# UKRR---Race 2---Neg Doc

## Automation DA

### !---Societal Collapse---READ ME

#### Prolonged U.S. port failure cascades to extinction from multiple pathways.

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Douglas C. Youvan, also President & CEO of the Youvan Foundation, “The Day the Signal Died: Systemic Collapse and Civilizational Consequences of a Global Internet Shutdown,” June 30, 2025, https://www.researchgate.net/profile/Douglas-Youvan/publication/393228577\_The\_Day\_the\_Signal\_Died\_Systemic\_Collapse\_and\_Civilizational\_Consequences\_of\_a\_Global\_Internet\_Shutdown/links/6863bb4b07b3253fd1cae955/The-Day-the-Signal-Died-Systemic-Collapse-and-Civilizational-Consequences-of-a-Global-Internet-Shutdown.pdf

Maritime and trucking logistics collapse next: port cranes stop due to software lockouts, shipping containers cannot be tracked or unloaded, and warehouse inventory systems fail. Global supply chains instantly fragment. Fuel distribution halts as gas stations cannot process payments or manage inventory. Urban infrastructure such as smart grids, water filtration systems, and waste management, increasingly managed by cloud services, begin to degrade or enter failure states. 2.4 Health Care Breakdown and Early Deaths Hospitals, clinics, and pharmacies are among the most immediately impacted. Electronic Health Records (EHRs) become inaccessible. Prescriptions cannot be filled. Diagnostic imaging equipment reliant on cloud data sharing goes offline. Coordination between emergency rooms, surgeons, labs, and specialists fails. Telemedicine ceases entirely. Ambulance dispatch, reliant on geolocation and digital routing, becomes erratic. Critically ill patients suffer first. Those on ventilators, infusion pumps, or dialysis machines dependent on internet-monitored telemetry may experience 7 unmonitored failure. Medication supplies for chronic illnesses—such as insulin for diabetics or antipsychotics for the mentally ill—are disrupted within hours to days. Pharmacists are unable to verify dosages or interactions. The invisible web of safety that undergirds modern healthcare collapses in silence, and deaths begin to mount in hospitals, homes, and care facilities. Conclusion to Section 2 Within the first 72 hours, the world does not just "go offline"—it descends into a chaotic interregnum. Digital systems freeze. Human systems panic. The pace of failure outstrips any institution’s ability to respond. The false security of digital continuity is replaced by the visceral reality of informational absence, and in that vacuum, society begins to unravel. The next phase—famine, violence, and institutional collapse—is already incubating. 3. The First 30 Days: Scarcity, Violence, and Fragmentation As the world stumbles into the first month without internet, the initial paralysis gives way to an accelerating breakdown of material systems, civil order, and shared understanding. The psychological shock of disconnection deepens into resource desperation, violent competition, and governance failure. Without digital coordination, institutions fragment, supply chains shatter, and the social contract erodes. The crisis moves from inconvenience and panic to survival and collapse. What begins as a communications failure metastasizes into a civilizational fracture. 3.1 Medical Supply Chain Disruption and Starvation Risk Modern healthcare and food systems are among the most complex and interconnected logistical achievements in human history—and both are fundamentally internet-dependent. In the absence of functioning supply networks, medication production and distribution grind to a halt. Essential drugs, including antibiotics, antivirals, insulin, anti-rejection medications for transplant patients, and psychiatric medications, become scarce. Local pharmacies run out within days, and hospitals exhaust their reserves within weeks. Simultaneously, food systems begin to fail catastrophically. Supermarkets are not designed for long-term storage, but for just-in-time inventory management—a model reliant on minute-by-minute tracking via internet-based software. Without the internet, regional warehouses cannot restock grocery stores. Refrigeration fails in many areas. Farmers, unable to communicate with buyers or transportation networks, either dump perishable goods or withhold them. Starvation begins in urban centers first, where populations are densest and self-sufficiency lowest. Vulnerable populations—children, the elderly, the chronically ill—are the first to die. 3.2 Civil Unrest and the Breakdown of Law and Order By the second week, social cohesion begins to fray. As scarcity turns to panic, local governments are overwhelmed. Looting becomes widespread. Armed citizens guard homes and stores. Riots erupt in densely populated areas, often over rumors of hoarded supplies or preferential treatment. Police forces, whose dispatch and coordination mechanisms rely heavily on internet infrastructure, struggle to respond effectively or at all. Many officers desert to protect their own families. In some regions, vigilante groups or organized crime syndicates fill the vacuum, offering food and protection in exchange for loyalty or labor. Prisons become flashpoints: some systems fail to feed or guard inmates, resulting in mass escapes or uprisings. The line between lawful society and gang-dominated enclaves blurs rapidly. Martial law is declared in several countries but is inconsistently enforced. The social contract dissolves where it is no longer backed by communication, resources, or trust. 9 3.3 Isolation of Governments and Paralysis of Response National governments—cut off from the digital infrastructure that supports everything from taxation to inter-agency coordination—become internally fragmented and externally blind. Presidents and prime ministers, lacking internetbased communication, revert to archaic forms of governance: military radio, couriers, landline phones, or in some cases, total silence. Cabinet-level coordination collapses. International diplomacy halts. Multinational organizations like the United Nations, NATO, and the World Health Organization become inert. Relief supplies cannot be requisitioned or tracked. Global development and humanitarian efforts stall completely. With no international coordination and increasingly unreliable national leadership, most effective action occurs at local or regional levels, often carried out by pre-existing informal networks, military garrisons, or civilian volunteers. For most people, government disappears—not violently, but quietly, as an unseen presence that no longer speaks or acts. 3.4 Disinformation, Rumor, and Collapse of Epistemic Coherence The internet has functioned not only as an infrastructure of logistics and communication, but also as the primary epistemic interface—a real-time filter for truth, authority, and public discourse. Its sudden absence creates a vacuum into which rumor, superstition, and tribal mythologies rapidly flow. No one knows what has happened or why. In the silence of institutional authority, the imagination fills the void. Conspiracy theories flourish: that the shutdown was orchestrated by a rogue AI, or a government plot, or divine judgment. In some regions, charismatic leaders or preachers exploit the epistemic void to consolidate power, offering narrative certainty in a time of collapse. Without shared media, trust collapses along lines of kin, tribe, and language. Even radio transmissions—difficult to verify and easily spoofed—begin to spread false alarms, panic-inducing claims, or ideological propaganda. 10 The result is an epistemic fragmentation of the species. The shared global conversation—the most defining feature of the internet age—is dead. In its place, humanity reverts to information feudalism, where truth is whatever a trusted voice can convince a local audience to believe. Conclusion to Section 3 The first 30 days of an internetless world reveal that our civilization was not built for disconnection. Starvation, violence, and the collapse of truth itself become the dominant forces shaping daily life. While isolated pockets of resilience may form, the overwhelming trend is toward decentralized, destabilized survivalism. The modern world is not returning to the 1980s—it is plunging into something much older, more primal, and far more dangerous. 4. Year One and Beyond: Death Toll and Global Transformation While the first month without the internet would be marked by cascading institutional collapse and individual survival crises, the longer-term consequences are even more profound. What begins as a technical failure mutates into a demographic catastrophe, a global economic collapse, and the political reconfiguration of power. In the absence of digital connectivity, much of the post-Cold War world order unravels. Globalization halts. Institutions rooted in coordination—financial, legal, technological—become nonfunctional. At this scale, the death toll becomes measured not in headlines, but in historical epochs. 4.1 Estimating the Human Cost: Mortality by Cause and Time Horizon Initial projections suggest that in the first year alone, the global death toll could reach tens of millions, depending on region, resilience, and climate. The primary drivers of mortality would include: 11 • Starvation and malnutrition, especially in urban areas and food-importdependent nations. • Medical attrition, where the chronically ill, immunocompromised, and injured are denied care. • Violence and civil conflict, including riots, local wars, and organized looting. • Exposure, particularly among displaced populations as energy grids fail and housing security declines. • Disease outbreaks, as public health infrastructure collapses and water sanitation degrades. A conservative estimate projects 5 to 30 million deaths globally in the first year, while a worst-case scenario—especially in regions with fragile states or extreme climates—could lead to over 100 million deaths over 3 to 5 years, approaching the scale of the Black Death or the 20th century world wars. The nature of the collapse is slow-burning but widespread, a creeping mass casualty event driven by systemic dysfunction rather than discrete violence. 4.2 Regional Variation and Demographic Vulnerabilities The impact of the shutdown would not be evenly distributed. Some regions and demographics are disproportionately vulnerable: • Sub-Saharan Africa and South Asia, heavily dependent on global food imports and humanitarian aid, would suffer catastrophic famine. • Northern megacities (e.g., New York, Tokyo, London) would face mass dieoffs from supply disruption and overpopulation stress. • Remote and rural communities might survive longer due to pre-existing low-tech self-sufficiency. • Elderly populations, already susceptible to medical complications, would be among the first to die without internet-enabled care systems. 12 • Refugees and displaced persons in camps or war zones would become untraceable and unprotected. • Children in low-resource environments would face increased mortality from malnutrition and lack of vaccination. Conversely, indigenous populations and subsistence agricultural communities may experience less disruption initially, owing to their non-dependence on digital infrastructure. Some might even become nodes of cultural preservation, offering models of survival to others. 4.3 Economic Regression and Collapse of International Trade The collapse of the internet is the collapse of globalization. Without access to digital systems, there is no way to: • Conduct international banking or enforce contracts. • Track shipping containers, customs documents, or bills of lading. • Synchronize supply chains or allocate global production. The global economy reverts to localized barter, commodity currencies, or regional paper money systems—if they can be physically distributed. The World Bank, IMF, WTO, and other global economic institutions become inoperable. Industrial economies—dependent on global supply chains for semiconductors, rare earths, pharmaceuticals, and fuel—experience a sharp regression. High-tech manufacturing collapses. Air travel becomes rare or extinct. Urban centers deindustrialize. Many nations return to pre-digital industrial baselines; others descend into subsistence-level economies. The 21st century recedes, not by choice, but by sudden reversal. 13 4.4 Potential for State Failure and Geopolitical Realignment With communications severed and legitimacy undermined, many governments fail outright. Some implode from internal unrest. Others fracture into regional or ethnic enclaves. In weak states, military commanders or regional governors may assert autonomous control, turning nations into archipelagos of warlords, militias, and provisional governments. A few states with strong internal cohesion, geographic self-sufficiency, and hardened communications (e.g., radio, satellite) may retain partial functionality. Nuclear-armed states would become uniquely dangerous: disconnected from one another, yet still holding weapons capable of global devastation. Geopolitically, the disappearance of global oversight mechanisms may trigger: • Regional hegemons expanding influence in a vacuum. • Local wars over water, fuel, or food. • The dissolution of multinational states into smaller, more manageable regions. A new world order—if one emerges—would likely be non-digital, regionalized, and fragmented, with power shifting from information economies to land-based and resource-based systems of control. Conclusion to Section 4 The internet's loss would not be a digital inconvenience but a species-wide discontinuity. In its wake, humanity would undergo not just a technological regression, but a psychosocial transformation: from global citizens to local survivors. Mortality would be only the most visible metric of collapse. Beneath it lies the deeper rupture of meaning, order, and continuity. Civilization, as we have known it since the dawn of the internet age, would not recover—it would be replaced by something else. Whether that successor is more just, more local, or more brutal remains unknown. Military + Nukes 5.The U.S. Military Response: Island of Resilience? In the chaos of a global internet shutdown, the U.S. military would stand as one of the few institutions with robust internal continuity. Its operations, hardened through decades of contingency planning, EMP preparedness, and Cold War legacy protocols, are among the most digitally insulated and strategically decentralized in the world. However, the question is not whether the military can survive, but whether it can function meaningfully in a disintegrating civilian context. The military may endure—but endurance is not the same as order, and functionality is not the same as legitimacy. 5.1 Continuity of Nuclear and Command Systems The most secure aspect of U.S. military infrastructure is the nuclear command and control architecture, which is explicitly designed to function in total digital blackout scenarios. Systems like Minimum Essential Emergency Communications Network (MEECN), E-4B Nightwatch airborne command centers, and submarine-launched communications relays remain operational without reliance on civilian internet infrastructure. The nuclear triad—intercontinental ballistic missiles (ICBMs), strategic bombers, and ballistic missile submarines—would remain under hardened, air-gapped command systems. Presidential authority, military chain-of-command, and nuclear deterrence capabilities are protected through layers of redundancy and analog fallback systems, including high-frequency (HF) radio and direct satellite uplinks. Thus, strategic deterrence would remain intact, but with the caveat that mutual verification and diplomacy would vanish, increasing the danger of misinterpretation or panic-based escalations. 5.2 Secure Military Networks vs. Civilian Logistics Dependency Military communications systems such as SIPRNet (Secret Internet Protocol Router Network) and JWICS (Joint Worldwide Intelligence Communications System) 15 operate independently of the public internet. Satellite constellations such as MUOS (Mobile User Objective System) and AEHF (Advanced Extremely High Frequency) ensure secure, global command connectivity between deployed forces, ships, and bases. However, the military’s logistical tail is inextricably tied to civilian infrastructure. From fuel delivery and ammunition production to spare parts, food, and pharmaceuticals, the Department of Defense depends on civilian contractors and just-in-time supply chains. The vast majority of its global projection capability— including airlift, sealift, and base resupply—relies on coordination with civilian ports, trucking companies, rail networks, and fuel depots. These systems would collapse without digital infrastructure. In the early stages, the military could sustain itself using internal stores, depot inventories, and priority allocations, but by month two or three, resupply failure would degrade readiness, especially for operations abroad or at forward bases. The illusion of self-sufficiency would fade under the strain of maintaining a continental military machine in a digitally shattered society. 5.3 Martial Law, Posse Comitatus, and Internal Instability Domestically, the U.S. military faces a legal and political dilemma. Under the Posse Comitatus Act of 1878, the use of federal military forces for domestic law enforcement is restricted without specific Congressional authorization or a Presidential declaration of emergency. In a collapsed internet scenario, it is unclear whether such authorization could even be communicated or validated. As civil unrest escalates, National Guard units—under dual federal-state control— would be deployed first. If governors are unable to communicate with Washington, decentralized orders and regional self-assertion may occur. In some states, the Guard could become de facto civilian governance, especially if state governments are paralyzed. If federal military units are activated domestically, the imposition of martial law would face logistical and ethical limits. Military police are not equipped to rebuild 16 collapsed cities, manage famine, or restore economic function. Attempts to enforce order by force could lead to backlash, desertion, or rebellion—especially if soldiers are asked to suppress hungry civilians, protect elite infrastructure, or prioritize government continuity over public welfare. The specter of militarized governance without civil legitimacy raises deep constitutional and moral questions. In a society where democratic institutions no longer function, does the military rule by emergency, or by consent—or does it withdraw entirely? 5.4 The Limits of Militarized Order in a Collapsing Society Despite its internal resilience, the U.S. military cannot govern a failing nation indefinitely. It is designed for combat, not sustainability. It can hold territory, but not feed it. It can secure facilities, but not repair supply chains. As urban riots turn into refugee flows, and civilian institutions cease to function, the military will be confronted with impossible choices: which cities to abandon, which populations to prioritize, which leaders to obey. Morale may fracture. Units composed of reservists and National Guard personnel may refuse orders that conflict with their familial or regional loyalties. Chain-ofcommand continuity will not prevent ethical collapse or internal dissent. In extreme scenarios, some military factions could align with local governments, secessionist movements, or civilian coalitions. Others might retreat into hardened facilities, adopting a "bunker mentality" focused on survival rather than restoration.

#### The initial supply shock alone risks military lashout, civil war, AND ripples globally forcing downstream aggression. History proves that kicks off World War III.

Martin 21 – Director of the RAND National Security Supply Chain Institute, and a senior policy researcher RAND Corporatio.

Bradley Martin, “Supply Chain Disruptions: The Risks and Consequences,” RAND, 2021, https://www.rand.org/blog/2021/11/supply-chain-disruptions-the-risks-and-consequences.html

By now the impacts of supply chain disruption are becoming all too familiar: shortages, inflation, factory closures, goods waiting at ports to be unloaded. All these impacts are serious enough, but another more-hidden concern lurks just beneath the surface: the impact of supply chain failure on national security, broadly defined as a nation's ability to protect and ensure the well-being of its population.

This definition of “national security” is broader than just the defense industry or military-related efforts; it also could encompass the very ability of a nation to ensure economic well-being, public health, and protection of a nation's key infrastructure. Supply chain disruptions cause general economic disruption and key commodity shortages, which then in turn can, in fact, drive aggressive national behavior and international instability. And ironically, this reactive aggressive national behavior can happen even if the health of a national economy itself depends upon continued international economic interdependence. Indeed, this very interdependence can create vulnerabilities. So a systematic effort, cutting across agencies and public and private sectors, could be one way to ensure these vulnerabilities are understood and mitigated.

Supply Chain Disruption and Conflict

Dispersed supply chains develop because actors find it's economically advantageous to seek the least-expensive and most-productive sources of supply. These dispersed chains develop for good reasons, but they create complicated interdependencies whose risks and vulnerabilities are sometimes not even understood, let alone mitigated.

While the reasons for creating these chains lie largely with private interest, the effects of disruption—which can come from sources ranging from malign human action to natural disaster—are rarely localized. When shortages occur in one industry, the disruptions in one area nearly always spill into adjacent companies and sectors. Whole economies feel the impact, not isolated actors.

The impact on vulnerable populations may be particularly dire. Supply chain disruptions do not just create higher prices and shortages among high-end consumer products, such as cars. They also affect more-basic commodities such as generic drugs or energy, increasing the cost of living and the provision of basic needs.

This kind of disruption can create instability more generally, promoting conditions for conflict between and within nations. For the most part, nations try to maintain access to markets and resources by peaceful means such as stockpiling, direct investment in partner nations, and use of other financial incentives. However, there is no guarantee that such competition will remain peaceful.

As affluent nations and individuals can find ways to mitigate shortages, they may create blocs of “haves” and “have nots,” where some actors have enough but others cannot meet basic needs. “Haves” may find ways to more directly change distribution, most likely at the expense of other “have nots.” Or “have” nations may try to forcefully safeguard what they have gained and work to exclude competitors. In all these cases, the actors are facing shortages, occasioned by interdependence, and seeking security for themselves in ways that actually promote wider international systemic instability.

Escalation of Conflict

In some cases, supply chain disruptions can have an even more-direct impact than general disruption, causing shortages of commodities the nation must have to ensure national security. This kind of disruption can go beyond matters of justice, equity, and general prosperity to threatening a nation's very ability to defend itself and look after its citizens. Some examples are pharmaceuticals and personal protective equipment, energy, food, raw materials used in manufacturing, and semiconductors used in multiple different systems including military applications. Such shortages can make the need for a national government to act more dire and immediate and thus raise the risk of conflict.

\*Marked\*

In some cases, particular types of raw materials only exist in certain places, so shifting to more-secure sources isn't even possible.

Supply chain disruptions create both leverage for some nations and reasons for other nations to minimize leverage. For example, Taiwan currently dominates the market for semiconductors, which in some respects gives it leverage with other actors, including the mainland People's Republic of China (PRC). Semiconductors are capital-intensive—a new fabrication facility for semiconductors costs approximately $4 billion, with some estimates as high as $12 billion, and can take three or more years to build.

This does not even account for the skilled labor, and points to the difficulty of readily shifting production. As a result, Taiwan gains considerable leverage over the PRC and indeed the world. However, this very dominance, plus its proximity to the PRC and its dependence on the PRC for other commodities, may in fact raise the incentive for the PRC to take aggressive military action to ensure access to a key commodity. Such action could range from a “quarantine” to military threats to an actual invasion.

Aggressive action may stop well short of outright war, yet still be very dangerous for actors in the system. The problem of security vulnerability overall is complicated by the complexity and spread of supply chains across the world. A nation might not be able to successfully secure a commodity just by aggressive action against a single other nation. However, that action against another nation certainly could have the unintended effect of causing supply chains to fail in a more general manner. Aggressiveness, while understandable and probably predictable, might therefore also be extremely dangerous and unproductive.

Conflict and Instability

Nations have gone to war in the past over natural resource shortages or in an effort to secure key markets and labor pools. The need to secure resources and markets was an explicit premise in German and Japanese actions leading to World War II. Such conflict has occurred even during times of significant interdependence between nations, such as in the European system prior to World War I. Historically, nations have not yet resorted to war to ensure supply chain security, but it might be a mistake to assume that such action could never occur when circumstances become sufficiently dire. Interdependence does create incentives to cooperate to avoid disruption, but may offer few alternatives for some desperate nations if some part of the interdependent chain is broken.

#### Fast automation causes extinction. It’s a national and economic security crisis.

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Lauren Cloud, “The Silent Threat: How Cyberattacks on Automated Ports Endanger National Security and the Economy,” International Longshoreman’s Association, South Atlantic and Gulf Coast District, 12-09-2024, https://www.iladistrict.com/the-silent-threat-how-cyberattacks-on-automated-ports-endanger-national-security-and-the-economy/

The maritime industry, once operating quietly behind the scenes, has recently been thrust into the spotlight. Events over the past few years have underscored just how vital this industry is to the lifeblood of our nation. Ports are the gateways for goods, military supplies, food, medical equipment, and energy resources, and they are indispensable to our economic stability and national security. Yet, as automation and semi-automation infiltrate port operations, they introduce a new and significant threat: the vulnerability of these systems to cyberattacks and technological failures.

The 2017 NotPetya cyberattack on APM Terminals was a chilling example of what’s at stake. This ransomware attack crippled terminal operations at 17 facilities worldwide, forcing many to shut down systems and revert to manual operations. The fallout disrupted supply chains, delayed cargo movements, and caused financial losses on a global scale. This wasn’t just a one-off incident but a glimpse into the potential devastation hackers can wreak on interconnected systems.

In recent years, so-called “glitches” in terminal operating systems and gate systems have further highlighted the fragility of automated systems. Whether due to technical failures or malicious actors, these disruptions are a clear warning of the dangers automation poses to the operational resilience of our ports. The stakes could not be higher.

Ports are not just economic hubs; they are critical to national defense. A cyberattack targeting U.S. ports could halt the movement of essential goods, delay military equipment, and undermine the nation’s ability to respond to emergencies or crises. Imagine ships stranded at sea, cargo piling up, and critical supplies trapped in terminals. The result would be catastrophic for both the economy and national security, plunging the country into chaos.

The economic impact of a cyberattack would extend far beyond the immediate shutdown of a port. Businesses that rely on imported goods would face shortages, supply chains would collapse, and consumers would see skyrocketing prices. The nation witnessed the fragility of supply chains during the COVID-19 pandemic; a cyberattack would be far more destructive, leaving industries, workers, and families scrambling to recover.

Hackers and tech terrorists see automation as an opportunity. Automated systems rely on interconnected networks, making them susceptible to infiltration and disruption. The very systems designed to replace human workers introduce vulnerabilities that can be exploited by malicious actors. Ports, once fortified by human oversight and adaptability, are now becoming liabilities as they increasingly depend on technology.

While these risks grow, the International Longshoremen’s Association (ILA) workforce continues to stand on the front lines, serving as a critical layer of defense against domestic threats at our ports. Longshore workers are trained to remain vigilant, aware of their surroundings, and to follow established protocols if they notice suspicious activity. Their presence and proactive measures are a bulwark against potential security breaches.

Consider for a moment what COVID-19 could have looked like if ILA members had stayed home, gripped by fear from the widespread panic and misinformation. Instead, these essential workers reported to duty, ensuring that goods flowed seamlessly through ports during one of the most challenging times in modern history. Their courage and dedication kept America moving when the rest of the nation was at a standstill.

Adding to the challenge, mainstream media—controlled in part by private equity firms investing in U.S. ports and infrastructure—has been shaping a false narrative to portray the ILA as stalling progress and innovation. This couldn’t be further from the truth. As Sara Shaleen (Masterson) recently pointed out in her rebuttal to the media’s propaganda, the ports operated by ILA members are ranked far higher globally than reported. The ILA’s strength in bargaining has effectively countered the outdated productivity argument, forcing employers to shift the focus to densifying terminals for capacity and throughput.

The employers’ claim that density requires full automation falls apart under scrutiny. In today’s technological age, there is no reason cargo-handling equipment manufacturers cannot produce RMGs (rail-mounted gantries) that allow ILA operators to perform the full movement of cargo. This solution would meet the employers’ goal of greater density while preserving the jobs of the skilled workers who make these ports among the best in the world.

The truth is that automation does not safeguard operations—it exposes them. And as these systems expand, so does the attack surface for hackers and tech terrorists. Ports are the front lines of commerce and security, and a failure to protect them leaves the entire nation vulnerable.

The U.S. must act decisively to address these vulnerabilities. Safeguarding ports against cyber threats is not just a matter of economic stability—it is a matter of national security. Policies must be implemented to ensure that ports remain resilient, and cybersecurity must become a top priority for the maritime industry.

The risks posed by automation and semi-automation far outweigh any purported benefits. Our ports, the backbone of American commerce and defense, must not be left at the mercy of hackers and tech terrorists. This is a fight we cannot afford to lose.

### Link---Plan = Automation

#### The plan creates a “union-premium” on wages, which drives incentives for automation.

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Dr. Fredrik B. Kostøl, “Unions and Robots: Automation and the Power of Labor,” Labour Economics, Volume 84, October 2023, ScienceDirect

While more empirical evidence on how unions alter technological change has been called for (Acemoglu & Autor, 2011, p. 1160), both of the two channels identified above are previously explored in the literature. On the one hand, there is a rich literature on how unions affect both the levels and distribution of wages. The monopoly bargaining power of unionized workers is widely recognized to add a union-premium on wages (Doucouliagos et al., 2017, p. 149). In isolation, a positive union wage premium implies stronger incentives to replace labor with new technology. Furthermore, unions are often believed to compress the distribution of wages, both within firms (Svarstad & Nymoen, 2022) and at the macro level in countries with a centralized or coordinated bargaining structure (Moene & Wallerstein, 1997; Haucap & Wey, 2004; Braun, 2011; Dale-Olsen, 2021). Wage compression contributes to making low-skilled labor relatively expensive and highly skilled labor relatively cheap. In line with theories of skilled-biased technological change, low-skilled labor is also more replaceable by automation technology, while high-skilled labor is more likely to complement this technology (Acemoglu, 2002).

#### Wage increases catalyze mass automation, particularly in low-skilled jobs.

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Grace Lordan and David Neumark, “People versus Machines: The Impact of Minimum Wages on Automatable Jobs,” 1/17/2018, Research Briefs in Economic Policy, No. 96, https://www.cato.org/sites/cato.org/files/pubs/pdf/rb96.pdf

We explore the extent to which minimum wages induce substitution away from workers whose jobs are more easily automated. For instance, employers may replace labor with technological innovations—such as supermarkets substituting self-service checkout for cashiers, and assembly lines in manufacturing plants substituting robotic arms for workers. At the same time, firms may hire other workers who perform new tasks that are complementary with the new technology. For example, a firm using more robots may hire individuals to service, troubleshoot, and maintain these new machines. It seems reasonable to expect that the workers more likely to be replaced following minimum wage increases are those who are low skilled, earning wages affected by increases in the minimum wage, while workers who “tend” the machines are higher skilled. This suggests that there is a potential for labor reallocation away from jobs that are automatable following increases in the minimum wage, that low-skilled workers in automatable jobs are particularly vulnerable to minimum wage increases, and that the net disemployment effects may be smaller than the gross effects that workers in automatable tasks experience.

We choose to focus on automation because it has been one of the major forces threatening low-skilled jobs in the United States in recent decades, presumably because of both technological advances and reductions in the cost of technology that can substitute for low-skilled labor. Minimum wages can exacerbate these changes when they raise the price of low-skilled labor in automatable jobs for which machines can be substituted. 2

Our main aim is to provide a richer understanding of how minimum wage policies have been shaping the type of employment held in the United States, within industries and for particular demographic groups. Specifically, we empirically assess whether the share of employment that is automatable declines in response to minimum wage increases. We focus on jobs that tend to be held by low-skilled workers, given that these are the jobs for which labor costs increase the most in relative terms following a minimum wage increase, which can prompt firms to replace people (low-skilled ones, in particular) with machines. We complement our analyses of how the share of employment in automatable jobs responds to minimum wage increases with analyses of employment impacts for individual workers, estimating whether the probability that low-skilled workers in automatable jobs lose their jobs is greater following a minimum wage increase.

Our analysis is related to concurrent research by Daniel Aaronson and Brian J. Phelan, who, for the period 1999–2009, analyze the susceptibility of low-wage employment to technological substitution in the short run. They find that minimum wage increases lead to job losses for cognitively routine jobs, but not manually routine or nonroutine jobs. Their study provides some evidence that firms may automate routine jobs in response to a minimum wage increase, reducing employment opportunities for workers in routine jobs.

We add value beyond this analysis in a number of ways. First, whereas Aaronson and Phelan are concerned with an average individual’s job loss, we focus on quantifying how shares in the employment of automatable tasks change following a minimum wage change, to provide more evidence on how the task composition of the workforce is affected.

Second, we expect that automation is a viable and likely substitute for certain types of low-skilled jobs, and therefore also certain types of low-skilled labor, implying that average effects may mask significant heterogeneity. Therefore, our second contribution is to provide a comprehensive picture of labor-market adjustments across industries and a variety of demographic groups, which can uncover these important differential responses. This may be of particular interest within the broader minimum wage literature. While that literature has largely focused on teenagers (and more recently restaurant workers), we take a broader perspective, expanding the analysis to subgroups of workers not usually considered in the minimum wage literature, who may be adversely affected by minimum wages because they tend to be employed in automatable jobs.

#### **Consensus.**

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Tom Simonite, “Raising Wages To Help Workers Could Actually Help Robots Replace Them,” 9/15/2017, Wired, https://www.wired.com/story/raising-wages-to-help-workers-could-actually-help-robots-replace-them/

A working paper distributed by the National Bureau for Economic Research last month leans on historical data to suggest that minimum-wage hikes increase the chances some low-skilled workers will be replaced by machines. A separate study of 14 advanced economies found that the balance between humans and robots shifted away from humans after the introduction of new job-protection rules, like longer notice periods and increased severance payments.

The studies are timely because rapid advances in artificial intelligence have sparked a debate about their impact on jobs. Many economists doubt that the technologies will cause widespread unemployment, arguing that, historically, affected workers have been able to shift into new jobs. Still, the new studies suggest that officials need to consider how government policies can sharpen or soften the effects on individuals.

“There are going to be many ways that robotics and automation hurt workers and we need to think about policies that may protect them,” says Darrell West, director of governance studies at the Brookings Institution. He and other labor experts argue automation should be treated more like trade—a powerful and broadly beneficial practice that still can harm individuals.

Some U.S. workers can receive job-training and other services if they lose jobs as a result of foreign trade, under the Trade Adjustment Assistance program initiated under President Kennedy. “We need to apply that kind of concept to automation because it’s a general structural change that will affect a lot of people,” West says.

To assess the impact of government policy on the pace of automation, economist Giorgio Presidente looked at sales of robots in 14 advanced economies that are members of the Organization for Economic Cooperation and Development. Presidente, who consults for OECD and the World Bank, found that employers deployed more robots, relative to the number of workers, after countries introduced employment-protection laws.

#### More ev.

Dueholm 24 – Research Associate with the Federal Reserve Bank of St. Louis, B.S in Economics, and B.A in History from the University of Minnesota.

Mick Dueholm, Aakash Kalyani, and Serdar Ozkan, “Does Worker Scarcity Spur Investment, Automation and Productivity? Evidence from Earnings Calls,” 6/20/2024, Federal Reserve Bank of St. Louis, https://www.stlouisfed.org/on-the-economy/2024/jun/worker-scarcity-spur-investment-automation-productivity-evidence-earnings-calls

Labor Issues Are Associated with Mentions of Automation

Discussions of labor issues and automation often coincide in earnings calls. For example, in a first quarter 2024 earnings call, an executive at an automotive technology company said: “Our focus this year is on accelerating automation to address wage inflation and improve efficiencies in our plants.” This excerpt clearly demonstrates the phenomenon of firms turning to automation as a way to reduce labor costs.

To investigate this relationship, we counted instances in which automation was mentioned in earnings calls.4 We found that chatter about labor issues and mentions of automation were significantly associated. More specifically, firms that discuss labor issues are 45% more likely to talk about automation in earnings calls compared with the average firm in our sample. As with investment, labor issues and mentions of automation are more likely to coincide in industries with a higher share of routine manual tasks, which are easier to automate. This supports our initial conjecture that tight labor markets lead firms to adopt automation technologies.

### UQ---Auto Limited Now

#### Automation is gradual now. Even where technically feasible, cost remains a key barrier to widespread automation.

Thompson et al. 24 – Director of the FutureTech Project, MIT. Ph.D., Business & Public Policy, UC-Berkeley. M.A., Economics, London School of Economics.

Neil Thompson, Maja S. Svanberg, M.S. of Technology & Policy at MIT, Wensu Li, Ph.D. candidate in Economics at UConn, Martin Fleming, Research Scientist at MIT Sloan, Brian C. Goehring, A.B. in Cognitive Studies and Philosophy from Princeton, 02-08-2024, https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4700751

While there is already evidence that AI is changing labor demand (Fleming et al. 2019, Acemoglu et al. 2022), most anxieties about AI flow from predictions about “AI Exposure” that classify tasks or abilities by their potential for automation, as measured by various proxies (Arntz et al. 2017, Brynjolfsson et al. 2018, Felten et al. 2018, Webb 2019, Felten et al. 2021, Tolan et al. 2021, Meindl et al. 2021, Zarifhonarvar 2023, Felten et al. 2023). Importantly, nearly all these predictions are vague about the timeline and extent of automation because they do not directly consider the technical feasibility or economic viability of AI systems, but instead use measures of similarity between tasks and AI capabilities to indicate exposure. The only exception in the literature known to us is a McKinsey report (Ellingrud et al. 2023) that estimates AI adoption of between 4% and 55%. With such imprecise predictions, it is unclear what conclusions should follow. AI exposure models also conflate predictions about full task automation, which is more likely to displace workers, with partial automation, which could augment their productivity. Separating these effects is enormously important for understanding the economic and policy implications of automation (Acemoglu and Restrepo 2018).

In this paper, we address three important shortcomings of AI exposure models to construct a more economically-grounded estimate of task automation. First, we survey workers familiar with end-use tasks to understand what performance would be required of an automated system. Second, we model the cost of building AI systems capable of reaching that level of performance. This cost estimate is essential to understanding the deployment of AI, since technically-exacting systems can be enormously expensive. And third, we model the decision about whether AI adoption is economically-attractive. The result is the first end-to-end AI automation model.

A simple hypothetical example makes clear why these considerations are so important. Consider a small bakery evaluating whether to automate with computer vision. One task that bakers do is to visually check their ingredients to ensure they are of sufficient quality (e.g. unspoiled). This task could theoretically be replaced with a computer vision system by adding a camera and training the system to detect food that has gone bad. Even if this visual inspection task could be separated from other parts of the production process, would it be cost effective to do so? Bureau of Labor Statistics O\*NET data imply that checking food quality comprises roughly 6% of the duties of a baker. A small bakery with five bakers making typical salaries ($48,000 each per year), thus has potential labor savings from automating this task of $14,000 per year. This amount is far less than the cost of developing, deploying and maintaining a computer vision system and so we would conclude that it is not economical to substitute human labor with an AI system at this bakery.

The conclusion from this example, that human workers are more economically-attractive for firms (particularly those without scale), turns out to be widespread. We find that only 23% of worker compensation “exposed” to AI computer vision would be cost-effective for firms to automate because of the large upfront costs of AI systems. The economics of AI can be made more attractive, either through decreases in the cost of deployments or by increasing the scale at which deployments are made, for example by rolling-out AI-as-a-service platforms (Borge 2022), which we also explore. Overall, our model shows that the job loss from AI computer vision, even just within the set of vision tasks, will be smaller than the existing job churn seen in the market, suggesting that labor replacement will be more gradual than abrupt.

#### Automation is limited and gradual now because of costs. Spikes in labor costs drive rapid automation.

Thompson 24 – Director of the FutureTech Project, MIT. Ph.D., Business & Public Policy, UC-Berkeley. M.A., Economics, London School of Economics.

Neil Thompson; Interviewed by Paula Klein, Editorial Content Manager for the MIT Initiative on the Digital Economy, “New Research May Calm Some of the AI Job-loss Clamor–For Now,” MIT Initiative on the Digital Economy, January 23rd, 2024, https://ide.mit.edu/insights/neil-thompson-research-may-calm-some-of-the-ai-job-loss-clamor/

When these factors are considered, the result is a model that quantifies which tasks are technically feasible and economically attractive to automate — and which are not. Overall, the findings suggest that AI job displacement “will be substantial, but also gradual.”

While the study focused narrowly on tasks that could adopt computer vision, the findings were UC bsurprising and hopeful: Only 23% of worker wages now paid for vision-related tasks would be attractive to automate with computer vision AI “because of the large upfront costs of AI systems.”

This slower roll-out of AI could accelerate if costs fall rapidly or if it is deployed via AI-as-a-service platforms,” the paper noted, but in general, far fewer tasks will be automated than previously suggested — and in turn, that signals far less labor disruption.

“AI will deliver on its promise of greater productivity and it also poses a threat of worker displacement,” Thompson said. “Both will probably occur, but it depends on how quickly the technologies are adopted.” However, “even with rapid decreases in cost of 20% per year, it would still take decades for computer vision tasks to become economically efficient for firms.”

The paper was co-written by Maja S. Svanberg and Wensu Li of MIT, Martin Fleming of The Productivity Institute, and Brian C. Goehring from IBM’s Institute for Business Value.

MIT IDE Content Director, Paula Klein, asked Thompson to describe some of the highlights of the research in the following interview.

IDE: It seems that you are offering a more nuanced scenario — it’s not entirely doom nor is it a rosy optimism. What was the most surprising finding of the research?

Neil Thompson: We do find a middle ground: There is significant automation that will occur in the next few years, but much of it could easily take a decade or so — similar to how many technologies have spread throughout the economy.

The most surprising finding is the big difference that results based on how you analyze the data. When when you analyze AI at the level of broad technical compatibility– what jobs are vulnerable to replacement by AI, usually called AI Exposure — and when you require that deployments be economically attractive, the findings vary widely. The former assumes that all tasks that can be automated, will be. But we challenge that view, finding that only 1 in 4 of the tasks (23%) with broad technical compatibility are economically attractive to deploy today.

Framing it another way, today’s firm-level computer vision only has an economic advantage in 23% of vision tasks and barriers to AI-as-a-service deployments exist, therefore, we will most likely need to see a sharp reduction in costs for computer vision to replace human labor near term.

[See Figure 1]

IDE: How is the AI task automation model “end-to-end?” and how does it differ from previous models and assessments?

Thompson: Our model starts with the performance of real tasks in the economy, asks what AI system would be needed to automate them, and then finally considers the adoption decisions by businesses. The ability to model this entire process results in notably different answers than prior research.

IDE: Why the focus on computer vision tasks? Does that limit the scope of your study?

Thompson: In some ways, yes. But that limitation also means that we can analyze things more deeply than we could if we tried to consider all types of automation at once. In computer vision — tasks such as checking products for quality at the end of a factory assembly line or scanning medical imagery for anomalies — cost modeling is more developed, so we can estimate the cost of vision systems, which is central to our analysis. We can next ask how applying our model to automation with other technologies (e.g. large language models) would differ and how it will be similar.

IDE: Can you describe which kinds of tasks/jobs will be easy to automate and which won’t?

Thompson: Whether it’s economically attractive to automate a task with an AI system depends both on the cost of deploying the AI and the benefits to the firm of avoiding it. AI systems that are cheaper are easier to deploy, so we predict more automation when the accuracy needed from the system or the complexity of the task being done are lower.

The benefits to firms of replacing workers comes primarily from avoided labor costs;tasks done by more workers, or those with higher wages, tend to be more attractive to automate.

[See Figure 2 for the impact of computer vision on certain business sectors]

### If No Automation, Hyperinflation DA

#### If the plan raises labor costs but companies don’t automate, then they’ll pass on costs to consumers.

Stout 22 – Director of Innovation Policy, International Center for Law & Economics. J.D., Rutgers.

Kristian Stout and Julian Morris, Senior Scholar with ICLE and the Center's former Executive Director, “Lessons for the US from Germany’s Sectoral-Bargaining Experience,” International Center for Law and Economics, 09-29-2022, https://laweconcenter.org/resources/lessons-for-the-us-from-germanys-sectoral-bargaining-experience/

It is, of course, possible that the council will prohibit such automation in an effort to maintain jobs. But doing so would merely make it more difficult for covered fast-food restaurants to compete with smaller chains that are not covered by the FAST Act. Beyond that competitive distortion, such action by the council would entail a covert tradeoff that further diminishes consumer welfare. Faced with other inflationary pressures, competitive threats from smaller chains not subject to the FAST Act, and ordinary cost increases, larger chains will be forced to raise prices. In the short term, this might shift surplus toward workers. Over the medium to long term, however, it would suppress demand, harming consumers by providing them with fewer goods and services than they would otherwise demand, and harming workers by shrinking the industry overall.

#### That causes economy-wide hyper-inflation. Extinction.

Wright 21 – Senior Research Faculty at the American Institute for Economic Research, PhD in History from SUNY Buffalo.   
Robert E. Wright, American Institute for Economic Research, “The Horrors of Hyperinflation”, 6/16/21, https://aier.org/article/the-horrors-of-hyperinflation/

Policymakers need to ask, what is worse, hyperinflation or global climate change? Hyperinflation or social injustice? Hyperinflation or war? The answer in each case, hands down, is hyperinflation, by which I mean rapid and accelerating increases in prices caused by new money growth that outstrips new money demand. Ironically, a bout of hyperinflation would probably accelerate global climate change, exacerbate social injustice, and increase the likelihood of major war.

In short, the federal government should be focusing on the real existential threat to the nation, runaway prices, not wasting resources on partisan political issues, like treating unarmed trespassers as “insurrectionists.”

Inflation, as measured by the Consumer Price Index (CPI), is currently running at “only” about five and a half percent and AIER’s Everyday Price Index is up “just” 6.5 percent over the last year. Both remain a far cry shy of a hyperinflationary spiral where expectations about rapidly rising prices cause prices to rapidly rise as consumers spend cash as quickly as possible and workers push for ever higher nominal wages to avoid prolonged decreases in their real wages. But why is inflation gaining momentum now and will any economic or political forces check it before it spirals out of control?

Following the global financial crisis of 2008, government policies and socioeconomic conditions were not conducive to rapid economic growth. Considerable uncertainty about financial and health sector reforms made many businesses cautious and the reforms that eventually passed, especially Dodd-Frank and the Affordable Care Act, proved nettlesome due to their size, complexity, and slow phase-in. Taxes were relatively high and many innovators feared what the Obama administration might do next.

Unsurprisingly, then, economic growth was pretty anemic for almost a decade, so increases in what macroeconomists call aggregate demand were tame as well. Moreover, much of the new money (purchasing power) that the Federal Reserve (the Fed) created in response to the 2008 crisis stayed in the banks, which were happy to earn from the Fed a small but safe return on a cash cushion called excess reserves. So upward pressure on prices proved much lighter than some feared.

During the Trump administration, however, the business environment improved markedly as taxes and regulatory burdens decreased. Unemployment dropped to record lows but the Fed kept its policy of interest rates at historic lows, so upward pressure on prices was building when Covid hit and governments across the world responded by shutting down economic activity.

The world is just emerging from those monstrous policies and pent-up consumer demand, similar to that experienced in the late 1940s after a decade of depression and world war, is being felt. Alone, those circumstances could collude to cause double-digit inflation for a year, or two, or three.

In addition to those pressures, the national government seems hellbent on spending as much money as possible as quickly as possible. Projected deficits are, in real terms, the largest in peacetime history and approach those incurred to fight World War II. They could tip the economy into a serious bout of inflation, to which policymakers — the same policymakers who thought they could “fight” a virus — might respond with price controls like those that caused widespread shortages during the Nixon administration.

The price controls failed but Paul Volcker (1927-2019) eventually caused a recession to stop America’s Great Inflation (1965-1982) by dramatically raising the Fed’s policy interest rates/cutting money supply growth. Could the Fed do the same today, if necessary? Yes. Would it? Not without hurting a lot of poor people, regardless of the color of their skin, so pretty much count even-numbered years completely out.

Political considerations aside, the federal government would certainly want a say in monetary policy too. The US government owes a lot of money to a lot of people, including many foreign governments that will not be amused if Treasuries become worthless. Moreover, most of the national government’s borrowings are at short maturities, so it has to pay off/refinance some $13 trillion of debt within the next four years.

If inflation surges, so too will nominal interest rates and hence the government’s debt burden, i.e., the proportion of the federal budget needed to make interest payments on the national debt. As that burden increases, so too will pressure to keep creating new money to help the government to pay its bills.

If, like The Atlantic, you do not think that hyperinflation can happen in America, you need to read up on your monetary history. The New England colonies and the colonial Carolinas experienced out of control inflation, as did the new nation itself during the Revolutionary War. Hyperinflation also gripped the Confederacy and its awful effects helped to keep the South impoverished for a century after Appomattox.

Hyperinflations also ruined numerous other countries and in some, like Zimbabwe and Venezuela, inflationary spirals continue to impose significant socioeconomic costs, especially on the poor, today. The hyperinflation in Germany that began exactly a century ago is perhaps the most infamous because it helped to foster political extremism, including National Socialism.

High inflation is not to be trifled with because it rips economies and societies apart at the seams, destroying some forms of life savings (e.g., bank accounts, bond funds, and life insurance) while enriching debtors and the politically well-connected. Incentives to produce plummet as aggregate demand sags along with declining real incomes and unpredictable fluctuations in relative prices.

Such carnage may seem abstract but it was very real to the middle class Germans who had to prostitute their daughters to survive the worst periods, when German paper money became more valuable as toilet paper or wallpaper than as a medium of exchange.

The Biden administration, though, implicitly assumes that combating global climate change and fostering what it considers to be social justice are more important policy goals than steering well clear of dollar collapse. It is very wrong about that because hyperinflations end only one way, the imposition of hard budget constraints through the adoption of a new monetary system based on precious metals, a stable foreign currency, or a currency board. Often, a new regime or constitution also must accompany the monetary reform in order to make the government’s commitment to stop printing money and lying about new money creation more credible to market participants.

In other words, if the price level rises too much too quickly, current illusions about Modern Monetary Theory (MMT) and costless budget deficits will be shattered by reality. America’s national government will have to go onto a real consumption basis, meaning every bit of new spending will have to come out of taxes already collected, not future taxes. Epic political battles will result but even if Progressives win them, the government will face difficult tradeoffs between funding projects like the Green New Deal or race reparations on the one hand, and national security and economic growth/tax cuts on the other.

Moreover, during and after a period of high inflation the United States would be more vulnerable to military attack than it has been since the height of the Cold War. China, Iran, North Korea, and/or Russia would almost certainly try to take advantage of its weakness, kicking it, and/or its close allies, when down.

By driving hundreds of millions of people to the edge of economic desperation, hyperinflation would also defeat attempts to reduce carbon emissions or increase racial justice because acquiring potable water, food, and fuel would top most Americans’ quotidian concerns, while adoption of electronic vehicles, ESG investment funds, or Critical Race Theory curricula would sink to the bottom of their concerns. When the economy hits rock bottom, trees will topple in rural and suburban areas while people will find urban areas uninhabitable. What happens when they migrate out in search of food and water is unclear, but likely ugly if the treatment of Arkies and Okies during the Great Depression is any indication.

Governments have few universally accepted goals. National defense, protection of property, and stability of the unit of account are arguably the three most important because all else rides on them. Hyperinflation destroys all three, so any serious risk of hyperinflation is simply unacceptable from a policy standpoint. The national government needs to improve its fiscal and monetary policies today, before it is too late.

## Manufacturing Adv

### Plan No Solve & Backwards

#### AND if anything they tank productivity by lowering company ability to invest

Garcia-Macia 20 – Economist at the International Monetary Fund, M.Sc in Economics from Barcelona Graduate School of Economics, Ph.D in Economics from Stanford University.

Daniel Garcia-Macia, “Labor Costs and Corporate Investment in Italy,” 2/21/2020, International Monetary Fund, https://www.imf.org/en/Publications/WP/Issues/2020/02/21/Labor-Costs-and-Corporate-Investment-in-Italy-49035

The recovery of private investment in Italy has lagged its euro area peers over the past decade. This paper examines the role of elevated labor costs in hindering the recovery. Specifically, labor costs rose faster than labor productivity prior to the global financial crisis and have remained high since, weighing on firms’ profits, capital returns, and thus capacity to invest. Empirical analysis provides evidence for the impact of wages on investment at the sectoral and firm levels. Sectoral wage growth seems unrelated to sectoral productivity growth, but is negatively associated with investment. Firm-level data permit a better identification—by exploiting the interaction between sectoral wage growth (exogenous to the firm) and the lagged labor share of the firm. A 1 percent increase in real wages is estimated to cause a ⅓ percent fall in fixed capital. Profits absorb only ½ of the cost increase, pointing to the role of liquidity constraints. These results highlight the need for labor market reform to reinvigorate investment, and thus labor productivity and job creation.

### Manuf Strong Now---1NC

#### U.S. manufacturing is strong and the squo solves their impacts.

MT 24 – Manufacturing Today, citing Reuters, Deloitte, and Bloomberg.

“US Manufacturing Growth Predicted to Rebound Significantly in 2025,” Manufacturing Today, 12-20-2024, https://manufacturing-today.com/news/us-manufacturing-growth-predicted-to-rebound-significantly-by-2025/#:~:text=After%20navigating%20a%20prolonged%20period,expenditures%20and%20modest%20employment%20growth.

US Manufacturing Growth Predicted to Rebound Significantly in 2025

After navigating a prolonged period of economic challenges, the US manufacturing sector is on the cusp of a significant recovery. Projections for 2025 reveal a 4.2% increase in overall revenues, coupled with a 5.2% rise in capital expenditures and modest employment growth. These optimistic predictions reflect the collective sentiment of industry executives who foresee improved business conditions ahead.

The anticipated rebound follows years of contraction driven by inflationary pressures, supply chain disruptions, and aggressive monetary policy tightening. However, a combination of favorable economic indicators, technological advancements, and strategic investments is poised to reignite the sector’s momentum.

Current state of the US manufacturing sector

The US manufacturing sector, which represents 10.3% of the national economy, has faced persistent challenges in recent years. The Manufacturing Purchasing Managers’ Index (PMI), a key indicator of industry activity, has remained below the 50-point threshold since November 2022, signaling ongoing contraction. Even with a brief resurgence in March 2024, the sector struggled to regain consistent growth.

Central to these difficulties was the Federal Reserve’s aggressive monetary policy tightening between 2022 and 2023. Intended to combat soaring inflation, these measures placed additional strain on manufacturers by increasing borrowing costs and reducing consumer spending power. Despite the Federal Reserve’s pivot to lower interest rates in late 2024, recovery has been slow, with factory PMI figures showing subdued activity throughout the year.

The confluence of these factors created a challenging landscape for manufacturers. Yet, with inflationary pressures gradually easing and supply chain disruptions stabilizing, the sector is now better positioned for a turnaround.

Projections for 2025 and beyond

The outlook for 2025 offers a renewed sense of optimism for US manufacturers. Industry-wide forecasts suggest a 4.2% increase in overall revenues, driven by a combination of easing financial pressures and strategic investments in capital infrastructure. The anticipated 5.2% growth in capital expenditures reflects a strong commitment to modernization and expansion efforts, signaling manufacturers’ confidence in the market’s recovery potential.

Employment is also expected to see modest growth, with factory jobs projected to rise by 0.8 percentage points. This increase, though incremental, highlights the sector’s gradual rebound from layoffs and hiring freezes experienced in prior years. While employment challenges persist, particularly in finding skilled labor, manufacturers are leveraging training programs and automation to address workforce gaps.

Beyond revenue and employment, broader economic indicators point to an upswing. Improved consumer confidence and steady demand for durable goods, alongside federal incentives for clean technology and domestic production, are set to boost the sector’s trajectory through 2025.

Key factors driving recovery

Several key trends are contributing to the US manufacturing sector’s resurgence. Among the most prominent is the shift toward nearshoring and reshoring. In response to global supply chain disruptions, many companies are prioritizing domestic production or relocating facilities closer to the US This strategy has not only enhanced supply chain resilience but also stimulated regional economic growth.

The adoption of advanced technologies is another critical factor. From AI-powered automation to digital twins and IoT-enabled operations, manufacturers are increasingly embracing innovation to enhance efficiency, reduce costs, and improve product quality. Investments in these technologies are expected to accelerate in 2025, as companies aim to stay competitive in a rapidly evolving landscape.

Government policies and incentives are also playing a pivotal role. Initiatives like the Inflation Reduction Act and tax credits for green energy projects have spurred investments in clean technologies, such as electric vehicle components and renewable energy infrastructure. These measures are driving a wave of capital spending that will likely bolster the sector for years to come.

### Manuf Strong Now---2NC

#### The squo solves manufacturing competitiveness.

Williams 25 – Senior fellow at American Progress. Master’s in public policy, concentrating in environmental policy from GWU.

Mike Williams and Jamie Friedman, policy analyst on the Domestic Climate team at American Progress, “The Next Frontier in American Industrial Policy: Saving the Steel Industry by Decarbonizing It,” Center for American Progress, 01-27-2025, https://www.americanprogress.org/article/the-next-frontier-in-american-industrial-policy-saving-the-steel-industry-by-decarbonizing-it/

The IIJA and IRA, likewise, have sparked a boom in manufacturing and clean energy through several policies to decarbonize heavy industry. In March 2024, The U.S. Department of Energy’s Office of Clean Energy Demonstrations (OCED) awarded $1.5 billion for six iron and steel decarbonization projects funded by the IRA and IIJA. Together, the projects will avoid 2.5 million metric tons of carbon dioxide emissions annually, which is equivalent to more than 747 wind turbines running for a year or about 4 percent of domestic iron and steel emissions.16

The IRA provided grants to manufacturing facilities to decarbonize, tax incentives to support the production of key goods across the clean tech supply chain, and tax credits to support the consumption of those products. Alongside this, the IIJA’s $1 trillion investment in America’s infrastructure included a significant expansion of “Buy America,” which directed agencies to prioritize domestically produced materials for federally funded projects.17 These policies are already showing a major impact. Manufacturing construction spending is at its highest point in U.S. history, hovering near $240 billion, when it was just $80 billion three years ago.18 New facilities building electric vehicle batteries and solar cells, processing critical minerals, and electrolyzing green hydrogen have taken shape across the country.19 This is already remaking the economy, establishing the United States as a leader in the clean energy global supply chains, and rebuilding a sputtering manufacturing sector. It has created a foundation to ensure lasting U.S. industrial competitiveness for decades.

#### U.S. manufacturing is booming at its highest levels in almost a year.

Mutikani 25 – Reporter, Reuters.

Lucia Mutikani, “US manufacturing PMI rises to nine-month high, but challenges loom,” Reuters, 01-03-2025, https://www.reuters.com/markets/us/us-manufacturing-pmi-rises-nine-month-high-december-2025-01-03/

WASHINGTON, Jan 3 (Reuters) - U.S. manufacturing moved closer to recovery in December, with production rebounding and new orders rising further, but the outlook remains uncertain amid the threat of higher tariffs that could raise prices of imported raw materials.

Despite the increase in the Institute for Supply Management's (ISM) Purchasing Managers Index (PMI) to a nine-month high last month, the tone of the survey was less upbeat, with phrases such as "volume decreases" and "significant slowdown" appearing in some of the comments from respondents. None of the six largest manufacturing industries grew last month.

"Manufacturers ended the year with a hint of optimism, but they could face some pretty stiff challenges in the new year," said Sal Guatieri, a senior economist at BMO Capital Markets.

The ISM said on Friday that its manufacturing PMI increased to 49.3 last month, the highest reading since March, from 48.4 in November. A PMI reading below 50 indicates contraction in the manufacturing sector, which accounts for 10.3% of the economy.

December marked the ninth consecutive month that the PMI remained below the 50 threshold. Economists polled by Reuters had forecast the PMI would be unchanged at 48.4.

Seven industries, including primary metals, electrical equipment, appliances and components as well as paper products and miscellaneous manufacturing reported growth last month. Among the seven industries reporting contraction were textile mills, machinery and transportation equipment.

Some manufacturers of food, beverage and tobacco products said they were "seeing a softening in sales," adding that this "is concerning, as it's our peak season."

Transportation equipment makers reported "automotive and powersport volume decreases."

Machinery manufacturers reported a "significant slowdown in production requirements in the last two months of the year." In the fabricated metal products industry, some businesses reported "order levels well below forecast projections."

The mood was, however, fairly optimistic among manufacturers of electrical equipment, appliances and components, with some saying that "the increase in new orders has our plant at full capacity." Makers of miscellaneous goods noted the "combo of seasonal factors plus increased demand outlook for 2025."

Primary metals producers said "there is definitely an uptick this month, though not a stable one."

Manufacturing was battered by the Federal Reserve's aggressive monetary policy tightening in 2022 and 2023 to tame inflation. But sentiment surveys, including the PMI, have exaggerated the magnitude of the decline in factory production.

### No Readiness !---2NC

#### No readiness impact — rogue states are constrained.

Mueller 21 – Professor Emeritus in the Department of Political Science at Ohio State University, Senior Fellow at the Cato Institue, holds a Ph.D. and M.A. in Political Science from the University of California-Los Angeles,

John Mueller, “Proliferation, Terrorism, Humanitarian Intervention, and Other Problems,” The Stupidity of War: American Foreign Policy and the Case for Complacency, Cambridge University Press, Chapter 7, p. 183-184

Over the course of the last several decades, alarmists have often focused on potential dangers presented by rogue states, as they came to be called in the 1990 s. These were led by such devils du jour as Nasser, Sukarno, Castro, Gaddaﬁ, Khomeini, Kim Il-sung, Saddam Hussein, Milos ˇevic ´ , and Ahmadinijad, all of whom have since faded into history’s dustbin. 66 Today the alarm has been directed at Iran as discussed in Chapter 6 and also at North Korea as discussed in this one. However, neither country really threatens to commit major direct military aggression. Iran, in fact, has eschewed the practice for several centuries. Nonetheless, it might make some sense to maintain a capacity to institute containment and deterrence efforts carried out in formal or informal coalition with concerned neighboring countries – and there are quite a few of these in each case. However, the military requirements for effective containment by their neighbors, by the United States, and by the broader world community are far from monumental and do not necessarily require the United States to maintain large forces-in-being for the remote eventuality.

This is suggested by the experience with the Gulf War of 1991 when military force was successfully applied to deal with a rogue venture – the conquest by Saddam Hussein’s Iraq of neighboring Kuwait. As noted earlier, Iraq’s invasion was rare to the point of being unique: it was the only case since World War II in which one United Nations country has invaded another with the intention of incorporating it into its own territory. It scarcely appears, as laid out in Chapter 3 , that Iraq’s pathetic forces required a large force to be thrown at them to decide to withdraw: over a period of half a year, they did not erect anything resembling an effective defensive system and, when the chips were down, they proved to lack not only defenses, but strategy, tactics, leadership, and morale as well.

Countries opposed to provocative rogue behavior do not need to have a large force-in-being because there would be plenty of time to build one up (should it come to that) if other measures such as economic sanctions and diplomatic forays (including appeasement) fail to persuade.