sounds like participants in this competition are getting hung up on whether particular exclusions from antitrust liability are issues of "scope" or issues of something else, but I don't believe there is any good reason to worry about it. It almost literally doesn't matter, except maybe in the one theoretical sense that I mentioned. (I'll say something about that in a second.) For example, you mentioned this issue of zero-price products, and your students are evidently asking whether the legality of those things should be thought of as involving "limits" on the "scope" of antitrust. But I find myself asking . . . so what? What difference would it make if that is a matter of "scope" or it is something else?

## AT: Presumption

### 2AC – AT: Presumption

## AT: Christianity

### 2AC – AT: Christianity

## AT: Taxes CP

### 2AC – AT: Taxes CP

#### Only antitrust can solve market concentration, inequality, and innovation. Tax policy causes leakage.

Arezki ’21 [Rabah; World Bank, Asif Islam, World Bank and Grégoire Rota-Grazio – CERDI-CNRS-UCA; “Taming private Leviathans: regulation may be more effective than taxes” http://eprints.lse.ac.uk/110686/1/usappblog\_2021\_04\_24\_taming\_private\_leviathans\_regulation\_may\_be\_more.pdf]

Several factors drive top income and wealth inequality, namely globalisation, technology, labour market institutions, decline in competition and fiscal policy—or, generally, social norms regarding pay inequality. There are also legal roots to top income inequalities that might explain the pervasive higher returns to capital compared to the rate of GDP growth. On the normative front, there is a heated debate on the best approach to address the rise in top incomes. The dominant approach is either to address institutional factors favouring the ability of top income earners to channel rents their way or to reduce the returns to rent seeking by increasing marginal rates of taxation on high incomes. More recently, a debate has been raging on the use of a wealth tax as an instrument to reduce top incomes (Saez and Zucman, 2019). We document that different institutional arrangements lead to a differentiated effect of (plausibly) exogenous commodity price fluctuations on top incomes. To do so, we combine a global panel data set from Forbes magazine on billionaires’ net worth with an index of (country-specific) commodity terms of trade shocks. Commodity shocks are significant sources of macroeconomic variation but also have important sectoral implications that elucidate linkages with concentration of income at the top. Results show that commodity booms lead to top income concentration, and the effect is economically large. Figure 1(a) globally traces the patterns of commodity shocks and the log differences of billionaire net worth and shows that they co-move. Figure 1(b) replicates the same pattern for developed (left panel) and developing economies (right panel) and shows the positive relationship between commodity price shocks and top incomes stand, regardless of the level of development. This finding is robust to accounting for sector of activity as well as the individual characteristics of billionaires as captured by billionaire fixed effects. The evidence is also suggestive that competition policy weakens the relationship between commodity booms and top incomes, and tax policy has no effect. Indeed, competition policies and antitrust laws combined with strong enforcement mechanisms have a potentially powerful role to play in shaping the structure of an economy and society over and beyond taxation and redistribution policies. Indeed, protected sectors, cartels or collusion limit the impetus for investment, innovation, and growth (see Aghion and Griffiths, 2005).

Resource curse and top wealth

The “resource curse” literature has provided (mixed) empirical evidence that countries with large dependence on natural resources grow slower and are also more unequal. Importantly, Mehlum, et al (2006) provide evidence that the effect of natural resources on the economy depends on the quality of institutions. Furthermore, the type of natural resource matters, with hydrocarbon and mineral resources categorised as “point source” resources, having a more detrimental impact on growth than “diffuse” resources such as agriculture. We contribute to this literature by focusing on the top incomes as opposed to general income inequality while exploring the role of different policy/institutional frameworks. We also find that commodity price shocks emanating from point-source resources lead to more top income concentration than shocks stemming from diffuse resources.

Further, we find that commodity price shocks reduce non-resource taxes, both direct and indirect. Our findings relate to the volatility of public budgets due to commodity price volatility and the resource curse in terms of public finances. James (2015) establishes a negative relationship between resource and non-resource revenues as the expression of a crowding out effect between these sources of revenue in US states. Our findings further document that certain institutional arrangements such as competition policy framework can help curb the rise in the concentration of wealth.

Capital mobility and tax havens as the main sources of leakages

Globalisation has led to a significant decrease in the cost of international capital mobility. In turn, this has fuelled intense tax competition, which offers multiple opportunities to shift profits to wealth in tax-accommodating countries or tax havens. Any tax coordination at the international level is rendered difficult or nearly impossible. This may explain why taxation appears less efficient than regulation to tame top wealth inequalities. Ten per cent of world wealth is held in tax havens. Andersen et al. (2017) find that around 15% of the windfall gains accruing to petroleum-producing countries with autocratic rulers is diverted to secret accounts. The emerging debate on curbing top incomes has centred around the wealth tax. There is indeed a strong theoretical case for a wealth tax especially after calamities such as wars and pandemics, yet its implementation and effectiveness have been challenged. Indeed, with the advent of financial globalization, capital markets provide multiple options of tax avoidance or evasion. We find empirically that (both resource and non-resource) taxation do not moderate the effect of commodity booms on top incomes.

#### Circumvention and delay – revenue agencies will underenforce due to special interest capture, under-detection, and tradeoffs. At best the CP takes over 3 years to even begin.

Katz ’21 [Eric, Senior Correspondent, 9-8-2021, "'Understaffed' IRS Is Letting Top 1% Avoid Taxes, Biden Administration Laments," Government Executive, https://www.govexec.com/management/2021/09/understaffed-irs-letting-top-1-avoid-taxes-biden-administration-laments/185196/]

The Biden administration on Wednesday blamed a staffing shortage at the Internal Revenue Service for enabling the wealthiest 1% of Americans to shirk $163 billion in tax bills annually, pointing to the finding to support its plan for dramatically increasing resources for the tax agency.

More than one-quarter of unpaid taxes comes from just the top 1% of earners in the United States, according to a new report from the Treasury Department, with more than 20% stemming from the top 0.5%. The IRS is picking its battles, Treasury said, creating a separate tax system for low-income Americans and the wealthy who can afford to hire professionals to help them take advantage of IRS' shortcomings.

“Currently, an under-staffed IRS, with outdated technology, is unable to collect 15% of taxes that are owed, and a lack of resources means that audit rates have fallen across the board, but they’ve decreased more in the last decade for high earners than for Earned Income Tax Credit recipients,” said Natasha Sarin, Treasury's deputy assistant secretary for economic policy and author of the report.

To fully and fairly enforce the tax code, Sarin said, the IRS needs to "hire and train revenue agents who can decipher their thousands of pages of sophisticated tax filings." President Biden has called for an $80 billion injection into the IRS over the next decade, saying it would bring in $700 billion in revenue.

The Congressional Budget Office, however, said last week that the White House was painting too rosy a picture. CBO projected the government would bring in just $200 billion in new revenues over a decade, though it said new information reporting requirements and some tax code changes could produce a higher number. The office predicted that taxpayers would find new ways of evading their tax bills and said outdated technology could hamper the productivity of IRS employees. Hiring surges would help, CBO said, but the average audit takes 30 months to complete and employees can require extensive training. IRS management has said it is targeting mid-career and highly skilled employees for its new staff, but CBO cautioned it may not be able to hire "its desired mix of candidates." CBO also suggested employee turnover could be higher than IRS is predicting.

## AT: States CP

### 2AC – AT: States CP

#### Preemption – Credit Suisse precludes state antitrust laws.

Baker ‘7 [Tyler; Co-Chair, Antitrust and Unfair Competition Group @ Fenwick & West LLP; and Mark Ostrau; Co-Chair, Antitrust and Unfair Competition Group @ Fenwick & West LLP; “U.S. Supreme Court Reconciles Antitrust Law and Securities Regulation”; https://assets.fenwick.com/legacy/FenwickDocuments/Antitrust\_06-20-07.pdf; AS]

On June 18, 2007, in Credit Suisse Securities (USA) LLC v. Billing, the U. S. Supreme Court issued an important decision about the relationship between the federal antitrust laws and the federal securities laws. The issue before the Court arose from the fact that the securities regulatory framework authorizes—and in some cases even encourages—certain underwriting activities that nominally conflict with the competitive principles of antitrust law. To bolster capital formation, the SEC allows competing IPO underwriters to join together in underwriting syndicates and, within certain limits, to discuss prices and allocation both among themselves and with prospective customers in order to determine a fair initial offering price. Such activities would be clear violations of the antitrust laws if undertaken by competitors in unregulated industries. The question before the Court was whether the antitrust laws should apply at all in certain areas regulated by the SEC. In an opinion that will be important in other regulated industries, the Court held that the extensive regulation in this area of securities law precluded the application of the antitrust laws, at least for the conduct challenged in this case.

I. Factual and Procedural Background

The consolidated plaintiff class represents thousands of direct IPO purchasers and aftermarket purchasers of technology stocks issued during the late 1990s. Defendants include some of the country’s largest underwriters and institutional investors. Plaintiffs accused the defendants of conspiring to manipulate the aftermarket prices of the stocks in violation of the Sherman Act, the Robinson-Patman Act, and state antitrust laws. Specifically, plaintiffs allege that defendants’ conspiratorial abuse of the syndicate underwriting system precluded direct purchasers from obtaining stocks in initial public offerings (IPOs) unless the purchasers agreed to aftermarket “tying” and “laddering” arrangements or to pay excessively high commissions.1 Plaintiffs contend this conduct artificially inflated the aftermarket price of the securities at the expense of the purchasing public. Significantly, the plaintiffs did not allege that all concerted conduct of the underwriting syndicates necessarily violated the antitrust laws. Rather, plaintiffs contended that the defendants had exceeded the bounds of permissible conduct under both the securities laws and the antitrust laws. Defendants moved to dismiss the complaints under Rule 12(b)(6), arguing that the SEC’s comprehensive regulation of IPOs impliedly precluded the federal antitrust laws and preempted state antitrust laws.

#### Centralized rules key to lower Court guidance – CP’s results in conflicting standards that permit anticompetitive conduct – that’s Posner and

Grosso ’21 [Jacob; JD Candidate @ University of Richmond School of Law; “The Preemption of Collective State Antitrust Enforcement in Telecommunications,” *University of Richmond Law Review* 55(2), p. 615-656; AS]

Preemption would address the effects of the growth of federal regulators in the telecommunications market, particularly CFIUS, as well as the resulting changes to the regulatory landscape. If the states act as another national regulator in telecommunications, then innovation, competition, and the ability of federal enforcers to pursue policy goals will be stifled. To solve this problem, collective state antitrust action should be preempted by federal law in the telecommunications market. States likely remain better plaintiffs than consumers in many situations and therefore should litigate on behalf of their citizens. This litigation should be conducted individually, with federal regulatory enforcement generally left to federal regulators.

States should not be prevented from enforcing antitrust law; instead, states should focus exclusively on violations of their own state laws and on protecting their citizens as individual enforcers, not as a collective body. Federal agencies are the proper regulators of national industries such as telecommunications, while state enforcement prevents federal nonenforcement policies which may benefit social welfare overall.253 With respect to policy goals, CFIUS's interventions in recent years showcase the federal government's focus on national security concerns in the telecommunications market. Agendas balancing broader policy goals-such as national security-with competition are only possible under a more centralized enforcement system and by specialized agencies.254

Specialized agencies are therefore the best regulators of the telecommunications market. 25 5 The requirement that "[a]ntitrust analysis must always be attuned to the particular structure and circumstances of the industry at issue" leads to efficiencies from the use of specialized enforcers. 256 The inelasticity of the market and the significant barriers to entry require oversight by specialized expert regulators to maintain a competitive environment, and interference from other government regulators will only impede the ability of the federal regulators to direct this market. Nonenforcement policies, used when the agencies determine doing so is in the best interests of competition, cannot be enforced without a monopoly on enforcement. 257

Placing control in the hands of more centralized regulators reduces uncertainty for competitors due to the inherent inconsistencies in court proceedings and allows for better market functioning. 258 The inability to pursue nonenforcement agendas and reduce litigation will cause unnecessary false positives. False positives can discourage competition and innovation. 25 9 Too many false positives will cause competitors to restrict their behavior drastically to comply with enforcers at the cost of innovative business practices.26 0 Overenforcement and the resulting false positives reduce competition, inviting harm to both the consumer and the aggregate social welfare.26 1 Reduction in states' ability to conduct collective antitrust litigation will naturally decrease the overall amount of litigation, which provides several benefits to competition and to regulators. These benefits include reduced compliance costs, legal fees, and the redistribution of resources. 26 2 Reduced costs will benefit administrative costs, particularly those resulting from the coordination of state agencies. The result is a leaner, specialized enforcement system; increased market freedom due to clear regulations; and the opportunity for regulators to balance broader policy goals with antitrust.

## AT: Politics DA

### 2AC – AT: Agenda Politics

#### Seriously “dead”

Richard Kessler, Editor at Recharge, 2-2-22, "'No. It's dead'," Recharge | Latest renewable energy news, https://www.rechargenews.com/energy-transition/no-its-dead-us-climate-bill-holdout-manchin-gives-grim-judgment-of-prospects/2-1-1162167

US President Joe Biden’s signature $2trn Build Back Better bill, which partly aimed at reasserting US leadership on climate action, is “dead” and Democrats in Congress should start addressing other pressing national issues before trying to re-float a scaled back version, senator Joe Manchin, the key swing vote in the Senate, has claimed.

Asked Tuesday by US news outlet CNN as to whether he has had discussions on the legislation – which contains over $500bn in incentives for renewable energy and climate action, including incentives aimed at overcoming bottlenecks in development the offshore wind sector’s supply chain, port infrastructure, and transmission – the West Virginia Democrat said, “No, no, no. It’s dead.”

When pressed about supporting a smaller package, he added: “We’ll see what people come up with. I don’t know.”

In December, the politically moderate Manchin announced he would oppose the partisan mammoth bill as written after months of personal lobbying by Biden and intense pressure from the party’s ascendant left flank, effectively killing it in the evenly divided 100-seat Senate.

With Republicans against, Democrats with Biden’s support adopted a strategy to win passage with a simple majority of 51 using a legislative manoeuvre called ‘reconciliation’ instead of the usual 60 votes required for major bills.

That gambit hinged on support from all 50 Democratic senators and then-vice president Kamala Harris in her role as president of the Senate casting the deciding affirmative vote. In November, the House of Representatives where Democrats have a thin majority, narrowly passed its version of the bill.

Manchin expressed deep reservations about the cost and scope of the bill, which also seeks to revamp the country’s education, healthcare, immigration, and tax laws, even after it was downsized several times from the initial $3.5trn sought by Biden.

Instead of formulating a massive spending bill, he wants Congress and the White House to first develop a more effective national response to Covid-19, which has now claimed over 900,000 Americans’ lives, and take aggressive actions to slow inflation currently at a four-decade high.

#### Biden publicly supported antitrust legislation this week- zero da

Bordelon 2-4-22

(Brendan, https://www.politico.com/newsletters/morning-tech/2022/02/04/under-pressure-biden-backs-antitrust-push-00005579)

WHITE HOUSE GETS OFF THE FENCE — The Biden team came out in favor of the antitrust measures moving through both houses of Congress late Thursday — but how much public support and political capital the White House aims to spend on reining in giant tech companies remains an open question. The move, coming hours after the Senate Judiciary Committee advanced a bill to break Apple and Google’s hold on app stores, marks the first time the White House has officially weighed in on the congressional antitrust push, Leah and POLITICO’s Adam Cancryn reported. While the White House held a “listening session” with supporters of tech antitrust reform two weeks ago, it offered a neutral readout afterward, saying only that officials “look forward to working with Congress to make bipartisan progress on the issue.” But that polite restraint ended this week following the administration’s foray into the European Union’s draft Digital Markets Act — a package of rules designed to rein in the power of tech giants. As Leah and POLITICO EU’s Samuel Stolton and Mark Scott reported, D.C. antitrust advocates weren’t pleased with the policy paper, thinking it could undermine pending congressional legislation targeting the digital giants. The Transatlantic Consumer Dialogue — a group of 75 U.S. and EU consumer groups — called out the Biden administration Thursday for expressing “concern” about the administration’s statements on the DMA. “The DMA does not target U.S. companies but rather targets companies that are in a position to define how goods, services, and information reach customers and which too often turn this position to their advantage to the detriment of competition and consumers’ interests,” the groups said, urging Biden to “work constructively with the EU” on finalizing the legislation. Biden was always going to have to make a decision on whether to publicly back the antitrust bills — particularly with congressional Democrats split. About those intraparty tensions … The moderate House New Democrats met Thursday afternoon with antitrust chair David Cicilline (D-R.I.) to talk about the tech antitrust bills. (Leah and Emily with the report.) Aides said the meeting was polite, but at least one member — Rep. Suzan DelBene (D-Wash.) — expressed serious concerns. The 97-member coalition will meet next week with two other vocal opponents, California Democrats Zoe Lofgren and Lou Correa.

#### New appointment thumps every link- Focus, PC, floor time

The Hill 1-31-22 https://thehill.com/homenews/administration/591883-breyer-retirement-latest-complication-for-biden-spending-bill

Supreme Court Justice Stephen Breyer’s plans to retire have thrown another curveball into the winding efforts to get the cornerstone of President Biden’s agenda passed in what could be the final months Democrats have full control of Congress. Appointing Breyer’s replacement to the court is an undeniable win for Biden and the Democrats, some of whom had pleaded for the 83-year-old justice to step down and make way for a younger judge to cement the liberal wing of the bench. But the timing of the announcement, nine months before the midterm elections, could make it more difficult for Biden and Democratic leaders to negotiate and get his signature climate and social spending proposal, Build Back Better, passed and signed into law. “At some point, that nomination process is going to consume all of the oxygen on Capitol Hill in the Senate,” said Jim Manley, a former aide to the late Sen. Harry Reid (D-Nev.). “It doesn’t mean Build Back Better is done, but it’s just another problem that has to be dealt with.” Biden said he plans to announce his nominee by the end of February, and Democratic aides indicated that Senate Majority Leader Charles Schumer (D-N.Y.) hopes to follow a confirmation timeline close to that of Supreme Court Justice Amy Coney Barrett, who was confirmed 30 days after she was nominated. A nomination will be followed by confirmation hearings before the Senate Judiciary Committee and eventually a confirmation vote on the Senate floor. While nothing expressly prevents the White House from trying to get the spending package finished before the Supreme Court vote, it will be complicated to do so once Biden unveils his nominee, given the attention the confirmation process will soak up. Democrats desperately want to see a version of Build Back Better passed while they still hold control of both chambers of Congress and the White House. But the bill has run into hurdle after hurdle in the Senate once it passed the House. After months of talks, Sen. Joe Manchin (D-W.Va.) in December said he could not support the legislation and said last week negotiations would be “starting from scratch.” “We have to walk and chew gum at the same time here in the White House,” White House press secretary Jen Psaki told reporters Wednesday when asked whether there were concerns that a Supreme Court nomination process would complicate other legislative priorities, like Build Back Better. “We are entirely capable of doing more than one thing at once.” One Democratic strategist close to the White House argued it was too soon to say for sure if Build Back Better was directly imperiled by the Supreme Court opening. They suggested the confirmation process could provide a win for Biden and Democrats and allow for a cooling off period before returning to negotiations with tensions lowered. ADVERTISEMENT But the strategist acknowledged that getting the Build Back Better bill passed in time for voters to see tangible benefits before the midterms would become more difficult given the confirmation process, and other measures with bipartisan support could push it farther to the backburner. “Time is not the friend of Build Back Better,” said Manley. “The longer this stretches out, the more difficult it’s going to become.”

#### Lujan absence derails Biden agenda

AP 2-3-22 https://apnews.com/article/stephen-breyer-coronavirus-pandemic-joe-biden-us-supreme-court-health-618b25ed7ac76d07fa3a2a1c37b6f161

WASHINGTON (AP) — The Democrats’ fragile hold on the Senate majority became vividly apparent Wednesday with the sudden illness of New Mexico Sen. Ben Ray Luján, who won’t be back to work for at least four weeks, throwing President Joe Biden’s Supreme Court pick and lagging legislative agenda in doubt. The 49-year-old Democrat remained hospitalized after suffering a stroke and is expected to make a full recovery. But Senate colleagues were blindsided by the news — even top-ranking leaders were reportedly unaware that Luján fell ill last Thursday, a stunning oversight. Barring any complications, he is expected to be back at work in four to six weeks, according to a senior aide granted anonymity to discuss the situation. Without Luján’s presence, the party no longer has full day-to-day control of what has been an evenly split Senate, leaving Biden’s potential Supreme Court nomination, big priorities and even routine business at risk in the face of Republican objections.

#### Plan popular.

Lande & Vaheesan ’20 [Robert; Professor of Law @ University of Baltimore School of Law and Sandeep; Legal Director @ Open Markets Institute, JD @ Duke; “Preventing the Curse of Bigness Through Conglomerate Merger Legislation,” *Ariz. St. LJ* 52; AS]

B. Growing Political and Public Concern About Corporate Power

Public recognition of, and concern about, corporate political power is growing. An increasing number of politicians and public figures are focused on the political and social—as well as economic—power of large businesses. This concern is not limited to one portion of the political spectrum. A diverse set of voices and organizations are calling for tackling monopoly and oligopoly power in American society.

Prominent liberal and progressive voices have demanded action to curb the economic and political power of large corporations. Many Democrats have made strengthening anti-merger and anti-monopoly law a key pillar of their agenda.80 As mentioned in the introduction, Senator Amy Klobuchar introduced an anti-merger bill that would establish a presumption of illegality involving mergers that combined more than $5 billion in assets.81 This bill would target corporate size directly, although it features a large exemption for pure conglomerate mergers.82

Senator Bernie Sanders weighed in against the AT&T/Time Warner merger and identified the further agglomeration of power as a principal evil of the combination. 83 He stated this consolidation “represents a gross concentration of power that runs counter to the public good.”84 And in early October 2018, Sanders introduced a bill that would break up the largest financial institutions in the United States and establish a cap on size going forward.85 Senator Sanders also promised to combat the excesses of large firms in the agricultural sector, stating that they are devastating to the small farmer and are a direct cause of mass unemployment, lower wages, massive wealth inequality, and a host of social problems. 86 In his October 2019 Corporate Accountability and Democracy plan, presidential candidate Sanders condemned the present system in which “a small group of ultrawealthy CEOs are making the decisions that increasingly determine our economic, environmental and political future.”87

Senator Elizabeth Warren has offered extensive critiques of corporate power, citing undue political influence as one of the evils of corporate bigness.88 In a keynote address at a conference hosted by the Open Markets Institute in December 2017, Senator Warren warned that “[c]oncentrated market power also translates into concentrated political power—the kind of power that can capture our government. And that’s exactly what’s happening, as President Trump and the Republicans in Congress bow to the power and influence of these industrial giants and financial titans.”89 Warren promised that if elected president, she would break up Amazon, Facebook, and Google.90 She published a detailed plan to break up big tech companies, including the creation of a threshold of $25 billion in annual revenue, above which companies would be subject to restrictions and regulations including mandatory divestitures of certain portions of the company. 91 Facebook allegedly removed Warren’s political ads posted on Facebook that called for breaking up Facebook.92

Warren also called for breaking up some of the biggest farming corporations “so that they not only do not have that kind of economic power, so that they’re wiping out competition, so they’re taking all the profits for themselves . . . but also so that they don’t have that kind of political power.”93

These figures are not outliers but are representative of a growing antimonopoly philosophy among Democrats, liberals, and progressives. Others have echoed the concerns expressed by Senators Klobuchar, Sanders, and Warren. (Former) Representative (and current Minnesota Attorney General) Keith Ellison and sitting Representative Ro Khanna established an Antitrust Caucus and called for antitrust enforcers to look beyond just consumer welfare. 94 Alexandria Ocasio-Cortez, the Democratic representative for New York’s 14th Congressional district, has repeatedly voiced concerns about the political might of large financial institutions.95 Senator Cory Booker has lamented the “incredible concentration of economic and political power in this country” 96 and introduced a bill that would establish a moratorium on corporate mergers in agriculture. 97 Former Colorado governor and former presidential candidate John Hickenlooper has called for a major revival in antimonopoly enforcement.98

Indeed, many Democrats have criticized the political power of banks since at least the 2007–08 financial crisis. In early 2009, just six months after the collapse of Lehman Brothers and the start of the worst financial crisis in eighty years, Senator Richard Durbin famously observed that “the banks— hard to believe in a time when we’re facing a banking crisis that many of the banks created—are still the most powerful lobby on Capitol Hill. And they frankly own the place.”99

Among academics and commentators, Joseph Stiglitz and Paul Krugman have repeatedly sounded the alarm about the pervasive market power problem. Stiglitz has opined that “America has a monopoly problem—and it’s huge” and cited the political power of large corporations as subverting democracy. 100 Krugman has similarly recognized the corrosive political power of large corporations. 101 Former Secretary of Labor, Harvard professor, and political commentator Robert Reich applauded Elizabeth Warren’s announced intention to break up big tech and predicted that breaking them up would allow for more privacy, decentralization of information, and more innovation. 102 Barry Lynn, director of the Open Markets Institute think tank, has sounded the alarm that tech giants like Google and Facebook are a threat to core democratic institutions.103 Zephyr Teachout, a progressive law professor, promised that if elected Attorney General of New York she would explore breaking up Google and Facebook using New York state antitrust laws.104

Conservatives in the United States are generally supportive of, and deferential toward, big business interests. Conservative thinkers have indeed played a major role in weakening the antitrust laws and allowing consolidation and monopolization across the economy.105 In the name of “free markets,” conservative politicians and commentators typically favor policies that support large corporations and place few restrictions on them.106

Nonetheless, more and more conservative voices are starting to raise concerns about corporate power. At present, many of the attacks reflect anger at certain companies, more than corporate power in general. Much of the conservative criticism appears driven by the perceived politics of their executives and employees more than a distrust of large corporations and their power in general. For example, Google is viewed as supportive of the Democratic Party and some liberal causes and it has drawn significant criticism from the right. 107 Whatever the underlying motivation though, skepticism of large corporations, or at least a subset of them, is a growing strand of thought on the right.

At least on the surface, the Trump administration reflects this rising antimonopoly tendency among conservatives. President Trump has repeatedly attacked certain powerful corporations.108 He has criticized the power of Amazon and its founder and chief executive officer, Jeff Bezos. 109 He has also condemned vertical integration in telecommunications—specifically calling out the completed merger between Comcast and NBC Universal and the now-completed merger between AT&T and Time Warner—for threatening to “destroy democracy.”110 His former chief strategist and right-wing icon, Steve Bannon, called for public utility regulation of tech platforms like Facebook and Google.111 Former Attorney General Jeff Sessions called for remedying the perceived liberal bias of these same tech platforms.112

Others on the right have sounded similar fears about corporate power. Senator Ted Cruz, who has been a major recipient of campaign contributions from large corporations,113 has endorsed using the antitrust laws against the power of tech platforms. 114 Senator (and former Representative) Marsha Blackburn has criticized platforms like Google and YouTube for failing to practice viewpoint neutrality and called them out for apparent bias against individuals and organizations expressing conservative opinions. 115 Representative Jim Jordan (R-OH) expressed similar concerns and insinuated that stronger governmental measures should be applied to curb the power of giant social media companies.116 Senator Josh Hawley (R-MO) previously served as Missouri’s attorney general and, during his tenure, opened an antitrust investigation into Google.117

Some conservative media outlets have in recent years been vocal critics of corporate power. Breitbart, the hard-right news outlet formerly run by Steve Bannon, has championed antitrust enforcement against large corporations.118 The American Conservative, a nativist right outlet that supports economic populism, has become a consistent critic of corporate power and supporter of renewed antitrust enforcement.119 Tucker Carlson, a commentator on Fox News, has endorsed public checks on Facebook and Google.120

Conservative talk radio icon Rush Limbaugh described what he saw as a pernicious aspect to corporate ownership of media.121 He stated that large, non-media corporations or their CEOs, for example Jeff Bezos purchasing The Washington Post, acquire media to shape policy and thereby increase their power. 122 Even anti-government conspiracy theorist Alex Jones has called on the Trump administration to break up big technology companies because the supposedly left-leaning Silicon Valley titans are using their massive power to stifle conservative viewpoints.123

With rising awareness of, and opposition to, corporate power, an antimerger law that directly targeted corporate size could attract significant popular and political support. Senator Klobuchar’s bill has already introduced size-based limits on consolidation into the political debate.124 Many liberals and progressives appear ready to embrace this idea.125 On the right, support for such a possibility is much less certain.126 Yet, a growing tide of criticism from conservative figures suggests at least one faction on the right may be open to preventing corporate growth through extremely large mergers and acquisitions.127

#### Climate provisions have been gutted

Hawkins 1-21-22

(Howie, 2020 green party presidential candidate, Eurasia Review, lexis)

The only bipartisan "success" is a progressive nightmare. It is the passage of the military spending bill in which Congress gave the Pentagon $25 billion more than Biden asked for. Instead of emphasizing diplomacy and economic assistance to reduce conflicts around the world, the Biden administration with bipartisan support is saber-rattling, sanctioning, and escalating tensions with China, Russia, and a host of smaller countries that refuse to kowtow to U.S. dictates. Meanwhile, progressive domestic priorities have been killed. The Green New Deal is off the table. The ever-shrinking Build Back Better bill's far more limited climate program is on life-support at best. Instead of declaring a climate emergency and taking available executive actions for climate protection, Biden is permitting oil and gas drilling and pipelines at a faster rate than Donald Trump.

### 2AC – Ag

**Common ownership threatens food security.**

Torshizi ’21 [Mohammad; Assistant Professor in Faculty of Agricultural, Life and Environmental Science @ University of Alberta, PhD in Agricultural Economics @ University of Saskatchewan; and Jennifer Clapp;Professor and Canada Research Chair in Global Food Security and Sustainability @ University of Waterloo; “Price Effects of Common Ownership in the Seed Sector,” *The Antitrust Bulletin*, 66(1), p. 39-67; AS]

This article seeks to contribute to this debate by showing how the rise of common ownership in the seed sector affects firms’ incentives to compete, which we illustrate with an evaluation of its impact on seed prices. This article analyzes empirical data from the U.S. seed industry over the 1997–2017 period to determine whether seed prices have increased as a result of the rise in common ownership of the major companies that dominate that sector. The analysis utilizes methods that aim to correct for the critiques that have been made about the methods used in studies in other sectors. We use a variation of the modified Herfindahl Hirschman Index (MHHI) of common ownership concentration to avoid the problem of conflating the effects of market concentration and common ownership concentration on prices.

There are several reasons why the seed industry is an especially important sector for an analysis of the effects of common ownership. First and foremost, control of the seed industry may result in control of the entire agrifood supply chain9 or what has been described as “food power.”10 The price effects of common ownership on seeds, therefore, have great significance for broader policy debates regarding food security. Second, institutional investors hold significant shares of firms in the seed industry, which have increased dramatically over the last two decades.11 In 2016, the top five asset management companies owned 10%–30% of the shares of the top seed companies (see Figures 1 and 2). As such, common ownership is prevalent and has increased markedly, making the sector an excellent one for an investigation into its effects on competition and pricing. Third, the seed industry is highly consolidated, which has allowed for other types of strategic behavior such as cross-licensing and joint ventures.12 The seed sector is an important arena to test for other types of strategic behaviors, including potential anticompetitive effects. Finally, the particularities of the seed industry, in which the price of seed for each cropping season is determined and listed in the previous year, naturally alleviates some of the concerns expressed in the literature about the potential for reverse causality. Our theoretical model shows how common ownership results in a suboptimal market outcome by creating an environment that weakens competition. The empirical analysis shows that approximately 6.2%–14.6% of maize, soybean, and cotton seed price increases over the 1997–2017 period are attributable to common ownership, after controlling for other important supply and demand side factors such as market concentration, intellectual property rights (IPRs) protection against farmsaved seed, innovation, and path dependency in seed prices. These results suggest that corporate incentives to compete are influenced by patterns of common ownership. Our findings are important because they confirm the findings of earlier studies in other sectors, specifically the airline and banking industries, even when taking a more conservative approach and correcting for what some critics argue to be potential methodological problems. The findings thus add evidence from an unrelated sector— seeds—to the broader literature on the effects of common ownership on pricing and competition and as such have significance for broader policy debates

#### Food insecurity causes nuclear winter – extinction.

Cribb ’20 [Julian; 1/2/20; Fellow @ Australian Academy of Technological Sciences and Engineering; Former Director of National Awareness @ Australian Commonwealth Scientific and Industrial Research Organisation; “Hotspots for future ‘Food wars’ identified”; http://www.cambridgeblog.org/2020/01/hotspots-for-future-food-wars-identified/]

Rising tensions over scarcities of food, land and water combined with increasingly unstable climates threaten to unleash new wars and the mass flight of hundreds of millions of people by the mid-century.

‘Food or War’ identifies the nine regions globally most at risk of conflict over dwindling food resources, water especially.

“Media and political descriptions of modern wars often overlook the fact that a majority of modern conflicts are driven by scarcity of the resources need to produce food – and the fear, anger and hatred this generates between different political, religious or ethnic factions,”

“However, by securing the food supply through advanced methods such as regenerative farming, aquaculture and urban food production, we can ease the tensions that lead to war. Food is now our most powerful ‘weapon of peace’.”

I cite the case of South Asia, where a rapidly emerging scarcity of fresh water, combined with land losses and climate instability are exacerbating the risk of conflict between the nuclear-armed states of India and Pakistan.

“Even a small nuclear war, involving 100 or so weapons, could wreak havoc with food supplies worldwide. Scientific models show that the smoke and dust emitted would drive down world temperatures by 1-2 degrees causing harvest failures round the globe for 10-20 years. This could temporarily halve food availability worldwide right when humanity is attempting to double it.”

Emerging water scarcity on the North China Plain, the heartland of the country’s wheat production, could drive China to outsource far more of its food from overseas, especially from Africa, Asia and Australasia. In some cases, the need to feed China may thus conflict with the need to feed local people.

The Middle East and North African (MENA) region faces one of the world’s worst water crises, with its rich countries – where population is redoubling – also attempting to feed themselves by taking up farmland in Africa and elsewhere, adding to local instability. A major food, land and water crisis in North Africa, driven by hunger in the sub-Saharan region and foreign food exports, could have consequences for southern Europe and the stability of the entire European Community many times larger than the Syrian conflict, the book warns.

Many countries across Africa remain on a knife-edge over food, land and water security, compounded by climate impacts and desertification. This has already manifested in more than a dozen food-related conflicts in recent decades, Food or War documents.

Central Asia is another region where rising population is combining with dwindling water availability and land degradation to increase the risk of conflict.

# 1AR

## Prices

### XT 2AC 8: Biz Con Low

#### Uncertainty inevitable – COVID swamps the link

Lynch 1/11 – David J. Lynch, economics staff writer for the Washington Post, “Here’s another thing the pandemic has screwed up: Economic forecasts,” 1/11/22, https://www.washingtonpost.com/business/2022/01/11/jobs-pandemic-shepherdson-omicron/

For Shepherdson — and many others on Wall Street — the jobs forecast was both an unmitigated flop and an illustration of how difficult the pandemic makes it for even the most astute observers to assess the $23 trillion economy.

“Everybody wants to be pursuing precision,” he said Monday in an interview. “But even before covid, it was like hitting a moving target from a moving vehicle. Now, we’ve got a blindfold on as well.”

Indeed, economic prognostication long has provided proof for a remark attributed to baseball great Yogi Berra: “It’s tough to make predictions, especially about the future.”

But the pandemic is making a tough job even tougher. As the virus waxed and waned, it delivered some of the wildest ups and downs in U.S. labor market history. The covid recession and recovery also erased long-standing economic relationships, emptying downtown office districts, sending workers to toil in their living rooms and leaving economists fumbling for insight.

That’s resulted in an economy perched uncomfortably between the world of early 2020 and whatever reality will emerge once the pandemic is a memory. Meanwhile, familiar relationships among key economic variables have gone haywire.

Though wages are growing faster than at any point in the decade before the pandemic, for example, the number of Americans lured back into the labor market has been disappointing. Two years after covid-19 first hit the United States, the labor force participation rate remains near its lowest mark since the 1970s, when women began entering the workforce in significant numbers.

Yet a different measure, which tracks the number of employed Americans 25 to 54 years of age, relative to the total population, last year showed the fastest one-year gain since the government began keeping track in 1949.

“This is a historically unique U.S. economy,” tweeted economist Skanda Amarnath, executive director of Employ America, a nonprofit that promotes tight labor markets.

Monthly jobs gains also have been exceptionally volatile. In the last half of 2019, each month’s hiring ranged between 161,000 and 234,000 individuals. The last six months of 2021 saw swings between 199,000 and 1.1 million, a much wider band.

All this tumult has left government and private-sector economists struggling to fathom what businesses, workers and consumers will do next.

“It is extremely difficult to forecast in the current environment,” said Gregory Daco, chief U.S. economist for Oxford Economics. “It requires a heavy dose of humility. We’re more likely to be wrong, given how rapidly things are shifting.”

#### Supply chain problems are persistent

Torry 1/16 – Harriet Torry, covers the Federal Reserve and U.S. economy for the Wall Street Journal, “Omicron, Inflation Drive Down U.S. Growth Outlook,” 1/16/22, https://www.wsj.com/articles/omicron-inflation-drive-down-u-s-growth-outlook-11642345202

Concerns about limited supply remain a cloud over the outlook, forecasters say. Bottlenecks are expected to continue in part due to China’s zero-tolerance strategy for combating the pandemic, which has led to disruptions at ports and factories.

“Freight rates remain extremely elevated, port backlogs are significant, Asia zero-covid policy is a major constraint while U.S. inventory rebuilding will add to the strains—that means demand could continue outstripping available supply for a considerable time to come,” said James Knightley, chief international economist at ING.

More than half of economists expect supply-chain disruptions to persist at least until the second half of this year, with a third expecting them to continue until 2023 or later.

#### The Fed will stamp on the brake – nukes the economy

Siegel 1/12 – Rachel Siegel, economics reporter covering the Federal Reserve for the Washington Post, “December prices rise 7 percent compared with a year ago, as 2021 inflation reaches highest in 40 years,” 1/12/22, https://www.washingtonpost.com/business/2022/01/12/december-cpi-inflation/

Overall, economists aren’t worried about inflation on its own causing a recession, as the economy grew rapidly throughout 2021 and created some 6.4 million jobs. Rather, the concern is that the Federal Reserve could be forced to combat inflation with sudden and aggressive interest rate increases, and the rising cost of borrowing could choke off the economic recovery.

Indeed, rising inflation has prompted the Fed to make its strongest move yet to rein it in, moving up the timeline for what could be as many as three interest rate increases starting as soon as March. More generally, officials within the Fed and Biden administration have said they expect high inflation will persist through much of 2022.

In the meantime, policymakers will try to get ahead of consumers’ inflation expectations, which can be self-fulfilling if people change their behavior now to avoid higher prices in the future.

Testifying before the Senate Banking Committee on Tuesday, Federal Reserve Chair Jerome H. Powell said it was essential to get prices down to more sustainable and stable levels to ensure a lasting recovery.

“If inflation does become too persistent, if these high levels of inflation become too entrenched in the economy or people’s thinking, that will lead to much tighter monetary policy from us, and that could lead to a recession and that would be bad for workers,” Powell said to lawmakers.

Economic forecasters predict growth will slow in the United States and abroad, making the economy more vulnerable to the consequences of rate hikes, said Bernard Baumohl, chief global economist at the Economic Outlook Group.

“The risk of a policy mistake is high if the Fed chose to stamp its foot on the monetary brakes with four or more rate hikes this year when economic activity is already backpedaling,” Baumohl wrote in a report Wednesday. “To have both would likely end this economic story with a familiar epilogue — recession.”

#### Consumer confidence collapsing now

Bueso 1/14 – Alexander Bueso, Sharecast, citing University of Michigan Consumer Confidence index, “US consumer confidence dips below forecasts in January,” 1/14/22, https://www.sharecast.com/news/international-economic/us-consumer-confidence-dips-below-forecasts-in-january--9031576.html

US consumer confidence slipped to its second lowest reading ever amid increasing worries over inflation, the results of a very closely-followed survey revealed.

The University of Michigan's consumer confidence index for early January came in at 68.8, which was down slightly from its end of December level of 70.6 and economists' forecasts for a reading of 70.2.

A gauge of consumer expectations led the drop, retreating from a reading of 68.3 to 65.9, while another linked to consumers' views of current economic conditions dipped from 74.2 to 73.2.

Richard Curtin, the survey's director attributed the low average reading on the index of 70.3 over the last six months to the advent of Delta and Omicron but said it was also due to the "escalating" inflation rate.

Over the first six months of 2021 the index had averaged 82.9.

The decline in confidence was especially clear among households with incomes beneath $100,000, with the sentiment index for those falling by 9.4%.

Three quarters of consumers saw inflation as a greater problem than unemployment in early January, Curtin added.

"Importantly, confidence in government economic policies is at its lowest level since 2014.

### XT 2AC: Antitrust Now

#### Rulemaking coming now.

Walters ’21 [Kurt; Harvard Law School; “Reassessing the Mythology of Magnuson-Moss: A Call to Revive Section 18 Rulemaking at the FTC,” *Harvard Law & Policy Review*, Vol. 16; AS]

D. A New Era?

There is a palpable sense that the FTC is on the precipice of a new, more assertive era after President Biden’s designated pioneering antitrust scholar Lina Khan as FTC Chair. 108 In recent years, a growing set of scholars have urged the FTC to resuscitate long-underutilized authorities across both its competition and consumer protection mandates, including Khan’s own calls to reinvigorate competition rulemaking. 109 The impression of an imminent return to FTC rulemaking grew even stronger when, in its first meeting under Chair Khan, the Commission issued a suite of administrative reforms to streamline section 18 proceedings. 110

The prospects for new section 18 rulemaking are greater today than at any time in the past forty years. Commissioner Rebecca Slaughter has endorsed section 18 rulemaking to push back against AI-powered algorithms that are biased along lines of race or gender, or otherwise harm consumers. 111 Commissioner Rohit Chopra advocated its use for “restatements” of existing precedent so that penalties can apply to first-time violations as well as repeat offenders, listing imposter fraud and tip-theft by gig work companies as prime areas for rulemaking.112 Commissioner Christine Wilson, who unlike Slaughter and Chopra occupies a Republican seat on the Commission, has voiced her support for a section 18 rulemaking covering data privacy President Biden has similarly called for an FTC rule to restrict surveillance style data collection, 114 which would likely be issued under section 18.115

#### Rulemaking now

Brown ’21 [Megan; 3/31/21; Wiley Rein LLP; and Duane Pozza; Wiley Rein LLP; “FTC Prepares to Expand Rulemaking, Including on Privacy and Data Use”; https://www.jdsupra.com/legalnews/ftc-prepares-to-expand-rulemaking-7281226/; AS]

Last week the Federal Trade Commission (FTC) announced the creation of a new rulemaking group within the FTC’s Office of the General Counsel. The announcement and other statements signal that the FTC under Acting Chairwoman Slaughter will be much more active in proposing rules on high profile issues. The agency’s announcement notes that the rulemaking group will tackle both unfair and deceptive practices and unfair methods of competition. And in separate remarks on March 26 at the American Bar Association Antitrust Law Spring Meeting, Acting Chairwoman Slaughter suggested that the agency may move forward on rulemakings about data use – which could encompass privacy, concerns about alleged manipulation on data platforms, and competition issues.

The New Office is a Shift From the Commission’s Decades-Old Approach to Rulemaking

The establishment of a dedicated rulemaking group is a significant change for the FTC, which has been restricted in its rulemaking activity since the last century. In response to controversies over how the FTC was engaged in rulemaking at the time, Congress passed legislation over four decades ago that significantly constrained the FTC’s rulemaking authority. In general, the FTC is required to follow cumbersome rulemaking requirements in addressing unfair or deceptive practices (generally known as “Magnusson-Moss” rulemaking), which go well beyond normal agency Administrative Procedures Act (APA) procedures.

As a result, in recent years, the FTC has relied much more heavily on enforcement actions rather than rulemaking to articulate its expectations. This approach has been controversial and resulted in high profile disputes in the area of data security, including prolonged litigation with Wyndham and LabMD. Structurally, responsibility for various rules is currently distributed among staff throughout the agency. And many of the rules the FTC still enforces are focused on narrow segments of the economy (e.g., the contact lens rule).

This means that, unlike the Federal Communications Commission (FCC), the FTC has comparatively little expertise in traditional rulemaking procedures, such as under the Administrative Procedure Act. In the context of ongoing debates over federal privacy law, some commentators have warned against giving the FTC broad rulemaking authority.

A rulemaking group within the General Counsel’s office would not only develop greater expertise in rulemaking best practices, it would help agency leadership evaluate legal issues, both in the record and in court. Substantively, a rulemaking group would be charged with considering rules dealing with both consumer protection and competition issues. As the agency’s release put it:  “The new structure will aid the planning, development, and execution of rulemaking – especially new rulemakings – in turn making the Commission’s work more efficient and potent.” Additionally, as the General Counsel is appointed by the Chair, the Chair would be better able to coordinate rulemaking efforts (though any notices or final rules will require a Commission vote).

What Will the Agency’s Rulemaking Priorities Be?

Last week, at the ABA Antitrust Law Spring Meeting, Acting Chairwoman Slaughter indicated that one priority would be to conduct a data-related rulemaking, which could encompass not just traditional privacy issues, but also alleged manipulation on data platforms and competition issues. She may have bipartisan support on the Commission for at least some rulemaking in this area:  In a speech at Silicon Flatirons in February, Commissioner Christine Wilson stated that she may be open to the possibility of a privacy rulemaking, in order to address what she characterized as a “market failure” in privacy, and to bring greater certainty and predictability for business.

Acting Chairwoman Slaughter has also been outspoken about the need for the agency to address algorithmic discrimination and what she has long called “data abuses.” In a speech last year, she argued that a Magnusson-Moss rulemaking this area, while “slow and imperfect,” could “generate a rule in this area if Congress ultimately fails to act,” or at least “significantly advance the public debate.” And she argued that a rule “might be able to affirmatively impose requirements of transparency, accountability, and remedy . . . in a way that takes into account context and relative risk.”

There may be greater rulemaking on the antitrust side as well. In recent Congressional testimony, Acting Chairwoman Slaughter noted that rulemaking may be preferable to case-by-case litigation in dealing with certain competition issues. One likely area appears to be non-compete provisions in employment contracts. In her testimony, she noted that she “strongly support[s] the Commission taking up and considering a rulemaking to address unfair and anticompetitive non-compete provisions in employment contracts.” Similarly, Lina Khan, who has been nominated for the open Commissioner slot, has also indicated that she is favor of a non-compete rulemaking in an article co-authored with current Commissioner Rohit Chopra (who has been nominated to lead the Consumer Financial Protection Bureau).

### XT 2AC: No Spillover

#### No spillover and turn – the stock market isn’t the economy. Gains reflect the overconfidence of the rich – that’s Zuckerman and

Boushey ’20 [Heather; President of The Washington Center for Equitable Growth; https://www.washingtonpost.com/outlook/stock-market-unemployment-disconnect/2020/09/09/087374ca-f306-11ea-bc45-e5d48ab44b9f\_story.html]

The president and his supporters are ignoring what former Federal Reserve chair Janet Yellen forcefully explained recently: “The stock market isn’t the economy. The economy is production and jobs, and there are shortfalls in virtually every sector.” How have stocks remained so resilient in the face of such a severe shock? In part, it’s because of inequality. Stocks are overwhelmingly owned by the top 1 percent, which means speculation has been able to continue even as more people have lost their jobs than at any time since the Great Depression.

What’s more, measures such as the Dow and the S&P 500 reflect only the very largest U.S. companies, which can weather steep slumps in demand in a way that Main Street enterprises can’t — while the relief packages Congress passed this spring were better at shielding large companies from economic harm than smaller ones. Given how troubling the underlying economic data are, the immunity of the markets can’t continue (as this past week’s decline may suggest).

When we compare the stock market with jobs data, the numbers are sobering. Spring’s temporary job losses — caused at first by the shutdowns — are settling into a long-term pattern of economic malaise that could reduce low-income and middle-class families’ earnings for years to come. Although the unemployment rate has dropped from its height of 14.7 percent in April, the Sept. 4 jobs report from the Labor Department’s Bureau of Labor Statistics indicates that losses once thought to be temporary are becoming permanent.

If the stock market doesn’t reflect the health of our economy, what does it measure? Most directly, it indicates the financial health of the richest among us. Overall, about 55 percent of Americans own stocks, according to Gallup, but ownership is heavily skewed toward the wealthy. According to Federal Reserve data, the top 1 percent of U.S. households own 39 percent of equities and mutual fund shares, and the top 10 percent own 83 percent — which leaves workers in the bottom 90 percent owning just 17 percent.

#### Inequality artificially inflates stock prices – stock value does not reflect core economic indicators.

Greenwald ’21 [Daniel et al; Finance @ MIT (Sloan School of Management) (Additional Authors: Sydney Ludvigson Econ @ NYU & Martin LETTAU NBER & Cal) (Revised 2021, Original publication 2019) HOW THE WEALTH WAS WON: FACTORS SHARES AS MARKET FUNDAMENTALS NBER Working Paper 25769 http://www.nber.org/papers/w25769]

We confront our model with data on equity values, output, the earnings share of output, interest rates, and a measure of the conditional equity premium implied by options data. We find that the high returns to holding equity over the post-war era have been attributable in large part to an unpredictable string of factor share shocks that reallocated rewards away from labor compensation and toward shareholders. Indeed, our estimates suggest that at least 2.1 percentage points of the post-war average annual log equity return in excess of a short-term interest rate is attributable to this string of reallocative shocks, rather than to genuine compensation for bearing risk. This estimate implies that the sample mean log excess equity return overstates the true risk premium by 43%.

Factors share shocks alone would have driven a 116% increase in the value of real per- capita market equity since 1989**,** explaining 44% of actual log growth over this period. Equity values were modestly boosted since 1989 by persistently declining interest rates and a decline in the price of risk, which contributed 14% and 18%, respectively, to the rise in log equity values over this period. But growth in the real value of aggregate output contributed just 25% since 1989 and just 54% over the full sample. By contrast, economic growth was overwhelmingly important for rising equity values from 1952 to 1988, where it explained over 100% of the market’s rise. Still, this 37 year period generated less than half the growth in equity wealth created in the 29 years since 1989. In this sense, factor shares, far more than economic growth, have been the preponderant measure of fundamental value in the stock market over the last three decades.

### AT: Common Ownership Thesis False

1. **Common ownership thesis is true.**

Torshizi ’21 [Mohammad; Assistant Professor in Faculty of Agricultural, Life and Environmental Science @ University of Alberta, PhD in Agricultural Economics @ University of Saskatchewan; and Jennifer Clapp;Professor and Canada Research Chair in Global Food Security and Sustainability @ University of Waterloo; “Price Effects of Common Ownership in the Seed Sector,” *The Antitrust Bulletin*, 66(1), p. 39-67; AS]

The theoretical model presented in Online Appendix A builds upon the assumption that the management of each commonly owned firm must incorporate their common owners’ interests in their rival in their profit-maximization problem. This model illustrates how common ownership can result in a suboptimal Cournot outcome (i.e., a lower equilibrium quantity and a higher equilibrium price) by pivoting oligopolistic firms’ best response functions or essentially changing the nature of competition. As presented in Online Figure A1, common ownership moves the market from the more competitive standard Cournot-Nash oligopoly equilibrium toward the less competitive cartel outcome, implying higher than competitive profit levels for the firms. This result is important as it illustrates that, in the presence of common ownership and incentive-compatible contracts, successful implementation of an anticompetitive strategy by the managers of commonly owned firms can result in an increase in their firms’ and thus their own payoff.

The nature of strategic behavior at ownership level is different because engaging in anticompetitive behavior does not exhibit the same risk as product market level. If institutional owner A, say an aggressive one such as a hedge fund, can successfully encourage an anticompetitive strategy (e.g., a higher than competitive price in all the prominent firms within the market), benefits will be accrued by all the common owners (i.e., horizontal shareholders) and individual owners (nonhorizontal shareholders) of the firms. Unlike at the product market level, institutional owner A does not have to fear the other common owners’ countervailing response. If the other common owners in fact do push for more anticompetitive behavior in their portfolio firms as well, then all common owners receive even higher benefits. This outcome is similar to a fat-cat effect where a firm’s soft strategy induces the rival to take the same action, benefiting both firms.62 Alternatively, the other common owners, say if they are “lazy” or “passive” investors such as mutual funds, can refrain from committing to a similar strategy, allowing institutional owner A to take charge. These other common owners thus become like weak kittens.

63 The weak kittens are able to enjoy the benefits of institutional owner A’s soft strategy. However, as discussed by Elhauge,64 none of the owners will benefit from undoing institutional owner A’s soft strategy by pushing the market-level prices back to the competitive level. In sum, at product market level and in the absence of common ownership, an individual firm may credibly fear committing to an anticompetitive strategy as this throws the firm on its rivals’ mercy. Common ownership, by contrast, acts as a platform that provides competing firms’ with the assurance that their rivals’ best response t

o their anticompetitive strategy is a similar anticompetitive strategy. At ownership level, successful implementation of an anticompetitive strategy does not require the involvement of all common owners, nor does it create the same level of risk that it does for an individual firm at product market level. In other words, common ownership creates incentives to lessen competition across firms in a way that does not expose the firms to as much business risk. Unlike what is sometimes argued in the literature,65 the key to understanding the effects of common ownership is not whether the institutional owners actively pursue anticompetitive behavior in their portfolio firms, although they have the economic incentive to do so. Rather, the key is that common ownership creates an environment where the firms have an incentive to move to a new equilibrium with higher profit levels by pursuing anticompetitive behavior, without fearing rivals’ countervailing strategies or opposition from any of the horizontal or nonhorizontal shareholders—a tacit collusion.

## Investment

### XT 2AC: Investment Profit Gap

#### Weak investment harms productivity growth in concentrated industries.

Philippon ’19 [Thomas; Max L. Heine Professor of Finance @ Stern School of Business NYU; *The Great Reversal*, p. 79]

The pattern of investment and productivity growth is inconsistent with the hypothesis of rising superstar firms, which holds efficiency gains to be the root cause of increasing concentration. If concentration were reflective of increasing efficiency, then we should see more productivity growth in places where concentration increases. We saw some of it during the 1990s, but the opposite happened during the 2000s. The evolution of productivity is consistent with the investment choices that firms make. Industry leaders’ shares of investment and capital have decreased, and their profit margins have increased. Given that leaders in concentrating industries do not feel the urge to invest and choose to increase their pay-outs to shareholders, it is hardly surprising that productivity growth is lackluster.

#### Higher profits aren’t being used for investment and innovation – economy-wide and international comparative data proves.

Philippon ’20 [Thomas et al; Max L. Heine Professor of Finance @ Stern School of Business NYU; Additional Authors: Germán Gutiérrez Matias Covarrubias “From Good to Bad Concentration? US Industries over the Past 30 Years” NBER Marcoeconomics Annual 34 p. 1-5]

We analyze the evolution of concentration in US industries over the past 40 years. Figure 1 summarizes the four stylized facts that motivate our work. Concentration and profits have increased, while the labor share and investment have decreased (fig. 1a–1d, respectively).1 This is true across most US industries as shown by Autor et al. (2017a; labor shares), Gutiérrez and Philippon (2016; investment and profits), and Grullon, Larkin, and Michaely (2019; concentration and profits). Although these stylized facts are well established, we are still far from consensus on what is causing them and what they tell us about the health of the US economy. The most prominent explanations can be organized in two groups:

• Good concentration: The observed trends may be explained by good sources of concentration, such as increases in the elasticity of substitution (henceforth j) or technological change leading to increasing returns to scale and intangible capital deepening (henceforth g). Autor et al. (2017a, 180) argue for j, noting that concentration reflects “a winner take most feature” explained by the fact that consumers have become more sensitive to price and quality due to greater product market competi- tion. Haskel and Westlake (2017) argue for g, emphasizing how scal- ability and synergies of intangible capital can lead to increasing returns to scale. Under j and g, concentration is good news: more productive firms expand yet competition remains stable or increases.

• Bad concentration: Alternatively, the trends may reflect bad sources of concentration, which we summarize as rising barriers to competition (henceforth k).2 Furman (2015, 12), for example, shows that “the dis- tribution of returns to capital has grown increasingly skewed and the high returns increasingly persistent” and argues that it “potentially re- flects the rising influence of economic rents and barriers to competition.”3

According to k, concentration is bad news: it increases economic rents and decreases innovation.

The goal of this paper is to differentiate between these explanations at the aggregate and industry level. Before discussing our approach and re- sults, however, it is important to clarify three points. First, these hypoth- eses are not mutually exclusive. Leaders can become more efficient and more entrenched at the same time—which can explain their growth but also the rise of barriers to entry (Crouzet and Eberly 2018). Indeed, a com- bination of these explanations is often heard in the discussion of internet giants Google, Amazon, Facebook, or Apple.

Second, intangibles can play a role in all theories. They may increase the elasticity of substitution (e.g., through online price comparison), in- crease returns to scale (e.g., organizational capital), and also create bar- riers to entry (e.g., through patents and/or the compilation of Big Data).

Third, these specific patterns are unique to the US. Figure 2a shows that profits margins have increased in the US, but they have remained stable or decreased in Europe, Japan, and South Korea. Figure 2b shows that concentration has increased in the US but it has remained roughly stable in Europe and Asia.4 Last, figure 2c shows that the labor share has declined in the US, but it has remained stable in Europe since 2000.5 Assuming that all advanced economies use similar technologies, the unique- ness of US trends suggests that technology alone cannot explain the trends.

Approach. We begin by using a sequence of simple models to clarify the theories of good and bad concentration. We derive a broad set of predictions regarding the joint evolution of competition, concentration, productivity, prices, and investment under each theory. We then evaluate these predictions empirically, first at the aggregate level, then at the industry level. Although some of these predictions have been studied by the literature, we contribute new facts/results for each of them. We also clarify several measurement issues and, perhaps more important, we show how the combination of all the facts helps us differentiate good and bad concentration.

Aggregate results. Table 1 summarizes our aggregate results. It contrasts the theoretical prediction of theories of good and bad concentration against the observed evolution of each measure.6 Predictions in the right column are consistent with the data after 2000. Predictions in the middle column are not.

According to theories of good concentration, the growth of large firms is an efficient response to technological change. Under j, competition in- creases as consumers become more price elastic. More productive firms expand to capture a larger share of the market, while less productive firms either shrink or exit. Economic activity reallocates toward more productive firms, increasing industry-level productivity and decreasing prices. Under g, technological change leads to increasing returns to scale. Large firms again respond by expanding, which increases concentration and productivity while decreasing prices. The productivity gap between small and large firms grows.

If the economy experiences good concentration, we should observe: (i) concentration driven in part by exit; (ii) concentration associated with higher productivity and lower prices; and (iii) stable or increasing investment rates relative to Tobin’s Q—particularly for leaders. If the in- crease is driven by j, we should also find higher volatility of market shares as demand responds more strongly to cost shocks. If the increase is driven by g, however, the prediction could flip: volatility of market shares could fall as leaders’ comparative advantages become (potentially) more persistent (e.g., Aghion et al. 2019).

We already know that j and g are important for certain industries during certain periods. For instance, they describe well the evolution of the retail industry from 1990 to 2005 (Basu et al. 2003; Blanchard 2003). The rise of superstores and e-commerce led to more price competition, higher concentration, higher productivity, and the exit of inefficient retailers (Hortacsu and Syverson 2015). The question is whether these theories explain the evolution of the economy as a whole over the past 30 years. We test these predictions in the data and find some support for them during the 1990s. During this period, concentration is correlated with ris- ing productivity, falling prices, and high investment, particularly in in- tangibles. Since 2000, however, these predictions are rejected by the data. The correlation between concentration and productivity growth has become negative, while the correlation between concentration and price growth has become positive; exit rates have remained stable; investment relative to Q has fallen; and market shares have become more persistent. Estimates of returns to scale based on the methodology of Basu, Fernald, and Kimball (2006) have remained stable, as have other estimates in the recent literature (Ho and Ruzic 2018; Diez, Fan, and Villegas-Sanchez 2019). All these predictions are consistent with the k theory.

Barriers to competition therefore emerge as the most relevant explanation over the past 15 years. It correctly predicts the evolution of prof- its, entry, exit, turnover, prices, productivity, and investment in most industries.